
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 001-07436

HSBC USA Inc.

(Exact name of registrant as specified in its charter)

Maryland

(State of incorporation)

452 Fifth Avenue, New York, New York

(Address of principal executive offices)

13-2764867

(I.R.S. Employer Identification No.)

10018

(Zip Code)

Registrant's telephone number, including area code (212) 525-5000

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
\$100,000,000 Zero Coupon Callable Accreting Notes due January 15, 2043	HBA/43	New York Stock Exchange
\$50,000,000 Zero Coupon Callable Accreting Notes due January 29, 2043	HBA/43A	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of February 18, 2022, there were 714 shares of the registrant's common stock outstanding, all of which are owned by HSBC North America Holdings Inc.

The registrant meets the conditions set forth in General Instruction I(1)(a) and (b) of Form 10-K and has therefore omitted certain items from this report in accordance with the reduced disclosure format under General Instruction I.

DOCUMENTS INCORPORATED BY REFERENCE

None.

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PART I**Item 1. Business**

Organization

HSBC USA Inc. ("HSBC USA") is incorporated under the laws of the State of Maryland and is a wholly-owned subsidiary of HSBC North America Holdings Inc. ("HSBC North America"), which is an indirect wholly-owned subsidiary of HSBC Holdings plc ("HSBC" and, together with its subsidiaries, "HSBC Group"). HSBC USA's principal business is to act as a holding company for its subsidiaries. In this Form 10-K, HSBC USA and its subsidiaries are referred to as "HUSI," "we," "us" and "our."

HSBC Group

HSBC Group aims to be the leading international bank helping personal, wealth and corporate clients thrive through its deep heritage and is a leading provider of transactional banking products and services with a geographical network which provides clients and investors access to what it believes are the most attractive growth opportunities. HSBC Group seeks growth where the opportunities best align with its strengths, focused on enabling and supporting business and trade between the developed world and the faster growing, higher returning markets of the world, particularly in Asia and the Middle East. In 2020, HSBC Group announced that the more challenging economic environment would require strategic changes in order to increase returns and create capacity for future growth. These strategic changes include materially reshaping underperforming areas of HSBC Group, particularly in Global Banking and Markets, in Europe, and in the United States. See "Management's Discussion and Analysis of Financial Condition and Results of Operations - Executive Overview - 2021 Events."

HSBC North America Operations

HSBC North America is the holding company for HSBC Group's operations in the United States. The principal subsidiaries of HSBC North America at December 31, 2021 were HSBC USA, HSBC Markets (USA) Inc. ("HMUS"), a holding company for certain subsidiaries primarily associated with global banking and markets businesses, and HSBC Technology & Services (USA) Inc. ("HTSU"), a provider of information technology and centralized operational and support services including risk management, compliance, operations, finance, tax, legal, human resources, corporate affairs and other services shared among the subsidiaries of HSBC North America and the HSBC Group. HSBC USA's principal U.S. banking subsidiary is HSBC Bank USA, National Association (together with its subsidiaries, "HSBC Bank USA"). Under the oversight of HSBC North America, HUSI works with its affiliates to maximize opportunities and efficiencies in HSBC Group's operations in the United States. These affiliates do so by providing each other with, among other things, alternative sources of liquidity to fund operations and expertise in specialized corporate functions and services through the pooling of resources within HTSU to provide shared, allocated support functions to all of HSBC North America's subsidiaries. In addition, clients of HSBC Bank USA and other affiliates are investors in debt issued by HSBC USA and/or HSBC Bank USA, providing significant sources of liquidity to both entities. HSBC Securities (USA) Inc. ("HSI"), a registered broker dealer and a subsidiary of HMUS, generally leads or participates as underwriter of all HUSI domestic issuances of term debt. While neither HSBC USA nor HSBC Bank USA has received advantaged pricing, the underwriting fees and commissions paid to HSI historically have benefited the HSBC Group.

HSBC USA Operations

In support of HSBC Group's strategy, our U.S. operations are focused on the core activities of our global businesses and a Corporate Center, as discussed below, and the positioning of our activities towards international connectivity strategies, including what we believe are our unique capabilities to serve clients in the North American trade corridor.

- Our Wealth and Personal Banking ("WPB") business provides a range of banking and wealth products and services to individuals and entities, including high net worth and ultra-high net worth individuals and their families, focusing on internationally-minded customers in large metropolitan centers on the West and East coasts.
- Our Commercial Banking ("CMB") business serves corporate and business banking clients, focused on selected large cities with strong international trade ties.
- Our Global Banking and Markets ("GBM") business serves top-tier multinational clients across the Americas and globally.
- Our Corporate Center ("CC") comprises certain centralized activities and functions in order to better reflect the way we manage our businesses.

HSBC Bank USA, HSBC USA's principal U.S. banking subsidiary, is a national banking association. Through HSBC Bank USA, we offer our customers a wide range of commercial and consumer banking products and related financial services. HSBC Bank USA is also an international dealer in derivative instruments denominated in U.S. dollars and other currencies, focusing on structuring transactions to meet clients' needs.

HSBC USA also owns a nationally chartered limited purpose bank subsidiary, HSBC Trust Company (Delaware), National Association ("HTCD"), the primary activities of which are providing personal trust services. The impact of HTCD's operations on HSBC USA's consolidated balance sheets and results of operations for the years ended December 31, 2021, 2020 and 2019 was not material.

At December 31, 2021, we had approximately 1.49 million customers, including customers associated with the 90 branches that we decided to sell as discussed further below, and some of whom are customers of more than one of our businesses. Customers in the States of California and New York accounted for 35 percent and 32 percent, respectively, of our total outstanding commercial real estate loans and residential mortgage loans, excluding loans held for sale.

We report financial information to our ultimate parent, HSBC, in accordance with HSBC Group accounting and reporting policies, which apply International Financial Reporting Standards ("IFRSs") as issued by the International Accounting Standards Board ("IASB"). As a result, our segment results are prepared and presented using financial information prepared on the basis of HSBC Group's accounting and reporting policies ("Group Reporting Basis"). We continue, however, to monitor capital adequacy and report to regulatory agencies in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). For additional financial information relating to our business and operating segments, as well as a summary of the significant differences between U.S. GAAP and the Group Reporting Basis as they impact our results, see Note 25, "Business Segments," in the accompanying consolidated financial statements.

Wealth and Personal Banking Our WPB business segment provides a range of banking and wealth products and services to individuals and entities through our branches, on-line channels as well as dedicated relationship managers, centralized teams and representative offices. Banking and certain exempt securities services are provided through HSBC Bank USA, brokerage and investment advisory services and annuities are provided through our affiliate HSI and additional insurance products are offered through the bank's subsidiary, HSBC Insurance Agency (USA) Inc. These services include asset-driven services, such as credit and lending; liability-driven services, such as deposit taking; and account services and fee- or commission-driven services, such as investment advisory and securities brokerage; as well as the sale of certain third-party insurance solutions. WPB is focused on growing its wealth and banking business in key urban centers with strong international connectivity across the United States, including New York City, Los Angeles, San Francisco, Seattle, Miami and Washington DC.

In May 2021, we announced that we will exit our mass market retail banking business, including our Personal and Advance propositions as well as retail business banking, and focus on the banking and wealth management needs of globally-connected affluent and high net worth customers through our Premier, Jade or Private Banking services. In conjunction with the execution of this strategy, we have entered into definitive sale agreements with third parties to sell 90 of our retail branches along with substantially all residential mortgage, unsecured and retail business banking loans and all deposits in our branch network not associated with our Premier, Jade and Private Banking customers. We completed these sales in February 2022. We will rebrand approximately 20-25 of our retail branches into international wealth centers to serve our Premier and Jade customers and the remaining branches not sold or rebranded will be closed.

Following completion of these transactions, WPB will focus on serving high net worth and ultra-high net worth individuals and entities with a focus on multi-generational families, business executives and entrepreneurs who require sophisticated solutions to help meet their most complex needs domestically and abroad, with many customers sourced in collaboration with our other

business lines. WPB works with these customers to provide tailored, coordinated and innovative ways to manage and preserve wealth while seeking to optimize returns by offering a wide range of products and services, including banking, liquidity management, investment services, custody, tailored lending, trust and fiduciary services, insurance, family wealth and philanthropy advisory services.

Commercial Banking The goal of our CMB business segment is to be the banking partner of choice for international businesses building on our rich heritage, international capabilities and customer relationships to enable global connectivity. CMB strives to execute this vision and strategy by focusing on key markets with high concentrations of international connectivity. Our CMB segment serves the markets through three client groups, notably Large Corporate, Middle Market and Business Banking. Supporting our three client groups is our International Subsidiary Banking team, which provides solutions to international subsidiaries operating in the United States. We also have a specialized Commercial Real Estate group, which focuses on selective business opportunities in markets where we have strong portfolio expertise. This structure allows us to align our resources in order to efficiently deliver suitable products and services based on our clients' needs and abilities. Global Liquidity and Cash Management ("GLCM"), Global Trade and Receivables Finance ("GTRF"), Lending and Transaction Management, Global Banking and Markets and Securities Services are key product groups that CMB partners with to deliver the global connections and related products and services required by customers. Whether it is through commercial centers, the retail branch network, or via *HSBCnet*, our online banking channel, CMB provides customers with the products and services needed to grow their businesses internationally and delivers those products and services through its relationship managers who operate within a robust, customer focused compliance and risk culture, and collaborate across HSBC Group to capture a larger percentage of a relationship.

Global Banking and Markets Our GBM business supports HSBC's global strategy by leveraging the HSBC Group's advantages and scale, strength in developed and emerging markets and product expertise in order to focus on delivering international products to U.S. clients and local products to international clients, with New York as the hub for the Americas business, which includes Canada and Latin America. GBM provides tailored financial solutions to major government, corporate and institutional clients. GBM clients are served by sector-focused teams that bring together relationship managers and product specialists to develop financial solutions that meet individual client needs. With a focus on providing client connectivity between the emerging markets and developed markets, GBM aims to develop a comprehensive understanding of each client's financial requirements with a long-term relationship management approach. In addition to GBM clients, GBM also provides financial solutions to WPB and CMB clients where those clients have needs that require the product set that GBM has available.

Our GBM business is comprised of three distinct operating segments:

- Global Banking ("GB") provides banking and financing advice and solutions for sovereign, corporate and institutional clients, including loans, working capital, GTRF product offerings, GLCM product and service offerings, leveraged and acquisition finance, project and infrastructure finance, asset finance, mergers and acquisitions advisory, as well as capital raising in the debt and equity capital markets.
- Markets and Securities Services ("MSS") provides 24-hour coverage and knowledge of world-wide local markets, including services in credit and rates, foreign exchange, precious metals trading, equities and securities services. MSS includes revenues for certain products and services sold to GB clients that are not reflected in the GB segment.
- Global Banking and Markets Other ("GBM Other") includes activities performed on behalf of other HSBC affiliates, allocated Markets Treasury and certain corporate funding charges not assigned to products.

During the fourth quarter of 2021, we implemented a change to our internal management reporting to align with changes to the governance structure and how we assess performance of our GBM business, which is now being reported as three separate operating segments: GB, MSS and GBM Other. As a result, we have aligned our segment reporting to reflect this change for all periods presented.

Corporate Center Our CC segment includes our legacy structured credit products, certain corporate function costs, certain debt issued for which fair value option accounting was elected and related derivatives, certain affiliate transactions, tax credit investments and adjustments to the fair value of HSBC shares held for stock plans. Beginning in 2020, CC also includes certain costs incurred relating to the delivery of our restructuring plan primarily consisting of lease impairment and other related costs, as well as severance costs allocated to us from HTSU and other HSBC affiliates.

Our Markets Treasury function is responsible for managing liquidity and funding under the supervision of our Asset and Liability Management Committee. Markets Treasury also manages our structural interest rate position within a limit structure. The majority of the liquidity is invested in interest bearing deposits with Federal Reserve banks and U.S. Government and other high quality securities. Markets Treasury is permitted to use derivatives as part of its mandate to manage interest rate risk. Derivative activity comprises predominantly the use of interest rate swaps which are part of cash flow hedging relationships. Credit risk in Markets Treasury is predominantly limited to short-term exposure created by exposure to banks as well as high quality sovereigns or agencies which constitute the majority of their liquidity portfolio. Markets Treasury manages interest rate

risk and liquidity and funding risk. Markets Treasury income statement and balance sheet results are allocated to each of the global businesses based upon tangible equity levels and levels of any surplus liabilities.

Funding

We fund our operations using a diversified deposit base, supplemented by issuing short-term and long-term unsecured debt, secured financing repurchase agreements utilizing High Quality Liquid Assets ("HQLA"), accessing the Federal Home Loan Bank of New York, issuing preferred equity, and, as necessary, receiving capital contributions from our parent, HSBC North America. Emphasis is placed on maintaining stable deposit balances. In 2021, our primary source of funds continued to be deposits, augmented by issuances of commercial paper, securities sold under repurchase agreements and term debt.

Numerous factors, both internal and external, may impact our access to, and the costs associated with, both retail and wholesale sources of funding. These factors may include our debt ratings, overall economic conditions, overall capital markets volatility, the counterparty credit limits of investors to the HSBC Group, and our management of the credit risks inherent in our business and customer base.

A detailed description of our sources and availability of funding are set forth in the "Liquidity and Capital Resources" section of Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A").

The cash generated by these funding sources is primarily used to service our debt obligations, originate new loans, purchase investment securities, pay preferred dividends and, as available and appropriate, common dividends to our parent.

Human Capital

At December 31, 2021, we had 3,463 employees. We rely heavily on Human Resource ("HR") services provided by an affiliate, HTSU, which supports our HR related activities including HR Operations, Performance and Reward, Learning and Talent Development, Resourcing and Onboarding, and Employee Relations while working with our business segments and support functions to help achieve our business objectives.

By focusing on employee well-being, diversity, inclusion and engagement, as well as building our peoples' skills and capabilities for now and for the future, we aim to create an environment where our people can fulfill their potential. We use confidential surveys to assess progress and make changes in response to issues raised in the surveys. We want to have an open culture where our people feel connected, supported to speak up and where our leaders encourage feedback. Where we make organizational changes, we support our people throughout the change and in particular, where there are job losses.

How we listen to our employees We capture our employees' views and engage in dialogue with employees based on their feedback on a range of topics, such as our strategy, culture, behavior, well-being and working environment, through our employee survey, Snapshot. Results are presented to the US Executive Committee, as well as the Group Executive Committee and relevant management committees.

We continue to closely monitor the outbreak of the coronavirus ("COVID-19") pandemic. The well-being of our customers and our employees is important to us, and we will continue to take efforts to ensure their safety and support them through this difficult time.

When things go wrong HSBC Confidential is a global whistleblowing platform that enables our people, past and present, to raise concerns in confidence. HSBC does not condone or tolerate any acts of retaliation against those who raise concerns.

Whistleblowing concerns are investigated thoroughly and independently. Remedial action, taken where appropriate, includes disciplinary action, dismissal, and adjustments to variable pay and performance ratings.

We rely on our employees to deliver fair outcomes for our customers and make sure we act with integrity in the financial markets. A high standard of personal conduct is critical to our ability to live up to this commitment and ensure a healthy working environment. We manage misconduct by taking action, as appropriate, up to and including dismissal. We report cases on a regular basis to management committees. Bullying and harassment of any type are not tolerated and we have strict processes to manage this behavior.

Remuneration Our pay and performance strategy aims to reward competitively the achievement of long-term sustainable performance in an effort to attract and motivate the very best people, regardless of gender, ethnicity, age, disability or any other factor unrelated to performance or experience with HUSI, while performing their role in the long-term interests of our stakeholders.

The quality and commitment of our employees is fundamental to our success and, accordingly, we aim to attract, retain and motivate them. As trust and relationships are vital in our business, our goal is to recruit those who are committed to a long-term career with us.

Certain employees participate in HSBC's Employee Stock Purchase Plan and Restricted Share Plan. See Note 21, "Share-Based Plans," in the accompanying consolidated financial statements for further detail.

Diversity and inclusion We are committed to a company-wide approach to diversity and inclusion. We want to embrace our employees' diverse ideas, styles and perspectives to reflect and understand our customers, communities, suppliers and investors. HSBC's Global Principles outline that our employees must treat each other with dignity and respect, creating an inclusive culture to support equal opportunities. We do not tolerate discrimination, bullying, harassment or victimization. Our US Executive Committee members are responsible for our inclusion and culture agenda.

In July 2020, we announced plans to improve diversity and inclusion. The leadership team agreed to a set of six pillars through which we believe we can make meaningful progress toward advancing inclusion for all under-represented and diverse groups. These six pillars comprise the following objectives:

- Accountability – To build upon the foundation of our efforts in diversity and inclusion and to expand beyond that to reach our customers and communities that we serve.
- Recruiting and Retention – To increase the pipeline of diverse candidates, focusing on the ethnicities with the lowest representation.
- Representation – To improve representation across diversity groups, particularly at the more senior levels.
- Advancing the Conversation – To encourage and actively facilitate dialogue about inclusion and equality.
- Strategic Giving and Community Engagement – To target strategic giving to support equality-focused and diverse organizations and initiatives.
- Who we do Business with – To accelerate our commitment to improving representation of minority-owned companies among our vendors.

A key component of this plan is the US Head of Inclusion and Culture, a role which reports directly to the Chief Human Resources Officer and the Chief Executive Officer ("CEO") and is focused on expanding our diversity and inclusion efforts. This role will help us make quicker progress in advancing opportunities for our employees, expanding our customer demographic and investing in the communities that need our help the most.

In 2021, we continued our focus on increasing the representation of women in senior leadership roles. We are currently tracking to meet our contribution to the global goal for women in senior leadership positions of 35 percent by 2025.

We review our pay practices internally and with independent third parties and make adjustments if pay differences are identified that are not due to objective, tangible reasons such as performance or skills and experience. We have a gender pay gap that is driven by the composition of our workforce. There continues to be more men than women in senior, high-paid roles and more women in junior roles. We are committed to reducing our gender pay gap as we deliver on our goal to increase the number of women in senior roles.

We are committed to increasing the representation and inclusion of Black talent. Globally an objective has been set to increase the number of Black colleagues in senior leadership roles by 2025. The US is using our six pillar strategy, particularly recruiting, retention and development initiatives to contribute to achieving that objective.

Our employees also are encouraged to participate in a number of Employee Resource Groups ("ERGs"). These ERGs are voluntary, company-endorsed employee groups dedicated to fostering a diverse and inclusive work environment within the context of our mission, values, goals, business parameters and objectives. Resource groups typically form around a specific dimension of diversity such as age, gender, ethnicity, disability, sexual orientation, etc. The purpose of an ERG is to provide a support network for employees to foster the professional growth, development and education of its members. In addition, ERGs not only support organizational diversity and inclusion efforts, but identify and lobby for initiatives that will improve the sense of belonging for its members. ERGs are invaluable in providing the organization with feedback from employees to decision-makers, and serving as touch points for engaging all employees in diversity efforts.

Employment of people with a disability We believe in providing equal opportunities for all employees. The employment of people with a disability is included in this commitment. The recruitment, training, career development and promotion of people with a disability are based on the aptitudes and abilities of the individual. Should employees become disabled during their employment with us, efforts are made to continue their employment and, if necessary, appropriate training and reasonable equipment and facilities are provided. We continually look for ways to support employees with disabilities. In 2021 we approved the use of Zoom Closed Captioning, which through the use of Communication Access Real-Time Transcriber generates closed captions in real time to support colleagues with hearing disabilities.

Learning and skills development We understand that to have a skilled and capable workforce for today and the future, we must invest in our employees at all stages of their careers. We measure our success through our retention, engagement scores, internal mobility and from external awards.

We provide training through HSBC University, our online learning portal and global network of training centers, which we launched in 2017. HSBC University assists our employees in developing technical and role-based skills, as well as personal skills. We put a strong emphasis on leadership skills to foster a culture of curiosity, innovation, collaboration and performance. Our training has a strong foundation in good conduct, with topics including managing non-financial risk, data privacy, cybersecurity, anti-money laundering, sanctions, anti-bribery and corruption, insider risk, competition law, raising concerns, workplace harassment and well-being. We also introduced a range of self-directed resources and workshops to improve team cohesion and performance.

We target a 98 percent completion rate for mandatory training on our values, strategy and approach to risk management. This helps keep our people aware of the risks we face so they can make better decisions to grow our business in a safe way.

Building for the future Developing our future leaders is critical to our long-term success. The Executive Committee dedicates time to articulate the current and future capabilities required to deliver the business strategy, and identify successors for our most critical roles. Successors then undergo robust assessment and participate in our executive development programs, which have been designed and delivered in collaboration with some of the world's best business schools. Potential successors for senior roles also benefit from coaching and mentoring, and are moved into roles that will build their skills and capabilities.

Developing core skills Our suite of manager training and skills development was redesigned to focus on the skills that we believe are most important in the current environment - leading and supporting teams through change. Our managers are the critical link to supporting individuals and teams.

Risk management remains central to development at HSBC and is part of our mandatory training for all colleagues. For colleagues in roles at higher risk of exposure to financial wrongdoing, we provide more in depth training on financial risks such as money laundering, sanctions, bribery and corruption. We also have programs and resources to address specific areas of risk, such as those relating to the management of third party suppliers.

Our cyber hub brings together training, insights, events and campaigns to provide a one-stop shop on how to combat cyber-crime. We are also supporting leaders and model developers with training that helps them understand and apply our principles on the ethical use of big data and artificial intelligence.

Embedding inclusion Our commitment to diversity and inclusion is reflected in our learning and talent programs. We continued to bolster existing online learning to help leaders address any behavioral biases. We pay specific attention on how we select and promote candidates for roles and how colleagues can readily access opportunities.

Adapting through COVID-19 Restrictions imposed due to the COVID-19 pandemic resulted in a halt to classroom learning and rapid expansion of our virtual learning. We prioritized supporting the transition to remote working and helping colleagues manage their well-being.

We converted or re-built hundreds of our technical, professional and personal classroom programs to be delivered by instructors online. This included supporting new joiners to HSBC with an immersive virtual induction program and virtual internships.

Health and safety We are committed to providing a safe and healthy working environment for everyone. We strive to ensure best health and safety management practices are adopted across HUSI or standards that reflect HSBC core values.

Putting our commitment into practice, we continue to deliver a range of programs to help us understand and manage effectively the risks we face and improve the buildings in which we operate:

- COVID-19 safe workplaces were implemented based on expert medical advice and designed to protect our employees, contractors and customers from the risks of COVID-19. This included enhanced cleaning, training and awareness, signage, social distancing measures, public hygiene and track and trace measures.
- We enhanced our existing working from home policy with more awareness and best practices to be adopted during these unprecedented times.
- Our employees completed an improved health and safety training and awareness program ensuring roles and responsibilities were clear and understood.
- All of our buildings had an annual safety inspection (subject to local COVID-19 restrictions) to ensure we were meeting our standards, and continuously improving our safety performance.
- Our suite of management information dashboards were further enhanced, including a COVID-19 and a permit to work dashboard for high risk activities throughout the year.

Supporting our employees through organizational change To ensure we have the right roles in the right locations, our businesses regularly re-evaluate their structures. We strive to support colleagues closely through all organizational change,

which will include those who will be affected by our business update. Our focus is to prioritize retention of our permanent employees through mechanisms such as redeployment. Redundancies were necessary in 2021, and we sought to treat people fairly and responsibly. Where appropriate, we provided suitable notice periods. We use objective and appropriate selection criteria for redundancies. We prohibit selection on grounds linked to personal characteristics, for example gender, race, age or having raised past concerns. Additionally, we provided employees access to counselling via employee assistance programs and career transition.

Regulation and Competition

Regulation We are subject to, among other things, an extensive statutory and regulatory framework applicable to bank holding companies, financial holding companies and banks. U.S. regulation of banks, bank holding companies and financial holding companies is intended primarily for safety and soundness of banks, and the protection of the interests of depositors, the Federal Deposit Insurance Fund and the banking system as a whole rather than the protection of security holders and creditors.

Bank Holding Company Supervision As a bank holding company ("BHC"), we are subject to regulation under the Bank Holding Company Act of 1956, as amended ("BHC Act"), and to inspection, examination and supervision by our primary regulator, the Federal Reserve Board ("FRB"). We are also subject to the disclosure and regulatory requirements of the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as administered by the Securities and Exchange Commission (the "SEC").

In addition, the FRB requires certain large non-U.S. banks with significant operations in the United States, such as HSBC, to establish a single intermediate holding company ("IHC") to hold all of their U.S. bank and non-bank subsidiaries. The HSBC Group operates in the United States through such an IHC structure (i.e., HSBC North America).

Financial Holding Company Regulation HSBC USA and its parent BHC qualified as financial holding companies pursuant to the amendments to the BHC Act effected by the Gramm-Leach-Bliley Act of 1999 ("GLB Act"). Financial holding companies may engage in a broader range of activities than bank holding companies ("BHCs"). Under regulations implemented by the FRB, if any financial holding company, or any depository institution controlled by a financial holding company, ceases to meet certain capital or management standards, the FRB may impose corrective capital and/or managerial requirements on the financial holding company and place limitations on its ability to conduct the broader financial activities permissible for financial holding companies. In addition, the FRB may require divestiture of the holding company's depository institutions or its affiliates engaged in broader financial activities in reliance on the GLB Act if the deficiencies persist. The regulations also provide that if any depository institution controlled by a financial holding company fails to maintain a satisfactory rating under the Community Reinvestment Act of 1977 (the "CRA"), as amended, the FRB must prohibit the financial holding company and its subsidiaries from engaging in any additional activities other than those permissible for BHCs that are not financial holding companies.

Under the FRB supervisory rating system, IHCs and large BHCs with \$100 billion or more in total consolidated assets, including HSBC North America and HSBC USA, receive separate ratings from the FRB for (i) capital planning and positions, (ii) liquidity risk management and positions, and (iii) governance and controls. A covered BHC that receives a deficient rating for any of the three components is not considered to be "well managed."

We are generally prohibited under the BHC Act from acquiring, directly or indirectly, ownership or control of more than five percent of any class of voting shares of, or substantially all the assets of, or exercising control over, any U.S. bank, BHC or many other types of depository institutions and/or their holding companies without the prior approval of the FRB and, potentially, other U.S. banking regulatory agencies.

The GLB Act and the regulations issued thereunder contain a number of other provisions that affect our operations and those of our subsidiary banks, including regulations and restrictions on the activities we may conduct and the types of businesses and entities we may acquire. Furthermore, other provisions contain detailed requirements relating to the financial privacy of consumers. In addition, the so-called 'push-out' provisions of the GLB Act removed the blanket exemption from registration for securities and brokerage activities conducted in banks (including HSBC Bank USA) under the Exchange Act. Applicable regulations allow banks to continue to avoid registration as a broker or dealer only if they conduct securities activities that fall within a set of defined exemptions.

Consumer Regulation Our consumer businesses operate in a highly regulated environment. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act" or "Dodd-Frank") created the Consumer Financial Protection Bureau (the "CFPB"), which has a broad range of powers to administer and enforce a federal regulatory framework of consumer financial regulation, including the authority to regulate credit, savings, payment and other consumer financial products and services and providers of those products and services. The CFPB has the authority to issue regulations to prevent unfair, deceptive or abusive acts or practices in connection with consumer financial products or services and to ensure features

of any consumer financial products or services are fully, accurately and effectively disclosed to consumers. The CFPB also has authority to examine large banks, including HSBC Bank USA, and their affiliates for compliance with those regulations. Our consumer lending businesses are also subject to additional laws relating to consumer protection including, without limitation, fair lending, fair debt collection practices, mortgage loan origination and servicing obligations, bankruptcy, military service member protections, use of credit reports, privacy matters, and disclosure of credit terms and correction of billing errors. Local, state and national regulatory and enforcement agencies continue efforts to address perceived problems within the mortgage lending and credit card industries through broad or targeted legislative or regulatory initiatives aimed at lenders' operations in consumer lending markets. There continues to be a significant amount of legislative and regulatory activity, nationally, locally and at the state level, designed to limit certain lending practices while mandating certain servicing procedures. Federal bankruptcy and state debtor relief and collection laws, as well as the Servicemembers Civil Relief Act affect the ability of banks, including HSBC Bank USA, to collect outstanding balances.

Supervision of Bank Subsidiaries Our subsidiary national banks, HSBC Bank USA and HTCD, are subject to regulation and examination primarily by the Office of the Comptroller of the Currency ("OCC"). These subsidiary banks are subject to additional regulation and supervision by the Federal Deposit Insurance Corporation ("FDIC"), the FRB and the CFPB. HSBC Bank USA and HTCD are subject to banking laws and regulations that place various restrictions and requirements on their activities, investments, operations and administration, including the establishment and maintenance of branch offices, capital and reserve requirements, deposits and borrowings, investment and lending activities, payment of dividends, transactions with affiliates, overall compliance and risk management and numerous other matters. In 2020, the FRB reduced reserve requirements to zero percent.

HSBC Bank USA is subject to the CRA, which imposes affirmative, ongoing obligations on depository institutions to meet the credit needs of their local communities, including low- and moderate-income neighborhoods, consistent with the safe and sound operation of the institution. In 2020, the OCC adopted significant amendments to its CRA regulations that would have required compliance on January 1, 2023. However, on December 14, 2021, the OCC issued a final rule to rescind the 2020 CRA rule and replace it with a rule based on the rules adopted jointly by the federal banking agencies in 1995. The final rule became effective on January 1, 2022.

Federal law imposes limitations on the payment of dividends by national banks. Dividends payable by HSBC Bank USA and HTCD are limited to the lesser of the amounts calculated under a "recent earnings" test and an "undivided profits" test. Under the recent earnings test, a dividend may not be paid if the total of all dividends declared by a bank in any calendar year is in excess of the current year's net income combined with the retained net income of the two preceding years, unless the national bank obtains the approval of the OCC. Under the undivided profits test, a dividend may not be paid in excess of a bank's undivided profits account. HSBC Bank USA is also required to maintain appropriate amounts of capital against its assets as discussed further in this Annual Report on Form 10-K.

Federal banking laws and regulations apply a variety of requirements or restrictions on insured depository institutions with respect to brokered deposits. For instance, only a "well capitalized" insured depository institution may accept brokered deposits without prior regulatory approval. In 2020, the FDIC issued a final rule to revise and update its brokered deposit regulations, which took effect April 1, 2021. The full compliance date of the rule was January 1, 2022. The final rule has the potential to create additional uncertainty regarding the types of deposits that must be considered brokered. We are evaluating the final rule and its potential impact on our results and operations.

The types of activities in which the non-U.S. branches of HSBC Bank USA may engage are subject to various restrictions imposed by the FRB in addition to those generally applicable to HSBC Bank USA under OCC rules. These branches are also subject to the laws and regulatory authorities of the countries in which they operate.

Under longstanding FRB policy, which Dodd-Frank codified as a statutory requirement, HSBC USA is expected to act as a source of strength to its subsidiary banks and, under appropriate circumstances, to commit resources to support each such subsidiary bank in circumstances where it might not do so absent such policy.

Affiliate Transaction Restrictions HSBC Bank USA and HTCD are subject to significant restrictions imposed by federal law on extensions of credit to, and certain other "covered transactions" with HSBC USA or other affiliates. Covered transactions include loans and other extensions of credit, investments and asset purchases, derivatives and certain other transactions involving the transfer of value from, or taking the credit risk by, a subsidiary bank to an affiliate or for the benefit of an affiliate. Dodd-Frank expanded these affiliate transaction restrictions to include as a covered transaction the credit exposure of a bank to an affiliate arising from a derivative, securities lending/borrowing or repurchase transaction with an affiliate. The FRB has yet to propose rules to implement these revisions. A bank's transactions with its non-bank affiliates are also generally required to be on arm's length terms. Certain Edge Act subsidiaries of HSBC Bank USA are limited in the amount of funds they can provide to other affiliates including their parent. Amounts above their level of invested capital generally must be secured with U.S. government securities.

Unless an exemption applies, or a specific waiver is granted by the FRB, covered transactions by a bank with a single affiliate are limited to 10 percent of the bank's capital and surplus, and all covered transactions with affiliates in the aggregate are limited to 20 percent of a bank's capital and surplus. Loans and extensions of credit to affiliates by a bank generally are to be secured in specified amounts with specific types of collateral.

Regulatory Capital and Liquidity Requirements As a financial services holding company, we are subject to regulatory capital rules issued by U.S. banking regulators including Basel III (the "Basel III rule"). A bank or BHC's failure to meet minimum capital requirements can result in certain mandatory actions and possibly additional discretionary actions by its regulators. Generally, BHC regulatory capital compliance is performed at a consolidated level within the United States at HSBC North America, our parent, and also separately for HSBC Bank USA. However, we do present HSBC USA's capital ratios in "Liquidity and Capital Resources" in our MD&A, as well as, together with HSBC Bank USA's, in Note 26, "Retained Earnings and Regulatory Capital Requirements," of the accompanying consolidated financial statements. Our ultimate parent, HSBC, is also subject to regulatory capital requirements under United Kingdom ("U.K.") law.

Basel III Overview The Basel III rule establishes minimum capital ratios and overall capital adequacy standards for banks and BHCs. HSBC North America, HSBC USA and HSBC Bank USA each calculate their risk-based capital requirements for credit risk under the Standardized Approach in the Basel III rule. To be categorized as "well capitalized" under the Basel III rule, a banking institution must maintain capital equal to or in excess of the ratios reflected in the table included in Note 26, "Retained Earnings and Regulatory Capital Requirements," of the accompanying consolidated financial statements and must not be subject to a directive, order or written agreement to meet and maintain specific capital levels. The federal bank regulatory agencies may, however, set higher capital requirements for an individual bank or BHC when particular circumstances warrant. Under the Basel III rule, all banking organizations are subject to a minimum Tier 1 leverage ratio of 4 percent. Additionally, certain banking organizations are subject to a supplementary leverage ratio ("SLR") of 3 percent (calculated as the ratio of Tier 1 capital to total leverage exposure, which includes balance sheet exposures plus certain off-balance sheet items).

Tailoring Rules In 2019, the FRB and the other federal banking agencies jointly finalized rules to implement the Economic Growth, Regulatory Relief and Consumer Protection Act that tailor the application of the enhanced prudential standards for large BHCs and foreign banking organizations (the "Tailoring Rules"). The Tailoring Rules assign each BHC and IHC with \$50 billion or more in total U.S. assets into one of five classifications (Categories I through IV, and 'other firms') based on their relative size and complexity and assessed on asset size, cross-jurisdictional activity, reliance on short-term wholesale funding, nonbank asset size, and off-balance sheet exposures. As of December 31, 2021, HSBC North America and HSBC Bank USA were subject to Category III standards.

As of January 1, 2022, HSBC North America met the criteria to be re-classified as a Category IV firm and the enhanced prudential standards applicable to HSBC North America and HSBC Bank USA are expected to change commensurate with their risk profile. The following table provides a comparison of the enhanced prudential standards for Category III and Category IV firms to illustrate the expected impact on HSBC North America's change in category:

	Category III (Current)	Category IV (Expected)
Stress Testing	- Company-run stress testing every other year - Annual supervisory stress testing - Annual capital plan submission	- No company-run stress testing requirement - Supervisory stress testing every other year - Annual capital plan submission
Capital	- Countercyclical buffer (when in effect) - SLR	- No countercyclical buffer requirement - No SLR requirement
Liquidity	- Liquidity stress testing (monthly) - Reduced daily liquidity coverage ratio ("LCR") and net stable funding ratio ("NSFR") regulatory requirements of 85 percent	- Liquidity stress testing (quarterly) - Reduced daily LCR and NSFR regulatory requirements of 70 percent
Single-Counterparty Credit Limits ("SCCL")	- IHC must comply with SCCL - Combined US operations must meet home country SCCL consistent with Basel framework	- No SCCL requirement at IHC-level - Combined US operations must meet home country SCCL consistent with Basel framework
Resolution Plan Requirements	Resolution plan required on a three-year cycle, alternating between full and targeted plan	Resolution plan required on a three-year cycle, with a reduced plan

The column labeled "expected" in the table above summarizes the enhanced prudential standards that generally apply to Category IV banking organizations. However, the FRB has broad authority under its regulations implementing the enhanced prudential standards to extend mandatory compliance with Category III level requirements or to impose additional prudential requirements on HSBC North America and HSBC Bank USA.

As a result of this classification change, HSBC North America and HSBC Bank USA expect to no longer be subject to the SLR or the countercyclical capital buffer. We continue to review the composition of our capital structure and capital buffers in light of these developments.

In response to the COVID-19 pandemic, the federal banking agencies issued a final rule that provides the option to transition in the regulatory capital impacts of the new current expected credit loss accounting standard over a five-year period. In 2020, HSBC North America and HSBC Bank USA elected the five-year transition option and, as a result, our capital ratios are being reported in accordance with the transition rules in the final rule. Accordingly, during 2020 and 2021, we excluded from regulatory capital the change in retained earnings resulting from adoption of the new accounting standard on January 1, 2020 as well as 25 percent of the change in the allowance for credit losses recognized between January 1, 2020 and December 31, 2021. Beginning January 1, 2022, the excluded impacts will be phased into regulatory capital over a three-year transition period and will be fully reflected at January 1, 2025.

Also in response to the COVID-19 pandemic, the FRB issued final rules that permitted IHCs, such as HSBC North America, and depository institutions, such as HSBC Bank USA, to temporarily exclude U.S. Treasury securities and deposits at Federal Reserve Banks from the denominator of their SLR. The rules were designed to allow banking institutions to expand their balance sheets to accommodate increased customer deposits while continuing to provide credit to companies and households. These changes took effect in 2020 and expired on April 1, 2021.

HSBC USA and HSBC Bank USA are required to maintain minimum capital ratios as follows:

	Common Equity Tier 1 Ratio	Tier 1 Capital Ratio	Total Capital Ratio	Tier 1 Leverage Ratio
Regulatory minimum ratio	4.5 %	6.0 %	8.0 %	4.0 %
Plus: Capital conservation buffer	2.5 %	2.5 %	2.5 %	—
Regulatory minimum ratio plus capital conservation buffer	7.0 %	8.5 %	10.5 %	4.0 %

Until HSBC North America's re-classification as a Category IV firm takes effect, HSBC Bank USA is subject to the 3 percent SLR and the countercyclical buffer (when in effect) in addition to the capital conservation buffer. Currently, HSBC USA and HSBC Bank USA hold capital in excess of these regulatory minimums plus a fixed 2.5 percent capital conservation buffer. If our risk-based capital ratios were to fall to levels within the capital conservation buffer, we would become subject to increasing restrictions on our capital distributions and discretionary bonus payments.

Capital Planning and Stress Testing The FRB requires certain U.S. top-tier BHCs and IHCs, including HSBC North America, to comply with the FRB's capital plan rule and Comprehensive Capital Analysis and Review ("CCAR") program, as well as the supervisory stress tests conducted by the FRB, and company-run stress tests as required under the Dodd-Frank Act (collectively, "DFAST"). The company-run stress tests are forward looking exercises to assess the impact of hypothetical macroeconomic baseline and severely adverse scenarios provided by the FRB (and internally developed scenarios for the company-run exercises) on the financial condition and capital adequacy of a CCAR firm over a nine quarter planning horizon. As a result of its re-classification as a Category IV firm, HSBC North America expects to no longer be subject to company-run stress testing and related disclosure requirements. Category IV firms are subject to supervisory stress testing on an every-other-year basis, although they may opt into such testing in an "off year" in order to recalibrate their stress capital buffer ("SCB") based on their most recent supervisory stress test. The FRB continues to supervise Category IV firms on an ongoing basis, including evaluation of the capital adequacy and capital planning processes during off-cycle years. HSBC Bank USA is not subject to the OCC's DFAST requirements, which require national banks with \$250 billion or more in total assets to conduct company-run stress tests.

As part of the CCAR process, the FRB undertakes a supervisory assessment of the capital adequacy of CCAR firms, including HSBC North America, based on a review of a comprehensive capital plan submitted by each participating BHC to the FRB that describes the company's planned capital actions during the nine quarter review period, as well as the results of stress tests conducted by both the company and the FRB under different hypothetical macroeconomic scenarios, including a supervisory baseline scenario and severely adverse scenarios provided by the FRB.

In 2020, the FRB modified the static capital conservation buffer to incorporate an institution-specific SCB which is floored at 2.5 percent and took effect on October 1, 2020. The SCB equals (i) a CCAR firm's projected decline in common equity tier 1 under the annual CCAR supervisory severely adverse stress testing scenario plus (ii) one year of planned common stock

dividends. In August 2021, the FRB announced a new SCB for participating CCAR firms based on 2021 CCAR stress tests, which took effect October 1, 2021.

HSBC North America continues to review the composition of its capital structures and capital buffers in light of the final rule. The SCB applies only to HSBC North America; HSBC USA and HSBC Bank USA remain subject to a static 2.5 percent capital conservation buffer.

HSBC North America submitted its 2021 CCAR capital plan and its 2021 annual company-run DFAST results in April 2021. In July 2021, HSBC North America publicly disclosed its 2021 annual DFAST results. In June 2021, the FRB publicly disclosed its own DFAST and CCAR results and informed HSBC North America that it did not object to HSBC North America's capital plan of the planned capital distributions included in its 2021 CCAR submission. The FRB previously announced that it intended to terminate restrictions on capital distributions put in place in connection with additional stress tests that the FRB conducted to assess the impact of the COVID-19 pandemic. However, these additional restrictions on distributions were lifted on June 30, 2021. Under these additional restrictions, CCAR firms were allowed to make certain capital distributions in the first two quarters of 2021, provided that the distributions generally did not exceed net income.

Liquidity Risk Management The Basel Committee has adopted two required liquidity metrics: the liquidity coverage ratio ("LCR"), designed to be a short-term measure to ensure banks have sufficient HQLA to cover net stressed cash outflows over the next 30 days, and the NSFR, which is a longer term measure with a 12-month time horizon to ensure a sustainable maturity structure of assets and liabilities.

Certain U.S. banking organizations are subject to the U.S. LCR rule and are required to report their LCRs to U.S. regulators on a daily basis. Under the Tailoring Rules, an 85 percent LCR requirement applies to Category III firms with weighted short-term wholesale funding under \$75 billion and their depository institution subsidiaries. As a result, under the U.S. LCR rule, a LCR of 100 percent or higher reflects an unencumbered HQLA balance that is equal to or exceeds 85 percent of a Category III firm's liquidity needs for a 30 calendar day liquidity stress scenario.

In 2020, U.S. regulators issued a final rule to implement the NSFR in the United States, applicable to certain large banking organizations, including HSBC North America and HSBC Bank USA, which took effect on July 1, 2021. Consistent with the Tailoring Rules, an 85 percent NSFR requirement applies to Category III firms with weighted short-term wholesale funding under \$75 billion and their depository institution subsidiaries. As a result, under the U.S. NSFR rule, a NSFR of 100 percent or more reflects an available stable funding balance from liabilities and capital over the next 12 months that is equal to or exceeds 85 percent of a Category III firm's required amount of funding for assets and off-balance sheet exposures. As a result of HSBC North America's re-classification as a Category IV firm, HSBC North America and HSBC Bank USA expect to be subject to a further reduced U.S. LCR and NSFR requirement of 70 percent so long as HSBC North America's weighted short-term wholesale funding equals or exceeds \$50 billion.

As a Category III firm, HSBC North America was subject to liquidity stress testing on a monthly basis and related liquidity buffer and liquidity risk management requirements. As a Category IV firm, HSBC North America remains subject to liquidity risk management and liquidity buffer requirements, but expects to be subject to liquidity stress testing on a quarterly, rather than monthly basis.

TLAC The U.S. IHCs of non-U.S. global systemically important banks ("G-SIBs"), including HSBC North America, must maintain minimum amounts of total loss-absorbing capacity ("TLAC"), which includes minimum levels of Tier 1 capital and long-term debt satisfying certain eligibility criteria, and a related TLAC buffer. In 2020, the FRB issued a final rule that aligns the calculation of the TLAC buffer for U.S. IHCs of non-U.S. G-SIBs with the calculation methodology used by U.S. G-SIBs beginning which took effect on April 1, 2021. The TLAC rules also include 'clean holding company requirements' that impose limitations on the types of financial transactions that HSBC North America may engage in. HSBC North America maintains long-term debt to support compliance with the TLAC rules and will continue to assess if additional long-term debt is needed to remain compliant in future periods.

U.S. Resolution Planning Large international banks, such as HSBC (generally with regard to its U.S. operations), and large insured depository institutions, such as HSBC Bank USA, are required to file resolution plans identifying, among other things, material subsidiaries and core business lines and describing what strategy would be followed to resolve the institution in the event of significant financial distress, including identifying how insured bank subsidiaries would be adequately protected from risk created by other affiliates. The failure to cure deficiencies in a resolution plan would enable the FRB and the FDIC, acting jointly, to impose more stringent capital, leverage or liquidity requirements, or restrictions on growth, activities or operations and, if such failure persists, require the divestiture of assets or operations.

Under the FRB and FDIC rule implementing the resolution planning requirements for depository institution holding companies (the "SIFI Plan") in the Dodd-Frank Act (the "SIFI Plan Rule"), HSBC is required to file a SIFI Plan every three years, alternating between a full resolution plan and a targeted resolution plan, which would generally be limited to core areas such as capital and liquidity, as well as identifying material changes in other areas of the plan since its last submission. HSBC

submitted its latest SIFI Plan, which was a targeted plan, in December 2021. As a result of HSBC North America's reclassification as a Category IV firm, HSBC would be required to submit a reduced SIFI Plan every three years. Reduced plans generally include only changes to the firm's plan since its previous filing. The SIFI Plan Rule did not revise the resolution plan requirements applicable to HSBC Bank USA, which are administered solely by the FDIC.

In 2019, the FDIC requested comment on an advance notice of proposed rulemaking that would alter the FDIC's separate resolution plan requirements for insured depository institutions (the "IDI Plan") with total consolidated assets of at least \$50 billion ("Covered IDIs"), including HSBC Bank USA. The proposal delayed the requirement for HSBC Bank USA (as well as other Covered IDIs) to file its next IDI Plan until a future date to be specified by the FDIC. Consequently, HSBC Bank USA has not been required to file an IDI Plan since 2018. On January 19, 2021, the FDIC announced it will resume requiring IDI Plan submissions for banks with \$100 billion or more in assets and will provide at least 12 months advance notice to firms required to submit IDI Plans. The FRB has separately established a framework for recovery plans, although HSBC is not currently required to submit a recovery plan to U.S. regulators unless specifically requested to do so.

Non-U.S. Regulatory Capital and Liquidity Requirements HSBC North America and HSBC USA also continue to support HSBC's implementation of the Basel III framework, as adopted by the U.K. Prudential Regulation Authority. We supply data regarding credit risk, operational risk and market risk to support HSBC's regulatory capital and risk-weighted asset calculations and information relevant to HSBC's compliance with applicable liquidity requirements.

General Our capital resources are summarized under "Liquidity and Capital Resources" in MD&A. Capital amounts and ratios for HSBC USA and HSBC Bank USA are summarized in Note 26, "Retained Earnings and Regulatory Capital Requirements" of the consolidated financial statements. From time to time, bank regulators propose amendments to or issue interpretations of risk-based or leverage capital guidelines. Such proposals or interpretations could, upon implementation, affect reported capital ratios and net risk-weighted assets.

Deposit Insurance Deposits placed at HSBC Bank USA and HTCD are insured by the FDIC, subject to the limitations and conditions of applicable law and the FDIC's regulations. The standard deposit insurance amount is \$250,000 per depositor for each account category. HSBC Bank USA and HTCD are subject to risk based assessments from the FDIC. Such assessments determine the deposit insurance costs paid by HSBC Bank USA and HTCD to the FDIC. While the assessments are generally payable quarterly, the FDIC also has the authority to impose special assessments to prevent the Deposit Insurance Fund from declining to an unacceptable level.

Bank Secrecy Act/Anti-Money Laundering We are subject to a framework of federal laws designed to combat money laundering and financing of terrorism, mainly the Bank Secrecy Act and the USA PATRIOT Act, as well as related regulations issued by the U.S. Department of the Treasury and federal banking regulators (collectively, "AML laws"). AML laws require financial institutions (including insured U.S. depository institutions, U.S.-based branches and agencies of foreign banks, U.S. broker-dealers and various other entities) to implement an AML compliance program that is reasonably designed to prevent money laundering and the financing of terrorism. Programs must include, among other things, policies and procedures to verify their customers' identities, verify the identities of beneficial owners of legal entity customers, conduct customer due diligence and enhanced due diligence on certain customers and monitor for and report on suspicious activity. We are examined for compliance with AML laws by our federal banking regulators.

Cybersecurity Regulatory Developments In 2016, the FRB, FDIC, and OCC issued a joint advance notice of proposed rulemaking to solicit feedback on their development of comprehensive cyber risk management standards for large banking organizations and certain of their service providers.

In November 2021, these agencies issued a final rule mandating that a banking organization notify its primary federal regulators within 36 hours of identifying a "computer-security incident" that has or is reasonably likely to disrupt or degrade its (i) ability to carry out banking operations, activities, or processes, or deliver banking products and services to a material portion of its customer base; (ii) business lines, including associated operations, services, functions, and support, that upon failure would result in a material loss of revenue, profit, or franchise value; or (iii) operations, including associated services, functions, and support, the failure or discontinuance of which would pose a threat to the financial stability of the United States. The rule takes effect April 1, 2022, with banking organizations required to comply with the notice requirements beginning May 1, 2022. We continue to evaluate the potential effects of this rule on our operations.

Cybersecurity remains an area of significant regulatory focus, and state regulators have also been increasingly active in implementing privacy and cybersecurity standards and regulations. Recently, several states have adopted regulations requiring certain financial institutions to implement cybersecurity programs and providing detailed requirements with respect to these programs, including data encryption requirements. Many states have also recently implemented or modified their data breach notification and data privacy requirements. We expect this trend of state-level activity to continue, and are continually monitoring developments in the states.

Single-Counterparty Credit Limits The FRB limits credit exposures to single counterparties for large BHCs and IHCs, including HSBC North America. As a Category III firm, HSBC North America, together with its subsidiaries, was prohibited

from having net credit exposure to a single unaffiliated counterparty in excess of 25 percent of HSBC North America's Tier 1 capital. As a result of its re-classification as a Category IV firm, HSBC North America expects to no longer be directly subject to these single counterparty credit limits. Independent of HSBC North America's reclassification to a Category IV firm, HSBC North America, together with its subsidiaries, could become subject to a separate limit on its exposures to certain unaffiliated systemically important counterparties if its parent, HSBC, cannot certify its compliance with a large exposure regime in the U.K. that is consistent with the Basel large exposure framework.

Derivatives Regulation Title VII of the Dodd-Frank Act imposes comprehensive regulation on the over-the-counter ("OTC") derivatives markets, including credit default, equity, foreign exchange and interest rate swaps. Implementation of Title VII is the responsibility of the Commodity Futures Trading Commission ("CFTC") (for swaps based on non-securities underliers or broad-based security indices), the SEC (for swaps based on individual securities and narrow-based security indices, known as "security-based swaps") and, to a lesser extent, U.S. banking regulators (for certain rules applicable to banks). The CFTC has implemented the most significant provisions of Title VII applicable to swaps. In particular, certain swap dealers, including HSBC Bank USA, have provisionally registered with the CFTC as swap dealers and become members of the National Futures Association, subjecting them to an extensive array of corporate governance requirements, business conduct standards, reporting requirements, mandatory clearing and trading of certain swaps and other regulatory standards affecting their derivatives businesses. These requirements have increased the costs associated with HSBC Bank USA's derivatives businesses.

Also, HSBC Bank USA engages in equity and credit derivatives businesses that are subject to the SEC's jurisdiction to regulate security-based swaps under Title VII of the Dodd-Frank Act. The SEC has finalized the key rules governing the application of Title VII requirements to security-based swap dealers and major security-based swap participants. The registration requirements and other rules applicable to security-based swap dealers and major security-based swap participants generally came into effect in November 2021 and as of that date HSBC Bank USA is conditionally registered with the SEC as a security-based swap dealer.

In addition, as a provisionally registered swap dealer and a conditionally registered security-based swap dealer that is a national bank, HSBC Bank USA is subject to the rules jointly finalized by the U.S. banking regulators which established margin requirements (the "Margin Rules") for non-cleared swaps and security-based swaps (together, "swaps") for swap dealers, security-based swap dealers, major swap participants and major security-based swap participants regulated by the agencies ("Swap Entities"). Subject to certain exceptions, the Margin Rules require HSBC Bank USA to collect and post initial and variation margin for swaps entered into with other Swap Entities and certain financial end users that exceed a minimum threshold of transactional activity, and for financial end users that do not meet the minimum transactional activity threshold, to collect and post variation margin (but not initial margin).

The Margin Rules also limit the types of assets that are eligible to satisfy initial and variation margin requirements, require initial margin to be segregated at a third-party custodian, impose requirements on internal models used to calculate initial margin requirements and contain specific provisions for cross-border and inter-affiliate transactions. The Margin Rules follow a phased implementation schedule, with additional counterparties becoming subject to initial margin requirements in September 2022 depending on the transactional volume of the parties and their affiliates. The Margin Rules, as well as parallel margin rules from the CFTC, the SEC, and certain non-U.S. regulators, have increased the costs and liquidity burden associated with trading swaps.

The "Volcker Rule" The Volcker Rule prohibits insured depository institutions and companies affiliated with insured depository institutions (collectively, banking entities) from engaging in short-term proprietary trading of certain securities, derivatives, commodity futures and options for their own account. The Volcker Rule also imposes limits on banking entities' investments in, and other relationships with, hedge funds and private equity funds. The Volcker Rule provides exemptions for certain activities, including market-making, underwriting, hedging, trading in government obligations and organizing and offering hedge funds and private equity funds, subject to certain conditions. A banking entity with significant U.S. trading operations, such as HSBC North America, is required to maintain a detailed compliance program to comply with the restrictions of the Volcker Rule.

Competition The GLB Act eliminated many of the regulatory restrictions on providing financial services in the United States. The GLB Act allows for financial institutions and other providers of financial products to enter into combinations that permit a single organization to offer a complete line of financial products and services. In addition, the Volcker Rule places restrictions on bank-affiliated financial companies' trading activities and private equity and hedge fund investments, which may provide a competitive advantage to financial companies that do not have U.S. banking operations and may impact liquidity in the products and activities in which we engage. We face intense competition in all of the markets we serve, competing with banks and other financial institutions such as insurance companies, commercial finance providers, brokerage firms, investment companies and fintech companies. The financial services industry has experienced consolidation in recent years as financial institutions involved in a broad range of products and services have merged, been acquired or dispersed. This trend is expected to continue and has resulted in, among other things, greater concentrations of deposits and other resources. Competition is expected to continue to be intense given the multiple banks and other financial services companies which offer products and

services in our markets, noting that we compete with different banks and financial services companies in different markets, given our strategy.

Corporate Governance and Controls

We maintain a website at www.us.hsbc.com on which we make available, as soon as reasonably practicable after filing with or furnishing to the SEC, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to these reports. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website. Our website also contains our Corporate Governance Standards and Charters of standing Board of Directors Committees, including the Audit Committee, the Risk Committee and the Chairman's Committee.

Integrity is the foundation of all our business endeavors and is the result of continued dedication and commitment to high ethical standards in our relationships with each other, with other organizations and with those individuals who are our customers. To that end, we have adopted a Statement of Business Principles and Code of Ethics (our "Statement of Business Principles") that expresses the principles upon which we operate our business. The Statement of Business Principles is applicable to all employees, including our CEO, Chief Financial Officer ("CFO") and Chief Accounting Officer (collectively, the "Senior Financial Officers"). In addition to the Statement of Business Principles, the Senior Financial Officers are subject to the additional policies set forth in the Code of Ethics for Senior Financial Officers, which is intended to supplement the Statement of Business Principles.

Our Statement of Business Principles and Code of Ethics for Senior Financial Officers can be found on our corporate website, www.about.us.hsbc.com, under "Investor Relations." Printed copies of this information can be requested at no charge. Requests should be made to HSBC USA Inc., 452 Fifth Avenue, New York, NY 10018, Attention: Corporate Secretary. We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding amendments to, or waivers from, certain provisions of the Code of Ethics for Senior Financial Officers and Statement of Business Principles by posting such information on our website, at the address and location specified above.

Certifications In addition to certifications from our CEO and CFO pursuant to Sections 302 and 906 of the Sarbanes-Oxley Act of 2002 (attached to this report on Form 10-K as Exhibits 31 and 32), we also file a written affirmation of an authorized officer with the New York Stock Exchange (the "NYSE") certifying that such officer is not aware of any violation by HSBC USA of the applicable NYSE corporate governance listing standards in effect as of February 22, 2022.

Item 1A. Risk Factors

The following discussion provides a description of the most significant risk factors that could affect our businesses, results of operations and financial condition and could cause our results to differ materially from those expressed in public statements or documents. Some of these risk factors are inherent in the financial services industry and others are more specific to our own businesses. There are also other factors besides those discussed below or elsewhere in this Annual Report on Form 10-K that could affect our businesses, results of operations and financial condition and, therefore, the risk factors below should not be considered a complete list of all potential risks that we may face.

Risks related to the Economy, Financial Markets, Liquidity and Interest Rates

Market and economic conditions will continue to affect our businesses, results of operations and financial condition. Our business and earnings are affected by general business, economic and market conditions in the U.S. and abroad. Given our concentration of business activities in the United States, we are particularly exposed to downturns in the economy, including housing, high unemployment, the availability of credit and liquidity and reduced economic growth. While the U.S. economy continued its recovery in 2021, the impact of the COVID-19 pandemic and higher inflation on economic conditions both in the United States and abroad continues to create global uncertainty about the future economic environment. General business, economic and market conditions that could continue to affect us include:

- level of economic growth, including the pace and magnitude of such growth;
- pressure on and changes in consumer and business confidence, spending and behavior;
- fiscal policy;
- volatility in energy prices, including oil and gas prices;
- volatility in credit markets;
- unemployment levels, wage income levels and declines in wealth;
- trends in corporate earnings;
- market value of residential and commercial real estate throughout the United States;
- inflation, monetary supply and monetary policy;
- fluctuations in both debt and equity capital markets in which we fund our operations;
- consequences of unexpected geopolitical events, natural disasters, climate change, outbreaks of contagious disease (such as coronavirus) or acts of war or terrorism;
- trade policy;
- fluctuations in the value of the U.S. dollar;
- movements in short-term and long-term interest rates or a change in the shape of the yield curve;
- increases in interest rates, which may lead to increased delinquencies and loan impairment charges;
- availability of liquidity;
- availability of credit; and
- new laws, regulations or regulatory and law enforcement initiatives.

The COVID-19 pandemic has resulted in disruption to business and economic activity as well as to the capital markets. See "The COVID-19 pandemic has had, and continues to have, a material impact on us" and "Management's Discussion and Analysis of Financial Condition and Results of Operations - Executive Overview - 2021 Economic Environment." Although the U.S. economy continued to improve in 2021, if businesses were again to become cautious to hire, lay-off employees or reduce hours for employees, losses could be significant in our consumer loans due to decreased consumer income, which will impact demand for products and services offered by many of our commercial loan clients. In addition, on-going domestic and global policy issues, such as trade disputes and economic sanctions, and the implications of those events will continue to impact the capital markets and trade as well as corporate earnings which also impacts our commercial loan performance. The sustainability of the economic recovery will be determined by numerous variables including consumer sentiment, energy prices, credit market volatility, employment levels and housing market conditions which will impact corporate earnings and the capital markets. In the event economic conditions stop improving or become depressed and lead to another recession, there would be a significant negative impact on delinquencies, charge-offs and losses in all loan portfolios with a corresponding impact on our results of operations.

The inflationary outlook remains uncertain. The consumer price index increased 7 percent year-over-year in December 2021. The risks to our business from inflation depends on the durability of the current inflationary pressures. Transitory increases in inflation are unlikely to have a material impact on our business or earnings. More persistent inflation, however, could lead to

tighter-than expected monetary policy. That, in turn, could increase the borrowing costs of our customers, making it more difficult for them to repay their loans or other obligations. The higher interest rates needed to tame persistent price pressures could also push down asset prices and weaken economic activity.

A deterioration in business and economic conditions may erode consumer and investor confidence, increase volatility of financial markets, and could also adversely affect our fee-based businesses, including financial planning products and services.

The COVID-19 pandemic has had, and continues to have, a material impact on us. In March 2020, the United States declared a federal state of emergency in response to the COVID-19 pandemic. The outbreak of this virus has disrupted global financial markets and negatively affected supply and demand across a broad range of industries. There are a number of factors associated with the outbreak and its impact on global economies, including the United States, that have had and could continue to have a material adverse effect on (among other things) the profitability, capital and liquidity of financial institutions such as HUSI. The pandemic will continue to impact our business in future periods.

The COVID-19 pandemic has caused disruption to our customers, suppliers and staff. COVID-19's effects in the U.S. and globally have been extreme, and the duration of the pandemic and its ultimate repercussions continue to remain unclear. A number of states in which we operate previously implemented restrictions on their populations, significantly impacting economic activity in those states and resulted in the temporary closure of many businesses. While governments began to ease and in many cases remove these restrictions in the late spring and summer of 2021, they began to reinstate some of these restrictions during the fourth quarter in response to a significant surge in infections driven by the Delta variant and the emergence of the Omicron variant, which could further impact economic activity. As a result, the demand for our products and services has been and may continue to be significantly impacted and could vary by region or industry sector. Furthermore, it is unclear how the macroeconomic business environment or societal norms may be impacted after the pandemic. The post-COVID-19 environment may undergo unexpected developments or changes in the financial markets, fiscal, tax and regulatory environments as well as customer and corporate client behavior which could have an adverse impact on our business.

In the United States, unprecedented government economic intervention, including additional government support enacted during the first quarter of 2021, has likely dampened some of the pandemic's effects, but at uncertain long-term costs. How the federal government's actions, including rolling back any of their interventions, will ultimately impact our customers and therefore the impact on HUSI remains uncertain. Furthermore, it is unclear how these actions will impact the future economic environment, including rising inflation, interest rates and foreign exchange and our business. The actions taken by the federal government and the FRB may indicate a view on the potential severity of a downturn and post recovery environment, which from a commercial, regulatory and risk perspective could be significantly different to past crises and persist for a prolonged period.

Unprecedented movement in economic and market drivers related to the COVID-19 pandemic dramatically impact the performance of financial models including retail and wholesale credit loss models, capital models, traded risk models and models used in the asset/liability management process. This has required more ongoing monitoring and more frequent testing of models, particularly for credit loss models. It also has resulted in the use of compensating controls for model limitations, such as adjustments to model outputs to reflect consideration of management judgment. By their nature such compensating controls require a significant degree of management judgment and assumptions to be applied and there is a risk that actual results/performance may differ from such judgments and assumptions. The performance and usage of models will continue to be affected by the impact of new variants. Due to the continued uncertainty, the full magnitude of change required to our models is evolving. Efforts are underway to recalibrate capital, credit risk and other models and in some cases replace with alternative models.

Interest rates have been reduced since the start of the COVID-19 pandemic, which has and may continue to compress our margins and reduce our net interest income until interest rates return to higher levels. Mismatches between supply and demand of goods and services contributed to a rise in inflation in 2021, prompting the FRB to announce the approaching end of the period of extraordinarily low interest rates.

Federal and state legislative and regulatory developments in relation to COVID-19 have also impacted and may continue to impact our business and operations by, for example, requiring forbearance on loans, suspensions of foreclosure sales and imposing restrictions on our ability to charge certain fees. Our participation in these and other measures taken by governments and regulatory authorities could result in potential increased fraud risk as well as reputational harm, and may result in litigation, including class actions, or regulatory and government actions and proceedings. Such actions may result in judgments, settlements, penalties and fines adverse to HUSI.

Any and all such events mentioned above could have or continue to have a material adverse effect on our business, financial condition, results of operations, prospects, liquidity, capital position and credit ratings (including further credit rating agency changes of outlooks or ratings). The extent of such impact will depend on the outcome of certain developments, including but not limited to, the duration of the pandemic, including the emergence of new variants, as well as its continuing impact on our customers, vendors and employees, all of which are uncertain. Economic growth is expected to slow in 2022 to more

sustainable rates, contingent on, among other things, the successful mitigation of negative impacts of the virus. To the extent the COVID-19 pandemic continues to adversely affect our business, results of operations and financial condition, it could also have the effect of increasing the likelihood of many of the other risks described in this Annual Report on Form 10-K.

Increased credit risk, including as a result of a deterioration in economic conditions, could require us to increase our provision for credit losses and allowance for credit losses and could have a material adverse effect on our results of operations and financial condition. The credit performance of our loan portfolios significantly affects our financial results and condition. If the current economic environment were to deteriorate further, more of our customers may have difficulty in repaying their loans or other obligations which could result in a higher level of credit losses and provision for credit losses. We reserve for credit losses by establishing an allowance through a charge to earnings. The amount of this allowance is based on our assessment of lifetime expected credit losses inherent in our various loan and other portfolios carried at amortized cost as well as off-balance sheet credit exposures such as undrawn commitments to lend. The process for determining the amount of the allowance is critical to our financial results and condition. It requires difficult, subjective and complex judgments about the future, including forecasts of economic or market conditions that might impair the ability of our borrowers to repay their loans. We might increase the allowance because of changing economic conditions, including falling home prices and higher unemployment, lower U.S. Gross Domestic Product ("GDP") estimates, or other factors. For example, changes in borrower behavior or the regulatory environment also could influence recognition of credit losses in the portfolio and our allowance for credit losses.

While we believe that our allowance for credit losses was appropriate at December 31, 2021, there is no assurance that it will be sufficient to cover future credit losses. In the event of a deterioration in economic conditions, we may be required to increase reserves in future periods, which would reduce our earnings.

Federal Reserve Board policies can significantly affect business and economic conditions and, as a result, our financial results and condition. The FRB regulates the supply of money and credit in the United States. Its policies determine in large part our borrowing costs and the return we earn on loans and investments, both of which affect our net interest margin. They also can materially affect the value of financial instruments we hold, such as debt securities and derivative instruments. The FRB's policies also can affect our borrowers, potentially increasing the risk that such borrowers may fail to repay their loans. Changes in FRB policies are beyond our control and can be hard to predict.

Risks related to Regulation, Legislation and Litigation

Federal, state, local and other similar international measures to regulate the financial industry may significantly impact our operations. We operate in a highly regulated environment. Changes in federal, state and local laws and regulations affecting banking, derivatives, capital, liquidity, consumer credit, bankruptcy, privacy, consumer protection or other matters, could materially impact our operations and performance.

Attempts by local, state and federal regulatory agencies to address perceived problems with the mortgage lending and credit card industries could affect us in substantial and unpredictable ways, including limiting the types of products we can offer, how these products may be originated, the fees and charges that may be applied to accounts and how accounts may be collected or security interests enforced. Any one or more of these effects could negatively impact our results. There is also significant focus on loss mitigation and foreclosure activity for real estate loans. We cannot fully anticipate the response by national regulatory agencies, state Attorneys General, or certain legislators, nor can we anticipate whether significant changes to our operations and practices will be required as a result.

The Dodd-Frank Act established the CFPB which has broad authority to regulate providers of credit, payment and other consumer financial products and services. In addition, provisions of the Dodd-Frank Act may narrow the scope of federal preemption of state consumer laws and expand the authority of state Attorneys General to bring actions to enforce federal consumer protection legislation. As a result of the Dodd-Frank Act's potential expansion of the authority of state Attorneys General to bring actions to enforce federal consumer protection legislation, we could potentially be subject to additional state lawsuits and enforcement actions, thereby further increasing our legal and compliance costs.

Under the Dodd-Frank Act, certain of our affiliates and subsidiaries, including HSBC Bank USA, have provisionally registered as swap dealers and are subject to extensive oversight by the CFTC. Regulation of swap dealers by the CFTC imposes numerous corporate governance, business conduct, capital, margin, reporting, clearing, execution and other regulatory requirements on HSBC Bank USA. Additionally, certain of our affiliates and subsidiaries, including HSBC Bank USA, have conditionally registered as security-based swap dealers and became subject to extensive oversight by the SEC, including the imposition of parallel corporate governance, business conduct, reporting and other regulatory requirements for security-based swaps. Imposition of these requirements may adversely affect our derivatives business and make us less competitive or make certain derivative products less profitable to undertake.

The Volcker Rule limits the ability of banking entities such as HUSI to sponsor or invest in certain private equity or hedge funds or engage in certain types of proprietary trading. See "Regulation and Competition - The "Volcker Rule".

Our parent, HSBC North America, is subject to assessment by the FRB as part of the CCAR and DFAST programs, which includes supervisory stress tests conducted by the FRB. See "Regulation and Competition - Capital Planning and Stress Testing."

The total impact of the Dodd-Frank Act and related legislative and regulatory initiatives cannot be fully assessed without taking into consideration how non-U.S. policymakers and regulators may respond through the promulgation of new regulations and revisions to existing regulations and how the cumulative effects of both U.S. and non-U.S. laws and regulations will affect our businesses and operations. Additional legislative or regulatory actions in the United States, the U.K., the European Union ("EU") and in other countries could result in a significant loss of revenue, limit our ability to pursue business opportunities in which we might otherwise consider engaging, affect the value of assets that we hold, require us to increase our prices and therefore reduce demand for our products, impose additional costs on us, or otherwise adversely affect our businesses. Accordingly, any such new or additional legislation or regulations could have an adverse effect on our businesses, results of operations or financial condition. Furthermore, certain large G-SIBs, including HSBC, have in recent years become subject to capital surcharges and other enhanced prudential requirements. In 2021, the Financial Stability Board ("FSB") identified HSBC as one of three G-SIBs subject to a 2 percent surcharge. The FRB's rules implementing the G-SIB surcharge in the United States do not impose additional capital requirements on us because the U.S. G-SIB surcharge only applies to the eight largest U.S. banking organizations.

Our ultimate parent HSBC is subject to the FSB's TLAC requirements for G-SIBs in the U.K. The TLAC standard also permits authorities in host jurisdictions to require "internal" TLAC to be issued by local entities to either parent entities or third parties. The purpose of the TLAC standard is to ensure that G-SIBs have sufficient loss-absorbing and recapitalization capacity available to implement an orderly resolution with continuity of critical functions and minimal impact on financial stability, and to ensure cooperation between home and host authorities during resolution. The FRB's rules implementing the FSB's TLAC standard require the U.S. IHCs of non-U.S. G-SIBs, including HSBC North America, to maintain minimum amounts of TLAC and a related TLAC buffer. To support compliance with the TLAC rules, HSBC North America has issued long-term debt and may be required to issue additional long-term debt in future periods. See "Regulation and Competition - TLAC."

The delivery of our priorities is subject to execution risk. Effective management of transformation projects is required to effectively deliver our strategic priorities, involving delivering both on externally driven programs (regulatory requirements and benchmark rate transition), as well as key business initiatives to deliver revenue growth, product enhancement and operational efficiency outcomes. See "Failure to effectively implement our business strategies may adversely affect our financial performance."

Regulatory requests, legal matters and business initiatives all require a significant amount of time and resources to implement. The magnitude, complexity and, at times, concurrent demands of projects has resulted in heightened execution risk. Organizational change and external factors, including the challenging macroeconomic environment and the extent and pace of regulatory change also contribute to execution risk. These factors could adversely affect the successful delivery of our priorities.

Uncertainty surrounding the potential legal, regulatory and policy changes by the current administration in the U.S. may directly impact financial institutions and the global economy. We continue to assess the potential impact the change in administrations may have on financial and economic markets and on our business. Changes by the current administration in federal policy and regulatory agencies could lead to changes involving the level of oversight and focus on the financial services industry as well as changes to the tax code. The nature, timing and economic and political effects of potential future changes to the current legal and regulatory framework and tax code affecting financial institutions remain highly uncertain. It is unclear what additional laws, regulations and policies may change and whether future changes or uncertainty surrounding future changes will adversely affect our operating environment and therefore our results of operations and financial condition.

Lawsuits and regulatory investigations and proceedings may continue and increase in the current economic and regulatory environment. HSBC USA and its affiliates are routinely named as defendants in, or as parties to, various legal actions, investigations and proceedings relating to our current and/or former operations and are subject to governmental and regulatory examinations, information-gathering requests, investigations and formal and informal proceedings, as described in Note 30, "Litigation and Regulatory Matters" in the accompanying consolidated financial statements, which may result in adverse judgments, settlements, fines, penalties, remediation payments, injunctions and other relief. Legal actions and proceedings, including investigations, may increase in the near future, especially in the event of a resurgent recession.

Financial service providers are at risk of regulatory sanctions or fines related to conduct of business and financial crime. The incidence of regulatory proceedings and other adversarial proceedings against financial service firms is increasing, with a corresponding increase also in civil litigation arising from or relating to issues which are subject to regulatory investigations, sanctions or fines. There may be additional regulatory investigations and reviews conducted by banking and other regulators, including the CFPB, CFTC, SEC, state Attorneys General or state regulatory and law enforcement agencies that, if determined adversely, may result in judgments, settlements, substantial fines, penalties, remediation payments or other results, including additional compliance requirements, which could materially adversely affect our businesses, financial condition or results of

operations, or cause serious reputational harm. In addition, HSBC's extensive global operations increase our compliance and regulatory risks and costs. For example, operations in emerging markets, including facilitating cross-border transactions on behalf of its clients, subjects us to higher compliance risks under U.S. regulations primarily focused on various aspects of global corporate activities, including AML laws and regulations, the Foreign Corrupt Practices Act ("FCPA") and economic sanctions programs administered by the Office of Foreign Assets Control. These risks can be more acute in less developed markets and thus require substantial investment in compliance infrastructure or could result in a reduction in certain of our affiliates' business activities. Criminal prosecutions of financial institutions for, among other alleged conduct, breaches of AML laws and regulations, the FCPA, or economic sanctions programs; antitrust violations; market manipulation; aiding and abetting tax evasion; and providing unlicensed cross-border banking services, have become more commonplace and may increase in frequency due to increased media attention and higher expectations from prosecutors and the public. Any such prosecution or investigation of, or legal proceeding or regulatory action brought against, HSBC or one or more of its subsidiaries could result in substantial fines, penalties and/or forfeitures and could have a material adverse effect on our results, business and prospects, including the potential loss of key licenses, requirement to exit certain businesses and withdrawal of funding from depositors and other stakeholders.

We establish reserves for legal claims when payments associated with the claims are probable and the costs can be reasonably estimated. However, we may incur legal costs for a matter even if we have not established a reserve for it and the cost of resolving a matter may be substantially higher than amounts reserved for it. It is inherently difficult to predict the outcome of our legal, regulatory and other adversarial proceedings, particularly cases in which matters are brought on behalf of various classes of claimants, those which seek unspecified damages or those which involve novel legal claims. The resolution of a pending legal proceeding could materially adversely affect our business, reputation, results of operations and financial condition.

Regulatory requirements in the U.S. and in non-U.S. jurisdictions to facilitate the future orderly resolution of large financial institutions could negatively impact our business structures, activities and practices. The Dodd-Frank Act requires HSBC as a foreign bank holding company and our ultimate parent to regularly prepare and submit a SIFI Plan. See "Regulation and Competition - Regulatory Capital and Liquidity Requirements."

If the FRB and the FDIC both determine that a SIFI Plan is not "credible" (which, although not defined, is generally believed to mean the regulators do not believe the plans are feasible or would otherwise allow resolution of a financial institution's U.S. businesses in a way that protects systemically important functions without severe systemic disruption and without exposing taxpayers to loss), and the deficiencies are not remedied within the required time period, an institution, including HSBC, could be required to restructure or reorganize businesses, legal entities, or operational systems and intra-company transactions in ways that could negatively impact operations, or be subject to restrictions on growth. HSBC could also eventually be subjected to more stringent capital, leverage or liquidity requirements, or be required to divest certain assets or operations.

In 2019, the Bank of England ("BoE") and the Prudential Regulation Authority ("PRA") published final policies on the Resolvability Assessment Framework ("RAF"), which places the onus on firms to demonstrate their own resolvability and is designed to increase transparency and accountability for resolution planning. In order to be considered resolvable, HSBC must meet three outcomes: (i) have adequate resources in resolution; (ii) be able to continue business through resolution and restructuring; and (iii) be able to co-ordinate its resolution and communicate effectively with stakeholders. The RAF requires HSBC to prepare a report on the HSBC Group's assessment of its resolvability, which must be submitted to the PRA on a biennial basis. HSBC submitted its first such report to the PRA in October 2021 and will publish a public summary of the report in June 2022. The BoE will similarly publish a statement concerning the resolvability of HSBC at the same time. Under the RAF, HSBC has assessed resolvability both from a UK-focused and a Group-wide perspective, and has implemented common resolvability capabilities across the Group's significant entities, including material entities in its US group. HSBC continues to engage with the BoE, PRA, FRB, FDIC and its global regulators in other jurisdictions to ensure that it meets current and future recovery and resolution requirements and could face regulatory penalties if these requirements are not met.

U.S. federal banking agencies may increase regulatory capital, TLAC, long-term debt or liquidity requirements which could require HSBC North America or HSBC Bank USA to issue additional qualifying securities or to take other actions, such as liquidate assets. HSBC North America and HSBC Bank USA are required to meet consolidated regulatory capital and liquidity requirements, including new or modified regulations and related regulatory guidance, in accordance with current regulatory timelines.

In the current regulatory environment, capital and liquidity requirements are frequently introduced and amended. Our regulators may increase regulatory minimum or buffer requirements, change how regulatory capital is calculated or increase liquidity requirements. A significant component of regulatory capital ratios is calculating our risk-weighted assets and our leverage exposure which may increase. The Basel Committee has also revised several key methodologies for measuring risk-weighted assets. These revisions include changes to the standardized approach for credit risk and operational risk, constraints on the use of internal models, a capital floor based on the revised standardized approaches, and a final standard on the minimum capital requirements for market risk. The federal banking agencies have indicated they intend to issue a notice of proposed rulemaking

in 2022 to update the U.S. Basel III rule to incorporate the Basel Committee revisions. These and other future regulatory or legislative proposals could significantly impact the regulatory capital standards and requirements applicable to financial institutions such as HSBC North America, as well as our ability to meet these requirements.

Increases in regulatory capital may also be required in response to other U.S. supervisory requirements. Participation by HSBC North America in the FRB's CCAR stress test process also requires that HSBC North America maintain sufficient capital to meet minimum regulatory ratios under multiple forward-looking stress scenarios across a nine-quarter planning horizon. The FRB has also adopted a final rule on the SCB which, among other things, replaced the fixed capital conservation buffer with a dynamic, institution-specific risk-based SCB for CCAR firms such as HSBC North America. See "Regulation and Competition - Capital Planning and Stress Testing." These stress testing requirements will influence our regulatory capital and liquidity planning process, and may impose additional operational and compliance costs on us.

Preparation for the U.S. implementation of the Basel Committee's revisions to Basel III has influenced and is likely to continue to influence our regulatory capital and liquidity planning process, and is expected to impose additional operational and compliance costs on us. We are unable at this time to determine the extent of changes we will need to make to our liquidity or capital position, if any, and what effect, if any, such changes will have on our results of operations or financial condition. New regulatory capital and liquidity requirements may limit or otherwise restrict how we utilize our capital and may require us to increase our capital or liquidity. Any requirement that we increase our regulatory capital, regulatory capital ratios or liquidity could require us to liquidate assets or otherwise change our business and/or investment plans, which may negatively affect our financial results. Changes to and compliance with the regulatory capital and liquidity requirements may impact our operations by requiring us to liquidate assets, increase borrowings, issue additional equity or other securities, cease or alter certain operations, sell company assets, or hold highly liquid assets, which may adversely affect our results of operations.

Failure to meet regulatory requirements and expectations regarding sales practices and incentive compensation programs could negatively impact us and our customers. Our remuneration practices and performance management framework are designed to prevent and deter conflicts of interest and inappropriate sales incentives. Additionally, our other sales controls, including our framework for handling customer and employee complaints regarding sales practices, are designed to ensure customers receive products that they have authorized and meet their needs. Failure to execute our sales controls could result in the sale of, or upgrade to, products and services that fail to meet the needs of, or are unsuitable for, customers and clients, and can lead to financial harm to our customers, regulatory sanctions, financial loss and reputational damage.

We are subject to tax-related risks. We are subject to the various tax laws of the U.S. and its states and municipalities in which we operate. These tax laws are inherently complex and we must make judgments and interpretations about the application of these laws to the HSBC North America entities, operations and businesses. Our interpretations and application of the tax laws could differ from that of the relevant governmental taxing authority, which could result in the potential for the payment of additional taxes, penalties or interest, which could be material. Additionally, the amounts ultimately paid may differ materially from the amounts provided depending on the ultimate resolution of the matter.

Risks related to our Business, Operations, Governance and Internal Control Systems

Our reputation may have a direct impact on our financial results and ongoing operations. Our ability to attract and retain customers and employees, and conduct business transactions with our counterparties could be adversely affected to the extent our reputation, or the reputation of affiliates operating under the HSBC brand, is damaged. Reputational risk relates to stakeholders' perceptions, whether fact-based or otherwise. Stakeholders' expectations change constantly and so reputational risk is dynamic and varies between geographical regions, groups and individuals. Any material lapse in standards of integrity, compliance, customer service or operating efficiency may represent a potential reputational risk.

Our failure to address, or to appear to fail to address, various issues that could give rise to reputational risk could cause harm to us and our business prospects. Reputational issues include, but are not limited to:

- negative news about us, HSBC, our affiliates or the financial services industry generally;
- ethical issues, including potential conflicts of interest and the acceptance or receipt of gifts and entertainment, as well as potential violations under the FCPA;
- compliance with legal and regulatory requirements;
- alleged deceptive or unfair lending or pricing practices;
- compliance with AML and economic sanctions programs;
- fraud and misappropriation of assets;
- privacy and data security intrusions related to our customers or employees;
- cybersecurity issues and cyber incidents, whether actual, threatened, or perceived;
- recordkeeping;

- sales and trading practices;
- customer service;
- actions of a vendor or other third party, including a subcontractor, with whom we do business;
- the proper identification of the legal, credit, liquidity, operational and market risks inherent in our businesses;
- alleged irregularities in servicing, foreclosure, consumer collections, mortgage lending practices and loan modifications;
- a downgrade of or negative watch warning on any of our credit ratings; and
- general company performance.

The proliferation of social media websites as well as the personal use of social media by our employees and others, including personal blogs and social network profiles, facilitates communication with large audiences in short time frames. These social media websites also may increase the risk that negative, inappropriate or unauthorized information may be posted or released publicly that could harm our reputation or have other negative consequences, including as a result of our employees interacting with our customers in an unauthorized manner in various social media outlets.

The failure to address, or the perception that we have failed to address any of these issues appropriately could make our customers unwilling to do business with us or give rise to increased regulatory action, which could have a material adverse effect on our business, prospects, financial condition and results of operations.

Our risk management measures may not be successful. Risks have the potential to affect the results of our operations or financial condition. The management of risk is an integral part of all our activities and is fundamental to the delivery of our strategic priorities. While we are subject to a number of legal and regulatory actions and investigations, our risk management framework has been designed to provide robust controls and ongoing monitoring of our principal risks. To manage risk, we employ a risk management framework at all levels and across all risk types. The framework fosters the continuous monitoring of the risk environment and an integrated evaluation of risks and their interactions. It also strives to ensure that we have a robust and consistent approach to risk management across all of our activities. While our risk management framework employs a broad and diversified set of risk monitoring and risk mitigation techniques, such techniques and the judgments that accompany their application cannot anticipate every unfavorable event or the specifics and timing of every outcome. Failure to manage risks appropriately could have a material adverse effect on our business, prospects, financial condition and results of operations.

Our risk management measures may face particularly significant challenges in the following three broad areas:

(a) Macroeconomic and geopolitical risks: Unfavorable economic and market conditions may adversely affect our results.

(b) Risks related to our businesses, business operations, governance, and internal systems: The delivery of our strategic priorities is subject to execution risk and we may not achieve all the expected benefits of our strategic initiatives. Our operations are subject to the threat of fraudulent activity and disruption from the external environment. We are highly dependent on our information technology systems. We could incur losses or be required to hold additional capital as a result of model limitations or failure. Issues with the quality of data or effectiveness of our data aggregation and validation procedures could result in ineffective risk management practices or inaccurate risk reporting.

(c) Regulatory and legal risks to our businesses: We are subject to a number of legal and regulatory actions and investigations, the outcomes of which are inherently difficult to predict. Unfavorable outcomes could have a material adverse effect on our operating results and brand. Unfavorable legislative or regulatory developments, or changes in the policy of regulators or governments, could also have a material adverse effect on our operations, financial condition and prospects.

Failure to effectively implement our business strategies may adversely affect our financial performance. Our business strategy is described under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations - Executive Overview - 2021 Events." Implementation of our business strategy will require significant time and require us to incur significant expense. See Note 3, "Strategic Initiatives," in the accompanying consolidated financial statements for further detail. The actual costs and time required may exceed our estimates. Additionally, implementation of our business strategy will affect our employees, customers and other stakeholders, and could adversely impact our relationships with stakeholders and our reputation.

Our strategies for business growth include focusing our sales efforts on international connectivity strategies with high quality international corporate clients and globally-connected affluent and high net worth wealth and personal clients, as well as augmenting our returns through increased cross-selling and cost optimization. We may fail to attract international clients or cross-sell our services to them. Competition within the industry can limit our ability to sell more products to our customers or influence us to sell our products at lower prices, reducing our net interest income and revenue from our fee-based products. Our cross-sell strategy is also dependent on earning more business from our customers, and increasing our cross-sell ratio or the average number of products sold to existing customers, which may become more challenging. Our international corporate

strategies are dependent on a stable geopolitical environment. Increased tensions or instability between trading nations and the adoption of protectionist trade policies could adversely affect our ability to obtain new business from existing clients.

Substantial work is required to execute on our growth strategies. Alongside the strategic actions, we continue to implement a number of externally driven regulatory remediation programs. The magnitude and complexity of the projects required to meet these demands has resulted in heightened execution risk. Additionally, we may be unable to fully realize the cost optimization efforts and the other anticipated benefits from those efforts and we may not be able to realize them in the currently anticipated timeframes.

The cumulative impact of the collective change initiatives underway is significant and has direct implications on resourcing and our people. Failure to successfully implement our business strategies may have a material adverse effect on our businesses, prospects, financial condition and results of operations.

Our inability to meet funding requirements due to deposit attrition or access to the capital markets. HSBC USA is a holding company without operations of its own and therefore relies on dividends and other distributions for a portion of its funding and liquidity. Federal and state laws limit the amount of dividends and distributions that our subsidiaries may pay. Our primary source of funding is deposits, augmented by issuance of commercial paper and term debt. Adequate liquidity is critical to our ability to operate our businesses.

We also access wholesale markets in order to provide funding for entities that do not accept deposits, to align asset and liability maturities and currencies and to maintain a market presence. We issued a total of \$7,711 million of long-term debt at various points in 2021. An inability to obtain financing in the unsecured long-term or short-term debt capital markets because of market factors or factors in our businesses could have a substantial adverse effect on our liquidity. Unfavorable macroeconomic developments, market disruptions or regulatory developments may increase our funding costs or challenge our ability to raise funds to support our businesses, materially adversely affecting our businesses, prospects, financial condition and/or results of operations.

Future conditions that could negatively affect our liquidity include:

- an inability to maintain stable deposit balances because customers may invest in other financial instruments as an alternative;
- diminished access to capital markets because of market factors or factors in our businesses;
- an increased interest rate environment for our commercial paper, deposits or term debt;
- unforeseen cash or capital requirements;
- an inability to sell assets; and
- an inability to obtain expected funding from HSBC Group subsidiaries and through deposits.

These conditions could be caused by a number of factors, including internal and external factors, such as, among others:

- financial and credit market disruption;
- volatility or lack of market or customer confidence in financial markets;
- lack of market or customer confidence in HSBC or negative news about HSBC or the financial services industry generally; and
- other conditions and factors over which we have little or no control including economic conditions in the United States and abroad and concerns over potential government defaults and related policy initiatives.

Our approach is to meet our capital needs locally through activities which reduce risk. To the extent, however, that local alternatives are insufficient, as a wholly-owned subsidiary of HSBC, we would seek their support. HSBC has provided us with capital support in the past. Notwithstanding, if we are unable to maintain stable deposit balances and/or raise funds in the capital markets, our liquidity position could be adversely affected and we might be unable to meet deposit withdrawals on demand or at their contractual maturity, to repay borrowings as they mature, or to fund new loans, investments and businesses. We may need to liquidate unencumbered assets to meet our liabilities. In a time of reduced liquidity, we may be unable to sell some of our assets, or we may need to sell assets at depressed prices, which in either case could materially adversely affect our businesses, prospects, results of operations and/or financial condition.

We face significant and increasing competition in the rapidly evolving financial services industry. We compete with other financial institutions in a highly competitive industry that continues to undergo significant change as a result of financial regulatory reform and increased public scrutiny stemming from the financial crisis and the challenging economic conditions that followed. We target globally-connected clients who need sophisticated global solutions and we generally compete on the basis of the quality of our customer service, the wide variety of products and services that we can offer our customers and the ability of those products and services to satisfy our customers' needs, the extensive distribution channels available for our customers, our innovation, and our reputation. Continued or increased competition in any one or all of these areas may

negatively affect our market share and results of operations and/or cause us to increase our capital investment in our businesses in order to remain competitive. Additionally, our products and services may not be accepted by our targeted clients.

Given the current economic, regulatory, and political environment for large financial institutions such as us, and possible public backlash to bank fees and the emergence of new products and fintech companies, there is increased competitive pressure to provide products and services at current or lower prices. Consequently, our ability to reposition or reprice our products and services from time to time may be limited and could be influenced significantly by the actions of our competitors who may or may not charge similar fees for their products and services. Any changes in the types of products and services that we offer our customers and/or the pricing for those products and services could result in a loss of customers and market share and could materially adversely affect our results of operations. Further, new entrants to the market or new technologies could require us to spend more to modify or adapt our products to attract and retain customers. Continued technological advances and the growth of e-commerce have made it possible for non-depository institutions to offer products and services that traditionally were banking products, and for financial institutions as well as other companies to provide electronic and Internet-based financial solutions, including electronic payment solutions. We may not respond effectively to these competitive threats from existing and new competitors and may be forced to increase our investment in our businesses to modify or adapt our existing products and services or develop new products and services to respond to our customers' needs. Any of these factors may have a material adverse effect on our businesses, prospects, financial condition and results of operations.

Adverse changes in our credit ratings could have a material adverse effect on our borrowing costs and liquidity. Our credit ratings are an important part of maintaining our liquidity. We depend on access to the securities market for a portion of our funding. Our credit ratings are subject to ongoing review by the rating agencies, which consider a number of factors including their assessment of our relative financial strength and results of operations, including our strategy and our management's capability, as well as factors affecting the financial services industry generally, including legal and regulatory frameworks affecting our business activities and the rights of our creditors. There can be no assurance that downgrades will not occur. Any downgrade in our credit ratings could potentially increase our borrowing costs, impact our ability to issue commercial paper and, depending on the severity of the downgrade, substantially limit our access to capital markets, require us to make cash payments or post collateral and permit termination by counterparties of certain significant contracts, including as a result of credit-related contingent features in certain of our derivative contracts, which could negatively affect our liquidity. During the second quarter of 2021, Moody's downgraded both the long-term deposit rating and the adjusted baseline credit assessment of HSBC Bank USA by one notch to Aa3 and to a3, respectively. During the third quarter of 2021, Moody's upgraded the following ratings by one notch: senior debt, provisional subordinated and preferred stock of HSBC USA to A1, A2 and A3 respectively, and subordinated debt of HSBC Bank USA to Aa3. While these rating actions by Moody's did not have a material impact on our borrowing costs or liquidity, any future actions could have such an impact.

Rating agencies continue to evaluate economic and geopolitical trends, regulatory developments, future profitability, risk management practices and litigation matters, all of which may lead to adverse ratings actions. Although we closely monitor and strive to manage factors influencing our credit ratings, there is no assurance that our credit ratings will not change in the future. At December 31, 2021, none of the ratings on the debt of HSBC USA or HSBC Bank USA from any of the rating agencies were under review for potential downgrade.

We may not manage risks associated with the replacement of benchmark rates effectively. The replacement of benchmarks, including the London Interbank Offered Rate ("LIBOR") with alternative benchmark rates, and our development of products linked to alternate benchmark rates introduces a number of risks for us, our clients, and the financial services industry more widely. This includes, but is not limited to:

- Legal and execution risks, relating to documentation changes for new products (including appropriately detailing the risks and complexity of new interest rate conventions) and the transition of legacy contracts to alternate benchmark rates, which transition will, in turn, depend, to a certain extent, on the availability of alternate benchmark rate products and on the participation of customers and third party market participants in the transition process, legal proceedings, investigations or other actions regarding the interpretation and enforceability of provisions in LIBOR-based contracts, including, if necessary, fallback provisions or legislative solutions, and regulatory investigations or reviews in respect of our preparation and readiness for the replacement of LIBOR with alternative reference rates;
- Financial risks, arising from any changes in the valuation of financial instruments linked to benchmark rates and the implementation of the International Swaps and Derivatives Association's ("ISDA") protocol for the transition of derivatives contracts, or from differences in U.S. dollar ("USD") LIBOR and Secured Overnight Financing Rate ("SOFR") interest rate levels creating basis risk in the trading book and banking book due to asymmetric adoption across the assets, liabilities and products that we need to actively manage through appropriate financial hedging;
- Pricing risks, as changes to benchmark indices could impact pricing mechanisms on some instruments;
- Operational risks, due to the need for us, our customers and the market to adapt IT systems, trade reporting infrastructure, operational processes and controls to accommodate one or more alternative benchmark rates; and

- Conduct risks, through potential material, adverse impact on customers or financial markets, if our customers are not ready and able to adapt their own processes and systems to accommodate the alternative benchmark rate products.

While cessation timelines have been agreed by the industry and regulatory authorities, we continue to assess how the discontinuation of existing benchmark rates could materially affect our business, financial condition, results of operations, prospects and customers.

Concentrations of credit and market risk could increase the potential for significant losses. We have exposure to increased levels of risk when customers are engaged in similar business activities or activities in the same geographic region, or when they have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic conditions. While we regularly monitor various segments of our portfolio exposures to assess potential concentration risks, our efforts to diversify or hedge our credit portfolio against concentration risks may not be successful. Disruptions in the liquidity or transparency of any of the industries, products, financial markets or economies we operate in may result in our inability to sell, syndicate or realize the value of our positions, thereby leading to increased concentrations.

Third parties may use us as a conduit for illegal activities without our knowledge, which could have a material adverse effect on us. A major focus of U.S. government policy relating to financial institutions in recent years has been combating financial crime activity, including money laundering, bribery and corruption and violations of economic sanctions. We are required to comply with applicable AML, anti-bribery/corruption and sanctions laws and regulations, and we have various policies and procedures, including 'Know Your Customer' procedures and other internal controls, that are reasonably designed to achieve such compliance. These policies and procedures are aimed at preventing the use of our products and services for the purpose of committing or concealing financial crime. In relevant situations, and where permitted by regulation, we may rely upon certain counterparties, including our affiliates, to maintain and properly apply their own appropriate policies and procedures relating to financial crime compliance (including AML, anti-bribery/corruption and economic sanctions).

A program consisting of policies and procedures that are reasonably designed to achieve compliance with financial crime laws may not always prevent third parties from using us (and our relevant counterparties) as a conduit for money laundering, including illegal cash operations without our knowledge (and that of our relevant counterparties), or committing acts of bribery or violations of economic sanctions through us. Becoming a party to violations of financial crime laws or regulations, or accusations of being associated with such activity, could damage our reputation and/or lead to fines, penalties and/or other legal enforcement. Any one of these outcomes could have a material adverse effect on our business, prospects, financial condition and results of operations.

Operational risks are inherent in our businesses and may adversely impact our businesses and reputation. We are exposed to many types of operational risks that are inherent in banking operations, including fraudulent and other criminal activities (both internal and external), breakdowns in processes or procedures and systems failure or non-availability. See "A failure in our infrastructure, or those of our third party vendors and other service providers, that results in a loss of information, delays our ability to access information or impacts our ability to provide services to our clients may materially adversely affect our business, financial condition and results of operations." For example, fraudsters may target any of our products, services and delivery channels including lending, internet banking, payments, bank accounts and cards. These risks apply equally when we rely on outside suppliers, outsourcing vendors and our affiliates to provide services to us and our customers. These operational risks may result in financial loss to us, an adverse customer experience, reputational damage and potential regulatory action depending on the circumstances of the event, which could have a material adverse effect on our businesses, prospects, financial condition and results of operation. Further, there is a risk that our operating system controls as well as business continuity and data security systems could prove to be inadequate. Any such failure could affect our operations and could have a material adverse effect on our results of operations by requiring us to expend significant resources to correct the defect, as well as exposing us to litigation or losses not covered by insurance.

Our operations are subject to disruption from the external environment. We may be subject to disruptions of our operating systems infrastructure arising from events that are wholly or partially beyond our control, which may include:

- computer viruses, electrical, telecommunications, or other essential utility outages;
- natural disasters, such as hurricanes or other severe weather conditions and earthquakes;
- events arising from local, regional or international politics, including terrorist acts or acts of war; or
- absence of operating systems personnel due to global pandemics or otherwise, which could have a significant effect on our business operations as well as on HSBC affiliates world-wide.

Such disruptions may give rise to losses in service or disruption to customers, an inability to collect our receivables in affected areas, physical damage or loss of life and other loss or liability to us, which could have a material adverse effect on our businesses, prospects, financial condition and results of operations.

Environmental, Social and Governance ("ESG") risks such as climate change and human rights violations may have a material adverse impact on our businesses, results of operations and financial condition. ESG related matters such as climate change and human rights violations, among others, presents both immediate and long-term risks to us, with the risks expected to increase over time. Climate risks can arise from physical risks, such as acute weather events and chronic shifts in the climate, or transition risks, such as the process of transitioning to a low-carbon economy.

Physical risks could damage or destroy our or our customers properties and other assets and disrupt our or their operations. For example, climate change may lead to more extreme weather events occurring more often which may result in physical damage and additional volatility within our trading and other businesses, as well as potential counterparty exposures and other financial risks. Transition risks may result in changes in regulations or market preferences, which in turn could have negative impacts on asset values, results of operations or the reputation of HUSI and its customers. For example, our corporate credit portfolios include carbon-intensive industries like oil and gas and power that are exposed to climate risks, such as those risks related to the transition to a low-carbon economy, as well as low-carbon industries that may be subject to risks associated with new technologies.

U.S. and non-U.S. banking regulators and others are increasingly viewing financial institutions as important in helping to address the risks related to climate change both directly and with respect to their customers. Ongoing legislative or regulatory uncertainties and changes regarding climate risk management and practices may result in higher regulatory, compliance, credit and reputational risks and costs. For example, on December 16, 2021, the OCC requested feedback on draft principles designed to support the identification and management of climate-related financial risks at institutions with more than \$100 billion in total consolidated assets. The OCC will use this feedback to inform any future guidance with respect to climate-related financial risk.

The HSBC Group, including HSBC USA, is committed to observe voluntary United Nations and The Organization for Economic Co-operation and Development guidelines to address human rights challenges for the financial sector. Given the global nature of our business and evolving geopolitical tensions worldwide, we may be subject to future sanctions, import/export restrictions, and increased cost of compliance.

If any ESG related risks materialize, it could have a material adverse impact on our businesses, results of operations and financial condition.

A failure in our infrastructure, or those of our third party vendors and other service providers, that results in a loss of information, delays our ability to access information or impacts our ability to provide services to our clients may materially adversely affect our business, financial condition and results of operations. Our businesses are highly dependent on our ability to process large volumes of data that require global capabilities and scale from our technology platforms. If our technology, communications or internal controls fail, or those of industry utilities or our service providers fail, we could experience production and system outages or failures or other significant operational delays. Any such outage, failure or delay could adversely affect our ability to effect transactions or service our clients, which could expose us to liability for damages, result in the loss of business, damage our reputation, subject us to regulatory scrutiny or sanctions or expose us to litigation, any of which could have a material adverse effect on our business, financial condition and results of operations. Security or technology disruptions, failures or delays that impact our communications or information systems could also adversely affect our ability to manage our exposure to risk or expand our business.

Upgrading our computer systems, software and networks may also subject us to disruptions, failures or delays due to the complexity and interconnectedness of our systems, software and networks. The failure to upgrade or maintain these computer systems, software and networks could result in greater susceptibility to attacks, unauthorized access and misuse, and could also prevent us from achieving our business continuity and resiliency objectives. There can be no assurance that any such disruptions, failures or delays will not occur or, if they do occur, that they will be adequately addressed.

Third parties with which we do business or that facilitate our business activities could also be sources of technology risk to us, including from breakdowns, failures or delays of their own systems or capacity constraints or other services that impair our ability to process transactions and communicate with customers and counterparties. In addition, we are exposed to the risk that a technology disruption or other information security event at a vendor used by our third-party service providers could impede their ability to provide products or services to us. We may not be able to effectively monitor or mitigate operational risks relating to the use of vendors by third-party service providers.

As a result of financial entities, central agents, clearing agents and houses, exchanges and technology systems across the globe becoming more interdependent and complex, a technology failure that significantly degrades, deletes or compromises the systems or data of one or more financial entities or suppliers could have a material impact on counterparties or other market participants, including us and could disrupt the functioning of the overall financial system.

We are subject to a variety of cybersecurity risks that, if realized, could disrupt our businesses, result in the disclosure or misuse of confidential or proprietary information, and may adversely impact our businesses and reputation. Data quality and integrity are critical for decision making, enterprise risk management and operational processes, as well as for complying with applicable regulation. Our businesses are dependent on our ability to process a large number of complex transactions, most of which involve networked computing devices. If any of our financial, accounting, data processing or other recordkeeping systems and management controls fail, or are subject to cyberattack that could compromise integrity, availability or confidentiality of our systems or data, we could be materially adversely affected.

Cyber vulnerabilities continue to be leveraged by criminals to perpetrate crimes at an increasing rate, and pose a significant threat to economic, social and geopolitical stability. HSBC Group and third party vendors we rely on face sophisticated cyber threats from state-sponsored attackers, hackers for hire, organized syndicates, and other threat actors seeking our critical corporate and customer information.

In recent years, distributed denial of service attacks, spearphishing campaigns, advanced malware, ransomware attacks, social engineering and insider threats with the intent to obtain personal customer financial information or proprietary corporate information, disrupt availability of services and to commit fraud have grown in volume and level of sophistication. Such acts can affect our business by:

- compromising the confidentiality or integrity of our customers' data, potentially impacting our customers' ability to repay loan balances and negatively impacting their credit ratings;
- compromising the security of and confidence in our payment channels;
- putting our customers at risk for identity theft, account takeover and credit abuse;
- causing us to incur remediation and other costs related to liability to customer or third parties for losses, repairs to remedy systems flaws, or incentives to customers and business partners to maintain and rebuild business relationships after the attack;
- increasing our costs to respond to such threats and to enhance our processes and systems to ensure security of data;
- damaging our reputation as a result of public disclosure of a breach of our systems or a loss of data event;
- resulting in unauthorized disclosure or alteration of our corporate confidential information and confidential information of employees, customers and counterparties;
- disrupting our customers' or third parties' business operations; and
- resulting in violations of applicable privacy laws and other laws or regulatory fines, penalties or intervention.

Internet crime or cyberattacks affecting HSBC Group or vendors on which we rely may result in financial loss and loss of customer data or other sensitive information which could undermine our reputation and our ability to attract and keep customers. We face various cyber risks in line with other multinational financial organizations. We and other multinational financial organizations have been, and will continue to be subject to an increasing risk of cyber incidents from these activities due to the proliferation of new technologies and the increasing use of the Internet and customers' use of personal smartphones, PCs, tablets and other mobile devices to access products and services to conduct financial transactions and the increased sophistication and activities of organized crime for seeking financial gain, hacktivists (geopolitical designated groups), cyber terrorists (attacks against critical infrastructure) and state sponsored advanced persistent threats for corporate espionage. Our risk and exposure to these matters remains heightened because of, among other things, HSBC Group's prominent size and scale, geographical span and role in the financial services industry, and our offering of Internet banking and mobile banking platforms. In addition, the consolidation of clearing agents, exchanges and clearing houses and increased interconnectivity of financial institutions with such central agents, exchanges and clearing houses increases the exposure of cyberattacks on critical parties that may affect us. Evaluating and monitoring the cyber threat landscape in comparison to our existing capabilities, and adjusting our programs in order to respond to these threats, may require additional capital expenses for human resources and technology.

Our businesses are increasingly subject to laws and regulations relating to surveillance, encryption and data on-shoring in the jurisdictions in which we operate. Compliance with these laws and regulations may require us to change our policies, procedures and technology for information security (including cybersecurity) from time to time.

We may suffer losses due to employee negligence, fraud or misconduct. Non-compliance with policies, employee misconduct, negligence and fraud could result in regulatory sanctions and serious reputational or financial harm. We are dependent on our employees and could be materially adversely affected if an employee or employees, acting alone or in concert with third parties, causes a significant operational break-down or failure, either as a result of human error or purposefully. A number of multinational financial institutions have suffered material losses due to the actions of 'rogue traders' or other employees. It is not always possible to deter employee misconduct and the precautions we take to prevent and detect this activity may not always be effective. Misconduct risks could be increased if prevent and detect measures are less effective

because of remote and home working. Employee misconduct could have a material adverse effect on our business, prospects, financial condition and results of operations.

We may suffer losses due to negligence, fraud or misconduct by third parties. We depend on third party suppliers, outsourcing vendors and our affiliates for a variety of services. Third parties with which we do business with could be sources of operational risk to us, including risks relating to break-downs or failures of such parties' own systems or employees. The OCC and FRB require financial institutions to maintain third party and service provider risk management programs, which include due diligence requirements for third parties and service providers as well as for our affiliates who may perform services for us. On July 13, 2021, the federal banking agencies issued proposed guidance on managing risks associated with third-party relationships. The proposed guidance sets forth considerations and a framework with respect to the management of risks arising from third-party relationships, and if adopted, would replace the federal banking agencies' existing guidance on the topic. Under existing FRB guidance "service providers" is broadly defined to include all entities that have entered into a contractual relationship with a financial institution to provide business functions or activities. If our third party risk and service provider management and due diligence program is not sufficiently robust, this could lead to regulatory intervention. Any of these occurrences could diminish our ability to operate one or more of our businesses, and may result in potential liability to clients, reputational damage or regulatory intervention, all of which could materially adversely affect us.

Failure to successfully change our operational practices may have a material impact on our businesses. Changes to operational practices from time to time could materially impact our performance and results. Such changes may include:

- our determining to sell residential mortgage loans and other loans;
- changes to our customer account management and risk management/collection policies and practices;
- our investment choices in technology, business infrastructure and specialized personnel, including consolidating middle and back office activities to a single wholesale and a single retail offering platform;
- changes to our AML and sanctions policies and the related operations practices;
- our outsourcing of various operations, including outsourcing elements of our fixed-income business to affiliates based in Europe; or
- the decision to insource certain products, services or operations.

Further, in order to react quickly to or meet newly-implemented regulatory requirements, and to effectively implement our strategy, we may need to change or enhance systems within very tight time frames, which would increase operational risk. See "Failure to effectively implement our business strategies may adversely affect our financial performance" and "The delivery of our priorities is subject to execution risk." Failure to implement appropriate changes to our operational practices successfully and efficiently may diminish our ability to operate one or more of our businesses and could result in reputational damage and regulatory intervention, all of which could materially adversely affect us.

Our data management and policies and processes may not be sufficiently robust. Key business processes across the HSBC Group rely on large volumes of data sourced from a complex data environment. Data governance relies on a clear understanding of our environment to appropriately manage. If data governance, including data integrity, data quality and data architecture policies and procedures are not sufficiently robust, either via manual or automated controls, supplemental and ad hoc adjustments and reconciliations may be required to reduce the risk of error in reporting to senior management or regulators. Inadequate policies and processes may also affect our ability to use data to service customers more effectively and/or improve our product offering. This could have a material adverse effect on our business, prospects and results of operations.

Moreover, financial institutions that fail to comply with regulatory reporting requirements or with principles for effective risk data aggregation and risk reporting as set out by the Basel Committee may face supervisory measures. Any of these failures could have a material adverse effect on our business, prospects, financial condition and results of operations.

We have significant exposure to counterparty risk and the financial condition of our clients and counterparties could adversely affect us. We are exposed to counterparties that are involved in virtually all major industries, and we routinely execute transactions with counterparties in financial services, including brokers and dealers, central clearing counterparties, commercial banks, investment banks, mutual and hedge funds, and other institutional clients. Many of these transactions expose us to credit risk in the event of default by our counterparty or client. Significant deterioration in the credit quality of a counterparty may lead to concerns about the credit quality of others in the same industry, exacerbating our credit risk exposure, and increasing losses (including mark-to-market losses) in our market-making and clearing businesses. Our ability to engage in routine transactions to fund our operations and manage our risks could be materially adversely affected by the actions and commercial soundness of other financial services institutions. Financial institutions are necessarily interdependent because of trading, clearing, counterparty or other relationships. As a consequence, a default by, or decline in market confidence in, individual institutions, or anxiety about the financial services industry generally, can lead to further individual and/or systemic difficulties, defaults and losses.

Mandatory central clearing of over the counter derivatives, including under the Dodd-Frank Act, brings with it risk. As a clearing member, we have financial exposure for losses incurred at a Central Counterparty ("CCP") by the default of other clearing members. Hence increased moves toward central clearing brings with it a further element of interconnectedness between clearing members and clients that we believe may increase rather than reduce our exposure to systemic risk. At the same time, our ability to manage such risk ourselves will be reduced because risk controls are largely managed by the CCPs themselves and it is unclear at present how, at a time of stress, regulators and resolution authorities would intervene.

In situations in which we strive to mitigate counterparty risk by taking collateral, our credit risk may remain high if the collateral we hold cannot be realized or must be liquidated at prices insufficient to recover the full amount of our exposure to the respective counterparty. There is a risk that collateral cannot be realized, including situations where this arises by change of law that may influence our ability to foreclose on collateral or otherwise enforce contractual rights. Significant or prolonged periods of market stress or illiquidity could further decrease our ability to realize the fair value of collateral held by us or make it more likely that we would liquidate collateral at prices insufficient to recover the full amount of our exposure to the respective counterparty or client. Further, disputes with counterparties as to the valuation of collateral significantly increase in times of market stress and illiquidity.

When such a counterparty or client becomes bankrupt or insolvent, we may become involved in significant disputes or litigation with the counterparty's or client's bankruptcy estate and other creditors, or involved in regulatory investigations, each of which could increase our operational and litigation costs.

We also have credit exposure arising from risk defeasance products such as credit default swaps ("CDSs"), and other credit derivatives, each of which is carried at fair value. The risk of default by counterparties to CDSs and other credit derivatives used as mitigants affects the fair value of these instruments depending on the valuation and the perceived credit risk of the underlying instrument against which protection has been purchased. Any such adjustments or fair value changes may have a material adverse effect on our financial condition and results of operations.

Failure to appropriately address potential conflicts of interest can result in reputational harm, as well as litigation and enforcement actions. Our ability to appropriately address potential conflicts of interest has become increasingly complex as our business activities encompass more transactions with and among our diversified client and customer base. We can become subject to litigation and enforcement actions, and our reputation can be damaged, by the failure or perceived failure to adequately address or appropriately disclose conflicts of interest, treat clients and customers with the appropriate standard of care, and provide fiduciary products or services in accordance with the applicable legal and regulatory standards.

A failure or perceived failure to appropriately address conflicts of interest or fiduciary obligations could result in customer dissatisfaction, litigation and regulatory fines, penalties or other sanctions, and heightened regulatory scrutiny and enforcement actions, all of which could adversely affect our businesses and reputation.

New customer privacy initiatives may impose additional operational burdens on us, may limit our ability to pursue desirable business initiatives and increase the risks associated with any future use of customer data. Recent legislative and regulatory efforts to protect the privacy of consumer data limit how companies can use customer data and impose obligations on companies in their management of such data. As a financial services company, we necessarily gather, maintain and use a significant amount of customer data. Other jurisdictions may adopt similar requirements that impose different and potentially inconsistent compliance burdens. These initiatives, particularly to the extent multiple jurisdictions adopt inconsistent requirements, could increase compliance complexity and related costs, result in significant financial penalties for compliance failures, and limit our ability to develop new products or respond to technological changes. They also could heighten the reputational impact of perceived misuses of customer data, by us, our vendors, or others who gain unauthorized access to our customer data.

We could incur losses or be required to hold additional capital as a result of model limitations or failure. We use models for a range of purposes in managing our businesses, including regulatory capital calculations, stress testing, credit approvals, financial crime and fraud risk management and financial reporting. We could face adverse consequences as a result of decisions, which may lead to actions by management, based on models that are poorly developed, implemented or used, or as a result of the modeled outcome being misunderstood or the use of such information for purposes for which it was not designed. We hold capital for known risks and limitations of our models as appropriate. If additional weakness in a model is discovered or if a model is shown to have failed, we may be required to hold more capital. Risks from use of models could have a material adverse effect on our businesses, financial condition and/or results of operations, minimum capital requirements and reputation.

Regulatory scrutiny and supervisory concerns over the use by banks of models is considerable, particularly the internal models and assumptions used by banks in the application of the stress testing exercise and in the calculation of regulatory capital.

Key employees may be difficult to attract or retain. HUSI's continued performance, competitive position, and effectiveness to execute its overall strategy depends on its ability to attract new employees and to retain an engaged workforce. U.S. personnel continue to cope with discomfort due to sociopolitical and COVID-19 pandemic risks. The U.S. transformation and restructuring efforts aimed to create a more focused, simpler, and more profitable organization has presented further uncertainty

for some colleagues regarding their future. Providing support to our employees in the current environment is a significant priority and is critical to managing our workforce and achieving our strategic objectives. Through the US Wellbeing agenda, we have provided a number of tools and webinars to employees with the specific purpose to support the mental and physical health of our colleagues.

The regulatory environment and competitive market in which HUSI operates can make it difficult to hire or retain highly qualified employees. Additionally, the US market has experienced a significant number of workers voluntarily resigning from their jobs. HUSI often competes in the market for talent with industries that are not subject to regulatory restrictions on incentive compensation structure. Market positioning in terms of fixed pay and total compensation is an important factor in attracting and retaining people. The accelerated pace of change in employment in our industry and any disruptions to our workplace and workforce require a focused effort on future skill development. To enable growth, there is a need to facilitate talent mobility, broaden career growth, allow for formal development, and establish a high impact learning culture.

Risks relating to our Financial Statements

Management projections, estimates and judgments based on historical performance may not be indicative of our future performance. Our management is required to use certain estimates in preparing our financial statements, including accounting estimates to determine credit loss reserves, deferred tax assets and the fair market value of certain assets and liabilities, including goodwill, among other items. In particular, credit loss reserve estimates and certain asset and liability valuations such as goodwill are subject to management's judgment and actual results are influenced by factors outside our control. To the extent historical averages are not predictive of future losses and management is unable to accurately evaluate the portfolio risk factors not fully reflected in its current loss estimate, unexpected additional losses could result. Similarly, to the extent assumptions employed in measuring fair value of assets and liabilities are not supported by market prices or other observable parameters do not sufficiently capture their inherent risk, including management estimates of future cash flows used to determine the fair value of goodwill, unexpected additional losses could result.

We are required to establish a valuation allowance for deferred tax assets and record a charge to earnings if we determine, based on available evidence at the time the determination is made, that it is more likely than not that some portion or all of our deferred tax assets will not be realized. In evaluating the need for a valuation allowance, we estimate future taxable income based on management approved business plans, future capital requirements and ongoing tax planning strategies. This evaluation process involves significant management judgment about assumptions that are subject to change from period to period. The recognition of deferred tax assets requires management to make significant judgments about future earnings, the periods in which items will impact taxable income, future corporate tax rates and the application of inherently complex tax laws. The use of different estimates can result in changes in the amounts of deferred tax items recognized, which can result in equity and earnings volatility because such changes are reported in current period earnings. See Note 18, "Income Taxes," in the accompanying consolidated financial statements for additional discussion of our deferred tax assets.

Our financial statements depend on our internal controls over financial reporting. The Sarbanes-Oxley Act of 2002 requires our management to evaluate our disclosure controls and procedures and internal control over financial reporting. We are required to disclose, in our annual report on Form 10-K, the existence of any "material weaknesses" in our internal control over financial reporting. In a company as large and complex as ours, lapses or deficiencies, including significant deficiencies, in internal control over financial reporting may occur from time to time and we cannot assure you that we will not find one or more material weaknesses as of the end of any given year.

Changes in accounting standards are beyond our control and may have a material impact on how we report our financial results and condition. Our accounting policies and methods are fundamental to how we record and report our financial condition and results of operations. From time to time, the FASB, the IASB, the SEC and our bank regulators, including the OCC and the FRB, change the financial accounting and reporting standards, or the interpretation thereof, and guidance that govern the preparation and disclosure of external financial statements. These changes are beyond our control, can be hard to predict and could materially impact how we report and disclose our financial results and condition, including our segment results. We could be required to apply a new or revised standard retrospectively, resulting in our restating prior period financial statements in material amounts. We may, in certain instances, change a business practice in order to comply with new or revised standards. For further discussion, see Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in the accompanying consolidated financial statements.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The principal executive offices of HSBC USA and HSBC Bank USA are located at 452 Fifth Avenue, New York, New York 10018. The main office of HSBC Bank USA is located at 1800 Tysons Blvd., Suite 50, Tysons, Virginia 22102. Excluding the 90 branches that we decided to sell as discussed further below, HSBC Bank USA had 43 branches and 24 representative offices across the United States at December 31, 2021.

In May 2021, we announced that we will exit our mass market retail banking business and have entered into definitive sale agreements with third parties to sell 90 of our retail branches. We completed the sale of these branches in February 2022.

Item 3. Legal Proceedings

See Note 30, "Litigation and Regulatory Matters," in the accompanying consolidated financial statements for our legal proceedings disclosure, which is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

HSBC USA's common stock is not publicly traded. As of the date of this filing, HSBC North America was the sole holder of HSBC USA's common stock. No dividends were paid on the common stock outstanding during either 2021 or 2020.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements

Certain matters discussed throughout this Form 10-K are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, we may make or approve certain statements in future filings with the United States Securities and Exchange Commission ("SEC"), in press releases, or oral or written presentations by representatives of HSBC USA Inc. ("HSBC USA" and, together with its subsidiaries, "HUSI") that are not statements of historical fact and may also constitute forward-looking statements. Words such as "may," "will," "should," "would," "could," "appears," "believe," "intends," "expects," "estimates," "targeted," "plans," "anticipates," "goal," and similar expressions are intended to identify forward-looking statements but should not be considered as the only means through which these statements may be made. All discussions related to strategy, including the matters discussed under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations - Executive Overview" and discussions of those matters elsewhere in this Form 10-K are forward-looking statements. These matters or statements will relate to our future structure, operations, strategy, financial condition, economic forecast, results of operations, plans, objectives, performance or business developments and will involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from that which was expressed or implied by such forward-looking statements.

All forward-looking statements are, by their nature, subject to risks and uncertainties, many of which are beyond our control. Our actual future results may differ materially from those set forth in our forward-looking statements. While there is no assurance that any list of risks and uncertainties or risk factors is complete, below are certain factors which could cause actual results to differ materially from those in the forward-looking statements:

- the impact of the coronavirus ("COVID-19") pandemic, including the emergence of new variants;
- our ability to effectively implement and deliver on our business strategies, and the effect implementation of our business strategy may have on our financial results, operations and relationships with our customers, regulators, employees and other stakeholders;
- uncertainty concerning the future market and economic conditions in the United States and abroad, including but not limited to, changes in interest rates, energy prices and unemployment levels, a decline in housing prices, the availability of credit and liquidity, changes in consumer confidence and consumer spending and behavior, consumer perception as to the continuing availability of credit and price competition in the market segments we serve and the consequences of unexpected geopolitical events, such as trade disputes;
- compliance with the Chinese National Security Law and the Hong Kong Autonomy Act, which may impact, among other things, individuals or entities with which we are able to conduct business;
- changes in laws and regulatory requirements;
- the potential impact of any legal, regulatory or policy changes affecting financial institutions and the global economy as a result of the new administration;
- the ability to deliver on our regulatory priorities;
- capital and liquidity requirements under Basel guidance, the Federal Reserve Board's ("FRB") Comprehensive Capital Analysis and Review ("CCAR") program, and the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 ("Dodd-Frank Act" or "Dodd-Frank") stress testing ("DFAST"), including the U.S. FRB requirements for U.S. global systemically important banks ("G-SIBs") and U.S. intermediate holding companies ("IHCs") owned by non-U.S. G-SIBs to issue total loss-absorbing capacity ("TLAC") instruments;
- regulatory requirements in the U.S. and in non-U.S. jurisdictions to facilitate the future orderly resolution of large financial institutions;
- changes in central banks' policies with respect to the provision or removal of liquidity support to financial markets;
- the ability of HSBC Holdings plc ("HSBC" and, together with its subsidiaries, "HSBC Group") and HSBC Bank USA, National Association (together with its subsidiaries, "HSBC Bank USA") to fulfill the requirements imposed by applicable consent orders or guidance from regulators generally;
- the use of us as a conduit for illegal activities without our knowledge by third parties;
- the ability to successfully manage our risks;
- the possibility of the inadequacy of our data management and policies and processes;
- the financial condition of our clients and counterparties and our ability to manage counterparty risk;
- concentrations of credit and market risk;

- increases in our allowance for credit losses and changes in our assessment of our loan portfolios;
- the ability to successfully implement changes to our operational practices as needed and/or required from time to time;
- damage to our reputation;
- the ability to attract or retain key employees, including foreign workers, and customers;
- the effects of competition in the markets where we operate including increased competition from non-bank financial services companies, including securities firms;
- the effects of operational risks that are inherent in banking operations, including fraudulent and other criminal activities, breakdowns in processes or procedures and systems failure or non-availability;
- disruption in our operations from the external environment arising from events such as natural disasters, outbreaks of contagious disease, acts of war, terrorist attacks, or essential utility outages;
- risks associated with Environmental, Social and Governance ("ESG") matters such as climate change and human rights violations;
- a failure in or a breach of our operation or security systems or infrastructure, or those of third party servicers or vendors, including as a result of cyberattacks;
- the ability of third party suppliers, outsourcing vendors, off-shored functions and our affiliates to provide adequate services;
- losses suffered due to the negligence, fraud or misconduct of our employees or the negligence, fraud or misconduct on the part of third parties;
- a failure in our internal controls;
- our ability to meet our funding requirements;
- adverse changes to our credit ratings;
- financial difficulties or credit downgrades of mortgage bond insurers;
- changes in Financial Accounting Standards Board and International Accounting Standards Board ("IASB") accounting standards and their interpretation;
- heightened regulatory and government enforcement scrutiny of financial institutions, including in connection with product governance and sales practices, account opening and closing procedures, customer and employee complaints and sales compensation structures related to such practices;
- possible negative impact of regulatory investigations and legal proceedings related to alleged foreign exchange manipulation;
- changes in the methodology for determining benchmark rates and the implementation of alternative benchmark rates, such as the Secured Overnight Financing Rate ("SOFR");
- heightened regulatory and government enforcement scrutiny of financial markets, with a particular focus on traded asset classes, including foreign exchange;
- the possibility of incorrect assumptions or estimates in our financial statements, including reserves related to litigation, deferred tax assets and the fair value of certain assets and liabilities;
- model limitations or failure;
- the possibility of incorrect interpretations, application of or changes in tax laws to which we and our clients are subject;
- unexpected and/or increased expenses relating to, among other things, litigation and regulatory matters, remediation efforts, penalties and fines; and
- the other risk factors and uncertainties described under Item 1A, "Risk Factors," in this Annual Report on Form 10-K.

Forward-looking statements are based on our current views and assumptions and speak only as of the date they are made. We undertake no obligation to update any forward-looking statement to reflect subsequent circumstances or events. For more information about factors that could cause actual results to differ materially from those in the forward-looking statements, see Item 1A, "Risk Factors," in this Annual Report on Form 10-K.

Executive Overview

HSBC USA is a wholly-owned subsidiary of HSBC North America Holdings Inc. ("HSBC North America"), which is an indirect wholly-owned subsidiary of HSBC. HUSI may also be referred to in Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") as "we," "us" or "our."

2021 Economic Environment The U.S. economy continued its recovery during 2021 despite concerns over rising inflation and a surge in COVID-19 cases in the second half of the year driven first by the Delta variant and most recently by the emergence of the Omicron variant. As previously discussed, the COVID-19 pandemic has resulted in disruption to business and economic activity as well as to the capital markets. COVID-19's effects in the U.S. and globally have been extreme, and the duration of the pandemic and its ultimate repercussions continue to remain unclear. Unprecedented government economic intervention, including additional government support enacted during the first quarter of 2021, has likely dampened the pandemic's effects, but at uncertain long-term cost. However, these government support measures combined with progress on vaccinations along with the easing and removal of many restrictions by states, have helped speed the economic recovery along considerably. These actions as well as several other factors, including supply chain breakdowns and labor shortages, have contributed to higher inflation, which rose above the FRB's target inflation rate in 2021. U.S. Gross Domestic Product ("GDP") grew at an estimated annual rate of 5.7 percent in 2021, while the U.S. economy added over 1.7 million jobs during 2021 and the total unemployment rate fell to 3.9 percent at December 2021 as compared with 6.7 percent at December 2020. In December 2021, the FRB decided to hold short-term interest rates steady (at near zero) while announcing it will accelerate the reduction of its monthly bond buying program, which will bring the program to an end in early 2022. It is expected the FRB will start increasing short-term interest rates in 2022 after the completion of its bond buying program.

Although the U.S. economy continued to improve during 2021, the impact of the COVID-19 pandemic, including the emergence of new variants, and higher inflation on economic conditions both in the United States and abroad continues to create global uncertainty about the future economic environment, including the pace and extent of the economic recovery. The circumstances around this pandemic will continue to impact our business in future periods, the extent of which will depend on the outcome of certain developments, including but not limited to, the duration of the pandemic as well as its continuing impact on our customers, vendors and employees, all of which are uncertain. See Part I, Item 1A, "Risk Factors," for further discussion. Concerns over interest rate levels, energy prices, domestic and global policy issues, trade policy in the U.S. and geopolitical events as well as the implications of those events on the markets in general further add to the global uncertainty. Interest rate levels and energy prices, in combination with global economic conditions, fiscal and monetary policy and the level of regulatory and government scrutiny of financial institutions will continue to impact our results in 2022 and beyond.

2021 Events

- We previously announced a strategic plan to restructure our operations ("Restructuring Plan") in alignment with HSBC's global strategy to refocus our wholesale operations to better serve our international corporate clients and restructure our retail operations to better meet the needs of globally mobile and affluent clients. We continued to progress our Restructuring Plan in 2021, including completing the consolidation of our wholesale middle and back office functions as well as the transfer of substantially all interest rate derivative contracts associated with Fixed Income activities to HSBC Bank plc. In addition, as discussed further below, during the second quarter of 2021, we made the decision to exit our mass market retail banking business, including the sale or closure of certain branches, and transferred certain assets and liabilities to held for sale. As a result of these actions, to date we have closed 95 branches, lowered staffing levels by approximately 27 percent and reduced risk-weighted assets by approximately 17 percent since December 31, 2019, and have reduced total operating expenses by approximately 15 percent since 2019. We remain committed to our multi-year strategic plan to re-profile our business.

We currently expect to incur pre-tax charges in connection with this Restructuring Plan over the three-year period of 2020-2022 of approximately \$780-\$860 million (\$590-\$650 million after-tax). To date, we have recorded a total of \$569 million of pre-tax charges in connection with our Restructuring Plan, of which \$289 million and \$280 million were recorded during 2021 and 2020, respectively. See Note 3, "Strategic Initiatives," in the accompanying consolidated financial statements for a more detailed discussion of these costs.

- In May 2021, we announced that we would take further actions to strategically reposition our Wealth and Personal Banking business to focus on the banking and wealth management needs of globally-connected affluent and high net worth clients through our Premier, Jade and Private Banking propositions. We will exit our mass market retail banking business, including our Personal and Advance propositions as well as retail business banking, and will rebrand approximately 20-25 of our retail branches into international wealth centers to serve our Premier and Jade customers. In conjunction with the execution of this strategy, we have entered into definitive sale agreements with third parties to sell 90 of our retail branches along with substantially all residential mortgage, unsecured and retail business banking loans and all deposits in our branch network not associated with our Premier, Jade and Private Banking customers. Certain assets under management associated with our mass market retail banking business which are managed by an

affiliate will also be transferred to one of the buyers. The remaining branches not sold or rebranded will be closed. As a result of entering into these sale agreements, assets and liabilities with an aggregate carrying value of approximately \$2.9 billion and \$10.1 billion, respectively, were transferred to held for sale during the second quarter of 2021. We completed the sale of the disposal group in February 2022 which is expected to result in a gain on sale.

In addition, mass market retail banking loans not included in the transaction described above as well as our remaining retail credit card portfolio, which collectively totaled \$1.1 billion, were also transferred to held for sale as we did not intend to hold these loans for the foreseeable future. See Note 4, "Branch Assets and Liabilities Held for Sale," in the accompanying consolidated financial statements for additional information.

During the fourth quarter of 2021, we sold a portfolio of mass market retail credit cards to a third party with a carrying value of \$382 million at the time of sale and recognized a gain on sale of approximately \$9 million, net of transaction costs. See Note 9, "Loans Held for Sale," in the accompanying consolidated financial statements for additional details. Upon completion of the sale, a portfolio of Premier credit cards with a carrying value of \$204 million was transferred back to held for investment during the fourth quarter of 2021 as we now intend to hold these loans for the foreseeable future.

During the fourth quarter of 2021, consistent with our Restructuring Plan, we identified additional consumer loans that we no longer have the intent to hold for investment, consisting primarily of certain non-performing mortgage loans and government-backed mortgage loans as well as our remaining student loans. As a result, during the fourth quarter of 2021, we transferred loans to held for sale with a carrying value which collectively totaled \$778 million, including related escrow advances.

Performance, Developments and Trends The following tables set forth selected financial metrics of HUSI for the years ended December 31, 2021, 2020 and 2019 and at December 31, 2021 and 2020:

Year Ended December 31,	2021	2020	2019
(dollars are in millions)			
Net income (loss)	\$ 688	\$ (940)	\$ 113
Rate of return on average:			
Total assets	.4 %	(.5)%	.1 %
Common equity	3.6	(6.0)	.2
Tangible common equity ⁽¹⁾	3.7	(6.2)	.2
Total equity	3.8	(5.1)	.6
Net interest margin	1.13	1.16	1.27
Efficiency ratio	89.7	104.6	88.3
Commercial net charge-off ratio ⁽²⁾	.09	.22	.09
Consumer net charge-off ratio ⁽²⁾	.51	.39	.27

⁽¹⁾ The following table provides a reconciliation of average common equity to average tangible common equity:

Year Ended December 31,	2021	2020	2019
(dollars are in millions)			
Common equity	\$ 16,896	\$ 17,072	\$ 17,479
Less: Goodwill	458	651	1,514
Less: Intangible assets - purchased credit card relationships	5	11	18
Tangible common equity	<u>\$ 16,433</u>	<u>\$ 16,410</u>	<u>\$ 15,947</u>

⁽²⁾ Excludes loans held for sale.

At December 31,	2021	2020
	(dollars are in millions)	
Additional Select Ratios:		
Allowance as a percent of loans ⁽¹⁾	.80 %	1.63 %
Commercial allowance as a percent of loans ⁽¹⁾	1.06	1.96
Consumer allowance as a percent of loans ⁽¹⁾	.17	.98
Loans to deposits ratio ⁽²⁾	41.69	42.31
Common equity Tier 1 capital to risk-weighted assets ⁽³⁾	15.1	14.5
Tier 1 capital to risk-weighted assets ⁽³⁾	16.3	15.6
Total capital to risk-weighted assets ⁽³⁾	18.5	18.8
Tier 1 leverage ratio	8.5	8.6
Supplementary leverage ratio	6.6	7.8
Total equity to total assets	9.0	9.3

⁽¹⁾ Excludes loans held for sale.

⁽²⁾ Represents period end loans, net of allowance for loan losses, as a percentage of total deposits. Prior year amount has been revised to conform to the current year presentation.

⁽³⁾ Prior year amounts have been revised to conform to the current year presentation. See Note 26, "Retained Earnings and Regulatory Capital Requirements," in the accompanying consolidated financial statements for further discussion.

Net income (loss) was income of \$688 million during 2021 compared with a loss of \$940 million and income of \$113 million during 2020 and 2019, respectively. Income (loss) before income tax was income of \$912 million during 2021 compared with a loss of \$982 million and income of \$270 million during 2020 and 2019, respectively. The increase in income (loss) before income tax during 2021 compared to 2020 was due primarily to a lower provision for credit losses driven by improved economic conditions and, to a lesser extent, the impact of our decision to exit our mass market retail banking business as well as our remaining retail credit card portfolio which resulted in a release of credit loss reserves and a reduction to the provision for credit losses of approximately \$101 million during the second quarter of 2021. Also contributing to the increase were lower operating expenses driven by the non-recurrence of a \$784 million goodwill impairment charge recorded in 2020. These increases were partially offset by lower other revenues driven by lower trading revenue as well as lower net interest income.

The decrease in income (loss) before income tax during 2020 compared with 2019 was due primarily to a higher provision for credit losses driven by the deterioration of economic conditions caused by the COVID-19 pandemic and higher operating expenses driven by higher goodwill impairment charges as the impact of the charge recorded in 2020 was partially offset by a \$365 million goodwill impairment charge recorded in 2019. Also contributing to the decrease were lower other revenues driven by lower trading revenue, partially offset by higher net interest income.

Our reported results in all periods were impacted by certain items management believes to be significant, which affect comparability between periods. Significant items are excluded to arrive at adjusted performance because management would ordinarily identify and consider them separately to better understand underlying business trends. The following table summarizes the impact of these significant items for all periods presented:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Income (loss) before income tax, as reported	\$ 912	\$ (982)	\$ 270
Goodwill impairment	—	784	365
Costs to achieve ⁽¹⁾	341	278	—
Losses related to Visa Inc. Class B common shares previously sold ⁽²⁾	3	9	52
Lease impairment ⁽³⁾	—	—	38
Severance costs ⁽⁴⁾	—	—	33
Gains on extinguishment of debt, net ⁽⁵⁾	—	(12)	(70)
Adjusted performance ⁽⁶⁾	<u>\$ 1,256</u>	<u>\$ 77</u>	<u>\$ 688</u>

⁽¹⁾ Reflects costs related to the delivery of our Restructuring Plan. Costs to achieve primarily consists of lease impairment and other related costs, severance costs, allocated costs from HSBC Technology & Services ("HTSU"), and trading losses associated with the exit of certain derivative contracts. See Note 3, "Strategic Initiatives," in the accompanying consolidated financial statements for a more detailed discussion of these costs. The expense during 2021 also includes a gain of \$9 million on the sale of a portfolio of mass market retail credit cards, \$8 million of transaction costs directly associated with the branch disposal group held for sale and \$53 million of allocated costs from other HSBC affiliates related to the HSBC Group's restructuring activities.

The expense during 2020 also includes \$18 million of gains on sales of certain owned retail branch properties and \$16 million of allocated costs from other HSBC affiliates related to the HSBC Group's restructuring activities.

- (2) Reflects losses on the swap agreements we entered into to retain the litigation risk associated with the Visa Inc. ("Visa") Class B common shares ("Class B Shares") we sold to a third party in 2016 and 2017. See Note 28, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," in the accompanying consolidated financial statements for addition information. In 2021, the loss related to a change in the Visa Class B Share conversion rate. In 2020, the loss primarily related to extending the maturity of the total return swap position used to economically hedge the periodic payments made under the swap agreements. In 2019, the loss related to an increase in the expected timing of the final resolution of the related litigation and, to a lesser extent, changes in the Visa Class B Share conversion rate.
- (3) Includes lease impairment and other related costs of \$19 million related to a decision to exit certain branches in 2019 as well as \$19 million of allocated lease impairment costs from HTSU.
- (4) Reflects severance costs associated with a 2019 global effort aimed to right-size our cost base.
- (5) The gain in 2020 related to the extinguishment of time deposits reflecting early client withdrawals. In 2019, HSBC Bank USA repurchased long-term debt that was designated under fair value option and recorded a net pre-tax gain on extinguishment of \$84 million. The extinguishment resulted in the realization of a cumulative gain attributable to our own credit spread that was previously recorded in accumulated other comprehensive income (loss) which more than offset the premium paid to extinguish the debt. The net gain in 2019 also includes a loss of \$14 million on extinguishment of certain repurchase agreements.
- (6) Represents a non-U.S. GAAP financial measure.

Excluding the impact of the items in the table above, our adjusted performance during 2021 increased \$1,179 million compared with 2020 due primarily to a lower provision for credit losses as discussed above. Also contributing to the increase were lower operating expenses, partially offset by lower other revenues driven by lower trading revenue as well as lower net interest income. Excluding the impact of the items in the table above, our adjusted performance during 2020 decreased \$611 million compared with 2019 due primarily to a higher provision for credit losses driven by the deterioration of economic conditions caused by the COVID-19 pandemic and lower other revenues driven by lower trading revenue which were partially offset by lower operating expenses and higher net interest income.

See "Results of Operations" for a more detailed discussion of our operating trends. In addition, see "Balance Sheet Review" for further discussion on our asset and liability trends, "Liquidity and Capital Resources" for further discussion on funding and capital and "Credit Quality" for additional discussion on our credit trends.

London Interbank Offered Rate ("LIBOR") Transition Regulators and central banks in various national jurisdictions continue to actively work to help transition from interbank offered rates ("IBORs") to acceptable alternative rates, such as the Secured Overnight Financing Rate ("SOFR") recommended by the Alternative Reference Rates Committee ("ARRC") convened by the FRB. We have a considerable number of contracts referencing IBORs, primarily U.S. dollar ("USD") LIBOR, such as loans, derivatives and long-term debt.

In March 2021, the United Kingdom ("U.K.") Financial Conduct Authority ("FCA") announced that all LIBOR tenors will either cease to be provided by any administrator or no longer be representative immediately after December 31, 2021, in the case of the one-week and two-month USD LIBOR tenors and all non-USD LIBOR tenors, and immediately after June 30, 2023, in the case of the remaining overnight, one-month, three-month, six-month and twelve-month USD LIBOR tenors. The extension of certain USD LIBOR tenors until June 2023 will allow many legacy LIBOR-based contracts to mature naturally and significantly aids in reducing the risks associated with transitioning legacy contracts onto replacement rates. Additionally, in September 2021, the FCA confirmed that to avoid a disruption to legacy contracts that reference the one-month, three-month and six-month sterling and Japanese yen LIBOR settings, it will require the administrator to publish these settings for the duration of 2022. These six settings will be available only for use in some legacy contracts, and are not for use in new business.

Separately, the International Swaps and Derivatives Association ("ISDA") has confirmed that the fallback spread adjustments to be used in its ISDA fallbacks have been fixed as of the date of the March 2021 FCA announcement. As a result, the ISDA fallbacks (i.e., to the adjusted risk-free rate plus the fixed spread adjustment) will automatically occur for outstanding derivative contracts that incorporate the ISDA fallback language or adhere to the ISDA fallback protocol generally when each LIBOR tenor ceases or becomes non-representative. For all outstanding derivatives referenced to USD LIBOR tenors, the ISDA fallback will occur at the first reset subsequent to June 30, 2023. These announcements provide clarity on the future terms of the many derivative contracts which now incorporate the ISDA fallbacks.

HSBC has established a global transition program in which we actively participate with the objective of facilitating an orderly transition of all products, processes, models and curves, as well as all legacy LIBOR-based contracts, onto replacement rates. This program is aimed to minimize the risks arising from the transition by developing alternative rate product capabilities and transitioning legacy contracts. The program is significant in terms of scale and complexity and will impact all global businesses as well as multiple products, currencies, systems and processes. Transition results in a number of risks, mainly conduct risk, execution risk, financial risk and non-financial risk. We have developed a risk inventory, including mitigating actions, and the identified risks are being monitored. Furthermore, the transition could have a range of adverse impacts on our business, including legal proceedings or other actions regarding the interpretation and enforceability of provisions in LIBOR contracts and regulatory investigations or reviews regarding our preparation and readiness for the replacement of LIBOR with alternative reference rates.

Through 2021, we have implemented the capabilities to offer alternative rate products and the supporting processes and systems, including SOFR-based adjustable rate mortgage ("ARM") loans and bilateral loans in our Wealth and Personal Banking business, SOFR-based syndicated loans and bilateral loans in our Commercial Banking business, SOFR-based syndicated loans, bilateral loans and derivatives in our Global Banking and Markets business and SOFR-based derivatives in our Markets Treasury function. We also met the industry milestone to cease entering into new LIBOR-based contracts by the end of 2021, with the exception of derivative contracts allowed for risk management purposes only. Previously, we had incorporated the appropriate ARRC recommended fallback language into new LIBOR-based contracts for syndicated loans, bilateral loans, floating rate notes and ARM loans. In addition, the ISDA had updated its benchmark fallback language for new LIBOR-based derivative contracts and established its industry protocol to facilitate the incorporation of the new fallback language into legacy non-cleared derivative contracts. We are adhering to the protocol, which became effective in January 2021. Central clearing counterparties also amended their rules in 2021 to incorporate the new ISDA fallback language and adhere to the ISDA fallback protocol for cleared derivative contracts.

The ability of HUSI and its clients to transition legacy contracts onto replacement rates is dependent on the availability of products that reference replacement rates, including SOFR, and on our customers being ready and able to adapt their own processes and systems to accommodate the replacement products. We have engaged with our clients on the alternative rate products we developed and to determine their ability and readiness to transition. During 2021, our client transition efforts focused on those contracts that would have been impacted by tenors ceasing or becoming non-representative immediately after December 31, 2021, primarily consisting of contracts for certain non-USD LIBOR-based commercial loans and certain non-USD LIBOR-based derivatives. The substantial majority of these contracts were successfully transitioned onto replacement rates or included appropriate fallback provisions upon cessation.

In 2022, there will be an increasing focus on transitioning our USD LIBOR-based contracts. Market readiness in support of USD LIBOR transition could slow the transition and we remain prepared that the transition of outstanding contracts could be concentrated in late 2022 and the first half of 2023. The substantial majority of our outstanding USD LIBOR-based derivative contracts adhere to and are covered by the ISDA fallback protocol, which allows us to focus discussions with clients on transitioning those contracts that do not adhere. For USD-LIBOR based loans, the transition of legacy contracts in our consumer mortgage loan portfolios will occur once an industry spread adjustment is available, and we will start to engage our commercial loan clients with upcoming contract maturities with a view to refinancing onto an appropriate replacement rate. We also continue to formulate plans to enable us to transition our LIBOR-based debt and other LIBOR-based debt where we are the payment agent, though execution of these transition plans will, to a certain extent, also depend on the engagement of third party market participants in the transition process.

As discussed above, the extension of certain USD LIBOR tenors until June 2023 significantly aids in reducing the risks associated with transitioning legacy contracts onto replacement rates. The anticipated longer timeframe for transition may, however, increase potential timing differences between USD LIBOR-based assets and liabilities moving to SOFR prior to June 2023. In addition, the exit or transfer of certain derivative contracts as part of our Restructuring Plan along with the successful transition of certain non-USD LIBOR-based contracts as discussed above have led to further reductions in our LIBOR exposures during 2021. We continue to engage with industry participants, the official sector and our clients to support an orderly transition and the mitigation of the risks resulting from the transition.

COVID-19 Related Developments

The COVID-19 pandemic has significantly disrupted economic activity in many countries, including the United States, and the U.S. Government has taken multiple actions to mitigate the magnitude and persistence of the effects of the COVID-19 pandemic. The United States has been operating under a presidentially declared national emergency since March 2020. In March 2020, the Coronavirus Aid, Relief and Economic Security Act ("CARES Act") was signed into law, which provided financial assistance for businesses and individuals and targeted regulatory relief for financial institutions. In December 2020, the Consolidated Appropriations Act was signed into law, which extended many of the CARES Act programs and provided additional financial assistance for businesses and individuals.

Loan Forbearance Initiatives The CARES Act created a forbearance program for federally-backed mortgage loans and provided financial institutions with the option to temporarily suspend certain requirements under U.S. GAAP related to troubled debt restructurings ("TDR Loans") beginning March 1, 2020. This TDR Loan guidance expired on January 1, 2022. We elected to adopt the TDR Loan guidance in the CARES Act and did not apply TDR Loan classification to COVID-19 related loan modifications in the form of a long-term payment deferral (for commercial loans all payment modifications, including all payment deferrals) granted to borrowers that were current (less than 30 days past due) as of December 31, 2019 which otherwise may have been reported as TDR Loans. The CARES Act also prohibited servicers of federally-backed mortgage loans from initiating any foreclosure action on any residential property that is not vacant or abandoned for a period of 60 days. This moratorium expired on July 31, 2021, although homeowners continued to have protection from eviction due to foreclosure through September 30, 2021. In addition to these federal measures, some state governments have taken action to require

forbearance with respect to certain loans and fees. We are continuing to monitor federal, state and international regulatory developments in relation to COVID-19 and their potential impact on our operations.

In 2020, federal banking regulators issued a revised interagency statement on loan modifications and the reporting for financial institutions working with customers affected by the COVID-19 pandemic ("Interagency Statement"). The Interagency Statement confirmed that COVID-19 related short-term loan modifications (e.g., payment deferrals of six months or less) provided to borrowers that were current (less than 30 days past due) at the time the relief was granted were not TDR Loans. Borrowers that did not meet the criteria in the CARES Act or the Interagency Statement were assessed for TDR Loan classification in accordance with our accounting policies.

In addition, under the Interagency Statement, for COVID-19 related loan modifications in the form of a payment deferral, the borrower's past due status was not affected during the deferral period and, if the loan was accruing at the time the relief was granted, the loan was generally not placed on nonaccrual status as long as the borrower utilized a payment deferral of six months or less. For consumer mortgage loans, when a borrower utilized a payment deferral of more than six months, the loan was generally placed on nonaccrual status and, if the loan did not meet the criteria in the CARES Act, assessed for TDR Loan classification. Any accrued interest recorded on these loans was generally not reversed against income and remained recorded as accrued interest receivable. We did not modify our commercial loan nonaccrual policies as a result of this guidance.

We implemented various loan modification payment deferral programs to provide borrowers relief from the economic impacts of the COVID-19 pandemic. The following table summarizes information about loans under these programs as of December 31, 2021. Not included in the following table are loans that have exited the programs or have been transferred to held for sale as well as other forms of relief that we provided to commercial clients affected by the impact of COVID-19, such as covenant waivers and amendments, and deferrals of financial statement and covenant compliance reporting requirements.

	December 31, 2021			Program Details
	Number of Loans	Loan Amount	% of Loans with Payment ⁽¹⁾	
(dollars are in millions)				
Commercial:				
Global banking.....	1	\$ 38	0%	Represents a loan with a remaining deferral period that ends in June 2022
Other commercial.....	1	4	0	Represents a loan with a remaining deferral period that ends in January 2022
Total commercial.....	2	42	0	
Consumer:				
Residential mortgages ⁽²⁾ ...	53	33	42	Primarily includes loans with remaining deferral periods that end in the first quarter of 2022
Home equity mortgages ⁽²⁾	11	1	55	Primarily includes loans with remaining deferral periods that end in the first quarter of 2022
Total consumer ⁽³⁾	64	34	42	
Total.....	66	\$ 76	19	

⁽¹⁾ Represents the percentage of loans under a COVID-19 related payment deferral program at December 31, 2021 for which at least one payment was collected during the fourth quarter of 2021.

⁽²⁾ Includes \$17 million of consumer mortgage loans where the borrowers were provided with extended payment deferral relief of more than six months at December 31, 2021. Due to our CARES Act election, \$16 million of these loans were exempted from TDR assessment. In addition, \$12 million of these loans have been placed on nonaccrual status, because the borrowers utilized a payment deferral of more than six months.

⁽³⁾ Not included in the table at December 31, 2021 are \$332 million of consumer loans under COVID-19 payment deferral programs which were transferred to held for sale during 2021. See Note 9, "Loans Held for Sale," in the accompanying consolidated financial statements for additional information.

When the payment relief period ends, borrowers have various options, including repaying the deferred payments in full, repaying the deferred payments over an installment period or moving the deferred payments to the end of the loan. In addition, if a borrower is experiencing financial difficulty when the payment relief period ends, they may enter into a modification program to reduce the interest rate and/or extend the term of the loan which would result in the loan being classified as a TDR Loan. As of December 31, 2021, \$1,351 million and \$1,177 million of commercial and consumer loans, respectively, have exited a COVID-19 related payment deferral program, of which nil and \$26 million, respectively, entered into a modification program upon exiting that resulted in the loans being classified as TDR Loans. Of the commercial and consumer loans that have exited a COVID-19 related payment deferral program, 100 percent and 77 percent, respectively, were current or less than 30 days past due as of December 31, 2021.

Loans outstanding under these COVID-19 related payment deferral programs have decreased substantially since they were first introduced in early 2020. We will continue to support our customers and provide relief to those borrowers who remain impacted

by the pandemic. We currently expect any such relief will generally be in the form of payment deferrals of no more than three months, with new enrollments / extensions ceasing by the end of the second quarter of 2022. Any such relief will be assessed for TDR Loan classification and nonaccrual status in accordance with our accounting policies. In addition, after the CARES Act guidance expires on January 1, 2022, if a borrower exits a long-term COVID-19 related payment relief program and we agree to move the deferred payments to the end of the loan, the modification could result in the loan being classified as a TDR Loan if the borrower is experiencing financial difficulty. As a result, we expect to experience an increase in reported TDR Loans in 2022.

Paycheck Protection Program The CARES Act created a new loan guarantee program entitled the Paycheck Protection Program ("PPP") targeted to provide small businesses with support to cover payroll and certain other expenses. Loans made under the PPP are fully guaranteed by the Small Business Administration ("SBA"), whose guarantee is backed by the full faith and credit of the United States. PPP covered loans also afford borrowers forgiveness up to the principal amount of the PPP covered loan, plus accrued interest, if the loan proceeds are used to retain workers and maintain payroll or to make certain mortgage interest, lease and utility payments, and certain other criteria are satisfied. The SBA will reimburse PPP lenders for any amount of a PPP covered loan that is forgiven, and PPP lenders will not be held liable for any representations made by PPP borrowers in connection with their requests for loan forgiveness. Lenders receive pre-determined fees for processing and servicing PPP loans. In addition, PPP loans are risk-weighted at zero percent under the generally-applicable Standardized Approach used to calculate risk-weighted assets for regulatory capital purposes. HSBC Bank USA is a PPP participating lender and had loans funded under the PPP which totaled \$262 million at December 31, 2021. The SBA deadline for accepting PPP loan applications from participating lenders expired on May 31, 2021.

Future Prospects Our operations are dependent upon our ability to grow revenues, achieve our cost reduction initiatives, maintain stable deposit balances and, to a lesser extent, access the global capital markets. Numerous factors, both internal and external, may impact our access to, and the costs associated with, both retail and wholesale sources of funding. These factors may include our debt ratings, overall economic conditions, overall capital markets volatility, the counterparty credit limits of investors to the HSBC Group, and our management of the credit risks inherent in our business and customer base.

Our results are also impacted by general global and domestic economic conditions, including employment levels, housing market conditions, property valuations, interest rates and legislative and regulatory changes, all of which are beyond our control. Changes in interest rates generally affect both the rates we charge to our customers and the rates we pay on our borrowings. Achieving our profitability goals in 2022 is largely dependent upon macroeconomic conditions which include the interest rate environment, housing market conditions, unemployment levels, market volatility, energy prices and our ability to attract and retain loans and deposits from customers, all of which could impact trading and other revenue, net interest income, loan volume, loss provision and ultimately our results of operations. Failure to successfully implement our business strategies may also have a material effect on our financial condition and results of operations.

Basis of Reporting

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP").

Group Reporting Basis We report financial information to HSBC in accordance with HSBC Group accounting and reporting policies, which apply International Financial Reporting Standards ("IFRSs") as issued by the IASB. As a result, our segment results are prepared and presented using financial information prepared on the basis of HSBC Group's accounting and reporting policies ("Group Reporting Basis"). Because operating results on the Group Reporting Basis are used in managing our businesses and rewarding performance of employees, our management also separately monitors profit before tax under this basis of reporting. The following table reconciles our U.S. GAAP versus Group Reporting Basis profit (loss) before tax:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Profit (loss) before tax – U.S. GAAP basis	\$ 912	\$ (982)	\$ 270
Adjustments:			
Expected credit losses	(272)	204	36
Loans held for sale	(62)	13	(1)
Pension and other postretirement benefit costs	(10)	(15)	(12)
Deposit incentives	(4)	7	17
Leases	6	(9)	(17)
Renewable energy tax credit investments	21	11	7
Other long-lived assets	61	(264)	—
Goodwill impairment	—	91	156
Debt extinguishment	—	—	(123)
Other	(11)	15	23
Profit (loss) before tax – Group Reporting Basis	<u>\$ 641</u>	<u>\$ (929)</u>	<u>\$ 356</u>

The significant differences between U.S. GAAP and the Group Reporting Basis as they impact our results are summarized in Note 25, "Business Segments," in the accompanying consolidated financial statements. Differences in reported profit (loss) before tax in the table above that were individually significant for 2021 and 2020 are explained below. See "Basis of Reporting" in our Annual Report on Form 10-K for the year ended December 31, 2020 ("2020 Form 10-K") for an explanation of the differences in reported profit (loss) before tax in the table above that were individually significant for 2019.

During 2021, expected credit losses were lower under U.S. GAAP than under the Group Reporting Basis. Under the Group Reporting Basis, a majority of our loans are considered to be in "stage 1" (which requires a 12-month expected credit losses estimate), while under U.S. GAAP such loans require a lifetime expected credit losses ("lifetime ECL") estimate. Primarily as a result of the different requirements, releases in credit reserves driven by improved economic conditions, which resulted in improved economic forecasts used to calculate expected credit losses as well as client paydowns, were more pronounced under U.S. GAAP.

During 2020, expected credit losses were higher under U.S. GAAP than under the Group Reporting Basis. Primarily as a result of the different requirements related to stage 1 loans discussed above, loss provisions in 2020 driven by the deterioration of economic conditions caused by the COVID-19 pandemic, which resulted in a worsening of the economic forecasts used to calculate expected credit losses and downgrades reflecting weakness in the financial condition of certain clients, were more pronounced under U.S. GAAP.

During 2021, we transferred certain loans to held for sale which under U.S. GAAP requires the loans to be carried at the lower of amortized cost or fair value which resulted in releases of credit loss reserves and lower of amortized cost or fair value adjustments on the loans. Under the Group Reporting Basis, loans held for sale continue to be accounted for and credit losses continue to be measured in accordance with IFRS 9, "Financial Instruments," with any gain or loss recorded at the time of sale. In addition, a portion of the loans transferred under U.S. GAAP did not meet the more stringent criteria for held for sale classification under the Group Reporting Basis.

During 2021, amortization expense for long-lived assets was higher under U.S. GAAP due to the impairment charge recorded under the Group Reporting Basis during 2020 as discussed below. In addition, during 2021, we determined we would exit certain branches as part of our Restructuring Plan and, as a result, we recorded an impairment charge of \$18 million under U.S.

GAAP to write-off the leasehold improvements associated with these branches. These leasehold improvements were previously written-off under the Group Reporting Basis as discussed below.

During 2020, we determined that long-lived assets comprising capitalized software, property, plant and equipment and operating lease right-of-use assets may not be recoverable and tested the long-lived asset group for impairment. Under the Group Reporting Basis, we recorded an impairment charge of \$277 million to write down the long-lived asset group to its estimated fair value, consisting of the write-off of all the capitalized software and a portion of the leasehold improvements primarily associated with our Wealth and Personal Banking business segment. Under U.S. GAAP, the estimated undiscounted cash flows of the long-lived asset group exceeded its carrying amount and no impairment charge was required. Consequently, the carrying amounts of capitalized software and leasehold improvements are higher under U.S. GAAP than under the Group Reporting Basis and, as a result, corresponding amortization expense is higher under U.S. GAAP. See Note 25, "Business Segments," in the accompanying consolidated financial statements for additional discussion.

During 2020, goodwill impairment charges were lower under the Group Reporting Basis than under U.S. GAAP. Under the Group Reporting Basis, goodwill was amortized until 2005, however goodwill was amortized under U.S. GAAP until 2002, which resulted in a lower carrying amount of goodwill and, therefore, a lower impairment charge under the Group Reporting Basis.

Critical Accounting Estimates

Our consolidated financial statements are prepared in accordance with accounting standards generally accepted in the United States. We believe our policies are appropriate and fairly present the financial position and results of operations of HSBC USA.

The significant accounting policies used in the preparation of our consolidated financial statements are more fully described in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in the accompanying consolidated financial statements. Certain accounting policies affecting the reported amounts of assets, liabilities, revenues and expenses are complex and involve significant judgments by our management, including the use of estimates and assumptions. As a result, changes in estimates, assumptions or operational policies could significantly affect our financial position and our results of operations. We base our accounting estimates on historical experience, observable market data, inputs derived from or corroborated by observable market data by correlation or other means and on various other assumptions that we believe to be appropriate, including assumptions based on unobservable inputs. To the extent we use models to assist us in measuring the fair value of particular assets or liabilities, we strive to use models that are consistent with those used by other market participants. Actual results may differ from these estimates due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change. The impact of estimates and assumptions on our financial condition or operating performance may be material.

Of the significant accounting policies used in the preparation of our consolidated financial statements, the items discussed below involve what we have identified as critical accounting estimates based on the associated degree of judgment and complexity. Our management has reviewed these critical accounting estimates as well as the associated assumptions and accompanying disclosure with the Audit Committee of our Board of Directors.

Allowance for Credit Losses Because we lend money to others, we are exposed to the risk that borrowers may not repay amounts owed to us when contractually due. Consequently, we maintain an allowance for credit losses that reflects our estimate of lifetime ECL for loans and other financial assets measured at amortized cost. Allowance for credit loss estimates are reviewed periodically and adjustments are recognized in the provision for credit losses during the period they become known. Our Risk and Finance departments share responsibility for establishing appropriate levels of allowances for credit losses inherent in our various loan and other portfolios carried at amortized cost, including debt securities, and they assess and independently approve our allowance for credit losses. See Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in the accompanying consolidated financial statements for further discussion of our accounting policies and methodologies for establishing the allowance for credit losses and liability for off-balance sheet credit exposures.

The accounting estimates relating to the allowance for credit losses are "critical accounting estimates" for the following reasons:

- Changes in the provision for credit losses can materially affect our financial results;
- Estimates related to the allowance for credit losses require us to project future borrower performance, including cash flows, delinquencies and charge-offs, along with, when applicable, collateral values, based on a reasonable and supportable forecast period utilizing forward-looking economic scenarios in order to estimate probability of default and loss given default;
- Credit losses are influenced by factors outside of our control such as industry and business trends, geopolitical events and the effects of laws and regulations as well as economic conditions such as trends in housing prices, interest rates, GDP, inflation, energy prices and unemployment; and

- Judgment is required to determine whether the models used to generate the allowance for credit losses produce an estimate that is sufficient to encompass the current view of lifetime ECL.

Because our estimates of the allowance for credit losses involve judgment and are influenced by factors outside of our control, there is uncertainty inherent in these estimates. Changes in such estimates could significantly impact our allowance and provision for credit losses. Our reported combined estimated allowance for credit losses and liability for off-balance sheet credit exposures ranged from \$553 million to \$1,257 million during 2021.

As discussed further in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in the accompanying consolidated financial statements, we utilize a minimum of three forward-looking economic scenarios to estimate lifetime ECL. In periods with high economic uncertainty, we supplement the lifetime estimate with alternative scenarios, each assigned a weighting based upon management's assessment of the likelihood of occurrence. This was the case beginning in 2020 and throughout 2021 as the economic conditions caused by the COVID-19 pandemic continued to create uncertainty about the future economic environment. As a result, we developed and continued to utilize a fourth scenario for estimating lifetime ECL, referred to as the "Alternative Downside scenario".

As an illustration of the effect of changes in estimates relating to the allowance for credit losses, using a 100 percent weighting for the Alternative Downside scenario instead of using the four weighted scenarios at December 31, 2021 would have resulted in a combined increase to our allowance for credit losses and liability for off-balance sheet credit exposures of approximately \$255 million. This illustration only represents the effect of changes in the weighting of these scenarios on our existing modeled portfolios and does not consider changes in the allowance related to management judgment that might occur.

Our allowance for credit losses is based on estimates and is intended to be adequate but not excessive. The allowance for credit losses is regularly assessed for adequacy. The allowance for credit losses, which is carried as a reduction to the respective assets on the balance sheet, includes reserves for lifetime ECL associated with loans and other financial assets carried at amortized cost. A reserve is also maintained for off-balance sheet risk, which is recorded in other liabilities and includes lifetime ECL arising from off-balance sheet arrangements such as letters of credit and undrawn commitments to lend.

The allowances include amounts calculated for individual loan balances and for collective loan portfolios depending on the nature of the exposure and the manner in which risks inherent in that exposure are managed. In addition, the allowance for credit losses on consumer and commercial loans reflects management judgment of risk factors that may not be fully reflected in the lifetime ECL generated by our models. In making this determination, we consider the characteristics of our portfolio and any other significant factors that are relevant. Management review committees have been established in order to review and approve the results of the lifetime ECL calculations. The management review committees have representatives from Credit Risk and Finance and are responsible for final approval of our lifetime ECL for the period. The committees also consider other observable factors, both internal and external to us in the general economy, to ensure that the estimates provided by the various models adequately include all known information at each reporting period.

Goodwill and Other Long-Lived Asset Impairment Goodwill is not subject to amortization but is tested for possible impairment at least annually or more frequently if events or changes in circumstances indicate that it is more likely than not that the asset might be impaired. Impairment testing requires that the fair value of each reporting unit be compared with its carrying amount, which is determined on the basis of capital invested in the unit including attributable goodwill. We determine the invested capital of a reporting unit by applying to the reporting unit's risk-weighted assets a capital charge that is consistent with the targets assigned and monitored through our capital management monitoring framework, and additionally, allocating to each reporting unit the remaining carrying amount of HUSI's net assets. Accordingly, the entire carrying amount of HUSI's net assets is allocated to our reporting units. Significant and long-term changes in the applicable reporting unit's industry and related economic conditions are considered to be primary indicators of potential impairment due to their impact on expected future cash flows. In addition, shorter-term changes may impact the discount rate applied to such cash flows based on changes in investor requirements or market uncertainties. In evaluating possible impairment, specific factors we consider are: (a) the observance of material changes to business plan information (e.g., financial forecasts); (b) significant increases in observed peer group discount rates; (c) significant announced or planned business divestitures; (d) the margin by which the fair value of each reporting unit exceeded the carrying amount at the previous testing date; (e) deterioration in macroeconomic, industry or market conditions that have not yet been reflected in the latest business plan information, if any, and; (f) other relevant events specific to the reporting unit (e.g., changes in management, strategy or customers, capital allocation or litigation).

The determination of fair value as part of the impairment testing of our goodwill is a "critical accounting estimate" due to the significant judgment required in the use of the fair value approaches. We utilize the market approach and the discounted cash flow method to determine fair value. The market approach focuses on valuation multiples for reasonably similar publicly traded companies and also considers recent market transactions. The discounted cash flow method includes such variables as revenue growth rates, expense trends, interest rates and terminal values. Based on an evaluation of key data and market factors, management's judgment is required to select the specific variables to be incorporated into the models. Additionally, the estimated fair value can be significantly impacted by the risk adjusted cost of capital percentage used to discount future cash

flows. The risk adjusted cost of capital percentage is derived from an appropriate capital asset pricing model, which itself depends on a number of financial and economic variables which are established on the basis of those believed to be used by market participants. Because our fair value estimate involves judgment and is influenced by factors outside our control, it is reasonably possible our judgment could change. When management's judgment is that the anticipated cash flows have decreased and/or the cost of capital percentage has increased, the effect will be a lower estimate of fair value which could result in an impairment charge and a negative impact to net income (loss).

Impairment testing of goodwill requires that the fair value of each reporting unit be compared with its carrying amount, including goodwill. As of December 31, 2021 and 2020, all of our remaining goodwill of \$458 million is allocated to our Commercial Banking reporting unit.

We have established October 1 of each year as the date for conducting our annual goodwill impairment assessment. Goodwill impairment is measured and an impairment charge is recorded at the amount by which a reporting unit's carrying amount, including allocated goodwill, exceeds its fair value. Any impairment charge recognized is limited to the carrying amount of goodwill assigned to a reporting unit. Subsequent reversals of goodwill impairments are not permitted.

During the fourth quarter of 2021, we completed our annual impairment test of goodwill and determined that the fair value of our Commercial Banking reporting unit exceeded its carrying value, with its fair value being significantly in excess of book value, including allocated goodwill. For additional discussion of the results of our goodwill impairment testing, see Note 11, "Goodwill," in the accompanying consolidated financial statements.

Our fair value calculations are highly sensitive to certain assumptions and estimates used as discussed above. We will continue to monitor changes to our business forecasts as we continue to perform periodic analyses of the risks and strategies of our business and product offerings. If deterioration in economic and credit conditions, a change in the strategy or performance of our business or product offerings, or an increase in the capital requirements of our business occurs, interim goodwill impairment tests could be required, which may result in an impairment charge.

In addition, we generally conduct impairment tests of capitalized software and other long-lived assets at the reporting unit level when events or circumstances indicate their carrying amount may not be recoverable. If impairment testing is required, long-lived assets are grouped at the lowest level for which there are identifiable cash flows. If the estimated undiscounted cash flows of the long-lived asset group exceed its carrying amount, an impairment is not recognized. However, if the estimated undiscounted cash flows are less than the carrying amount of the long-lived asset group, a second step is performed to determine fair value and an impairment loss is required if the carrying amount of the long-lived asset group exceeds fair value. Impairment losses are not reversible. Fair value calculations when required are consistent with the methodology used to determine fair value for goodwill impairment.

Valuation of Financial Instruments A significant portion of our financial assets and liabilities are carried at fair value. These include trading assets and liabilities, derivatives held for trading or used for hedging, securities available-for-sale, equity securities and certain loans held for sale. Furthermore, we have elected to measure specific assets and liabilities at fair value under the fair value option, including certain commercial loans held for sale, certain student loans, structured deposits, structured notes and certain of our own debt issuances. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Where available, we use quoted prices to determine fair value. If quoted prices are not available, we base fair value on models using inputs that are either directly observable or are derived from and corroborated by market data.

Valuation of Major Classes of Assets and Liabilities - Fair value measurement accounting principles establish a fair value hierarchy structure that prioritizes the inputs to determine the fair value of an asset or liability (the "Fair Value Framework"). The Fair Value Framework establishes a three-tiered fair value hierarchy as discussed further in Note 29, "Fair Value Measurements," in the accompanying consolidated financial statements. Classification within the fair value hierarchy is based on the lowest hierarchical level input that is significant to the fair value measurement. As such, the classification of a financial asset or liability within the fair value hierarchy is dynamic in that the asset or liability could be transferred to other hierarchy levels in each reporting period as a result of price discovery. We review and update our fair value hierarchy classifications quarterly. Changes from one quarter to the next related to the observability of the inputs into a fair value measurement may result in a reclassification between hierarchy levels. Level 3 assets as a percentage of total assets measured at fair value were approximately 3.1 percent and 1.1 percent at December 31, 2021 and 2020, respectively.

Imprecision in estimating unobservable market inputs can impact the amount of revenue, expense or other comprehensive income recorded for a particular financial instrument. While we believe our valuation methods are appropriate, the use of different methodologies or assumptions to determine the fair value of certain financial assets and liabilities could result in a different estimate of fair value at the reporting date, which can result in equity and earnings volatility. For example, a 10 percent adverse change in the value of our level 3 assets (excluding derivatives) would have reduced their carrying value by approximately \$214 million at December 31, 2021. For additional discussion of the determination of fair value for individual financial assets and liabilities carried at fair value see Note 29, "Fair Value Measurements," in the accompanying consolidated

financial statements. The following is a description of the methodologies used in the valuation of significant financial assets and liabilities for which quoted market prices and observable market parameters are not available.

- *Derivatives* - We manage groups of derivative instruments with offsetting market and credit risks. Accordingly, we measure the fair value of each group of derivative instruments based on the exit price of the group's net risk position. The fair value of a net risk position is determined using internal models that utilize multiple valuation inputs. The majority of the valuation inputs can be validated through market consensus data. For complex or long-dated derivative products where market data is not available, fair value is sensitive to the limitation of the valuation model (model risk), the liquidity of the product (liquidity risk) and the assumptions about inputs not obtainable through price discovery process (data uncertainty risk). Accordingly, we make valuation adjustments to capture the risks and uncertainties. Because of the interrelated nature, we do not separately make an explicit adjustment to the fair value for each of these risks. Instead, we apply a range of assumptions to the valuation input that we believe implicitly incorporates adjustments for liquidity, model and data uncertainty risks.

We also include a credit valuation adjustment to reflect the credit risk associated with the net derivative positions. In estimating the credit valuation adjustment, we net the derivative positions by counterparties. The fair value for a net long credit risk position is adjusted for the counterparty's credit risk referred to as credit valuation adjustment whereas the fair value for a net short credit risk position is adjusted for HUSI's own credit risk referred to as debit valuation adjustment. We calculate the credit valuation adjustment by applying the probability of default of the counterparty to the expected exposure, and multiplying the result by the expected loss given default. We estimate the implied probability of default based on the credit spread of the specific counterparty observed in the credit default swap market. Where credit default spread of the counterparty is not available, we use the credit default spread of a specific proxy (e.g. the credit default swap spread of the counterparty's parent) or a proxy based on credit default swaps referencing to credit names of similar credit standing.

- *Securities* - For the majority of our trading and available-for-sale securities, we obtain fair value for each security instrument from multiple independent pricing vendors ("IPV") and brokers, if available. We have established adequate controls in pricing vendor selection and fair value validation. The validation methods include but are not limited to comparisons among IPV prices for the same instrument, review and challenge of IPV valuation methodologies, inputs and assumptions, and the elapsed time between the date to which market data relates and the measurement date. For securities that are difficult to value, we use internal pricing models which estimate the fair value based on our assumptions in funding risk, default risk and loss upon default. We exercise significant judgment in estimating these assumptions and inputs to the valuation model. We believe these model inputs reflect market participants' assumptions about risks and the risk premium required to compensate for undertaking risks.
- *Loans held for sale* - Loans held for sale (that are not designated under the fair value option) are recorded at the lower of amortized cost or fair value. The fair value of consumer loans held for sale is estimated using either observed market prices of instruments with similar characteristics or the discounted cash flow method using assumptions consistent with those which would be used by market participants in valuing such loans, including estimates of prepayment rates, default rates, loss severities and market rates of return. The fair value of commercial loans held for sale is estimated using observable market pricing obtained from independent sources, relevant broker quotes or observed market prices of instruments with similar characteristics. We also may hold discussions on value directly with potential investors or take into account underlying collateral values. For certain consumer and commercial loans transferred to held for sale during 2021, the fair value measurement processes use significant unobservable inputs to adjust market prices which are specific to the characteristics of the various loan portfolios.
- *Structured Notes and Deposits* - Structured notes and deposits are hybrid instruments containing embedded derivatives. The valuation of the hybrid instruments is predominantly driven by the derivative features embedded within the instruments and our own credit risk. Depending on the complexity of the embedded derivative, the same risk elements of valuation adjustments described in the derivative section above would also apply to hybrid instruments. In addition, cash flows for the funded notes and deposits are discounted at the relevant interest rates for the duration of the instrument adjusted for our own credit spreads. The credit spreads so applied are determined with reference to our own debt issuance rates observed in primary and secondary markets, internal funding rates and the structured note rates in recent executions.

Except for structured notes and deposits with embedded credit derivative features, the associated risks embedded in the hybrid instruments issued to customers are economically hedged with our affiliates through a freestanding derivative. As a result, with the exception of counterparty credit risks, HUSI is market risk neutral in substantially all of the structured notes and deposits.

Deferred Tax Asset Valuation Allowance We recognize deferred tax assets and liabilities for the future tax consequences related to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and for Federal and State net operating losses. Our net deferred tax assets, including deferred tax liabilities, totaled \$1.0

billion at both December 31, 2021 and 2020. We evaluate our deferred tax assets for recoverability considering negative and positive evidence, including our historical financial performance, projections of future taxable income, future reversals of existing taxable temporary differences, tax planning strategies and any carryback availability. We are required to establish a valuation allowance for deferred tax assets and record a charge to earnings if we determine, based on available evidence at the time the determination is made, that it is more likely than not that some portion or all of the deferred tax assets will not be realized. In evaluating the need for a valuation allowance, we estimate future taxable income based on management approved business plans. This process involves significant management judgment about assumptions that are subject to change from period to period. Because the recognition of deferred tax assets requires management to make significant judgments about future earnings, the periods in which items will impact taxable income and the application of inherently complex tax laws, we have identified the assessment of deferred tax assets and the need for any related valuation allowance as a critical accounting estimate.

The use of different assumptions of future earnings, the periods in which items will impact taxable income and the application of inherently complex tax laws can result in changes in the amounts of deferred tax items recognized, which can result in equity and earnings volatility because such changes are reported in current period earnings. Furthermore, if future events differ from our current forecasts, valuation allowances may need to be established or adjusted, which could have a material adverse effect on our results of operations, financial condition and capital position. We will continue to update our assumptions and forecasts of future taxable income and assess the need and adequacy of any valuation allowance.

Our interpretations of tax laws are subject to examination by the Internal Revenue Service and State taxing authorities. Resolution of disputes over interpretations of tax laws may result in us being assessed additional income taxes. We regularly review whether we may be assessed such additional income taxes and recognize liabilities for such potential future tax obligations as appropriate.

Additional detail on our assumptions with respect to the judgments made in evaluating the realizability of our deferred tax assets and on the components of our deferred tax assets and deferred tax liabilities at December 31, 2021 and 2020 can be found in Note 18, "Income Taxes," in the accompanying consolidated financial statements.

Balance Sheet Review

The following table provides balance sheet totals at December 31, 2021 and increases (decreases) since December 31, 2020:

		Increase (Decrease) From	
		December 31, 2020	
	December 31, 2021	Amount	%
(dollars are in millions)			
Period end assets:			
Short-term investments	\$ 58,868	\$ 7,467	14.5 %
Loans, net	55,417	(5,656)	(9.3)
Loans held for sale	4,217	3,880	*
Trading assets	24,043	(3,241)	(11.9)
Securities	40,501	(9,152)	(18.4)
All other assets	6,186	(500)	(7.5)
	<u>\$ 189,232</u>	<u>\$ (7,202)</u>	<u>(3.7)%</u>
Period end liabilities and equity:			
Total deposits	\$ 143,032	\$ (2,118)	(1.5)%
Trading liabilities	3,023	(2,374)	(44.0)
Short-term borrowings	6,338	1,386	28.0
Long-term debt	17,236	(2,743)	(13.7)
Interest, taxes and other liabilities	2,563	(102)	(3.8)
Total equity	17,040	(1,251)	(6.8)
	<u>\$ 189,232</u>	<u>\$ (7,202)</u>	<u>(3.7)%</u>

* Percentage change is greater than 100 percent.

Short-Term Investments Short-term investments include cash and due from banks, interest bearing deposits with banks and federal funds sold and securities purchased under agreements to resell. Balances may fluctuate from period to period depending upon our liquidity position at the time and our strategy for deploying liquidity. Short-term investments increased compared with December 31, 2020 due to an increase in overall liquidity as we raised funds in advance of their usage. The increase in funds was driven primarily by net sales, paydowns and maturities of securities as well as lower trading assets and lower loans as discussed in detail below. These increases were partially offset by repayments of long-term debt and precious metal trading liabilities as well as lower deposits from affiliates.

Loans, Net The following table summarizes our loan balances at December 31, 2021 and increases (decreases) since December 31, 2020:

		Increase (Decrease) From	
		December 31, 2020	
	December 31, 2021	Amount	%
		(dollars are in millions)	
Commercial loans:			
Real estate, including construction	\$ 8,234	\$ (2,230)	(21.3)%
Business and corporate banking	13,958	479	3.6
Global banking ⁽¹⁾	11,109	(2,410)	(17.8)
Other commercial ⁽²⁾	6,495	2,358	57.0
Total commercial	39,796	(1,803)	(4.3)
Consumer loans:			
Residential mortgages	15,469	(2,908)	(15.8)
Home equity mortgages	325	(402)	(55.3)
Credit cards	204	(862)	(80.9)
Other consumer	70	(249)	(78.1)
Total consumer	16,068	(4,421)	(21.6)
Total loans	55,864	(6,224)	(10.0)
Allowance for credit losses ⁽³⁾	447	(568)	(56.0)
Loans, net	\$ 55,417	\$ (5,656)	(9.3)%

⁽¹⁾ Represents large multinational firms including globally focused U.S. corporate and financial institutions, U.S. dollar lending to multinational banking clients managed by HSBC on a global basis and complex large business clients supported by Global Banking and Markets relationship managers.

⁽²⁾ Includes loans to HSBC affiliates which totaled \$2,793 million and \$1,100 million at December 31, 2021 and 2020, respectively.

⁽³⁾ See "Credit Quality" in this MD&A for a discussion of trends in our allowance for credit losses on loans.

Commercial loans decreased compared with December 31, 2020 due primarily to the impact of our efforts to improve returns through disciplined lending, paydowns and lower demand from clients reflecting increased capital markets activity. Also contributing to the decrease were transfers of loans to held for sale, including certain commercial real estate loans with a carrying value of \$1,123 million transferred during the third quarter of 2021 and our retail business banking loan portfolio with a carrying value of \$149 million transferred during the second quarter of 2021 as discussed below. These decreases were partially offset by higher loans to affiliates. The decline in commercial non-affiliate loans was primarily in the real estate, consumer services, energy, semiconductor and chemicals industries, partially offset by an increase in the diversified financials industry.

Consumer loans decreased compared with December 31, 2020 due primarily to transfers of certain loans to held for sale during 2021 with a carrying value which collectively totaled \$4,361 million as discussed further below.

The following table presents loan-to-value ("LTV") ratios for our residential mortgage loan portfolio, excluding mortgage loans held for sale:

	LTV Ratios ⁽¹⁾⁽²⁾			
	December 31, 2021		December 31, 2020	
	First Lien	Second Lien	First Lien	Second Lien
LTV < 80%	98.5 %	99.3 %	97.6 %	96.8 %
80% ≤ LTV < 90%	1.4	.6	2.1	2.7
90% ≤ LTV < 100%	.1	.1	.2	.4
LTV ≥ 100%	—	—	.1	.1
Average LTV for portfolio	51.5	44.6	52.6	46.2

⁽¹⁾ LTVs for first liens are calculated using the loan balance as of the reporting date. LTVs for second liens are calculated using the loan balance as of the reporting date plus the senior lien amount at origination. Current estimated property values are derived from the property's appraised value at the time of loan origination updated by the change in the Federal Housing Finance Agency's House Price Index ("HPI") at either a Core Based Statistical Area or state level. The estimated value of the homes could differ from actual fair values due to changes in condition of the underlying property, variations in housing price changes within metropolitan statistical areas and other factors. As a result, actual property values associated with loans that end in foreclosure may be significantly lower than the estimates used for purposes of this disclosure.

⁽²⁾ Current estimated property values are calculated using the most current HPIs available and applied on an individual loan basis, which results in an approximate three month delay in the production of reportable statistics. Therefore, the information in the table above reflects current estimated property values using HPIs at September 30, 2021 and 2020, respectively.

Loans Held for Sale The following table summarizes loans held for sale at December 31, 2021 and increases (decreases) since December 31, 2020:

	December 31, 2021	Increase (Decrease) From	
		December 31, 2020	
		Amount	%
(dollars are in millions)			
Commercial loans:			
Real estate, including construction.....	\$ —	\$ (10)	(100.0)%
Business and corporate banking	123	123	*
Global banking	338	219	*
Total commercial.....	461	332	*
Consumer loans:			
Residential mortgages	3,082	2,874	*
Home equity mortgages	275	275	*
Credit cards	195	195	*
Other consumer	204	204	*
Total consumer.....	3,756	3,548	*
Total loans held for sale	\$ 4,217	\$ 3,880	*

* Percentage change is greater than 100 percent.

Commercial loans held for sale increased compared with December 31, 2020. During the second quarter of 2021, as part of our Restructuring Plan we made the decision to exit our mass market retail banking business. See Note 4, "Branch Assets and Liabilities Held for Sale," in the accompanying consolidated financial statements for additional information. As a result, during the second quarter of 2021, we transferred our retail business banking loan portfolio to held for sale with a carrying value of \$149 million. At December 31, 2021, the carrying value of these loans was \$79 million.

Also included in commercial loans held for sale are certain other loans that we no longer intend to hold for investment and were transferred to held for sale which totaled \$359 million and \$93 million at December 31, 2021 and 2020, respectively.

During the fourth quarter of 2021, we sold a portfolio of commercial real estate loans to a third party sponsored asset-backed financing entity with a carrying value of \$1,032 million at the time of sale and recognized an immaterial loss on sale, including transaction costs. These commercial real estate loans were transferred to held for sale during the third quarter of 2021 as part of an effort to reduce exposure to this sector and improve returns on risk-weighted assets. In connection with the sale, we provided a loan to the third-party buyer sponsored asset-backed financing entity for a portion of the purchase price.

In addition, commercial loans held for sale includes certain loans that we have elected to designate under the fair value option which consists of loans that we originate in connection with our participation in a number of syndicated credit facilities with the intent of selling them to unaffiliated third parties as well as loans that we purchase from the secondary market and hold as hedges against our exposure to certain total return swaps. The fair value of these loans totaled \$23 million and \$36 million at December 31, 2021 and 2020, respectively. Balances will fluctuate from period to period depending on the volume and level of activity.

Consumer loans held for sale increased compared with December 31, 2020. As discussed above, during the second quarter of 2021, as part of our Restructuring Plan we made the decision to exit our mass market retail banking business as well as our remaining retail credit card portfolio. As a result, during the second quarter of 2021, we transferred certain consumer loans to held for sale, including loans related to the branch disposal group, with a carrying value which collectively totaled \$3,616 million, including \$2,364 million of residential mortgages, \$265 million of home equity mortgages, \$829 million of credit cards and \$158 million of other consumer loans. During the fourth quarter of 2021, consistent with our Restructuring Plan, we identified additional consumer loans that we no longer have the intent to hold for investment, consisting primarily of certain non-performing mortgage loans and government-backed mortgage loans as well as our remaining student loans. As a result, during the fourth quarter of 2021, we transferred loans to held for sale with a carrying value which collectively totaled \$778 million, including related escrow advances. At December 31, 2021, the carrying value of these transferred loans totaled \$3,681 million, including \$3,007 million of residential mortgages, \$275 million of home equity mortgages, \$195 million of credit cards and \$204 million of other consumer loans (of which \$25 million are student loans that we have previously elected to designate under the fair value option and are therefore carried at fair value).

During the fourth quarter of 2021, we sold a portfolio of mass market retail credit cards to a third party with a carrying value of \$382 million at the time of sale and recognized a gain on sale of approximately \$9 million, net of transaction costs. Under the terms of the sale agreement, we will continue to service the portfolio for a period of time not anticipated to exceed one year. Upon completion of the sale, a portfolio of Premier credit cards with a carrying value of \$204 million was transferred back to held for investment as we now intend to hold these loans for the foreseeable future. These credit card portfolios were transferred to held for sale during the second quarter of 2021 as discussed above, but were not included in the branch disposal group.

Also included in residential mortgage loans held for sale are agency-eligible conforming residential mortgage loans which are originated and held for sale to third parties, currently on a servicing retained basis. Balances will fluctuate from period to period depending on the volume and level of activity. Gains and losses from the sale of these residential mortgage loans are reflected as a component of other income (loss) in the accompanying consolidated statement of income (loss).

Excluding the loans designated under fair value option discussed above, loans held for sale are recorded at the lower of amortized cost or fair value, with adjustments to fair value being recorded as a valuation allowance through other revenues. The valuation allowance on consumer loans held for sale was \$7 million and nil at December 31, 2021 and 2020, respectively. The valuation allowance on commercial loans held for sale was \$5 million and \$1 million at December 31, 2021 and 2020, respectively.

Trading Assets and Liabilities The following table summarizes trading assets and liabilities at December 31, 2021 and increases (decreases) since December 31, 2020:

		Increase (Decrease) From	
		December 31, 2020	
	December 31, 2021	Amount	%
		(dollars are in millions)	
Trading assets:			
Securities ⁽¹⁾	\$ 18,731	\$ (763)	(3.9)%
Precious metals	3,907	(1,082)	(21.7)
Derivatives, net	1,405	(1,396)	(49.8)
	<u>\$ 24,043</u>	<u>\$ (3,241)</u>	<u>(11.9)%</u>
Trading liabilities:			
Securities sold, not yet purchased	\$ 1,103	\$ 376	51.7 %
Payables for precious metals	46	(2,266)	(98.0)
Derivatives, net	1,874	(484)	(20.5)
	<u>\$ 3,023</u>	<u>\$ (2,374)</u>	<u>(44.0)%</u>

⁽¹⁾ See Note 5, "Trading Assets and Liabilities," in the accompanying consolidated financial statements for a breakout of trading securities by category.

Trading securities balances were lower compared with December 31, 2020 due to decreases in foreign sovereign and U.S. Treasury positions, partially offset by an increase in equity positions. Trading security positions are held as economic hedges of interest rate, credit and equity derivative products issued to clients of domestic and emerging markets. Balances of securities sold, not yet purchased were higher compared with December 31, 2020 driven by an increase in short U.S. Treasury positions related to economic hedges of derivatives in the interest rate trading portfolio.

Precious metals trading assets decreased compared with December 31, 2020 due primarily to a decrease in our own silver inventory position as well as lower spot prices. Payables for precious metals were lower compared with December 31, 2020 reflecting a decrease in borrowing of gold inventory to support client activity levels. Precious metal positions may not represent our net underlying exposure as we may use derivatives contracts to reduce our risk associated with these positions, the fair value of which would appear in derivatives in the table above.

Derivative asset and liability balances both decreased compared with December 31, 2020 mainly from market movements and reduced positions driven by the exit or transfer of certain derivative contracts as part of our Restructuring Plan which resulted in lower valuations of foreign exchange, interest rate, equity, commodity and credit derivatives.

Securities Securities include securities available-for-sale and securities held-to-maturity, net. Securities balances were lower compared with December 31, 2020 driven by net sales, paydowns and maturities as part of our continuing strategy to maximize returns while balancing the securities portfolio for risk management purposes as well as unfavorable market valuations due to increasing yields. The decline in securities balances was primarily in U.S. Treasury and foreign sovereign securities which was partially offset by net purchases of U.S. Government sponsored mortgage-backed securities.

All Other Assets All other assets includes, among other items, properties and equipment, net, goodwill and other branch related assets held for sale. All other assets decreased compared with December 31, 2020 due primarily to lower cash collateral posted, lower lease assets and lower investments in Federal Home Loan Bank ("FHLB") stock.

Deposits The following table summarizes deposit balances by major depositor categories at December 31, 2021 and increases (decreases) since December 31, 2020:

		Increase (Decrease) From December 31, 2020	
	December 31, 2021	Amount	%
(dollars are in millions)			
Individuals, partnerships and corporations	\$ 119,284	\$ (13,181)	(10.0)%
Domestic and foreign banks	12,875	2,655	26.0
U.S. government and states and political subdivisions	297	(24)	(7.5)
Foreign governments and official institutions	1,826	(318)	(14.8)
Deposits held for sale ⁽¹⁾	8,750	8,750	*
Total deposits	<u>\$ 143,032</u>	<u>\$ (2,118)</u>	<u>(1.5)%</u>

* Percentage change is greater than 100 percent.

⁽¹⁾ Represents deposits associated with the exit of our mass market retail banking business as part of our Restructuring Plan.

Total deposits decreased compared with December 31, 2020 due primarily to lower deposits from affiliates, largely HSBC North America. Also contributing to the decrease were declines in time deposits and retail savings deposits. These decreases were partially offset by higher commercial deposits as our clients increased their deposits in response to the economic uncertainty caused by the COVID-19 pandemic and improved economic conditions, as well as higher deposits from a few large private banking clients.

Short-Term Borrowings Short-term borrowings were higher compared with December 31, 2020 reflecting increases in commercial paper outstanding and securities sold under repurchase agreements.

Long-Term Debt Long-term debt decreased compared with December 31, 2020 as the impact of debt issuances, including \$3,500 million of senior debt issued to HSBC North America during the first half of 2021, was more than offset by debt retirements. Debt issuances during 2021 totaled \$7,711 million, of which \$866 million was issued by HSBC Bank USA.

Incremental issuances from our shelf registration statement with the SEC totaled \$3,345 million of senior structured notes during 2021. Total long-term debt outstanding under this shelf was \$7,346 million and \$9,138 million at December 31, 2021 and 2020, respectively.

Incremental issuances from the HSBC Bank USA Global Bank Note Program totaled \$866 million during 2021. Total debt outstanding under this program was \$1,966 million and \$1,888 million at December 31, 2021 and 2020, respectively.

Borrowings from the FHLB totaled \$1,000 million and \$4,250 million at December 31, 2021 and 2020, respectively.

Interest, Taxes and Other Liabilities Interest, taxes and other liabilities includes, among other items, other branch related liabilities held for sale. Interest, taxes and other liabilities decreased compared with December 31, 2020 due primarily to lower lease liabilities and a lower liability for off-balance sheet credit exposures, partially offset by higher outstanding settlement balances related to security purchases.

Total Equity During the fourth quarter of 2021, we paid a distribution on our common stock of \$1.0 billion from surplus capital to HSBC North America. See Note 26, "Retained Earnings and Regulatory Capital Requirements," in the accompanying consolidated financial statement for additional details.

Results of Operations

2020 compared with 2019 See "Results of Operations" in our 2020 Form 10-K for a discussion of our operating results for 2020 compared with 2019. See below for a discussion of our operating results for 2021 compared with 2020.

Net Interest Income Net interest income is the total interest income on earning assets less the total interest expense on deposits and borrowed funds. An analysis of consolidated average balances and interest rates is presented in this MD&A under the caption "Consolidated Average Balances and Interest Rates."

The significant components of net interest margin are summarized in the following table:

Year Ended December 31,	2021	2021 Compared with 2020 Increase (Decrease)		2020	2020 Compared with 2019 Increase (Decrease)		2019
		Volume	Rate		Volume	Rate	
(dollars are in millions)							
Interest income:							
Short-term investments	\$ 81	\$ 56	\$ (118)	\$ 143	\$ 282	\$ (712)	\$ 573
Trading securities	225	(35)	(28)	288	(6)	3	291
Securities	641	(146)	(110)	897	52	(343)	1,188
Commercial loans	1,048	(266)	(170)	1,484	(33)	(572)	2,089
Consumer loans	657	(9)	(52)	718	26	(75)	767
Other	23	(23)	4	42	24	(64)	82
Total interest income	2,675	(423)	(474)	3,572	345	(1,763)	4,990
Interest expense:							
Deposits	267	(30)	(458)	755	306	(1,026)	1,475
Short-term borrowings	18	(19)	(32)	69	9	(171)	231
Long-term debt	296	(94)	(168)	558	(218)	(361)	1,137
Tax liabilities and other	11	4	(9)	16	(9)	(10)	35
Total interest expense	592	(139)	(667)	1,398	88	(1,568)	2,878
Net interest income	2,083	\$ (284)	\$ 193	2,174	\$ 257	\$ (195)	2,112
Yield on total interest earning assets	1.46 %			1.91 %			3.00 %
Cost of total interest bearing liabilities	.44			.96			2.21
Interest rate spread	1.02			.95			.79
Benefit from net non-interest paying funds ⁽¹⁾	.11			.21			.48
Net interest margin on average earning assets	1.13 %			1.16 %			1.27 %

⁽¹⁾ Represents the benefit associated with interest earning assets in excess of interest bearing liabilities. Increased percentages reflect growth in this excess or a higher cost of interest bearing liabilities, while decreased percentages reflect a reduction in this excess or a lower cost of interest bearing liabilities.

Net interest income decreased during 2021 due primarily to lower interest income from interest earning assets driven by lower yields, primarily on loans, short-term investments and securities, as well as the unfavorable impact of lower average interest earning asset balances, primarily commercial loans and securities. These decreases were partially offset by lower interest expense from interest bearing liabilities driven by lower rates paid and the favorable impact of lower average interest bearing liability balances.

Short-term investments Interest income decreased during 2021 due to lower yields reflecting the impact of lower market rates, partially offset by higher average balances. Higher average balances were driven by higher deposits with the Federal Reserve Bank, partially offset by lower securities purchased under resale agreements.

Trading securities Interest income decreased during 2021 due to lower average balances and lower yields reflecting the impact of lower market rates. Lower average balances were driven by declines in foreign sovereign and U.S. Treasury positions, partially offset by an increase in equity positions. Interest income associated with trading securities was partially offset within trading revenue by the performance of the associated derivatives as discussed further below.

Securities Interest income was lower during 2021 due to lower average balances and lower yields reflecting the impact of lower market rates. Lower average balances were driven by declines in U.S. Government agency mortgage-backed, U.S.

Treasury and foreign sovereign securities, partially offset by an increase in U.S. Government sponsored mortgage-backed securities.

Commercial loans Interest income was lower during 2021 due to lower average balances and lower yields reflecting the impact of lower market rates on variable rate loans. Lower average balances were driven primarily by the impact of our efforts to improve returns through disciplined lending, paydowns and lower demand from clients reflecting increased capital markets activity.

Consumer loans Interest income decreased during 2021 due primarily to lower yields reflecting the impact of lower market rates on residential mortgage loans, home equity mortgage loans and other consumer loans. Also contributing to the decrease in interest income, to a lesser extent, were lower average balances driven by declines in credit card receivables and home equity mortgage loans.

Other Lower interest income during 2021 was due primarily to lower average cash collateral balances.

Deposits Interest expense decreased during 2021 due primarily to lower rates paid reflecting the impact of lower market rates and a shift in mix to lower cost deposits. Also contributing to the decrease in interest expense, to a lesser extent, were lower average balances driven by declines in time deposits and deposits from affiliates which were partially offset by higher commercial deposits as our clients increased their deposits in response to the economic uncertainty caused by the COVID-19 pandemic and improved economic conditions.

Short-term borrowings Interest expense was lower during 2021 due to lower rates paid reflecting the impact of lower market rates and lower average borrowings driven by a decline in securities sold under repurchase agreements.

Long-term debt Lower interest expense during 2021 was due to lower rates paid reflecting the impact of lower market rates on variable rate borrowings and lower average borrowings.

Tax liabilities and other Interest expense was lower during 2021 driven by lower rates paid reflecting the impact of lower market rates on securities sold, not yet repurchased.

Provision for Credit Losses As discussed further in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in the accompanying consolidated financial statements, beginning January 1, 2020, the provision for credit losses is recognized based on lifetime ECL for loans, off-balance sheet credit exposures, securities held-to-maturity and certain other financial assets measured at amortized cost, as well as credit losses on securities available-for-sale. Prior to January 1, 2020, the provision for credit losses was recognized based on probable incurred losses for loans only while debt securities were assessed for other-than-temporary impairment and credit loss expense for probable incurred losses on off-balance sheet credit exposures was separately recorded as a component of other expense within operating expenses as discussed below. As a result, 2021 and 2020 amounts in the table below are not directly comparable to the 2019 period.

The following table summarizes the components of the provision for credit losses:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Loans:			
Commercial loans:			
Real estate, including construction	\$ (72)	\$ 116	\$ 37
Business and corporate banking	(107)	274	62
Global banking	(174)	149	1
Other commercial	(3)	2	(6)
Total commercial loans	<u>(356)</u>	<u>541</u>	<u>94</u>
Consumer loans:			
Residential mortgages	21	55	(3)
Home equity mortgages	(18)	6	(2)
Credit cards	(66)	107	101
Other consumer	(18)	27	5
Total consumer loans	<u>(81)</u>	<u>195</u>	<u>101</u>
Total loans	<u>(437)</u>	<u>736</u>	<u>195</u>
Securities held-to-maturity	—	(1)	—
Other financial assets measured at amortized cost	1	(2)	—
Securities available-for-sale	—	(2)	—
Off-balance sheet credit exposures ⁽¹⁾	(134)	79	—
Total provision for credit losses	<u>\$ (570)</u>	<u>\$ 810</u>	<u>\$ 195</u>

⁽¹⁾ As discussed below, prior to January 1, 2020, credit loss expense for off-balance sheet credit exposures was recorded in other expense.

Our provision for credit losses decreased \$1,380 million during 2021 due to a lower provision for credit losses on both our commercial and consumer loan portfolios as well as a lower provision for credit losses on off-balance sheet credit exposures.

The provision for credit losses on our commercial loan portfolio decreased \$897 million during 2021 reflecting a release in credit loss reserves compared with a loss provision in 2020. The release in credit reserves in 2021 was driven by improved economic conditions which resulted in improved economic forecasts used for calculating lifetime ECL, improvements in credit conditions associated with certain clients and declines in credit reserves for risk factors associated with economic uncertainty and large loan exposures. Also contributing to the release in credit reserves in 2021 were client paydowns and loan sales, including the transfer of certain commercial real estate loans to held for sale during the third quarter of 2021 which resulted in a release of credit loss reserves and a reduction to the provision for credit losses of approximately \$24 million, including a release of credit reserves for risk factors associated with higher risk industry exposures. In 2020, the loss provision was driven by the deterioration of economic conditions caused by the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating lifetime ECL, downgrades reflecting weakness in the financial condition of certain clients and provisions for risk factors associated with higher risk client and industry exposures, large loan exposures and economic uncertainty.

The provision for credit losses on our consumer loan portfolio decreased \$276 million during 2021 reflecting a release in credit loss reserves compared with a loss provision in 2020. The release in credit reserves in 2021 was driven by the impact of our decision to exit our mass market retail banking business as well as our remaining retail credit card portfolio which resulted in a release of credit loss reserves and a reduction to the provision for credit losses of approximately \$100 million during the second quarter of 2021. Also contributing to the release in credit reserves in 2021 were improved economic conditions which resulted in improved economic forecasts used for calculating lifetime ECL and declines in credit reserves for risk factors associated with economic uncertainty and forbearance accounts. The release in credit reserves in 2021 was partially offset by loss provisions recorded during the fourth quarter of 2021 associated with certain mortgage loans that were transferred to held for sale and a portfolio of Premier credit cards that were transferred back to held for investment as discussed further in Note 8, "Allowance for Credit Losses," in the accompanying consolidated financial statements. In 2020, the loss provision was driven by the deterioration of economic conditions caused by the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating lifetime ECL and higher dollars of delinquency, as well as provisions for risk factors associated with economic uncertainty and forbearance accounts. Also contributing to the loss provision in 2020 was growth in personal

loan balances due to new product promotions. The loss provision in 2020 was partially offset by a decline in credit card balances.

The provision for credit losses on off-balance sheet credit exposures decreased \$213 million during 2021 reflecting a release in credit loss reserves compared with a loss provision in 2020. The release in credit reserves in 2021 resulted from improved economic conditions consistent with commercial loans as discussed above. The loss provision in 2020 resulted from the deterioration of economic conditions caused by the COVID-19 pandemic consistent with commercial loans as discussed above.

Our methodology and accounting policies related to the allowance for credit losses are presented under the caption "Critical Accounting Policies and Estimates" in this MD&A and in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in the accompanying consolidated financial statements. See "Credit Quality" in this MD&A for additional discussion on the allowance for credit losses associated with our various loan portfolios.

Other Revenues The following table summarizes the components of other revenues:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Credit card fees, net	\$ 37	\$ 38	\$ 67
Trust and investment management fees	108	132	132
Other fees and commissions	652	567	619
Trading revenue	24	273	591
Other securities gains, net	73	137	88
Servicing and other fees from HSBC affiliates	321	347	354
Gain (loss) on instruments designated at fair value and related derivatives	35	34	(13)
Other income (loss):			
Valuation of loans held for sale	(14)	(22)	1
Residential mortgage banking revenue	20	11	1
Insurance	6	7	12
Gains on extinguishment of debt, net	—	12	70
Miscellaneous income (loss)	(25)	(1)	(68)
Total other income (loss)	(13)	7	16
Total other revenues	<u>\$ 1,237</u>	<u>\$ 1,535</u>	<u>\$ 1,854</u>

Credit card fees, net Credit card fees, net were relatively flat during 2021 as higher cost estimates associated with our credit rewards program reflecting an increase in estimated customer redemption rates was largely offset by higher interchange fees driven by higher customer spending reflecting improved economic conditions compared with 2020.

Trust and investment management fees Trust and investment management fees declined during 2021 due primarily to higher liquidity fund fee waivers driven by the impact of low market interest rates. The decline was partially offset by higher average assets under management reflecting new money growth primarily driven by a few large private banking clients as well as positive market performance.

Other fees and commissions Other fees and commissions increased during 2021 due primarily to higher fees from loan syndication, wire transfers and other account services reflecting improved economic conditions compared with 2020. See Note 23, "Fee Income from Contracts with Customers," in the accompanying consolidated financial statements for additional information including a summary of the components of other fees and commissions.

Trading revenue Trading revenue is generated by participation in the foreign exchange, precious metals, rates, credit and equities markets. The following table presents trading revenue by business activity. Not included in the table below is the impact of net interest income associated with trading securities which is an integral part of trading activities' overall performance. Certain derivatives, such as total return swaps, are economically hedged by holding the underlying interest bearing referenced assets. Net interest income related to trading activities is recorded in net interest income in the consolidated statement of income (loss). Trading revenue related to the mortgage banking business is included as a component of other income (loss). During the first quarter of 2021, we changed our presentation for the components of trading revenue to provide a more detailed view. As a result, we have reclassified prior year amounts in order to conform to the current year presentation.

Year Ended December 31,	2021	2020	2019
	(in millions)		
Business Activities:			
Foreign Exchange	\$ 193	\$ 322	\$ 418
Metals	50	132	117
Debt Markets	—	13	36
Securities Financing	(157)	(120)	12
Markets Treasury	18	(17)	16
Legacy structured credit products	(28)	10	(21)
Other trading ⁽¹⁾	(52)	(67)	13
Total trading revenue	\$ 24	\$ 273	\$ 591

⁽¹⁾ Includes trading revenue related to Global Banking and Equities as well as trading revenue associated with the exit of certain derivative contracts as part of our Restructuring Plan, including trading losses of \$35 million and \$67 million recorded during 2021 and 2020, respectively.

Trading revenue decreased during 2021 due primarily to lower revenue in Foreign Exchange, Metals, Legacy structured credit products, Securities Financing and Debt Markets. Revenue was lower in Foreign Exchange and Metals as market volatility driven by the COVID-19 pandemic resulted in increased trading opportunities in 2020. Lower revenue in Foreign Exchange and Debt Markets also reflects the impact of our decision to exit or transfer certain derivatives as part of our Restructuring Plan which resulted in lower revenue from emerging markets rate products and interest rate swaps. Revenue was lower in Legacy structured credit products reflecting the unwind of our remaining business activities, including a loss of approximately \$31 million recorded during the third quarter of 2021, as well as the impact of a structured note vehicle that was unwound during the third quarter of 2020 which was a key contributor to the valuation gain recorded in 2020. Lower revenue in Securities Financing was due to higher losses related to swaps in prime brokerage. These decreases were partially offset by higher revenue in Markets Treasury due to the improved performance of economic hedge positions used to manage interest rate risk and lower Other trading losses associated with the exit of certain derivative contracts as part of our Restructuring Plan.

Other securities gains, net We maintain securities portfolios as part of our balance sheet diversification and risk management strategies. During 2021 and 2020, we sold \$10,324 million and \$12,197 million, respectively, of primarily U.S. Treasury, U.S. Government agency mortgage-backed and U.S. Government sponsored mortgage-backed securities as part of a continuing strategy to maximize returns while balancing the securities portfolio for risk management purposes. Other securities gains, net decreased during 2021 reflecting lower net gains from the sales of U.S. Treasury and U.S. Government agency mortgage-backed securities as well as the impact of lower sales activity. The gross realized gains and losses from sales of securities, which are included as a component of other securities gains, net above, are summarized in Note 6, "Securities," in the accompanying consolidated financial statements.

Servicing and other fees from HSBC affiliates Servicing and other fees from HSBC affiliates decreased during 2021 due primarily to lower cost reimbursements associated with shared services performed on behalf of other HSBC affiliates, including internal audit, as well as lower sales commissions from HSBC Bank plc.

Gain (loss) on instruments designated at fair value and related derivatives We have elected to apply fair value option accounting to certain commercial loans held for sale, certain student loans, certain of our own fixed-rate debt issuances and all of our hybrid instruments issued, including structured notes and deposits. We also use derivatives to economically hedge the interest rate and other risks associated with certain financial assets and liabilities for which fair value option accounting has been elected. Gain (loss) on instruments designated at fair value and related derivatives was relatively flat during 2021 as favorable fair value adjustments on loans driven by a loss recorded in 2020 on certain commercial loans held for sale which were impacted by the COVID-19 pandemic as well as favorable movements related to the economic hedging of interest rate and other risks within our hybrid instruments were largely offset by unfavorable movements related to the economic hedging of interest rate risk within our own debt. See Note 17, "Fair Value Option," in the accompanying consolidated financial statements for additional information including a breakout of these amounts by individual component.

Other income (loss) Other income (loss) was lower during 2021 due primarily to the non-recurrence of miscellaneous gains recorded in 2020, including \$18 million of gains on sales of certain owned retail branch properties and a \$12 million gain on extinguishment of time deposits reflecting early client withdrawals. Also contributing to the decrease was lower income associated with bank owned life insurance and \$8 million of transaction costs recorded in 2021 directly associated with the branch disposal group held for sale. These decreases were partially offset by a net gain from loan sales in 2021 compared with a loss in 2020, higher gains from equity investments, higher residential mortgage banking revenue driven by higher gains on sales of residential mortgage loans and lower valuation losses on loans held for sale.

Operating Expenses The following table summarizes the components of operating expenses:

Year Ended December 31,	2021	2020	2019
	(dollars are in millions)		
Salaries and employee benefits	\$ 665	\$ 767	\$ 822
Support services from HSBC affiliates:			
Fees paid to HTSU	1,061	1,066	1,153
Fees paid to HSBC Markets (USA) Inc. ("HMUS")	118	89	100
Fees paid to other HSBC affiliates	441	396	385
Total support services from HSBC affiliates	1,620	1,551	1,638
Occupancy expense, net	248	281	197
Goodwill impairment	—	784	365
Other expenses:			
Equipment and software	111	95	83
Marketing	46	64	133
Outside services	75	61	62
Professional fees	76	80	69
Off-balance sheet credit reserves ⁽¹⁾	—	—	8
Federal Deposit Insurance Corporation ("FDIC") assessment fees	63	71	24
Expense related to legal matters (excluding attorney's fees)	—	68	54
Miscellaneous	74	59	46
Total other expenses	445	498	479
Total operating expenses	\$2,978	\$ 3,881	\$ 3,501
Personnel - average number	3,713	4,371	4,694
Efficiency ratio	89.7 %	104.6 %	88.3 %

⁽¹⁾ As discussed above, beginning January 1, 2020, credit loss expense for off-balance sheet credit exposures is recorded in the provision for credit losses.

Salaries and employee benefits Salaries and employee benefits expense decreased during 2021 due primarily to lower salaries expense driven by staff reductions related to our Restructuring Plan as well as lower severance costs.

Support services from HSBC affiliates Servicing and other fees from HSBC affiliates increased during 2021 due primarily to higher allocated restructuring related costs from HTSU and other HSBC affiliates. In 2021, we recorded \$139 million of allocated restructuring related costs from HTSU and other HSBC affiliates, primarily support service project costs and severance costs, compared with \$80 million of allocated restructuring related costs in 2020. Also contributing to the increase were higher cost allocations from HMUS associated with Global Banking activities reflecting the impacts of higher staff costs and an updated service level agreement. These increases were partially offset by lower cost allocations from our technology and support service functions driven by the execution of our Restructuring Plan. A summary of the services received from various HSBC affiliates is included in Note 24, "Related Party Transactions," in the accompanying consolidated financial statements.

Occupancy expense, net Occupancy expense, net was lower during 2021 due primarily to lower operating lease costs and depreciation expense driven by the execution of our Restructuring Plan, partially offset by higher lease impairment and other related costs. In 2021, we recorded \$138 million of lease impairment and other related costs related to the exit of certain branches and office space as part of our Restructuring Plan compared with \$121 million of lease impairment and other related costs in 2020. See Note 3, "Strategic Initiatives," in the accompanying consolidated financial statements for additional information.

Goodwill impairment Reflects a goodwill impairment charge of \$784 million recorded in 2020 representing the entire amount of goodwill allocated to our previously separate Retail Banking and Wealth Management and Private Banking reporting units. For additional discussion of the results of our goodwill impairment testing, see Note 11, "Goodwill," in the accompanying consolidated financial statements.

Other expenses Other expenses were lower during 2021 due primarily to lower expense related to legal matters as well as declines in marketing expense, market data costs and deposit insurance assessment fees. These decreases were partially offset by lower levels of expense capitalization related to internally developed software, higher outside services expense and higher capitalized software amortization expense.

Efficiency ratio Our efficiency ratio improved during 2021 due primarily to lower operating expenses driven by the non-recurrence of a goodwill impairment charge recorded in 2020, partially offset by lower other revenues driven by lower trading revenue as well as lower net interest income.

Income tax expense (benefit) Our effective tax rate was 24.6 percent in 2021 compared with (4.3) percent in 2020 and 58.1 percent in 2019. For a complete analysis of the differences between effective tax rates based on the provision for income taxes attributable to pretax income (loss) and the statutory U.S. Federal income tax rate, see Note 18, "Income Taxes," in the accompanying consolidated financial statements.

Segment Results – Group Reporting Basis

We have distinct businesses, which are aligned with HSBC's global business strategy: Wealth and Personal Banking ("WPB"), Commercial Banking ("CMB"), and Global Banking and Markets ("GBM"). These businesses and a Corporate Center ("CC") serve as our reportable segments with the exception of GBM. Our GBM business is comprised of three distinct operating segments: Global Banking ("GB"), Markets and Securities Services ("MSS"), and Global Banking and Markets Other ("GBM Other"), which are separately reported as discussed further below. See Item 1, "Business," in this Form 10-K for a description of our segments, including a discussion of the main business activities of the segments and a summary of their products and services.

During the fourth quarter of 2021, we implemented a change to our internal management reporting to align with changes to the governance structure and how we assess business performance of our GBM business, which is now being reported and managed as three separate operating segments: GB, MSS and GBM Other. As a result, we have aligned our segment reporting to reflect this change for all periods presented.

See Note 25, "Business Segments," in the accompanying consolidated financial statements for a table that summarizes the impact of this change on reported segment profit (loss) before tax, total assets and total deposits as of and for the years ended December 31, 2020 and 2019.

As of January 1, 2021, we also implemented a change to our internal management reporting to prospectively report assets related to our active branches within our WPB segment, which were historically reported within our CC segment. As a result, lease impairment and other related costs associated with these branches is recorded within our WPB segment beginning in 2021. Prior periods were not impacted by this change.

There have been no additional changes in the basis of our segmentation as compared with the presentation in our 2020 Form 10-K.

Net interest income of each segment represents the difference between actual interest earned on assets and interest incurred on liabilities of the segment, adjusted for a funding charge or credit that includes both interest rate and liquidity components. Segments are charged a cost to fund assets (e.g. customer loans) and receive a funding credit for funds provided (e.g. customer deposits) based on equivalent market rates that incorporate both repricing (interest rate risk) and tenor (liquidity) characteristics. The objective of these charges/credits is to transfer interest rate risk to one centralized unit in Markets Treasury. Markets Treasury income statement and balance sheet results are allocated to each of the global businesses based upon tangible equity levels and levels of any surplus liabilities.

Certain other revenue and operating expense amounts are also apportioned among the business segments based upon the benefits derived from this activity or the relationship of this activity to other segment activity. These inter-segment transactions have not been eliminated, and we generally account for them as if they were with third parties.

We report financial information to our parent, HSBC, in accordance with HSBC Group accounting and reporting policies, which apply IFRSs as issued by the IASB. As a result, our segment results are prepared and presented using financial information prepared on the Group Reporting Basis as operating results are monitored and reviewed, trends are evaluated and decisions about allocating resources, such as employees, are primarily made on this basis. We continue, however, to monitor capital adequacy and report to regulatory agencies on a U.S. GAAP basis.

There have been no changes in the measurement of segment profit as compared with the presentation in our 2020 Form 10-K.

The significant differences between U.S. GAAP and the Group Reporting Basis as they impact our results are summarized in Note 25, "Business Segments," in the accompanying consolidated financial statements.

2020 compared with 2019 See "Segment Results - Group Reporting Basis" in our 2020 Form 10-K for a discussion of our segment results for 2020 compared with 2019, with the exception of the three reportable operating segments comprising our GBM business which is discussed below. See below for a discussion of our segment results for 2021 compared with 2020.

Wealth and Personal Banking The following table summarizes the Group Reporting Basis results for our WPB segment:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Net interest income	\$ 801	\$ 837	\$ 1,018
Other operating income	303	368	330
Total operating income ⁽¹⁾	1,104	1,205	1,348
Expected credit losses	(21)	189	115
Net operating income	1,125	1,016	1,233
Operating expenses	1,221	2,203	1,645
Loss before tax	\$ (96)	\$ (1,187)	\$ (412)

⁽¹⁾ The following table summarizes the impact of key activities on the total operating income of our WPB segment:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Retail banking current accounts, savings and deposits	\$ 413	\$ 503	\$ 663
Retail banking mortgages, credit cards and other personal lending	306	306	240
Wealth and asset management products	78	96	96
Private banking	178	169	204
Retail business banking and other ⁽²⁾	129	131	145
Total operating income	\$ 1,104	\$ 1,205	\$ 1,348

⁽²⁾ Includes cost reimbursements associated with activities performed on behalf of other HSBC affiliates and allocated Markets Treasury revenue.

During the second quarter of 2021, as part of our Restructuring Plan we made the decision to exit our mass market retail banking business, including our Personal and Advance propositions as well as retail business banking, and focus on the banking and wealth management needs of globally-connected affluent and high net worth clients through our Premier, Jade or Private Banking propositions. In conjunction with the execution of this strategy, we have entered into definitive sale agreements with third parties to sell 90 of our retail branches along with substantially all residential mortgage, unsecured and retail business banking loans and all deposits in our branch network not associated with our Premier, Jade and Private Banking customers. Certain assets under management associated with our mass market retail banking business which are managed by an affiliate will also be transferred to one of the buyers. We completed the sale of the disposal group in February 2022. We will continue to offer deposits and retail loan products to our Premier, Jade and Private Banking customers. During the fourth quarter of 2021, we also sold a portfolio of mass market retail credit cards as discussed further below.

Our WPB segment reported a lower loss before tax during 2021 due primarily to lower operating expenses driven by lower impairment charges. In 2021, we recorded \$67 million of lease impairment and other related costs primarily related to the exit of certain branches as part of our Restructuring Plan. In 2020, we recorded impairment charges, including a goodwill impairment charge, representing the entire amount of remaining goodwill previously recorded, and an impairment charge related to the write-off of all the capitalized software associated with our WPB business segment, which collectively totaled \$900 million. Also contributing to the lower loss before tax during 2021 was lower expected credit losses, partially offset by lower other operating income and lower net interest income.

Net interest income decreased during 2021 due to lower deposit spreads reflecting the impact of lower market rates, partially offset by improved spreads on residential mortgage loans.

Other operating income decreased during 2021 due primarily to lower investment management fees driven by higher liquidity fund fee waivers reflecting the impact of low market interest rates, lower allocated Markets Treasury revenue and lower residential mortgage banking revenue driven by unfavorable fair value adjustments on residential mortgage loans held for trading. Also contributing to the decrease were \$8 million of transaction costs recorded in 2021 directly associated with the

branch disposal group held for sale. These decreases were partially offset by a net gain of \$22 million recorded during the fourth quarter of 2021 on the sale of a portfolio of mass market retail credit cards.

Expected credit losses improved during 2021 reflecting a release in credit loss reserves compared with a loss provision in 2020. The release in credit reserves in 2021 was due to improved economic conditions which resulted in improved economic forecasts used for calculating ECL and lower loss estimates for risk factors associated with economic uncertainty as well as declines in credit card balances. In 2020, the loss provision was driven by the deterioration of economic conditions caused by the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating ECL and higher dollars of delinquency, as well as higher loss estimates for risk factors associated with economic uncertainty and forbearance accounts. Also contributing to the loss provision in 2020 was growth in personal loan balances due to new product promotions. The loss provision in 2020 was partially offset by a decline in credit card balances.

Excluding the impairment charges discussed above, operating expenses remained lower during 2021 driven by the execution of our Restructuring Plan which resulted in declines in staff costs, operating lease costs, marketing expense, severance costs and cost allocations from our technology and support service functions. Also contributing to the decrease were lower deposit insurance assessment fees.

Client Assets The following table provides information regarding private banking client assets during 2021 and 2020:

Year Ended December 31,	2021	2020
	(in millions)	
Client assets at beginning of period	\$ 44,104	\$ 39,295
Net new money (outflows)	9,899	(532)
Value change	12,178	5,341
Client assets at end of period	<u>\$ 66,181</u>	<u>\$ 44,104</u>

The increase in client assets during 2021 reflects new money growth primarily driven by a few large clients as well as positive market performance.

Commercial Banking The following table summarizes the Group Reporting Basis results for our CMB segment:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Net interest income	\$ 771	\$ 821	\$ 829
Other operating income	297	234	239
Total operating income ⁽¹⁾	<u>1,068</u>	<u>1,055</u>	<u>1,068</u>
Expected credit losses	<u>(26)</u>	<u>293</u>	<u>55</u>
Net operating income	<u>1,094</u>	<u>762</u>	<u>1,013</u>
Operating expenses	<u>581</u>	<u>587</u>	<u>581</u>
Profit before tax	<u>\$ 513</u>	<u>\$ 175</u>	<u>\$ 432</u>

⁽¹⁾ The following table summarizes the impact of key activities on the total operating income of our CMB segment:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Lending and Transaction Management	\$ 466	\$ 464	\$ 457
Global Liquidity and Cash Management ("GLCM"), current accounts and savings deposits	399	429	458
Global Trade and Receivables Finance ("GTRF")	64	56	53
Investment banking products and other ⁽²⁾	139	106	100
Total operating income	<u>\$ 1,068</u>	<u>\$ 1,055</u>	<u>\$ 1,068</u>

⁽²⁾ Includes allocated Markets Treasury revenue.

Our CMB segment reported a higher profit before tax during 2021 due primarily to lower expected credit losses and, to a lesser extent, higher other operating income. These increases were partially offset by lower net interest income.

Net interest income decreased during 2021 due to lower deposit spreads reflecting the impact of lower market rates and lower average loan balances, partially offset by higher average deposit balances, improved loan spreads and higher earnings on capital.

Other operating income increased during 2021 due primarily to higher fees from loan syndication and account services as well as a net gain from loan sales in 2021 compared with a loss in 2020. These increases were partially offset by lower allocated Markets Treasury revenue.

Expected credit losses improved during 2021 reflecting a release in credit loss reserves compared with a loss provision in 2020. The release in credit reserves in 2021 was driven by improved economic conditions which resulted in improved economic forecasts used for calculating ECL as well as client paydowns, partially offset by a higher loss estimate for risk factors associated with real estate industry loan exposures. In 2020, the loss provision was driven by the deterioration of economic conditions caused by the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating ECL, downgrades reflecting weakness in the financial condition of certain clients and higher loss estimates for risk factors associated with higher risk client and industry exposures.

Operating expenses decreased during 2021 due primarily to lower branch network costs, partially offset by higher cost allocations from our support service functions.

Global Banking and Markets Our GBM business is comprised of three reportable operating segments:

Global Banking The following table summarizes the Group Reporting Basis results for our GB segment:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Net interest income	\$ 315	\$ 369	\$ 513
Other operating income	409	351	415
Total operating income ⁽¹⁾	724	720	928
Expected credit losses	(157)	139	1
Net operating income	881	581	927
Operating expenses	407	372	383
Profit before tax	\$ 474	\$ 209	\$ 544

⁽¹⁾ The following table summarizes the impact of key activities on the total operating income of our GB segment. For purposes of the discussion below the table, total operating income is referred to as revenue.

Year Ended December 31,	2021	2020	2019
	(in millions)		
GLCM	\$ 363	\$ 398	\$ 481
Capital Markets	210	163	228
Credit and Lending	91	76	104
GTRF	48	53	53
GB Other ⁽²⁾	12	30	62
Total operating income	\$ 724	\$ 720	\$ 928

⁽²⁾ Includes net interest income on capital held in the business and not assigned to products as well as revenue associated with credit default swap protection, certain credit-linked structured notes and loan sales.

2021 profit before tax compared with 2020 Our GB segment reported a higher profit before tax during 2021 due to lower expected credit losses and higher other operating income, partially offset by lower net interest income and higher operating expenses.

Revenue increased during 2021 due to higher revenue in Capital Markets, and Credit and Lending, partially offset by lower revenue in GLCM and GB Other. Higher revenue in Capital Markets, and Credit and Lending was due to higher collections of nonaccrual loans, improved loan spreads and, in Capital Markets, higher loan syndication fees, partially offset by lower net interest income from lower average loan balances driven by the impact of our efforts to improve returns through disciplined lending as well as lower demand from clients reflecting increased capital markets activity. Lower revenue in GLCM was due to lower net interest income driven by lower deposit spreads reflecting the impact of lower market rates, partially offset by the impact of higher average deposit balances as well as higher account service fees. Lower revenue in GB Other was due primarily to lower earnings on capital.

Expected credit losses improved during 2021 reflecting a release in credit loss reserves compared with a loss provision in 2020. The release in credit reserves in 2021 was driven by improved economic conditions which resulted in improved economic forecasts used for calculating ECL and improvements in credit conditions associated with certain clients as well as a lower loss estimate for risk factors associated with oil and gas industry loan exposures. Client paydowns and loan sales also contributed to the release in credit reserves in 2021. In 2020, the loss provision was driven by the deterioration of economic conditions caused

by the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating ECL, downgrades reflecting weakness in the financial condition of certain clients and higher loss estimates for risk factors associated with oil and gas industry loan exposures and higher risk client exposures.

Operating expenses increased during 2021 due primarily to higher cost allocations from our support service functions, including higher cost allocations from HMUS reflecting the impact of higher staff costs and an updated service level agreement.

2020 profit before tax compared with 2019 Our GB segment reported a lower profit before tax during 2020 due to lower net interest income, higher expected credit losses and lower other operating income, partially offset by lower operating expenses.

Revenue decreased during 2020 due primarily to lower revenue in GLCM, Capital Markets, Credit and Lending, and GB Other. Revenue was lower in GLCM due to lower net interest income driven by lower deposit spreads reflecting the impact of lower market rates, partially offset by the impact of higher average deposit balances. Lower revenue in Capital Markets was due to lower fees from loan syndication and lower average loan balances. Lower average loan balances were driven by the impact of our efforts to improve returns through disciplined lending as well as lower demand reflecting increased capital markets activity by clients coupled with economic uncertainty caused by the COVID-19 pandemic. Credit and Lending revenue was lower due to lower fees from loan commitments and lower net interest income from spread compression. GB Other revenue was lower due to lower earnings on capital and higher losses on sales of loans.

Expected credit losses increased during 2020 driven by the deterioration of economic conditions caused by the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating ECL, downgrades reflecting weakness in the financial condition of certain clients and higher loss estimates for risk factors associated with oil and gas industry loan exposures and higher risk client exposures.

Operating expenses were lower during 2020 due primarily to lower incentive compensation expense, lower salaries expense and lower cost allocations from our support service functions. These decreases were partially offset by higher deposit insurance assessment fees.

Markets and Securities Services The following table summarizes the Group Reporting Basis results for our MSS segment:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Net interest income	\$ 47	\$ 91	\$ 91
Other operating income	318	454	358
Total operating income ⁽¹⁾	365	545	449
Expected credit losses	—	—	—
Net operating income	365	545	449
Operating expenses	275	351	317
Profit before tax	\$ 90	\$ 194	\$ 132

⁽¹⁾ The following table summarizes the impact of key activities on the total operating income of our MSS segment. For purposes of the discussion below the table, total operating income is referred to as revenue.

Year Ended December 31,	2021	2020	2019
	(dollars are in millions)		
Foreign Exchange and Metals	\$ 237	\$ 481	\$ 277
Debt Markets	1	7	61
Securities Financing	43	33	23
Equities	56	33	25
Securities Services	26	28	26
MSS Other ⁽²⁾	(14)	(47)	13
Credit and funding valuation adjustments	16	10	24
Total MSS	\$ 365	\$ 545	\$ 449

⁽²⁾ Includes revenue associated with the exit of certain derivative contracts as part of our Restructuring Plan, including trading losses of \$13 million and \$67 million recorded during 2021 and 2020, respectively.

2021 profit before tax compared with 2020 Our MSS segment reported a lower profit before tax during 2021 due to lower other operating income and lower net interest income, partially offset by lower operating expenses.

Revenue decreased during 2021 due primarily to lower revenue in Foreign Exchange and Metals, partially offset by higher revenue in MSS Other, Equities and Securities Financing. Lower revenue in Foreign Exchange and Metals was due to market volatility driven by the COVID-19 pandemic resulted in increased trading opportunities in 2020 as well as the impact of our

decision to exit or transfer certain derivatives as part of our Restructuring Plan which resulted in lower revenue from emerging markets rate products. Higher revenue in MSS Other was due to lower trading losses associated with the exit of certain derivatives as part of our Restructuring Plan. Higher revenue in Equities was driven by higher performance fees associated with trading activity booked on the balance sheet of HSBC Bank plc. Higher revenue in Securities Financing was due to increased balance sheet deployment in prime brokerage.

Operating expenses decreased during 2021 due primarily to lower expense related to legal matters, lower salaries expense and lower market data costs.

2020 profit before tax compared with 2019 Our MSS segment reported a higher profit before tax during 2020 due to higher other operating income, partially offset by higher operating expenses.

Revenue increased during 2020 due primarily to higher revenue in Foreign Exchange and Metals, and to a lesser extent, Securities Financing. Revenue was higher in Foreign Exchange and Metals due primarily to market volatility driven by the COVID-19 pandemic which resulted in increased trading opportunities as well as higher revenue from emerging markets rate products. Higher revenue in Securities Financing was due to higher returns in prime brokerage. These increases were partially offset by trading losses recorded in MSS Other in 2020 associated with the exit of certain derivatives as part of our Restructuring Plan and lower revenue in Debt Markets reflecting the impact of our decision to exit or transfer certain derivatives as part of our Restructuring Plan as well as lower revenue from structuring and collateralized financing related activity. Credit and funding valuation adjustments were also unfavorable, attributable primarily to lower gains from credit valuation adjustments on derivative assets reflecting the impact of market volatility caused by the COVID-19 pandemic as well as the impact of lower market rates.

Operating expenses were higher during 2020 due primarily to higher expense related to legal matters, partially offset by lower incentive compensation expense, lower salaries expenses and lower cost allocations from our support service functions.

Global Banking and Markets Other The following table summarizes the Group Reporting Basis results for our GBM Other segment. For purposes of the discussion below the table, total operating income is referred to as revenue.

Year Ended December 31,	2021	2020	2019
	(in millions)		
Net interest expense	\$ (24)	\$ (62)	\$ (83)
Other operating income	100	165	127
Total operating income	76	103	44
Expected credit losses	(1)	1	—
Net operating income	77	102	44
Operating expenses	98	118	149
Loss before tax	<u>\$ (21)</u>	<u>\$ (16)</u>	<u>\$ (105)</u>

2021 profit before tax compared with 2020 Our GBM Other segment reported a higher loss before tax during 2021 due to lower other operating income, partially offset by lower net interest expense and lower operating expenses.

Revenue decreased during 2021 due to lower allocated Markets Treasury revenue, partially offset by lower liquidity charges and lower corporate funding charges.

Operating expenses decreased during 2021 due primarily to lower cost allocations from our support service functions, lower severance costs and lower allocated Markets Treasury expense.

2020 profit before tax compared with 2019 Our GBM Other segment reported a lower loss before tax during 2020 due to higher other operating income, lower operating expenses and lower net interest expense.

Revenue increased during 2020 due to lower corporate funding charges, higher allocated Markets Treasury revenue and the non-recurrence of a loss on extinguishment of long-term debt recorded in 2019, partially offset by higher liquidity charges and lower cost reimbursements.

Operating expenses decreased during 2020 due primarily to lower cost allocations from our support service functions, partially offset by higher severance costs.

Corporate Center The following table summarizes the Group Reporting Basis results for our CC segment:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Net interest expense	\$ (6)	\$ (30)	\$ (65)
Other operating income	3	129	68
Total operating income (expense) ⁽¹⁾	(3)	99	3
Expected credit losses	—	—	—
Net operating income (expense)	(3)	99	3
Operating expenses	316	403	238
Loss before tax	\$ (319)	\$ (304)	\$ (235)

⁽¹⁾ The following table summarizes the impact of key activities on the total operating income (expense) of our CC segment:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Legacy structured credit products	\$ (29)	\$ 11	\$ (31)
Other ⁽²⁾	26	88	34
Total operating income (expense)	\$ (3)	\$ 99	\$ 3

⁽²⁾ Includes a trading loss of \$22 million recorded during 2021 associated with the exit of certain derivative contracts as part of our Restructuring Plan.

Our CC segment reported a higher loss before tax during 2021 due to lower other operating income, partially offset by lower operating expenses and lower net interest expense.

Net interest expense was lower during 2021 driven by lower retained liquidity charges and lower net interest expense from legacy structured credit products.

Other operating income decreased during 2021 due to lower revenue in legacy structured credit products reflecting the unwind of our remaining business activities, including a loss of approximately \$31 million recorded during the third quarter of 2021, as well as the impact of a structured note vehicle that was unwound during the third quarter of 2020 which was a key contributor to the valuation gain recorded in 2020. Also contributing to the decrease was a trading loss of \$22 million recorded in the third quarter of 2021 associated with the exit of certain derivative contracts as part of our Restructuring Plan, unfavorable movements related to the economic hedging of interest rate risk within our own debt, lower cost reimbursements associated with shared services performed on behalf of other HSBC affiliates, including internal audit, and the non-recurrence of \$18 million of gains recorded in 2020 on the sales of certain owned retail branch properties. These decreases were partially offset by higher gains from equity investments.

Operating expenses decreased during 2021 due primarily to lower lease impairment and other related costs. In 2021, we recorded lease impairment and other related costs of \$65 million primarily associated with the exit of certain office space. In 2020, we recorded lease impairment and other related costs of \$185 million related to the initial consolidation of our retail branch network and certain office space as part of our Restructuring Plan, including an impairment charge of \$55 million related to the write-off of a portion of the leasehold improvements associated with our WPB business. Also contributing to the decrease were lower cost allocations from our technology and support service functions. These decreases were partially offset by higher allocated restructuring related costs from HTSU and other HSBC affiliates, primarily support service project costs and severance costs.

Reconciliation of Segment Results As previously discussed, segment results are reported on a Group Reporting Basis. See Note 25, "Business Segments," in the accompanying consolidated financial statements for a reconciliation of our Group Reporting Basis segment results to U.S. GAAP consolidated totals.

Credit Quality

In the normal course of business, we enter into a variety of transactions that involve both on and off-balance sheet credit risk. Principal among these activities is lending to various commercial, institutional, governmental and individual customers. We participate in lending activity throughout the United States and, on a limited basis, internationally.

COVID-19 Loan Forbearance Initiatives We implemented various loan modification payment deferral programs to provide borrowers relief from the economic impacts of the COVID-19 pandemic. Substantially all of the loans under these programs were not classified as TDR Loans due to our election to suspend TDR Loan classification under the CARES Act (which expired on January 1, 2022) or their short-term nature as discussed under the Interagency Statement. In addition, under the Interagency

Statement, for COVID-19 related loan modifications in the form of a payment deferral, the borrower's past due status was not affected during the deferral period and, if the loan was accruing at the time the relief was granted, the loan was generally not placed on nonaccrual status as long as the borrower utilized a payment deferral of six months or less. For consumer mortgage loans, when a borrower utilized a payment deferral of more than six months, the loan was generally placed on nonaccrual status and, if the loan did not meet the criteria in the CARES Act, assessed for TDR Loan classification. We did not modify our commercial loan nonaccrual policies as a result of this guidance. These COVID-19 related payment deferral programs could delay the recognition of delinquencies, nonaccrual status, and net charge-offs for those customers who may have otherwise moved into past due or nonaccrual status had such relief not been offered. See "Executive Overview," in this MD&A for additional information.

Allowance for Credit Losses / Liability for Off-Balance Sheet Credit Exposures Our accounting policies and methodologies related to the allowance for credit losses and liability for off-balance sheet credit exposures are presented under the caption "Critical Accounting Policies and Estimates" in this MD&A and in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in the accompanying consolidated financial statements. Our approach toward credit risk management is summarized under the caption "Risk Management" in this MD&A.

The following table summarizes our allowance for credit losses and the liability for off-balance sheet credit exposures:

At December 31,	2021	2020
	(in millions)	
Allowance for credit losses:		
Loans:		
Commercial loans	\$ 420	\$ 814
Consumer loans	27	201
Total loans	447	1,015
Securities held-to-maturity	1	2
Other financial assets measured at amortized cost ⁽¹⁾	1	2
Securities available-for-sale	1	1
Total allowance for credit losses	\$ 450	\$ 1,020
Liability for off-balance sheet credit exposures	\$ 103	\$ 237

⁽¹⁾ Primarily includes accrued interest receivables and customer acceptances.

The total allowance for credit losses at December 31, 2021 decreased \$570 million or 56 percent as compared with December 31, 2020 due to lower loss estimates on both our commercial and consumer loan portfolios.

Our commercial allowance for credit losses at December 31, 2021 decreased \$394 million or 48 percent as compared with December 31, 2020 driven by improved economic conditions which resulted in improved economic forecasts used for calculating lifetime ECL, improvements in credit conditions associated with certain clients and declines in credit reserves for risk factors associated with economic uncertainty and large loan exposures. Also contributing to the decrease were client paydowns and loan sales, including the transfer of certain commercial real estate loans to held for sale which resulted in a release of credit loss reserves of approximately \$24 million, including a release of credit reserves for risk factors associated with higher risk industry exposures.

Our consumer allowance for credit losses at December 31, 2021 decreased \$174 million or 87 percent as compared with December 31, 2020 driven by the impact of our decision to exit our mass market retail banking business as well as our remaining retail credit card portfolio which resulted in a reduction in credit loss reserves on consumer loans of approximately \$156 million during the second quarter of 2021. Also contributing to the decrease were improved economic conditions which resulted in improved economic forecasts used for calculating lifetime ECL and declines in credit reserves for risk factors associated with economic uncertainty and forbearance accounts. These decreases were partially offset by increases in credit loss reserves recorded during the fourth quarter of 2021 associated with certain mortgage loans that were transferred to held for sale and a portfolio of Premier credit cards that were transferred back to held for investment as discussed further in Note 8, "Allowance for Credit Losses," in the accompanying consolidated financial statements.

The liability for off-balance sheet credit exposures at December 31, 2021 decreased \$134 million or 57 percent as compared with December 31, 2020 resulting from improved economic conditions consistent with commercial loans as discussed above.

Analysis of the Allowance for Credit Losses on Loans

The following table presents the allowance for credit losses on loans by major loan categories:

At December 31,	2021		2020	
	Amount	% of Loans to Total Loans	Amount	% of Loans to Total Loans
(dollars are in millions)				
Commercial:				
Real estate, including construction	\$ 73	14.7 %	\$ 145	16.9 %
Business and corporate banking	243	25.0	375	21.7
Global banking	100	19.9	287	21.8
Other commercial	4	11.6	7	6.6
Total commercial	420	71.2	814	67.0
Consumer:				
Residential mortgages	8	27.7	(9)	29.6
Home equity mortgages	5	.6	22	1.2
Credit cards	14	.4	161	1.7
Other consumer	—	.1	27	.5
Total consumer	27	28.8	201	33.0
Total	\$ 447	100.0 %	\$ 1,015	100.0 %

The following table sets forth key ratios for the allowance for credit losses on loans:

At December 31,	2021	2020
Ratio of Allowance for credit losses to:		
Loans: ⁽¹⁾		
Commercial:		
Non-affiliates	1.14 %	2.01 %
Affiliates	—	—
Total commercial	1.06	1.96
Consumer:		
Residential mortgages	.05	(.05)
Home equity mortgages	1.54	3.03
Credit cards	6.86	15.10
Other consumer	—	8.46
Total consumer	.17	.98
Total loans	.80	1.63
Nonperforming loans: ⁽¹⁾⁽²⁾		
Commercial	111 %	150 %
Consumer	11	17
Total nonperforming loans	72	59

⁽¹⁾ Ratios exclude loans held for sale as these loans are carried at the lower of amortized cost or fair value.

⁽²⁾ Represents our commercial and consumer allowance for credit losses, as appropriate, divided by the corresponding outstanding balance of total nonperforming loans held for investment. Nonperforming loans include accruing loans contractually past due 90 days or more.

See Note 8, "Allowance for Credit Losses," in the accompanying consolidated financial statements for a rollforward of credit losses by loan categories for the years ended December 31, 2021, 2020 and 2019.

The allowance for credit losses on loans as a percentage of total loans held for investment at December 31, 2021 decreased as compared with December 31, 2020 due primarily to the decrease in our allowance for credit losses for the reasons discussed above, partially offset by a decrease in total loans held for investment.

The allowance for credit losses on loans as a percentage of nonperforming loans held for investment at December 31, 2021 increased as compared with December 31, 2020 as a decrease in nonperforming loans as discussed further below in both our consumer and commercial loan portfolios outpaced the decrease in our allowance for credit losses for the reasons discussed above.

Delinquency The following table summarizes dollars of two-months-and-over contractual delinquency and two-months-and-over contractual delinquency as a percentage of total loans, excluding loans held for sale ("delinquency ratio"). For COVID-19 related loan modifications in the form of a payment deferral, the borrower's past due status was not affected during the deferral period.

	December 31, 2021		December 31, 2020	
	Delinquent Loans	Delinquency Ratio	Delinquent Loans	Delinquency Ratio
(dollars are in millions)				
Commercial	\$ 112	.28 %	\$ 109	.26 %
Consumer:				
Residential mortgages ⁽¹⁾⁽²⁾	103	.67	404	2.20
Home equity mortgages ⁽¹⁾⁽²⁾	1	.31	25	3.44
Credit cards	3	1.47	28	2.63
Other consumer	—	—	8	2.51
Total consumer	107	.67	465	2.27
Total	\$ 219	.39	\$ 574	.92

⁽¹⁾ At December 31, 2021 and 2020, consumer mortgage loan delinquency includes \$24 million and \$281 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less costs to sell.

⁽²⁾ The following table reflects dollars of contractual delinquency and delinquency ratios for interest-only loans and adjustable rate mortgage ("ARM") loans:

	December 31, 2021		December 31, 2020	
	Delinquent Loans	Delinquency Ratio	Delinquent Loans	Delinquency Ratio
(dollars are in millions)				
Interest-only loans	\$ 3	.07 %	\$ 34	.94 %
ARM loans	67	.56	191	1.46

Our two-months-and-over contractual delinquency ratio decreased 53 basis points compared with December 31, 2020 due to lower dollars of delinquency in our consumer loan portfolio, partially offset by lower outstanding loan balances in both our consumer and commercial loan portfolios.

Our commercial loan two-months-and-over contractual delinquency ratio was relatively flat compared with December 31, 2020.

Our consumer loan two-months-and-over contractual delinquency ratio decreased 160 basis points compared with December 31, 2020 due to lower dollars of delinquency reflecting improved economic conditions and the impact of transfers of certain loans to held for sale during 2021, which collectively included \$315 million of delinquent consumer loans at the time of transfer. See Note 9, "Loans Held for Sale," in the accompanying consolidated financial statements for additional information. The decrease in the ratio was partially offset by lower outstanding loan balances.

Net Charge-offs of Loans The following table summarizes net charge-off (recovery) dollars as well as net charge-off (recovery) of loans for the period as a percentage of average loans, excluding loans held for sale, ("net charge-off ratio"):

	Year Ended December 31,								
	2021			2020			2019		
	Net Charge-off Dollars	Average Loans	Net Charge-off Ratio	Net Charge-off Dollars	Average Loans	Net Charge-off Ratio	Net Charge-off Dollars	Average Loans	Net Charge-off Ratio
(dollars are in millions)									
Commercial:									
Real estate, including construction	\$ —	\$ 9,503	— %	\$ 12	\$ 11,263	.11 %	\$ —	\$ 11,638	— %
Business and corporate banking	25	13,123	.19	78	16,354	.48	42	14,058	.30
Global banking	13	11,908	.11	19	17,929	.11	3	20,105	.01
Other commercial	—	5,656	—	(1)	4,680	(.02)	—	5,239	—
Total commercial	38	40,190	.09	108	50,226	.22	45	51,040	.09
Consumer:									
Residential mortgages	4	17,074	.02	(10)	18,217	(.05)	(2)	17,485	(.01)
Home equity mortgages	(1)	504	(.20)	(3)	788	(.38)	(1)	909	(.11)
Credit cards	81	463	17.48	83	1,197	6.94	54	1,172	4.61
Other consumer	9	191	4.72	10	281	3.56	3	247	1.22
Total consumer	93	18,232	.51	80	20,483	.39	54	19,813	.27
Total	\$ 131	\$ 58,422	.22	\$ 188	\$ 70,709	.27	\$ 99	\$ 70,853	.14

Our net charge-off ratio as a percentage of average loans decreased 5 basis points during 2021 due to a lower level of net charge-offs, partially offset by lower average loan balances in both our commercial and consumer loan portfolios. The lower level of net charge-offs was driven by a lower level of net charge-offs in our commercial loan portfolio due primarily to the deterioration of two corporate banking loans and loan sales in 2020 which was partially offset by a higher level of net charge-offs in our consumer loan portfolio due primarily to the impact of transfers of certain loans to held for sale during 2021, which collectively increased net charge-offs by \$60 million.

See "Credit Quality" in our 2020 Form 10-K for a discussion of our net charge-off ratio as a percentage of average loans for 2020 compared with 2019.

Nonperforming Loans The following table summarizes nonperforming loans, including nonaccrual loans and accruing loans contractually 90 days or more past due, as well as nonperforming loans as a percentage of total loans, excluding loans held for sale ("nonperforming ratio"):

	December 31, 2021		December 31, 2020	
	Nonperforming Loans ⁽¹⁾	Nonperforming Ratio	Nonperforming Loans ⁽¹⁾	Nonperforming Ratio
(dollars are in millions)				
Commercial	\$ 380	.95 %	\$ 544	1.31 %
Consumer:				
Residential mortgages ⁽²⁾⁽³⁾⁽⁴⁾	229	1.48	1,079	5.87
Home equity mortgages ⁽²⁾⁽³⁾	9	2.77	63	8.67
Credit cards	2	.98	19	1.78
Other consumer	—	—	2	.63
Total consumer	240	1.49	1,163	5.68
Total	\$ 620	1.11	\$ 1,707	2.75
Other real estate owned ⁽⁵⁾	\$ 2		\$ 3	

⁽¹⁾ See Note 7, "Loans," in the accompanying consolidated financial statements for a breakout of nonaccrual loans and accruing loans contractually 90 days or more past due. At December 31, 2021 and 2020, total nonperforming loans include \$3 million and \$21 million, respectively, of accruing loans contractually 90 days or more past due.

⁽²⁾ At December 31, 2021 and 2020, nonperforming consumer mortgage loans include \$86 million and \$375 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less cost to sell.

⁽³⁾ Nonperforming consumer mortgage loans held for investment include all loans which are 90 or more days contractually delinquent as well as loans discharged under Chapter 7 bankruptcy and not re-affirmed and second lien loans where the first lien loan that we own or service is 90 or more days contractually delinquent. At December 31, 2021 and 2020, nonaccrual consumer mortgage loans also included \$12 million and \$590 million, respectively, of loans under COVID-19 related payment deferral programs where the borrowers utilized a payment deferral of more than six months and, as a result, have been placed on nonaccrual status.

⁽⁴⁾ Nonperforming consumer mortgage loans for all periods does not include guaranteed loans purchased from the Government National Mortgage Association. Repayment of these loans is predominantly insured by the Federal Housing Administration and as such, these loans have different risk characteristics from the rest of our customer loan portfolio.

⁽⁵⁾ Includes \$1 million or less of commercial other real estate owned at both December 31, 2021 and 2020.

Our nonperforming loans ratio decreased 164 basis points compared with December 31, 2020 due to lower nonperforming loans in our consumer loan portfolio and, to a lesser extent, in our commercial loan portfolio. The decrease in the ratio was partially offset by lower outstanding loan balances in both our consumer and commercial loan portfolios.

Our commercial nonperforming loans ratio decreased 36 basis points compared with December 31, 2020 due to lower nonperforming loans driven primarily by paydowns of global banking loans and loan sales, partially offset by downgrades of two commercial real estate loans. The decrease in the ratio was partially offset by lower outstanding loan balances.

Our consumer nonperforming loans ratio decreased 419 basis points compared with December 31, 2020 due to lower nonperforming loans reflecting the impact of transfers of certain loans to held for sale during 2021, which collectively included \$698 million of nonperforming consumer loans at the time of transfer, of which \$21 million were accruing loans contractually 90 days or more past due. See Note 9, "Loans Held for Sale," in the accompanying consolidated financial statements for additional information. Lower nonperforming consumer loans also reflects improved economic conditions as well as the impact of customers exiting forbearance relief and returning to accruing status. The decrease in the ratio was partially offset by lower outstanding loan balances.

Accrued but unpaid interest on loans placed on nonaccrual status generally is reversed and reduces current income at the time loans are so categorized. Interest income on these loans may be recognized to the extent of cash payments received. Our policies and practices for problem loan management and placing loans on nonaccrual status are summarized in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in the accompanying consolidated financial statements, as updated for COVID-19 related loan modifications.

Criticized Commercial Loans The following table summarizes criticized commercial loans:

At December 31,	2021	2020
	(in millions)	
Special mention	\$ 1,881	\$ 2,649
Substandard	2,386	1,908
Doubtful	230	340
Total	<u>\$ 4,497</u>	<u>\$ 4,897</u>

Criticized loans decreased compared with December 31, 2020 due to paydowns, loan sales and improvements in credit conditions associated with certain clients. These decreases were partially offset by downgrades, largely in commercial real estate.

Concentration of Credit Risk A concentration of credit risk is defined as a significant credit exposure with an individual or group engaged in similar activities or affected similarly by economic conditions. We enter into a variety of transactions in the normal course of business that involve both on and off-balance sheet credit risk. Principal among these activities is lending to various commercial, institutional, governmental and individual customers throughout the United States and internationally. We manage the varying degrees of credit risk associated with on and off-balance sheet transactions through specific credit policies and procedures which provide for a strict approval, monitoring and reporting process. It is our policy to require collateral when it is deemed appropriate. Varying degrees and types of collateral are secured depending upon management's credit evaluation.

Commercial Credit Exposure Our commercial credit exposure is diversified across a broad range of industries. Commercial loans outstanding, excluding loans held for sale, and unused commercial commitments by industry are presented in the table below:

	December 31, 2021		December 31, 2020	
	Commercial Utilized	Unused Commercial Commitments	Commercial Utilized	Unused Commercial Commitments
	(in millions)			
Diversified financials	\$ 9,177	\$ 13,128	\$ 7,644	\$ 13,058
Real estate	5,937	2,289	8,323	2,163
Consumer services	3,454	3,367	4,619	3,692
Retailing	2,209	5,127	2,286	4,989
Commercial and professional services	2,093	5,234	1,877	5,245
Capital goods	1,833	6,140	1,696	5,884
Consumer durables and apparel	1,515	2,889	1,457	2,914
Chemicals	1,491	3,575	2,012	4,025
Energy	1,155	5,852	1,849	6,123
Technology hardware and equipment	1,032	7,179	1,329	7,054
Software and services	1,009	3,354	823	2,322
Utilities	956	1,286	839	1,371
Food, beverage and tobacco	787	2,968	612	3,030
Health care equipment and services	785	2,359	761	1,957
Telecommunication services	693	569	367	606
Transportation	581	436	676	398
Food and staples retailing	522	2,003	522	2,055
Pharmaceuticals, biotechnology and life science	476	3,471	605	3,912
Metals and mining	432	676	455	1,158
Automobiles and components	237	1,008	365	995
Total commercial credit exposure in top 20 industries ⁽¹⁾	<u>36,374</u>	<u>72,910</u>	<u>39,117</u>	<u>72,951</u>
All other industries	<u>629</u>	<u>11,786</u>	<u>1,382</u>	<u>12,449</u>
Total commercial credit exposure ⁽²⁾	<u>\$ 37,003</u>	<u>\$ 84,696</u>	<u>\$ 40,499</u>	<u>\$ 85,400</u>

⁽¹⁾ Based on utilization at December 31, 2021.

⁽²⁾ Excludes commercial credit exposures with affiliates.

Geographic Concentrations The following table reflects regional exposure at December 31, 2021 and 2020 for our real estate secured loan portfolios, excluding loans held for sale:

	Commercial Real Estate, including Construction Loans	Residential Mortgages and Home Equity Mortgages
December 31, 2021		
New York State	27.5 %	32.3 %
California	18.1	43.6
North Central United States	5.8	1.0
North Eastern United States, excluding New York State	5.0	7.9
Southern United States	34.7	9.8
Western United States, excluding California	8.9	5.4
Total	<u>100.0 %</u>	<u>100.0 %</u>
December 31, 2020		
New York State	27.1 %	30.6 %
California	25.6	45.9
North Central United States	3.9	1.4
North Eastern United States, excluding New York State	6.2	7.7
Southern United States	29.8	9.4
Western United States, excluding California	7.4	5.0
Total	<u>100.0 %</u>	<u>100.0 %</u>

Residential Mortgage Loans Our consumer loan portfolio includes the following types of loans:

- Interest-only loans – A loan which allows a customer to pay the interest-only portion of the monthly payment for a period of time which results in lower payments during the initial loan period.
- ARM loans – A loan which allows us to adjust pricing on the loan in line with market movements.

The following table summarizes the balances of interest-only and ARM loans in our loan portfolios, excluding mortgages held for sale, at December 31, 2021 and 2020. Each category is not mutually exclusive and loans may appear in more than one category below.

At December 31,	2021	2020
	(in millions)	
Interest-only residential mortgage and home equity mortgage loans	\$ 3,739	\$ 3,597
ARM loans ⁽¹⁾	11,852	13,038

⁽¹⁾ During 2022 and 2023, \$370 million and \$573 million, respectively, of the ARM loans will experience their first interest rate reset.

The following table summarizes the concentrations of first and second liens within the outstanding residential mortgage and home equity mortgage portfolios, excluding mortgages held for sale, at December 31, 2021 and 2020:

At December 31,	2021	2020
	(in millions)	
Closed end:		
First lien	\$ 15,469	\$ 18,377
Second lien	18	31
Revolving ⁽¹⁾	307	696
Total	<u>\$ 15,794</u>	<u>\$ 19,104</u>

⁽¹⁾ A majority of revolving are second lien mortgages.

Credit Risks Associated with Derivative Contracts Credit risk associated with derivatives is measured as the net replacement cost of derivative contracts in a receivable position in the event the counterparties of such contracts fail to perform under the terms of those contracts. In managing derivative credit risk, both the current exposure, which is the replacement cost of contracts on the measurement date, as well as an estimate of the potential change in value of contracts over their remaining lives are considered. Counterparties to our derivative activities include financial institutions, central clearing parties, foreign and domestic government agencies, corporations, funds (mutual funds, hedge funds, etc.), insurance companies and private clients as well as other HSBC entities. These counterparties are subject to regular credit review by the credit risk management department. To minimize credit risk, we may enter into legally enforceable master netting agreements which reduce risk by permitting the closeout and netting of transactions with the same counterparty upon occurrence of certain events. In addition, we reduce credit risk by obtaining collateral from counterparties. The determination of the need for and the levels of collateral will differ based on an assessment of the credit risk of the counterparty and/or regulatory requirements.

The total risk in a derivative contract is a function of a number of variables, such as:

- volatility of interest rates, currencies, equity or corporate reference entity used as the basis for determining contract payments;
- current market events or trends;
- country risk;
- maturity and liquidity of contracts;
- creditworthiness of the counterparties in the transaction;
- the existence of a master netting agreement among the counterparties; and
- existence and value of collateral received from counterparties to secure exposures.

The table below presents total credit risk exposure calculated using the general risk-based capital rules of the Basel III Standardized Approach which includes the net positive mark-to-market of the derivative contracts plus any adjusted potential future exposure as measured in reference to the notional amount. The regulatory capital rules recognize that bilateral netting agreements reduce credit risk and, therefore, allow for reductions of risk-weighted assets when netting requirements have been met and collateral exists. As a result, risk-weighted amounts for regulatory capital purposes are a portion of the original gross exposures. Furthermore, many contracts contain provisions that allow us to close out the transaction if the counterparty fails to post required collateral. In addition, many contracts give us the right to break the transactions earlier than the final maturity date. As a result, these contracts have potential future exposures that are often much smaller than the future exposures derived from the regulatory capital rules.

At December 31,	2021	2020
	(in millions)	
Risk associated with derivative contracts:		
Total credit risk exposure	\$ 11,896	\$ 21,624
Less: collateral held against exposure	3,894	5,907
Net credit risk exposure	<u>\$ 8,002</u>	<u>\$ 15,717</u>

The table below summarizes the risk profile of the counterparties to derivative contracts with credit risk exposure, net of cash and other highly liquid collateral. The ratings presented in the table below are equivalent ratings based on our internal credit rating system.

Rating equivalent at December 31,	Percent of Current Credit Risk Exposure, Net of Collateral	
	2021	2020
AAA to AA-	55 %	51 %
A+ to A-	26	29
BBB+ to BBB-	16	14
BB+ to B-	3	6
CCC+ and below	—	—
Total	<u>100 %</u>	<u>100 %</u>

Liquidity and Capital Resources

Effective liquidity management is defined as ensuring we can meet customer loan requests, customer deposit maturities/withdrawals and other cash commitments efficiently under both normal operating conditions and under unpredictable circumstances of industry or market stress. To achieve this objective, we have guidelines that require sufficient liquidity to cover potential funding requirements in both the short- and long-term and to avoid over-dependence on volatile, less reliable funding markets. Guidelines are set for the consolidated balance sheet of HSBC USA to ensure that it is a source of strength for our regulated, deposit-taking banking subsidiary, as well as to address the more limited sources of liquidity available to it as a holding company. Similar guidelines are set for HSBC Bank USA to ensure that it can meet its liquidity needs in various stress scenarios. Cash flow analysis, including stress testing scenarios, forms the basis for liquidity management and contingency funding plans. See "Risk Management" in this MD&A for further discussion of our approach towards liquidity and funding risk management, including information regarding the key measures employed to define, monitor and control our liquidity and funding risk.

During 2021, the COVID-19 pandemic continued to impact business and economic activity. We continue to actively monitor and control our liquidity and funding risk in accordance with HSBC policy. To date, we have not experienced any significant impact to our liquidity or funding capabilities as a result of the pandemic.

Interest Bearing Deposits with Banks totaled \$47,400 million and \$14,353 million at December 31, 2021 and 2020, respectively, of which \$47,259 million and \$13,895 million, respectively, were held with the Federal Reserve Bank. Balances may fluctuate from period to period depending upon our liquidity position at the time and our strategy for deploying liquidity. Surplus interest bearing deposits with the Federal Reserve Bank may be deployed into securities purchased under agreements to resell or other investments depending on market conditions and the opportunity to maximize returns.

Federal Funds Sold and Securities Purchased under Agreements to Resell totaled \$10,514 million and \$35,746 million at December 31, 2021 and 2020, respectively. Balances may fluctuate from period to period depending upon our liquidity position at the time and our strategy for deploying liquidity.

Trading Assets includes securities totaling \$18,731 million and \$19,494 million at December 31, 2021 and 2020, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on trends.

Securities includes securities available-for-sale and securities held-to-maturity totaling \$40,501 million and \$49,653 million at December 31, 2021 and 2020, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on trends.

Short-Term Borrowings totaled \$6,338 million and \$4,952 million at December 31, 2021 and 2020, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on short-term borrowing trends.

Deposits totaled \$143,032 million and \$145,150 million at December 31, 2021 and 2020, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on deposit trends.

Estimate of Uninsured Deposits At December 31, 2021 and 2020, the estimated amount of uninsured deposits totaled \$91,640 million and \$91,082 million, respectively, generally representing the portion of domestic deposit accounts that exceed the FDIC insurance limit of \$250,000 and amounts in any other uninsured deposit account. The amount of uninsured deposits is calculated based on the same methodologies and assumptions used for our bank regulatory reporting requirements.

The scheduled maturities of the portion of domestic time deposits in excess of the FDIC insurance limit and time deposits that are otherwise uninsured at December 31, 2021 are summarized in the following table:

	Portion of Domestic Time Deposits in Excess of the FDIC Insurance Limit	Time Deposits that are Otherwise Uninsured ⁽¹⁾	Total
	(in millions)		
2022:			
0-90 days.....	\$ 3,039	\$ 145	\$ 3,184
91-180 days.....	617	120	737
181-365 days.....	660	—	660
	4,316	265	4,581
Thereafter.....	1,616	—	1,616
	<u>\$ 5,932</u>	<u>\$ 265</u>	<u>\$ 6,197</u>

⁽¹⁾ Represents foreign time deposits.

Long-Term Debt decreased to \$17,236 million at December 31, 2021 from \$19,979 million at December 31, 2020. The following table summarizes issuances and retirements of long-term debt during 2021 and 2020:

Year Ended December 31,	2021	2020
	(in millions)	
Long-term debt issued	\$ 7,711	\$ 8,487
Long-term debt repaid	(10,044)	(10,427)
Net long-term debt repaid	<u>\$ (2,333)</u>	<u>\$ (1,940)</u>

See "Balance Sheet Review" in this MD&A for further analysis and discussion on long-term debt trends, including additional information on debt issued and repaid during 2021.

Under our shelf registration statement on file with the SEC, we may issue certain securities including debt securities and preferred stock. We satisfy the eligibility requirements for designation as a "well-known seasoned issuer," which allows us to file a registration statement that does not have a limit on issuance capacity. The ability to issue under the registration statement is limited by the authority granted by the Board of Directors. During 2021, due to an anticipated decrease in utilization of the shelf registration statement, the Board of Directors approved a reduction in the amount we are authorized to issue from \$25,000 million at December 31, 2020 to \$20,000 million, of which \$12,654 million was available at December 31, 2021. HSBC Bank USA has a \$40,000 million Global Bank Note Program that provides for the issuance of subordinated and senior notes, of which \$12,083 million was available at December 31, 2021. We anticipate using the Global Bank Note Program more in the future as part of our efforts designed to minimize overall funding costs while accessing diverse funding channels.

As a member of the FHLB and the Federal Reserve Bank of New York, we have secured borrowing facilities which are collateralized by loans and investment securities. At December 31, 2021, long-term debt included \$1,000 million of borrowings from the FHLB facility. Based upon the amounts pledged as collateral under these facilities, we have additional borrowing capacity of up to \$15,057 million.

Preferred Equity See Note 19, "Preferred Stock," in the accompanying consolidated financial statements for information regarding all outstanding preferred share issues.

Common Equity During the fourth quarter of 2021, HSBC USA received a common stock return of capital of \$1.0 billion from its subsidiary, HSBC Bank USA, and paid a distribution on its common stock of \$1.0 billion from surplus capital to its parent, HSBC North America.

Capital Ratios In managing capital, we develop targets for common equity Tier 1 capital to risk-weighted assets, Tier 1 capital to risk-weighted assets, total capital to risk-weighted assets, Tier 1 capital to adjusted quarterly average assets (i.e., the "Tier 1 leverage ratio") and Tier 1 capital to total leverage exposure (i.e., the "supplementary leverage ratio" or "SLR"). Capital targets are reviewed at least semi-annually to ensure they reflect our business mix and risk profile, as well as real-time conditions and circumstances. The following table summarizes HSBC USA's Basel III capital ratios calculated as of December 31, 2021 and 2020:

	2021	2020
Common equity Tier 1 capital to risk-weighted assets ⁽¹⁾	15.1 %	14.5 %
Tier 1 capital to risk-weighted assets ⁽¹⁾	16.3	15.6
Total capital to risk-weighted assets ⁽¹⁾	18.5	18.8
Tier 1 leverage ratio ⁽²⁾	8.5	8.6
Supplementary leverage ratio ⁽³⁾⁽⁴⁾	6.6	7.8

⁽¹⁾ Prior period amounts have been revised to conform to the current period presentation. See Note 26, "Retained Earnings and Regulatory Capital Requirements," in the accompanying consolidated financial statements for further discussion.

⁽²⁾ Adjusted quarterly average assets, the Tier 1 leverage ratio denominator, reflects quarterly average assets adjusted for amounts permitted to be deducted from Tier 1 capital.

⁽³⁾ Total leverage exposure, the SLR denominator, includes adjusted quarterly average assets plus certain off-balance sheet exposures.

⁽⁴⁾ As discussed further below, the rules that permitted banking institutions to temporarily exclude U.S. Treasury securities and deposits at Federal Reserve Banks from the denominator of their SLR expired on April 1, 2021.

In response to the COVID-19 pandemic, the federal banking agencies issued a final rule that provides the option to transition in the regulatory capital impacts of the new current expected credit loss accounting standard over a five-year period. In 2020, HSBC North America and HSBC Bank USA elected the five-year transition option and, as a result, our capital ratios are being reported in accordance with the transition rules in the final rule. Accordingly, during 2020 and 2021, we excluded from regulatory capital the change in retained earnings resulting from adoption of the new accounting standard on January 1, 2020 as well as 25 percent of the change in the allowance for credit losses recognized between January 1, 2020 and December 31, 2021.

Beginning January 1, 2022, the excluded impacts will be phased into regulatory capital over a three-year transition period and will be fully reflected at January 1, 2025.

Also in response to the COVID-19 pandemic, the FRB issued final rules that permitted IHCs, such as HSBC North America, and depository institutions, such as HSBC Bank USA, to temporarily exclude U.S. Treasury securities and deposits at Federal Reserve Banks from the denominator of their SLR. The rules were designed to allow banking institutions to expand their balance sheets to accommodate increased customer deposits while continuing to provide credit to companies and households. These changes took effect in 2020 and expired on April 1, 2021.

We manage capital in accordance with HSBC Group policy. The HSBC North America Internal Capital Adequacy Assessment Process ("ICAAP") works in conjunction with the HSBC Group's ICAAP. The HSBC North America ICAAP applies to HSBC Bank USA and evaluates regulatory capital adequacy and capital adequacy under various stress scenarios. Our approach is to meet our capital needs for these stress scenarios locally through activities which reduce risk. To the extent that local alternatives are insufficient, as a wholly-owned subsidiary of HSBC, we would seek support from our ultimate parent. Regulatory capital requirements are based on the amount of capital required to be held, plus applicable capital buffers, as defined by regulations, and the amount of risk-weighted assets and leverage exposure, also calculated based on regulatory definitions.

We are subject to regulatory capital rules issued by U.S. banking regulators including Basel III (the "Basel III rule"). The Basel III rule establishes minimum capital ratios and overall capital adequacy standards for banks and bank holding companies ("BHCs"). HSBC North America, HSBC USA and HSBC Bank USA each calculate their risk-based capital requirements for credit risk under the Standardized Approach in the Basel III rule. In 2019, the FRB and the other federal banking agencies jointly finalized rules to implement the Economic Growth, Regulatory Relief and Consumer Protection Act that tailor the application of the enhanced prudential standards for large BHC and foreign banking organizations (the "Tailoring Rules"). The Tailoring Rules assign each BHC and IHC with \$50 billion or more in total U.S. assets into one of five classifications (Categories I through IV, and 'other firms') based on its size and four risk-based indicators. As of December 31, 2021, HSBC North America and HSBC Bank USA were subject to Category III standards. As of January 1, 2022, HSBC North America met the criteria to be re-classified as a Category IV firm and, as a result of this classification change, HSBC North America and HSBC Bank USA expect to no longer be subject to the SLR or the countercyclical capital buffer. For additional discussion of the Basel III rule requirements, including required minimum capital ratios, as well as further discussion of the Tailoring Rules, Category IV standards and other related regulatory developments and their expected impact see Part I, "Regulation and Competition - Regulatory Capital and Liquidity Requirements," in this Form 10-K. We continue to review the composition of our capital structure and capital buffers in light of these developments.

Capital Planning and Stress Testing The FRB requires certain U.S. top-tier BHCs and IHCs, including HSBC North America, to comply with the FRB's capital plan rule and CCAR program, as well as the supervisory stress tests conducted by the FRB, and company-run stress tests as required under Dodd-Frank (collectively, "DFAST"). The company-run stress tests are forward looking exercises to assess the impact of hypothetical macroeconomic baseline and severely adverse scenarios provided by the FRB (and internally developed scenarios for the company-run exercises) on the financial condition and capital adequacy of a CCAR firm over a nine quarter planning horizon. As a result of its re-classification as a Category IV firm, HSBC North America expects to no longer be subject to company-run stress testing and related disclosure requirements. Category IV firms are subject to supervisory stress testing on an every-other-year basis, although they may opt into such testing in an "off year" in order to recalibrate their stress capital buffer based on their most recent supervisory stress test. The FRB continues to supervise Category IV firms on an ongoing basis, including evaluation of the capital adequacy and capital planning processes during off-cycle years. For further discussion of capital planning and stress testing, including detail regarding the FRB's supervisory assessment as part of the CCAR process, see Part I, "Regulation and Competition - Regulatory Capital and Liquidity Requirements," in this Form 10-K.

HSBC North America submitted its 2021 CCAR capital plan and its 2021 annual company-run DFAST results in April 2021. In July 2021, HSBC North America publicly disclosed its 2021 annual DFAST results. In June 2021, the FRB publicly disclosed its own DFAST and CCAR results and informed HSBC North America that it did not object to HSBC North America's capital plan or the planned capital distributions included in its 2021 CCAR submission. The FRB previously announced that it intended to terminate restrictions on capital distributions put in place in connection with additional stress tests that the FRB conducted to assess the impact of the COVID-19 pandemic. However, these additional restrictions on distributions were lifted on June 30, 2021. Under these additional restrictions, CCAR firms were allowed to make certain capital distributions in the first two quarters of 2021, provided that the distributions generally did not exceed net income. Stress testing results are based solely on hypothetical adverse stress scenarios and should not be viewed or interpreted as forecasts of expected outcomes or capital adequacy or of the actual financial condition of HSBC North America. Capital planning and stress testing for HSBC North America may impact our future capital and liquidity.

While BHC regulatory capital compliance is generally performed at the HSBC North America level, and also separately for HSBC Bank USA, as a BHC we are required to meet minimum capital requirements imposed by the FRB. We present our

capital ratios, together with HSBC Bank USA's in Note 26, "Retained Earnings and Regulatory Capital Requirements," in the accompanying consolidated financial statements.

HSBC USA Inc. HSBC USA is a wholly-owned subsidiary of HSBC North America, which is an indirect wholly-owned subsidiary of HSBC, and the parent company of HSBC Bank USA and other subsidiaries through which we offer commercial and consumer banking products and related financial services, including derivatives, liquidity and cash management, trade finance and investment solutions. HSBC USA's main source of funds is cash received from financing activities, primarily through debt issuance to third parties and affiliates. In addition, it receives cash from affiliates by issuing preferred stock, from subsidiaries in the form of dividends and from its parent by receiving capital contributions when necessary.

HSBC USA received cash dividends from its subsidiaries of \$102 million and \$121 million in 2021 and 2020, respectively. During 2021 and 2020, HSBC USA did not receive any cash capital contributions from its parent, HSBC North America.

HSBC USA has a number of obligations to meet with its available cash. It must be able to service its debt and meet the capital needs of its subsidiaries. It also must pay dividends on its preferred stock and may pay dividends on its common stock. HSBC USA paid dividends on its preferred stock totaling \$77 million in both 2021 and 2020. HSBC USA did not pay any dividends on its common stock during either 2021 and 2020. We may pay dividends in the future, but will maintain our capital at levels consistent with our regulatory requirements, risk appetite and internal capital adequacy process.

At various times, we will make capital contributions to our subsidiaries to comply with regulatory guidance, support receivable growth, maintain acceptable investment grade ratings at the subsidiary level, or provide funding for long-term facilities and technology improvements. During 2021 and 2020, HSBC USA did not make any capital contributions to its subsidiary, HSBC Bank USA.

As of December 31, 2021, HSBC Bank USA has the ability to pay dividends under bank regulatory guidelines, as cumulative net income for 2019 through 2021 exceeded dividends attributable to this period. Any reduction of permanent capital of HSBC Bank USA would require OCC approval. See Note 26, "Retained Earnings and Regulatory Capital Requirements," in the accompanying consolidated financial statements for further details. In determining the extent of dividends to pay, HSBC Bank USA must also consider the effect of dividend payments on applicable risk-based capital and leverage ratio requirements, as well as policy statements of federal regulatory agencies that indicate banking organizations should generally pay dividends out of current operating earnings.

Subsidiaries At December 31, 2021, we had one major subsidiary, HSBC Bank USA. We manage substantially all of our operations through HSBC Bank USA, which contributes to the funding of our businesses primarily through receiving deposits from customers; the collection of receivable balances; issuing short-term, medium-term and long-term debt and selling residential mortgage loans. The vast majority of our domestic medium-term notes and long-term debt is marketed through subsidiaries of HSBC. Intermediate and long-term debt may also be marketed through unaffiliated investment banks.

2022 Funding Strategy Our current estimate for funding needs and sources for 2022 are summarized in the following table:

	(in billions)
Increase (decrease) in funding needs:	
Net change in loans	\$ 2
Net change in short-term investments and securities	(21)
Net change in trading and other assets	(6)
Total funding needs	<u>\$ (25)</u>
Increase (decrease) in funding sources:	
Net change in deposits	\$ (16)
Net change in trading and other short-term liabilities	(4)
Net change in long-term debt	(5)
Total funding sources	<u>\$ (25)</u>

The above table reflects a long-term funding strategy. Daily balances fluctuate as we accommodate customer needs, while ensuring that we have liquidity in place to support the balance sheet maturity funding profile. Should market conditions deteriorate, we have contingency plans to generate additional liquidity through the sales of assets or financing transactions. We remain confident in our ability to access the market for long-term debt funding needs in the current market environment. We continue to seek well-priced and stable customer deposits. We also continue to sell new agency-eligible conforming residential mortgage loans to third parties.

HSBC Bank USA is subject to significant restrictions imposed by federal law on extensions of credit to, and certain other 'covered transactions' with HSBC USA and other affiliates. For further discussion, see Part I, "Regulation and Competition - Affiliate Transaction Restrictions," in this Form 10-K.

See "Risk Management" in this MD&A for further discussion relating to our liquidity contingency plans and our approach to liquidity and funding risk management.

Material Cash Requirements Our material cash requirements comprise primarily contractual obligations to make future payments related to time deposits, short-term borrowings, long-term debt and operating lease obligations. The following table summarizes our material cash requirements outstanding as of December 31, 2021 by period due:

	Due Within One Year	Due After One Year	Total
	(in millions)		
Time deposits.....	\$ 5,986	\$ 3,524	\$ 9,510
Short-term borrowings.....	6,338	—	6,338
Long-term debt.....	2,930	14,306	17,236
Operating lease obligations.....	79	263	342
Total.....	<u>\$ 15,333</u>	<u>\$ 18,093</u>	<u>\$ 33,426</u>

These short- and long-term cash obligations could be funded primarily through cash collection on loans and receipt of deposits, supplemented by the issuance of new short-term and long-term unsecured debt or secured financing repurchase agreements. Particular emphasis is placed on our ability to fund those short-term cash obligations that are due within one year. See "2022 Funding Strategy" above for additional information. In addition to the table above, we also have contractual cash obligations related to certain binding agreements we have entered into for loan servicing, lockbox services, advertising and other services which are not material to our liquidity needs.

Capital Expenditures We made capital expenditures of \$18 million and \$24 million during 2021 and 2020, respectively. In addition to these amounts, during 2021 and 2020, we capitalized \$62 million and \$93 million, respectively, relating to improving and modernizing our business systems.

Off-Balance Sheet Arrangements As part of our normal operations, we enter into credit derivatives and various off-balance sheet arrangements with affiliates and third parties. These arrangements arise principally in connection with our lending and client intermediation activities and involve primarily commitments to extend credit and, in certain cases, guarantees.

Commitments to extend credit include arrangements whereby we are contractually obligated to extend credit in the form of loans, participations in loans, lease financing receivables, or similar transactions. At December 31, 2021 and 2020, we had commitments to extend credit totaling \$94,124 million and \$96,048 million, respectively, comprised primarily of commercial commitments and, to a lesser extent, consumer commitments. Commercial commitments comprise primarily those related to secured and unsecured loans and lines of credit. Consumer commitments comprise unused MasterCard/Visa credit card lines, where we have the right to change terms or conditions upon notification to the customer, and commitments to extend credit secured by residential properties, where we have the right to change terms or conditions, for cause, upon notification to the customer. For a summary of guarantees, including standby letters of credit and certain credit derivative transactions, as well as the contractual amounts outstanding at December 31, 2021 and 2020, see Note 28, "Guarantee Arrangements, Pledged Asset and Repurchase Agreements," in the accompanying consolidated financial statements.

The contractual amounts of these financial instruments represent our maximum possible credit exposure in the event that a counterparty draws down the full commitment amount or we are required to fulfill our maximum obligation under a guarantee. Many of these commitments and guarantees expire unused or without default. In addition, implementation of our business strategy (as described under the heading "Executive Overview - 2021 Events" in this MD&A) will affect our contractual obligations over time, including with respect to consumer commitments. As a result, we believe that the contractual amount is not representative of the actual future credit exposure or funding requirements.

Our off-balance sheet arrangements also include transactions with unconsolidated variable interest entities ("VIEs"). See Note 27, "Variable Interest Entities," in the accompanying consolidated financial statements for a summary of these unconsolidated VIEs.

Fair Value

Fair Value Hierarchy Fair value measurement accounting principles establish a fair value hierarchy structure that prioritizes the inputs to determine the fair value of an asset or liability (the "Fair Value Framework"). The Fair Value Framework distinguishes between inputs that are based on observed market data and unobservable inputs that reflect market participants' assumptions. It emphasizes the use of valuation methodologies that maximize observable market inputs. For financial instruments carried at fair value, the best evidence of fair value is a quoted price in an actively traded market (Level 1). Where the market for a financial instrument is not active, valuation techniques are used. The majority of our valuation techniques use market inputs that are either observable or indirectly derived from and corroborated by observable market data for substantially the full term of the financial instrument (Level 2). Because Level 1 and Level 2 instruments are determined by observable inputs, less judgment is applied in determining their fair values. In the absence of observable market inputs, the financial instrument is valued based on valuation techniques that feature one or more significant unobservable inputs (Level 3). The determination of the level of fair value hierarchy within which the fair value measurement of an asset or a liability is classified often requires judgment and may change over time as market conditions evolve. We consider the following factors in developing the fair value hierarchy:

- whether the asset or liability is transacted in an active market with a quoted market price;
- the level of bid-ask spreads;
- a lack of pricing transparency due to, among other things, complexity of the product and market liquidity;
- whether only a few transactions are observed over a significant period of time;
- whether the pricing quotations differ substantially among independent pricing services;
- whether inputs to the valuation techniques can be derived from or corroborated with market data; and
- whether significant adjustments are made to the observed pricing information or model output to determine the fair value.

Level 1 inputs are unadjusted quoted prices in active markets that the reporting entity has the ability to access for identical assets or liabilities. A financial instrument is classified as a Level 1 measurement if it is listed on an exchange or is an instrument actively traded in the over-the-counter ("OTC") market where transactions occur with sufficient frequency and volume. We regard financial instruments such as debt securities, equity securities and derivative contracts listed on the primary exchanges of a country to be actively traded. Non-exchange-traded instruments classified as Level 1 assets include securities issued by the U.S. Treasury, to-be-announced securities, non-callable securities issued by U.S. Government sponsored enterprises and certain foreign government-backed debt.

Level 2 inputs are those that are observable either directly or indirectly but do not qualify as Level 1 inputs. We classify mortgage pass-through securities, agency and certain non-agency mortgage collateralized obligations, non-exchange-traded derivative contracts, asset-backed securities, obligations of U.S. states and political subdivisions, corporate debt securities, certain foreign government-backed debt, preferred securities, securities purchased and sold under resale and repurchase agreements, precious metals, certain loans held for sale, certain student loans, residential mortgage loans whose carrying amount was reduced based on the fair value of the underlying collateral and real estate owned as Level 2 measurements. Where possible, at least two quotations from independent sources are obtained based on transactions involving comparable assets and liabilities to validate the fair value of these instruments. We have established a process to understand the methodologies and inputs used by the third party pricing services to ensure that pricing information meets the fair value objective and, where appropriate, this pricing data is back-tested to market trade executions. Where significant differences arise among the independent pricing quotes and the internally determined fair value, we investigate and reconcile the differences. If the investigation results in a significant adjustment to the fair value, the instrument will be classified as Level 3 within the fair value hierarchy. In general, we have observed that there is a correlation between the credit standing and the market liquidity of a non-derivative instrument.

Level 2 derivative instruments are generally valued based on discounted future cash flows or an option pricing model adjusted for counterparty credit risk and market liquidity. The fair value of certain derivative products is determined using valuation techniques based on inputs derived from observable indices traded in the OTC market. Appropriate control processes and procedures have been applied to ensure that the derived inputs are applied to value only those instruments that share similar risks to the relevant benchmark indices and therefore demonstrate a similar response to market factors.

Level 3 inputs are unobservable estimates that management expects market participants would use to determine the fair value of the asset or liability. That is, Level 3 inputs incorporate market participants' assumptions about risk and the risk premium required by market participants in order to bear that risk. We develop Level 3 inputs based on the best information available in the circumstances. At December 31, 2021 and 2020, our Level 3 measurements included the following: certain structured deposits and structured notes for which the embedded derivatives have significant unobservable inputs (e.g., volatility or default

correlations), certain asset-backed securities, individually assessed commercial loans, mortgage servicing rights, derivatives with certain inputs which are unobservable, certain credit default swaps, swap agreements entered into in conjunction with the sales of Visa Class B Shares for which the fair value is dependent upon the final resolution of the related litigation and, at December 31, 2021, certain loans held for sale. At December 31, 2020, our level 3 measurements also included asset-backed credit default swaps with certain inputs which were unobservable. See Note 29, "Fair Value Measurements," in the accompanying consolidated financial statements for additional information on Level 3 inputs.

Level 3 Measurements The following table provides information about Level 3 assets/liabilities in relation to total assets/liabilities measured at fair value at December 31, 2021 and 2020:

At December 31,	2021	2020
	(dollars are in millions)	
Level 3 assets ⁽¹⁾⁽²⁾	\$ 2,356	\$ 1,118
Total assets measured at fair value ⁽¹⁾⁽³⁾	76,713	98,640
Level 3 liabilities ⁽¹⁾	2,598	1,620
Total liabilities measured at fair value ⁽¹⁾	28,125	49,380
Level 3 assets as a percent of total assets measured at fair value	3.1 %	1.1 %
Level 3 liabilities as a percent of total liabilities measured at fair value	9.2 %	3.3 %

⁽¹⁾ Presented without netting which allows the offsetting of amounts relating to certain contracts if certain conditions are met.

⁽²⁾ Includes \$355 million of recurring Level 3 assets and \$2,001 million of non-recurring Level 3 assets at December 31, 2021. Includes \$845 million of recurring Level 3 assets and \$273 million of non-recurring Level 3 assets at December 31, 2020.

⁽³⁾ Includes \$74,511 million of assets measured on a recurring basis and \$2,202 million of assets measured on a non-recurring basis at December 31, 2021. Includes \$97,982 million of assets measured on a recurring basis and \$658 million of assets measured on a non-recurring basis at December 31, 2020.

Significant Changes in Fair Value for Level 3 Assets and Liabilities During 2021, we transferred certain loans to held for sale which were determined to be Level 3 assets measured at fair value on a non-recurring basis. See Note 9, "Loans Held for Sale," in the accompanying consolidated financial statements for additional information.

See Note 29, "Fair Value Measurements," in the accompanying consolidated financial statements for information on additions to and transfers into (out of) Level 3 measurements during 2021 and 2020 as well as for further details including the classification hierarchy associated with assets and liabilities measured at fair value.

Effect of Changes in Significant Unobservable Inputs The fair value of certain financial instruments is measured using valuation techniques that incorporate pricing assumptions not supported by, derived from or corroborated by observable market data. The resultant fair value measurements are dependent on unobservable input parameters which can be selected from a range of estimates and may be interdependent. Changes in one or more of the significant unobservable input parameters may change the fair value measurements of these financial instruments. For the purpose of preparing the financial statements, the final valuation inputs selected are based on management's best judgment that reflect the assumptions market participants would use in pricing similar assets or liabilities.

The unobservable input parameters selected are subject to the internal valuation control processes and procedures. When we perform a test of all the significant input parameters to the extreme values within the range at the same time, it could result in an increase of the overall fair value measurement of approximately \$23 million or a decrease of the overall fair value measurement of approximately \$23 million at December 31, 2021. The effect of changes in significant unobservable input parameters are primarily driven by the uncertainty in determining the fair value of certain credit-linked structured notes.

Risk Management

Overview Managing risk effectively is fundamental to the delivery of our strategic priorities.

Our risk management framework We use a comprehensive risk management framework across the organization and across all risk types underpinned by our risk culture. This framework fosters continuous monitoring, promotes risk awareness and encourages sound operational and strategic decision-making. It also ensures a consistent approach to identifying, assessing, managing and reporting the risks we accept and incur in our activities.

Our risk culture refers to norms, attitudes and behaviors related to risk awareness, risk taking and risk management. We have long recognized the importance of a strong risk management culture, the fostering of which is a key responsibility of senior executives. Our risk culture is reinforced by our values and principles. It is instrumental in aligning the behaviors of individuals with our attitude to assuming and managing risk, which helps to ensure that our risk profile remains in line with our risk

appetite. We use clear and consistent employee communication on risk to convey strategic messages and set the tone from senior management and the Board of Directors. We also deploy mandatory training on risk and compliance topics to embed skills and understanding in order to strengthen our risk culture and reinforce the attitude to risk in the behavior expected of employees, as described in our risk policies. We operate a global whistleblowing platform, HSBC Confidential, allowing staff to report matters of concern confidentially. Our risk culture is also reinforced by our approach to remuneration. Individual awards, including those for senior executives, are based on compliance with our values and the achievement of financial and non-financial objectives, which are aligned to our risk appetite and strategy.

Maintaining a conservative risk profile is a core part of our philosophy. This philosophy encompasses: maintaining a strong capital position defined by regulatory and internal capital ratios; having effective liquidity and funding management; generating returns that are in line with risk taken; and maintaining a sustainable and diversified earnings mix, delivering consistent returns. Additionally, we have zero tolerance for the following:

- knowingly engaging in any business, activity or association where foreseeable reputational risk or damage has not been considered and/or mitigated;
- deliberately or knowingly causing detriment to consumers arising from our products, services or operations or incurring a breach of the letter or spirit of regulatory requirements; and
- inappropriate market conduct by a member of our staff or by any of our lines of business.

Risk governance Our Board of Directors has the ultimate responsibility for effective oversight of risk management. It is advised on risk matters by the Risk Committee of the Board of Directors, notably risk appetite and its alignment with our strategy, risk governance and internal controls, as well as high-level risk related matters. Robust risk governance and accountability are embedded throughout our business through an established framework that helps to ensure appropriate oversight of and accountability for the effective management of risk. During 2021, the Compliance and Conduct Committee ("CCC") of the Board of Directors was dissolved as part of a global effort to streamline corporate governance forums to enhance efficiency. As a result, the oversight responsibilities of the CCC were allocated amongst the Board of Directors' standing committees. In particular, the Risk Committee of the Board of Directors has assumed responsibilities related to compliance, conduct and values, fiduciary matters, and responsible business practices.

Executive accountability for the ongoing monitoring, assessment and management of the risk environment and the effectiveness of the risk management framework resides with the Chief Risk Officer ("CRO") who is supported by the Risk Management Meeting of the HSBC USA Executive Committee ("RMM"). The management of financial crime risk resides with the U.S. Head of Financial Crime and Bank Secrecy Act/Anti-Money Laundering Compliance Officer. As a reflection of the growing maturity and effectiveness of financial crime risk management, during 2021, the functions of the Financial Crime Risk Management Committee were integrated into the RMM. As a result, the RMM now also oversees the risk management of both regulatory compliance and financial crime. Day-to-day responsibility for risk management is delegated to senior managers with individual accountability for decision making.

Our responsibilities All employees are responsible for identifying and managing risk within the scope of their role as part of the Three Lines of Defense ("LoD") model. This model delineates management accountabilities and responsibilities for risk management and the control environment, and underpins our approach to risk management by clarifying responsibilities, encouraging collaboration and enabling efficient coordination of risk and control activities. Under the Three LoD model, the First LoD owns the risks and is responsible for identifying, recording, reporting and managing them in line with risk appetite, and ensuring that the right controls and assessments are in place to mitigate them. The Second LoD sets the policy and guidelines for managing specific risk areas, provides advice and guidance in relation to the risk, and challenges the First LoD on effective risk management. The Third LoD is our Internal Audit function, which provides independent assurance that our risk management, governance and internal control processes are designed and operating effectively.

The principle of individual accountability is exercised across the organization and is fundamental to effective risk management. Decisions are made by specific individuals in line with their mandates and/or delegated authority to ensure clear accountability. This includes those decisions made where approval should be requested from the accountable individual. Individual accountability is reinforced through the Three LoD model. The Board of Directors and its committees are collective decision-making bodies. All employees are required to identify, assess and manage risk within the scope of their assigned responsibilities and, as such, they are critical to the effectiveness of the Three LoD model.

Risk function Our Risk function, headed by the CRO, is responsible for our risk management framework. This responsibility includes establishing policies, monitoring risk profiles and forward-looking risk identification and management. Our Risk function is made up of sub-functions covering all risks to our business. The Risk function forms part of the Second LoD. It is independent from our lines of business, including sales and trading functions, to provide challenge, appropriate oversight and balance in risk/reward decisions. The CRO reports to the Chief Executive Officer ("CEO") and to the HSBC Group CRO. The CRO also reports on risk related matters to the Risk Committee of the Board of Directors. Executive accountability for the

ongoing monitoring, assessment and management of the risk environment and the effectiveness of risk management policies resides with the CRO, supported by the RMM.

Specific oversight of various risk management processes occurs through the following meetings:

- the Asset and Liability Management Committee ("ALCO");
- the Reputational Risk and Client Selection Committees ("RRCSCs"); and
- Line of business ("LoB") risk management and oversight meetings.

Each of these committees, as well as the RMM, have separate charters which detail their respective roles and responsibilities.

The ALCO provides oversight of all capital, liquidity, interest rate and market risk and is chaired by the Chief Financial Officer. ALCO sets the limits of acceptable risk, monitors the adequacy of the tools used to measure risk and assesses the adequacy of reporting. In managing these risks, we seek to protect both our income stream and the value of our assets. ALCO also conducts contingency planning with regard to liquidity.

The RRCSC structure ensures appropriate consideration of customers and transactions that may adversely affect our public perception. RRCSCs exist in each business and comprise senior members from the business, risk, legal, financial crime and compliance departments and other invited parties. The RRCSCs provide decision-making and guidance in respect of reputational risks and customer selection matters, and are responsible for ensuring that issues are appropriately tracked and resolved.

The LoB risk management and oversight meetings provide recommendations and advice, as requested, to their respective LoB senior management teams in the exercise of their powers, authorities and discretions in relation to the enterprise-wide management of all risks within or impacting their respective businesses.

Enterprise-wide risk management tools We use a range of tools to identify, monitor and manage risk. The key enterprise-wide risk management tools are summarized below:

- Risk appetite - The CRO oversees the development of our risk appetite which defines, shapes and monitors our risk profile. The HSBC North America Risk Appetite Statement ("RAS") is a written articulation of the aggregate level and types of risk that we are willing to accept in order to achieve our strategic business objectives. HSBC North America's conservative risk profile is articulated in the qualitative section of the RAS, which serves as guidance to embed risk appetite and supports strategic and operational decision making at HUSI. The quantitative section of the RAS contains a set of key metrics covering both financial and non-financial risks. Non-financial risk is defined as the risk to achieving our strategy or objectives as a result of inadequate or failed internal processes, people and systems or from external events.

Performance against the RAS metrics is monitored by senior management and reported to the RMM and Risk Committee of the Board of Directors on a periodic basis, enabling senior management to monitor the risk profile and guide business activity to balance risk and return. All breaches of risk appetite thresholds and actions to remediate the breaches are documented and reviewed. This process helps to embed a strong risk culture across our businesses. The risk appetite profile is one of the key tools in the wider enterprise risk management framework, which drives the core of our active risk management. The risk appetite profile is aligned to strategic and financial planning and therefore provides a top down view of risk and return objectives.

- Risk map - We utilize a risk map to provide a point-in-time view of our residual risk profile across a range of both financial and non-financial risk categories, including our principal banking risks. It assesses the potential of these risks to have a material impact on our financial results, reputation or sustainability of our business. Risks that have an 'amber' or 'red' rating require a rating justification to outline the key issues and monitoring and mitigating action plans to be in place to manage the risk down to acceptable levels.
- Top and emerging risks - We use a top and emerging risks process to provide a forward-looking view of risks with the potential to threaten the execution of our strategy or operations. The top and emerging risks framework enables us to take action which either stop these risks from materializing or limit their impact. We proactively assess the internal and external risk environment as well as review the themes identified across our businesses and functions to update our top and emerging risks as necessary. A 'top risk' is defined as a risk we are currently managing which, if not managed and mitigated, has the potential to have a material impact on our financial results, reputation or business model. It may arise across any combinations of risk types or businesses. The impact of a 'top risk' may be well understood by senior management and some mitigating actions may already be in place. An 'emerging risk' is defined as a risk that could have a material impact on the risk profile of the organization, but is not under active management and is not immediate. Existing mitigating plans for an 'emerging risk' are likely to be minimal, reflecting the uncertain nature of these risks at this stage.

- **Risk identification** - Risk identification is a tool that allows us to provide a holistic view of risks facing the organization stemming from our unique business activities and associated exposures, including those that are difficult to quantify or only materialize under stressful conditions. The process is integrated with and built upon existing risk management tools such as top and emerging risk reporting as well as risk and control assessments. The risk identification process takes place on a quarterly basis and involves senior representatives from the First and Second LoD. Senior management governance is provided by the RMM with results presented to the Risk Committee of the Board of Directors on an annual basis. Material risks identified are actively monitored and used to inform key aspects of our capital planning and stress testing program.
- **Stress testing** - Stress testing is an important tool we use to assess potential vulnerabilities in our businesses, business model or portfolios. We operate a comprehensive stress testing program that supports our risk management and capital planning processes. It includes execution of stress tests mandated by our regulators, is supported by dedicated teams and infrastructure, and is overseen by senior management. It demonstrates our capital strength and enhances our resilience to external shocks. It allows us to understand the sensitivities of the core assumptions in our strategic and capital plans and improve decision making through balancing risk and return. In addition to taking part in regulators' stress tests, we conduct our own internal stress tests. Internal stress test scenarios are closely aligned to our assessment of top and emerging risks and help inform risk appetite thresholds. These may prompt management actions, including a reduction in limits or direct exposures, or closer monitoring of exposures sensitive to stress.
- **Models** - In the course of our regular risk management activities, we use models to help quantify the risk we are taking. The output from some of these models is included in this section of our filing. By their nature, models are based on various assumptions and relationships. We believe that the assumptions used in these models are reasonable within the parameters for which the models have been built and calibrated to operate, but events may unfold differently than what is assumed in the models. In actual stressed market conditions, these assumptions and relationships may no longer hold, causing actual experience to differ significantly from the results predicted in the model. Consequently, actual results may differ significantly from model projections.

The severe projections of macroeconomic variables during the current COVID-19 pandemic represent events outside the parameters for which the models have been built. As a result, adjustments to model outputs to reflect consideration of management judgment are used with stringent governance in place to ensure appropriate results. Where models do not require adjustments, enhanced model monitoring confirms models are performing as intended.

Key developments in 2021 We actively managed the risks resulting from the COVID-19 pandemic and its impacts on our customers and operations during 2021. We have maintained high levels of service as our people, processes and systems responded to the required changes. We continued our increased focus on the quality and the timeliness of the data used to inform management decisions through measures such as early warning indicators, prudent and active management of our risk appetite, and ensuring regular communication with our stakeholders. We also continued enhancing our monitoring of risks and developing actions, such as performing reviews of our portfolios that are highly vulnerable to the economic environment and implementing additional review measures for new credit requests. In 2021, we conducted a range of internal stress tests which explored potential impacts for key vulnerabilities to which we are exposed, including geopolitical impacts and the COVID-19 pandemic. Our balance sheet and capital adequacy remain resilient based on these tests.

In addition, we enhanced our risk management in the following areas:

- We streamlined the articulation of our risk appetite framework, providing further clarity on how risk appetite interacts with strategic planning and recovery planning processes.
- We further simplified our approach to non-financial risk management, with the implementation of more effective oversight tools and techniques to improve end-to-end identification and management of these risks.
- We continued to strengthen our ability to manage financial risks across the businesses and risk functions through enhancements in our approach to portfolio and concentration risk management and initiatives to enhance portfolio monitoring and analytics.

Our material risks The principal risks associated with our operations include the following:

- *Credit risk* is the risk of financial loss if a customer or counterparty fails to meet an obligation under a contract;
- *Treasury risk* is the risk of having insufficient capital, liquidity or funding resources to meet financial obligations and satisfy regulatory requirements, including pension risk. Treasury risk also includes the risk to our earnings due to changes in market interest rates;
- *Market risk* is the risk that movements in market factors, such as foreign exchange rates, interest rates, credit spreads, equity prices and commodity prices, will reduce our income or the value of our portfolios;
- *Resilience risk* is the risk that we are unable to provide critical services to our customers, affiliates and counterparties as a result of sustained and significant operational disruption;

- *Regulatory compliance risk* is the risk that we fail to observe the letter and spirit of relevant laws, codes, rules, regulations and standards of good market practice, which as a consequence incur fines and penalties and suffer damage to our business;
- *Financial crime risk* is the risk that we knowingly or unknowingly help parties to commit or to further potentially illegal activity, including money laundering, fraud, bribery and corruption, tax evasion, sanctions breaches, and terrorist and proliferation financing;
- *Strategic risk* is the risk that the business will fail to identify, execute and react appropriately to opportunities and/or threats arising from changes in the market, some of which may emerge over a number of years such as changing economic and political circumstances, customer requirements, demographic trends, regulatory developments or competitor action; and
- *Model risk* is the potential for adverse consequences from business decisions informed by models, which can be exacerbated by errors in methodology, design or the way they are used.

Credit Risk Management Credit risk is managed through a robust risk identification and control framework which outlines clear and consistent policies, principles and guidance for risk managers. Credit risk is monitored using various internal risk management measures and within limits approved by individuals within a framework of delegated authorities.

The principle objectives of credit risk management are to:

- maintain a strong culture of responsible lending, and robust risk policies and control frameworks;
- both partner with and challenge our businesses in defining, implementing and continually re-evaluating our risk appetite under actual and scenario conditions; and
- ensure there is independent scrutiny of credit risks, their cost and their mitigation.

Credit risk arises from various on- and off-balance sheet instruments and arrangements, such as:

- loan portfolios;
- investment portfolios;
- unfunded commitments such as letters of credit and lines of credit and unutilized credit card lines that customers can draw upon; and
- derivative financial instruments, such as interest rate swaps, which may represent an exposure to the counterparty to the contract.

While credit risk exists widely in our operations, diversification among various commercial and consumer portfolios helps to lessen risk exposure. Day-to-day management of credit risk is performed by the Chief Credit Officer and the WPB Chief Risk Officer, who report directly to the CRO and maintain independent risk functions. The credit risk associated with wholesale commercial portfolios is managed by the Chief Credit Officer, while credit risk associated with retail consumer loan portfolios is managed by the WPB Chief Risk Officer. Further discussion of credit risk can be found under the "Credit Quality" caption in this MD&A.

Our credit risk management procedures are designed for all stages of economic and financial cycles, including challenging periods of market volatility and economic uncertainty. The Credit Risk function continues to refine early warning indicators and reporting, including stress testing scenarios on the basis of recent experience. Stress testing results are taken into consideration within our business planning process. Action has been taken, where necessary, to improve our resilience to risks associated with the current market conditions by selectively discontinuing business lines or products, closely managing underwriting criteria and investing in improved fraud prevention technologies. In addition, the impact of the COVID-19 pandemic continued to create economic uncertainty during 2021. We continue to monitor the performance of our material commercial loans as conditions evolve and take necessary credit actions where warranted.

The responsibilities of the Credit Risk function include:

- *Formulating credit risk policies* – Our policies are designed to ensure that all of our various retail and wholesale business units operate within clear standards of acceptable credit risk. Our policies ensure that the HSBC standards are consistently implemented across all businesses and that all regulatory requirements are also considered. Credit policies are reviewed and approved annually at the RMM and the Risk Committee of the Board of Directors.
- *Approving new credit exposures and independently assessing large exposures annually* – Credit approval authorities are delegated by the Risk Committee of the Board of Directors to the CRO with the authority to sub-delegate to the Chief Credit Officer and WPB Chief Risk Officer. The Chief Credit Officer and WPB Chief Risk Officer in turn delegate limited credit authority to the various lending units. However, most wholesale credits are reviewed and approved centrally through a dedicated Credit Approval Unit that reports directly to the Chief Credit Officer. In addition, the Chief Credit Officer coordinates the review of material credits with the HSBC Group Credit Risk which,

subject to certain agreed-upon limits, will concur on material new and renewal transactions. Large retail credits are escalated to the WPB Chief Risk Officer for review and concurrence.

- *Overseeing retail credit and collateral risk* – The WPB Chief Risk Officer manages the credit and collateral risk associated with retail portfolios, supported by expertise from a dedicated advanced risk analytics unit. Collateral risk in retail arises when the underlying value of the property securing a retail loan loses value due to macroeconomic, housing market or industry conditions. This risk is actively managed through on-going monitoring of House Price Indices in the Metropolitan Statistical Areas in which the mortgage portfolio is concentrated. In areas where property values are declining, maximum LTV requirements will be adjusted downward to compensate for this risk.
- *Maintaining and developing the governance and operation of the wholesale risk rating system* – A two-dimensional credit risk rating system is utilized in order to categorize exposures meaningfully and enable focused management of the risks involved. This rating system comprises a 23 category customer risk rating, which considers the probability of default of an obligor and a separate assessment of the obligor's expected performance in servicing its obligations in accordance with the terms. Each credit grade has a probability of default estimate. Rating methodologies are based upon a wide range of analytics and market data-based tools, which are core inputs to the assessment of counterparty risk. Although automated risk rating processes are increasingly used, for larger facilities the ultimate responsibility for setting risk grades rests in each case with the final approving executive. Risk grades are reviewed frequently and amendments, where necessary, are implemented promptly.
- *Measuring portfolio credit risk* – We continue to advance the measurement of the risk in our credit portfolios using techniques such as stress testing in certain internal reporting. Efforts continue to refine both the inputs and assumptions used to increase the usefulness in the evaluation of large and small commercial and retail customer portfolio products and business unit return on risk.
- *Monitoring portfolio performance* – Credit data warehouses have been implemented to centralize the reporting of credit risk, support the analysis of risk and to calculate credit loss reserves. This data warehouse also supports HSBC's wider effort to meet the requirements of Basel III and to generate credit reports for management and the Risk Committee of the Board of Directors.
- *Establishing counterparty and portfolio limits* – We monitor and limit our wholesale exposure to individual counterparties and to the combined exposure of related counterparties. In addition, selected industry portfolios, such as real estate, are subject to caps that are recommended by the Chief Credit Officer and reviewed where appropriate by management committees and the Risk Committee of the Board of Directors. Retail establishes portfolio limits by product as well as limits on new products and higher-risk segments such as investment property, high LTV mortgages and credit cards. These limits are approved by the WPB Chief Risk Officer and monitored by a retail credit risk management committee. Counterparty credit exposure related to derivative activities is also managed under approved limits. Since the exposure related to derivatives is variable and uncertain, internal risk management methodologies are used to calculate the 95 percent worst-case potential future exposure for each customer. These methodologies take into consideration, among other factors, cross-product close-out netting, collateral received from customers under collateral support annexes, termination clauses, and off-setting positions within the portfolio.
- *Managing problem loans* – Special attention is paid to problem loans. When appropriate, our wholesale Loan Management Unit and retail Collection and Recovery teams provide customers with intensive management and support in order to help them avoid default wherever possible and maximize recoveries.
- *Establishing allowances for credit losses* – The Chief Credit Officer and the WPB Chief Risk Officer share responsibility with the Chief Financial Officer for establishing appropriate levels of allowances for credit losses inherent in our various loan and other portfolios carried at amortized cost. This responsibility includes overseeing the processes for: model performance monitoring and redevelopment of new models, establishing forward-looking economic scenarios, projecting results from the impairment calculation engine, and determining management judgment utilized for estimating lifetime ECL. Management review committees comprising representatives from Credit Risk and Finance have been established in order to review and approve the results of the lifetime ECL calculations.

Sustainability risk is a component of credit risk and represents the risk that financial services provided to customers indirectly result in unacceptable impacts on people or on the environment. We measure sustainability risk by assessing the potential sustainability impacts of a customer's activities and assigning a sustainability risk rating. Sustainability risk is monitored by the businesses and the Credit Approval Unit, as well as HSBC Group Sustainability Risk, who are actively responsible for developing policies, guidance, processes and training. Sustainability Risk Managers in the Wholesale Credit Risk function, with input from HSBC Group Sustainability Risk, are responsible for advising our businesses on managing environmental and social risks. The Wholesale Credit Risk function's responsibilities in relation to sustainability risk include:

- overseeing our sustainability risk standards, our application of the Equator Principles and our sustainability policies (covering agricultural commodities, chemicals, defense, energy, forestry, mining and metals, Ramsar Wetlands and UNESCO World Heritage Sites);
- undertaking an independent review of transactions, including escalating transactions to HSBC Group Sustainability Risk where sustainability risks are assessed to be high and approving transactions where sustainability risks are of a lower magnitude; and
- providing training and capacity building within our businesses to ensure sustainability risks are identified and mitigated consistently.

Credit Review is an independent and critical Second LoD function. Its mission is to identify and evaluate areas of credit risk within our business. Credit Review will focus on the review and evaluation of wholesale and retail lending activities and will identify risks and provide an ongoing assessment as to the effectiveness of the risk management framework and the related portfolios. Credit Review will independently assess the business units and risk management functions to ensure the portfolios are managed and operating in a manner that is consistent with HSBC Group strategy, risk appetite, appropriate local and HSBC Group credit policies and procedures and applicable regulatory requirements. For example, this includes the unilateral authority to independently assess and revise customer risk ratings, facility grades and loss given default estimates. To ensure its independent stature, the Credit Review Delegation of Authority is endorsed by the Risk Committee of the Board of Directors which grants the Head of Credit Review unhindered access to the Risk Committee and executive sessions at the discretion of the Head of Credit Review. Accordingly, our Risk Committee of the Board of Directors has oversight of the Credit Review annual and ongoing plan, quarterly plan updates and results of reviews.

Treasury Risk Management Treasury risk arises from changes to the respective resources and risk profiles driven by customer behavior, management decisions or the external environment.

Capital risk is the risk that we fail to meet our regulatory capital requirements. Capital risk arises from a deterioration in the capital base due to losses and increased risk profile from management activity or the external environment. We aim to maintain a strong capital base to support the risks inherent in our business and invest in accordance with our strategy, meeting regulatory capital requirements at all times. See "Liquidity and Capital Resources" in this MD&A for a full discussion of our approach to capital risk management, including our capital ratios and regulatory capital requirements.

Liquidity and funding risk is the risk that we do not have sufficient financial resources to meet our obligations as they fall due or that we cannot raise funding or can only do so at excessive cost. Liquidity and funding risk arises from mismatches in the timing of cash flows or when illiquid asset positions cannot be funded at the expected terms and when required. We continuously monitor the impact of market events on our liquidity positions and will continue to adapt our liquidity and funding framework to reflect market events and the evolving regulatory landscape and view as to best practices. Historically, we have seen the greatest strain in the wholesale market as opposed to the retail market (the latter being the market from which we source stable demand and time deposit accounts which are less sensitive to market events or changes in interest rates).

Liquidity is managed to provide the ability to generate cash to meet lending, deposit withdrawal and other commitments at a reasonable cost in a reasonable amount of time while maintaining routine operations and market confidence. Market funding is coordinated with other HSBC Group entities, as the markets increasingly view debt issuances from the separate companies within the context of our common parent company. Liquidity and funding risk management is performed at the HSBC North America, HSBC USA and HSBC Bank USA levels. Each entity is required to have sufficient liquidity for a crisis situation.

ALCO develops and implements policies and procedures to ensure that the minimum liquidity ratios and a strong overall liquidity position are maintained. ALCO projects cash flow requirements and determines the level of liquid assets and available funding sources to have at our disposal, with consideration given to anticipated deposit and balance sheet growth, contingent liabilities, and the ability to access wholesale funding markets. In addition to base case projections, multiple stress scenarios are generated to simulate crisis conditions, including:

- run-off of non-stable deposits;
- inability to renew maturing interbank funding;
- draw-downs of committed loan facilities;
- decreases in the market value of liquid securities;

- additional collateral requirements for derivative transactions under existing collateral support agreements;
- rating downgrades of HSBC USA or HSBC Bank USA; and
- increased discount on security values for repos or disposals.

In addition, ALCO monitors the overall mix of deposit and funding concentrations to avoid undue reliance on individual funding sources and large deposit relationships.

As part of our approach towards liquidity and funding risk management, we employ the measures discussed below to define, monitor and control our liquidity and funding risk in accordance with HSBC policy.

The Basel Committee based liquidity coverage ratio ("LCR") is designed to be a short-term liquidity measure to ensure banks have sufficient High Quality Liquid Assets ("HQLA") to cover net stressed cash outflows over the next 30 days. At both December 31, 2021 and 2020, HSBC USA's LCR exceeded 100 percent. A LCR of 100 percent or higher reflects an unencumbered HQLA balance that is equal to or exceeds liquidity needs for a 30 calendar day liquidity stress scenario. HQLA consists of cash or assets that can be converted into cash at little or no loss of value in private markets. HSBC North America and HSBC Bank USA are also currently subject to the U.S. LCR rule and are required to report their LCR to U.S. regulators on a daily basis. Under the Tailoring Rules, an 85 percent LCR requirement applies to Category III firms with weighted short-term wholesale funding under \$75 billion and their depository institution subsidiaries. As a result, under the U.S. LCR rule, a LCR of 100 percent or higher reflects an unencumbered HQLA balance that is equal to or exceeds 85 percent of a Category III firm's liquidity needs for a 30 calendar day liquidity stress scenario. During 2021, HSBC Bank USA's LCR under the U.S. LCR rule remained above the 100 percent minimum requirement.

The U.K. calibration of the Basel Committee based net stable funding ratio ("NSFR"), which is a longer term liquidity measure with a 12-month time horizon to ensure a sustainable maturity structure of assets and liabilities, took effect on January 1, 2022. At both December 31, 2021 and 2020, HSBC USA's estimated NSFR, based on our interpretation and understanding of the U.K. NSFR rule, exceeded 100 percent. A NSFR of 100 percent or more reflects an available stable funding balance from liabilities and capital over the next 12 months that is equal to or exceeds the required amount of funding for assets and off-balance sheet exposures. HSBC North America and HSBC Bank USA are also currently subject to the U.S. NSFR rule, which took effect on July 1, 2021. Consistent with the Tailoring Rules, an 85 percent NSFR requirement applies to Category III firms with weighted short-term wholesale funding under \$75 billion and their depository institution subsidiaries. As a result, under the U.S. NSFR rule, a NSFR of 100 percent or more reflects an available stable funding balance from liabilities and capital over the next 12 months that is equal to or exceeds 85 percent of a Category III firm's required amount of funding for assets and off-balance sheet exposures. At both December 31, 2021 and 2020, HSBC Bank USA's NSFR under the U.S. NSFR rule exceeded 100 percent. The ratio at December 31, 2020 was estimated based on our interpretation and understanding of the U.S. NSFR rule at that time.

As of January 1, 2022, HSBC North America met the criteria to be re-classified as a Category IV firm and, as a result of this classification change, HSBC North America and HSBC Bank USA expect to be subject to a further reduced U.S. LCR and NSFR requirement of 70 percent so long as HSBC North America's weighted short-term wholesale funding equals or exceeds \$50 billion.

As a Category III firm, HSBC North America was subject to liquidity stress testing on a monthly basis and related liquidity buffer and liquidity risk management requirements. As a Category IV firm, HSBC North America remains subject to liquidity risk management and liquidity buffer requirements, but expects to be subject to liquidity stress testing on a quarterly, rather than monthly basis. HSBC North America and HSBC Bank USA have liquidity profiles to support compliance with these rules and may need to make changes to their liquidity profiles to support compliance with any future rules.

ALCO also maintains a liquidity management and contingency funding plan ("Contingency Funding Plan"), which identifies certain potential early warning indicators of liquidity problems, and actions that can be taken both initially and in the event of a liquidity crisis, to minimize the long-term impact on our businesses and customer relationships. The Contingency Funding Plan is reviewed annually and approved by the Risk Committee of the Board of Directors. We recognize a liquidity crisis can either be specific to us, relating to our ability to meet our obligations in a timely manner, or market-wide, caused by a macro risk event in the broader financial system. A range of indicators are monitored to attain an early warning of any liquidity issues. These include widening of key spreads or indices used to track market volatility, material reductions or extreme volatility in customer deposit balances, increased utilization of credit lines, widening of our own credit spreads and higher borrowing costs. At the onset of a crisis, liquidity needs would be satisfied primarily with unsecured wholesale market funding. If the crisis escalates, contingency funding needs will be satisfied primarily through sales of securities from the investment portfolio and secured borrowing using the mortgage portfolio as collateral. Securities may be sold or used as collateral in a repurchase agreement depending on the scenario. Portions of the mortgage portfolio may be used as collateral at the FHLB to increase borrowings. We maintain a Liquid Asset Buffer consisting of cash, short-term liquid assets and unencumbered government and

other highly rated investment securities as a source of funding. Further, collateral is maintained at the Federal Reserve Bank discount window and the FHLB, providing additional secured borrowing capacity in a liquidity crisis.

In addition to the oversight provided by ALCO, Treasury Risk Management ("TRM") is a Second LoD oversight function for treasury risk-related activities, including capital, liquidity and funding and interest rate risk, which independently reports into the CRO. TRM's primary mandate is to strengthen our treasury risk management framework through challenge and review of existing processes and recommending areas that need improvement to the RMM. TRM serves as an advisory function to senior management to ensure front line units with direct responsibility for managing treasury risk are operating within their operating guidelines and defined risk appetite parameters. The TRM oversight mandate is carried out through critical evaluation and challenge of existing risk management processes including stress testing and ratio calculations.

Our liquidity and funding risk management approach includes deposits, supplemented by wholesale borrowing to fund our balance sheet, and using security sales or secured borrowings for liquidity stress situations in our liquidity contingency plans. In addition, regulations require banks to retain a portfolio of HQLA. As such, we are maintaining a large portfolio of high quality sovereign and sovereign guaranteed securities.

Our ability to regularly attract wholesale funds at a competitive cost is enhanced by strong ratings from the major credit ratings agencies. The following table reflects the short and long-term credit ratings of HSBC USA and HSBC Bank USA at December 31, 2021:

	Moody's	S&P	Fitch
HSBC USA:			
Short-term borrowings	P-1	A-2	F1+
Long-term/senior debt	A1	A-	A+
HSBC Bank USA:			
Short-term borrowings	P-1	A-1	F1+
Long-term/senior debt	Aa3	A+	AA-

Rating agencies continue to evaluate economic and geopolitical trends, regulatory developments, future profitability, risk management practices and legal matters, all of which could lead to adverse ratings actions.

In June 2021, Moody's downgraded both the long-term deposit rating and the adjusted baseline credit assessment of HSBC Bank USA by one notch following similar downgrades to the senior unsecured rating and the notional baseline credit assessment of HSBC. These rating downgrades reflect Moody's view that the HSBC Group will face challenges in restoring profitability to levels in line with its main peers in the next 12-18 months, which could reduce the capacity of HSBC to provide support to HSBC Bank USA in case of need. Concurrently, Moody's affirmed the standalone baseline credit assessment and the short-term deposit rating of HSBC Bank USA.

In August 2021, Moody's concluded a review of certain of our credit ratings for potential upgrade and upgraded the senior debt rating of HSBC USA by one notch to A1. Moody's review also resulted in one notch upgrades to the provisional subordinated and preferred stock ratings of HSBC USA and the subordinated debt rating of HSBC Bank USA. These rating upgrades reflect Moody's expectation that HSBC USA and HSBC Bank USA would be resolved in a unified manner alongside their immediate parent, HSBC North America, and their ultimate parent, HSBC. Concurrently, Moody's affirmed the baseline credit assessment and the adjusted baseline credit assessment of HSBC Bank USA.

While these rating actions did not have a material financial impact on our borrowing costs or liquidity, any future actions could have such an impact. Although we closely monitor and strive to manage factors influencing our credit ratings, there is no assurance that our credit ratings will not change in the future. At December 31, 2021, none of the ratings on the debt of HSBC USA or HSBC Bank USA from any of the rating agencies were under review for potential downgrade.

Numerous factors, internal and external, may impact access to and costs associated with issuing debt in the global capital markets. These factors include our debt ratings, overall economic conditions, overall capital markets volatility and the effectiveness of the management of credit risks inherent in our customer base.

Cash resources, short-term investments and a trading asset portfolio are available to provide highly liquid funding for us. Additional liquidity is provided by available-for-sale and held-to-maturity debt securities. Approximately \$1,449 million of the debt securities in these portfolios at December 31, 2021 are expected to mature in 2022. The remaining \$39,053 million of debt securities not expected to mature in 2022 are available to provide liquidity by serving as collateral for secured borrowings, or if needed, by being sold. Further liquidity is available through our ability to sell or securitize loans in secondary markets. In 2021, in addition to the normal sales of agency-eligible mortgage loan originations, we sold loans of approximately \$1,414 million to third parties as part of our Restructuring Plan.

It is the policy of HSBC Bank USA to maintain both primary and secondary collateral in order to ensure precautionary borrowing availability from the Federal Reserve Bank. Primary collateral is collateral that is physically maintained at the Federal Reserve Bank, and serves as a safety net against any unexpected funding shortfalls that may occur. Secondary collateral is collateral that is acceptable to the Federal Reserve Bank, but is not maintained there. If unutilized borrowing capacity were to be low, secondary collateral would be identified and maintained as necessary. Further liquidity is available from the FHLB.

See "Liquidity and Capital Resources" in this MD&A for further discussion of our liquidity position, including additional information regarding our outstanding borrowings, the remaining availability of our debt issuance programs and our funding strategy.

Interest rate risk is the potential reduction of net interest income due to mismatched pricing between assets and liabilities as well as losses in value due to interest rate movements. We are subject to interest rate risk associated with the repricing characteristics of our balance sheet assets and liabilities. Specifically, as interest rates change, amounts of interest earning assets and liabilities fluctuate, and interest earning assets reprice at intervals that do not correspond to the maturities or repricing patterns of interest bearing liabilities. This mismatch between assets and liabilities in repricing sensitivity results in changes to projected net interest income as interest rates move. To help manage the risks associated with changes in interest rates, and to manage net interest income within interest rate risk ranges management considers acceptable, we use derivative instruments such as interest rate swaps, options, futures and forwards as hedges to modify the repricing characteristics of specific assets, liabilities, forecasted transactions or firm commitments. Analysis of this risk is complicated by having to make assumptions on embedded optionality within certain product areas such as the incidence of mortgage prepayments, and from behavioral assumptions regarding the economic duration of liabilities which are contractually repayable on demand such as current accounts. These assumptions around behavioral features are captured in our interest rate behavioralization framework, which is described further below. Day-to-day management of interest rate risk is centralized principally in Markets Treasury, which includes the non-trading interest rate risk positions transferred to it as discussed further under "Market Risk Management" below.

We have significant, but historically well controlled, interest rate risk in large part due to our portfolio of residential mortgages and mortgage-backed securities, which consumers can prepay without penalty, and our large base of demand and savings deposits. These deposits can be withdrawn by consumers at will, but historically they have been a stable source of relatively low cost funds.

In addition, we have a considerable number of contracts referencing LIBOR. The process of adopting new reference rates may expose us to an increased level of financial risks, such as potential earnings volatility. See "Executive Overview" in this MD&A for a full discussion of our LIBOR transition.

In the course of managing interest rate risk, an economic value of equity ("EVE") analysis is utilized in conjunction with a combination of other risk assessment techniques to identify and assess the potential impact of interest rate movements and take appropriate action. This combination of techniques, with some focusing on the impact of interest rate movements on the valuation of the balance sheet (e.g. EVE, present value of a basis point ("PVBP"), repricing gap analysis, value at risk) and others focusing on the impact of interest rate movements on earnings (e.g. net interest income simulation modeling, basis risk analysis) allows for comprehensive analyses from different perspectives. Refer to "Market Risk Management" below for discussion regarding the use of value at risk analyses to monitor and manage interest rate risk.

A key element of managing interest rate risk is the management of the convexity of the balance sheet, largely resulting from the mortgage related products on the balance sheet. Convexity risk arises as mortgage loan consumers change their payment behavior significantly in response to large movements in market rates, but do not change behavior appreciably for smaller changes in market rates. Certain interest rate management tools, such as EVE and net interest income simulation modeling described below, better capture the embedded convexity in the balance sheet, while measures such as PVBP are designed to capture the risk of smaller changes in rates.

The assessment techniques discussed below act as a guide for managing interest rate risk associated with balance sheet composition and off-balance sheet hedging strategy (the risk position). Calculated values within limit ranges reflect an acceptable risk position, although possible future unfavorable trends may prompt adjustments to on or off-balance sheet exposure. Calculated values outside of limit ranges will result in consideration of adjustment of the risk position, or consideration of temporary dispensation from making adjustments.

Interest rate metrics have been adjusted to reflect the impact of our decision to exit our mass market retail banking business as part of our Restructuring Plan. The risk metrics at December 31, 2021 reflect current assumed transaction dates, with balances reduced at projected sale dates and the associated impacts of those reductions is included in both base and shock scenarios.

Economic value of equity ("EVE") EVE represents the present value of the banking book cash flows that could be provided to our equity holder under a managed run-off scenario. An EVE sensitivity represents the change in EVE due to a defined movement in interest rates. We manage to an immediate parallel upward shock of 200 basis points and an immediate parallel

downward shock of 200 basis points to the market implied interest rates. At both December 31, 2021 and 2020, our EVE remained within risk limits for the up 200 and down 200 basis point interest rate shock scenarios.

Repricing gap analysis The following table shows the repricing structure of our assets and liabilities at December 31, 2021. For assets and liabilities whose cash flows are subject to change due to movements in interest rates, such as the sensitivity of mortgage loans to prepayments, data is reported based on the earlier of expected repricing or maturity and reflects anticipated prepayments based on the current rate environment. The resulting "gaps" are reviewed to assess the potential sensitivity to earnings with respect to the direction, magnitude and timing of changes in market interest rates. Data shown is as of year-end, and one-day figures can be distorted by temporary swings in assets or liabilities.

December 31, 2021	Within One Year	After One But Within Five Years	After Five But Within Ten Years	After Ten Years	Total
(in millions)					
Commercial loans	\$ 39,079	\$ 872	\$ 292	\$ 14	\$ 40,257
Residential mortgages and home equity mortgages	7,529	6,479	3,771	1,372	19,151
Credit cards and other consumer loans	651	7	6	9	673
Total loans ⁽¹⁾	47,259	7,358	4,069	1,395	60,081
Securities available-for-sale and securities held-to-maturity	6,193	16,536	9,356	8,416	40,501
Other assets	86,896	1,754	—	—	88,650
Total assets	140,348	25,648	13,425	9,811	189,232
Domestic deposits:					
Savings and demand	88,962	21,840	9,573	—	120,375
Time deposits	9,031	48	1	—	9,080
Long-term debt	9,295	4,750	1,500	1,691	17,236
Other liabilities/equity ⁽²⁾	31,261	10,737	543	—	42,541
Total liabilities and equity	138,549	37,375	11,617	1,691	189,232
Total balance sheet gap	1,799	(11,727)	1,808	8,120	—
Effect of derivative contracts	(8,664)	12,313	(743)	(2,906)	—
Total gap position	\$ (6,865)	\$ 586	\$ 1,065	\$ 5,214	\$ —

⁽¹⁾ Includes loans held for sale.

⁽²⁾ Includes deposits held for sale.

Various techniques are utilized to quantify and monitor risks associated with the repricing characteristics of our assets, liabilities and derivative contracts.

Net interest income simulation modeling techniques We utilize simulation modeling to monitor a number of interest rate scenarios for their impact on projected net interest income. These techniques simulate the impact on projected net interest income under various scenarios, such as rate shock scenarios which assume immediate market rate movements by 100 basis points, as well as scenarios in which rates gradually rise or fall by 100 basis points over a twelve month period. In the gradual scenarios, 25 percent of the interest rate movement occurs at the beginning of each quarter. The following table reflects the impact on our projected net interest income of the scenarios utilized by these modeling techniques:

	December 31, 2021		December 31, 2020	
	Amount	%	Amount	%
(dollars are in millions)				
Estimated increase (decrease) in projected net interest income (reflects projected rate movements on January 1, 2022 and 2021, respectively):				
Resulting from a gradual 100 basis point increase in the yield curve	\$ 225	9 %	\$ 186	7 %
Resulting from a gradual 100 basis point decrease in the yield curve	(130)	(5)	(213)	(8)
Other significant scenarios monitored (reflects projected rate movements on January 1, 2022 and 2021, respectively):				
Resulting from an immediate 100 basis point increase in the yield curve	308	13	274	11
Resulting from an immediate 100 basis point decrease in the yield curve	(334)	(14)	(379)	(15)

Projected net interest income sensitivity figures represent the effect of movements in net interest income based on the projected yield curve scenarios and our current interest rate risk profile. This effect, however, does not incorporate actions which would

probably be taken by Markets Treasury or in the businesses to mitigate the effect of interest rate risk. In reality, Markets Treasury seeks proactively to change the interest rate risk profile to minimize losses and optimize net revenues. The net interest income simulation modeling calculations assume that interest rates of all maturities move by the same amount in the 'up-shock' scenarios. The sensitivity calculations in the 'down-shock' scenarios reflect no floors to the shocked market rates. However, customer product-specific rate floors are recognized where appropriate. In addition, the net interest income simulation modeling calculations take account of the effect on net interest income of anticipated differences in changes between interbank interest rates and interest rates over which the entity has discretion in terms of the timing and extent of rate changes. The projections do not take into consideration possible complicating factors such as the effect of changes in interest rates on the credit quality, size and composition of the balance sheet. Additionally, the projected net interest income sensitivity under an immediate 100 basis point decrease shock will result in a negative interest rate scenario which is viewed as a remote scenario based on the FRB's comments and requires a significant amount of judgment in the product pricing assumptions. Therefore, although this provides a reasonable estimate of interest rate sensitivity, actual results will differ from these estimates, possibly by significant amounts.

Interest rate risk behavioralization Unlike liquidity risk which is assessed on the basis of a very severe stress scenario, interest rate risk is assessed and managed according to business-as-usual conditions. In many cases the contractual profile of our assets and liabilities does not reflect the behavior observed.

Behavioralization is therefore used to assess the interest rate risk of our assets and liabilities and this assessed risk is transferred to Markets Treasury, in accordance with the rules governing the transfer of interest rate risk from the global businesses to Markets Treasury.

Behavioralization is applied in three key areas:

- the assessed re-pricing frequency of managed rate balances;
- the assessed duration of non-interest bearing balances, typically capital and current accounts; and
- the base case expected prepayment behavior or pipeline take-up rate for fixed rate balances with embedded optionality.

Interest rate behavioralization policies have to be formulated in line with the HSBC Group's behavioralization policies and approved at least annually by ALCO and global Asset, Liability and Capital Management, in conjunction with local, regional and HSBC Group risk monitoring teams.

The extent to which balances can be behavioralized is driven by:

- the amount of the current balance that can be assessed as stable under business-as-usual conditions; and
- for managed rate balances the historic market interest rate re-pricing behavior observed; or
- for non-interest bearing balances the duration for which the balance is expected to remain under business-as-usual conditions. This assessment is often driven by the re-investment tenors available to Markets Treasury to neutralize the risk through the use of fixed rate government bonds or interest rate derivatives, and for derivatives the availability of cash flow hedging capacity.

Pension risk is a component of treasury risk and represents the risk of increased costs from offering post-employment benefit plans to our employees. Certain employees are eligible to participate in the HSBC North America qualified defined benefit pension plan which has been frozen. Plan assets were higher than projected plan liabilities resulting in an over-funded status of approximately \$383 million at December 31, 2021. Because these obligations relate to the HSBC North America pension plan, only a portion of any future deficit could be considered our responsibility. We and other HSBC North America affiliates with employees participating in this plan will be required to make up any shortfall over a number of years as specified under the Pension Protection Act. This can be accomplished through direct contributions, appreciation in plan assets and/or increases in interest rates resulting in lower liability valuations. See Note 22, "Pension and Other Postretirement Benefits," in the accompanying consolidated financial statements for further information concerning the HSBC North America defined benefit plan.

Market Risk Management Exposure to market risk is separated into two portfolios:

- *Trading portfolios* comprise positions arising from market-making and warehousing of client-derived positions.
- *Non-trading portfolios* comprise positions that primarily arise from the interest rate management of our retail and commercial banking assets and liabilities and financial investments classified as available-for-sale and held-to-maturity.

We apply similar risk management policies and measurement techniques to both trading and non-trading portfolios. Our objective is to manage and control market risk exposures to optimize return on risk while maintaining a market profile consistent with our established risk appetite.

The nature of the hedging and risk mitigation strategies performed corresponds to the market risk management instruments available. These strategies range from the use of traditional market instruments, such as interest rate swaps, to more sophisticated hedging strategies to address a combination of risk factors arising at the portfolio level.

Market risk governance Market risk is managed and controlled through limits approved by the Risk Committee of the Board of Directors and the RMM, as well as the various businesses, and also ratified by the HSBC Group Risk Management Meeting. These limits are allocated across business lines and to the HSBC Group legal entities, including HSBC USA and HSBC Bank USA.

We have an independent market risk management and control function in North America which is responsible for setting the risk appetite, measuring market risk exposures in accordance with the policies defined by HSBC Group Risk, and monitoring and reporting these exposures against the prescribed limits on a daily basis.

Model risk is governed through model oversight committees at the regional and global levels. The Committees have direct oversight and approval responsibility for all traded risk models utilized for risk measurement and management and stress testing. They prioritize the development of models, methodologies and practices used for traded risk management and ensure that they remain within our risk appetite and business plans. We are committed to the ongoing development and enhancement of our in-house risk models subject to regulatory approval. Refer to "Model Risk Management" below for further discussion regarding the management and monitoring of model risk across North America.

Our control of market risk in the trading and non-trading portfolios is based on a policy of restricting operations to trading within a list of permissible instruments ultimately approved by HSBC Group Risk as well as enforcing new product approval procedures through a dedicated committee.

Market risk measures We use a range of tools to monitor and limit market risk exposures, including:

Sensitivity analysis Sensitivity analysis measures the impact of individual market factor movements on specific instruments or portfolios, for example the impact of a one basis point change in the yield curve. We use sensitivity analysis to monitor the market risk positions within each risk type. Sensitivity limits are set for portfolios, products and risk types, with the depth of the market being one of the principal factors in determining the level of limits set.

Value at risk ("VaR") VaR is a technique for estimating potential losses on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence. The use of VaR is integrated into market risk management and calculated for all trading positions regardless of how we capitalize them. In addition, we calculate VaR for non-trading portfolios to have a complete picture of risk. Where we do not calculate VaR explicitly, we use alternative tools as summarized in the 'Stress Testing' section below.

Our VaR models are predominantly based on historical simulation which incorporates the following features:

- historical market rates and prices are calculated with reference to foreign exchange rates, commodity prices, interest rates and the associated volatilities;
- potential market movements utilized for VaR are calculated with reference to data from the past two years;
- scenario profit and losses are calculated utilizing the market scenarios for all relevant risk factors; and
- VaR measures are calculated to a 99 percent confidence level and use a one-day holding period.

The models also incorporate the effect of option features on the underlying exposures. The nature of the VaR models means that an increase in observed market volatility will lead to an increase in VaR without any changes in the underlying positions.

Although a valuable guide to risk, VaR should always be viewed in the context of its limitations. For example:

- the use of historical data as a proxy for estimating future events may not encompass all potential events, particularly those which are extreme in nature;
- the use of a holding period assumes that all positions can be liquidated or the risks offset during that period, which may not fully reflect the market risk arising at times of severe illiquidity, when the holding period may be insufficient to liquidate or hedge all positions fully;
- the use of a 99 percent confidence level does not take into account losses that might occur beyond this level of confidence; and
- VaR is calculated on the basis of exposures outstanding at the close of business and therefore does not necessarily reflect intra-day exposures.

The risks not in VaR ("RNIV") framework aims to capture and capitalize material market risks that are not adequately covered in the VaR model. Risk factors are reviewed on a regular basis and either incorporated directly in the VaR models, where possible, or quantified through the RNIV. RNIV stresses interest rate basis risk exposure and interest rate volatility skewness. RNIV risk-weighted assets make up approximately 10 percent of HUSI market risk risk-weighted assets, though contribution to total HUSI risk-weighted assets remains immaterial.

Stressed VaR Stressed VaR is primarily used for regulatory capital purposes and is integrated into the risk management process to facilitate efficient capital management. Stressed VaR complements other risk measures by providing severe potential losses

associated with stressed market conditions. Stressed VaR modeling follows the same approach as VaR, except Stressed VaR calculates potential loss at a 99 percent confidence level for a one-day holding period based on a one year historical period that is calibrated to the most volatile period for the trading portfolio.

Stress testing Stress testing is an important procedure that is integrated into our market risk management framework to evaluate the potential impact on portfolio values of more extreme, although plausible, events or movements in a set of financial variables. In such scenarios, losses can be much greater than those predicted by VaR modeling.

A set of scenarios is used consistently across the HSBC Group. Scenarios are tailored to capture the relevant potential events or market movements at each level. The risk appetite around potential stress losses is set and monitored against corresponding limits.

The process is governed by the Stress Testing Review Group forum which, in conjunction with regional risk management, determines the scenarios to be applied. Main scenario types are as follows:

- single risk factor stress scenarios that are unlikely to be captured within the VaR models, such as the break of a currency peg;
- technical scenarios that incorporate the largest move in each risk factor independent from any underlying market correlation;
- hypothetical scenarios are mainly built on potential macroeconomic events, for example, a worsening global energy crisis and the potential effects of a sovereign debt default, including its wider contagion effects, curves steepening or flattening scenarios; and
- historical scenarios which incorporate past observations of market movements during periods of stress which are not captured within VaR.

Market risk reverse stress tests are undertaken on the premise that there is a fixed loss. The stress testing process identifies which scenarios lead to this loss. The rationale behind the reverse stress test is to understand scenarios which are beyond normal business conditions and could have contagion and systemic implications.

Stressed VaR and stress testing, together with reverse stress testing, provide management with insights regarding the 'tail risk' beyond VaR, for which our appetite is limited.

Market risk in 2021 The global market environment was characterized by global economic growth and increased inflation, in the face of supply chain disruptions and the emergence of two COVID-19 variants.

During the year, economic data improved as jobless claims trended downward, consumer spending increased and manufacturing capacity grew. Inflation accelerated through the year driven by supply chain disruptions as well as increases to energy prices, labor costs and raw materials. In response, the FRB announced a goal to complete its monthly bond buying program in early 2022 and increased expectations of interest rate hikes in 2022.

While mobility and economic activity continued to improve through the year, two COVID-19 variants emerged and spread globally in 2021. The Delta variant had surges earlier in the year, temporarily slowing the economic recovery. At year-end, the Omicron variant spread globally and is more contagious than its predecessors.

The focus in 2022 will be on the tightening of monetary policy and public management of the COVID-19 pandemic. This could lead to an increase in market price volatility driven by the pace of monetary policy tightening as well as persistent inflation.

Trading portfolios Trading VaR generates primarily from the MSS segment of GBM. Portfolios comprise mainly foreign exchange products, precious metals (i.e., gold, silver, platinum) and credit default swaps.

Trading VaR at December 31, 2021 was relatively flat as compared with December 31, 2020 as MSS continued to focus on customer facilitation and credit portfolio management.

The following graph summarizes daily VaR for our trading portfolios at a 99 percent confidence level (in millions):



The following table summarizes our trading VaR for 2021 and at 2020:

	Foreign exchange and commodity	Interest rate	Credit Spread	Portfolio Diversification ⁽¹⁾	Total ⁽²⁾
(in millions)					
At December 31, 2021	\$ 3	\$ 5	\$ 5	\$(4)	\$ 9
Full Year 2021					
Average	3	7	2	(4)	8
Maximum	6	10	9		12
Minimum	1	4	—		6
At December 31, 2020	\$ 3	\$ 7	\$ 2	\$(5)	\$ 7
Full Year 2020					
Average	2	8	2	(3)	9
Maximum	5	14	4		15
Minimum	1	5	—		6

⁽¹⁾ Portfolio diversification is the market risk dispersion effect of holding a portfolio containing different risk types. It represents the reduction in unsystematic market risk that occurs when combining a number of different risk types, for example, foreign exchange, interest rate and credit spread, together in one portfolio. It is measured as the difference between the sum of the VaR by individual risk type and the combined total VaR. A negative number represents the benefit of portfolio diversification. As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit for these measures.

⁽²⁾ The total VaR is non-additive across risk types due to diversification effects. For presentation purposes, portfolio diversification of the VaR for trading portfolios includes VaR-based risk-not-in-VaR.

Back-testing We routinely validate the accuracy of our VaR models by back-testing them against hypothetical profit and loss that excludes non-modeled items such as fees, commissions and revenues of intra-day transactions from the actual reported profit and loss. We would expect, under stable market conditions, to see two or three losses in excess of VaR at the 99 percent confidence level over a one-year period. However, in periods of unstable market conditions, we could see an increase in the number of back-testing exceptions.

During 2021, we experienced no loss back-testing exceptions.

Non-trading portfolios Non-trading VaR predominantly relates to Markets Treasury and represents the potential negative changes in the investment portfolio market value (which includes available-for-sale and held-to-maturity assets) and associated hedges. Our investment portfolio holdings comprise mainly U.S. Treasury, U.S. Government agency mortgage-backed and U.S. Government sponsored mortgage-backed securities. Our non-trading VaR exposure is driven by interest rates and agency spread volatility.

Non-trading VaR was higher at December 31, 2021 as compared with December 31, 2020 due to the impact of higher yields on our investment portfolio.

The following table summarizes our non-trading VaR for 2021 and at 2020:

	Interest rate	Credit Spread	Portfolio Diversification ⁽¹⁾	Total ⁽¹⁾
	(in millions)			
At December 31, 2021	\$ 84	\$ 62	\$ (34)	\$ 112
Full Year 2021				
Average	98	63	(52)	109
Maximum	134	83		152
Minimum	61	51		72
At December 31, 2020	\$ 69	\$ 66	\$ (66)	\$ 69
Full Year 2020				
Average	73	65	(65)	73
Maximum	109	106		108
Minimum	29	38		46

⁽¹⁾ Refer to the Trading VaR table above for additional information.

Non-trading VaR also includes the interest rate risk of non-trading financial assets and liabilities held by the global businesses and transfer priced into Markets Treasury which has the mandate to centrally manage and hedge it. Interest rate swaps used by Markets Treasury to hedge the interest rate risk of the investment portfolio and transfer price risk from the banking book are typically classified as either a fair value hedge or a cash flow hedge and included within our non-trading VaR. In case there is residual market risk that cannot be efficiently and conveniently hedged by Markets Treasury they are managed by ALCO in segregated ALCO books. See "Treasury Risk Management" above for a broader discussion on how interest rate risk is managed.

Stressed VaR The following table reflects stressed VaR at December 31, 2021 and 2020:

At December 31,	2021	2020
	(in millions)	
Stressed VaR (1-day equivalent)	\$ 9	\$ 9

Stressed VaR at December 31, 2021 was flat as compared with December 31, 2020.

Resilience Risk Management Resilience risk arises from failures or inadequacies in processes, people, systems or external events. Sustained and significant operational disruptions are events that could affect the stability of the wider financial system, the viability of the bank and our industry peers, the ability of our customers to access critical services or the underlying trust of our customers and regulators as a result of a poorly managed operational event.

We continue to prioritize our efforts on material risks and areas undergoing strategic growth. We deploy risk management oversight to the most material change programs across the organization and we ensure we have specialist risk teams in-place to provide expert oversight and guidance for highly technical areas of risk management.

The Operational and Resilience Risk sub-function provides robust non-financial risk steward oversight of our businesses, functions, and critical business services, supported by effective and timely independent challenge. It provides guidance and stewardship about how we can prevent, adapt, and learn from resilience-related threats when something goes wrong. The Operational and Resilience Risk target operating model provides a consistent view across resilience risks, strengthening our risk management oversight while operating effectively as part of a simplified non-financial risk structure. We view resilience risk across several risk types related to: third parties and supply-chains; data, technology and cybersecurity; transaction processing; protective security; business continuity; building unavailability; and workplace safety.

The Operational & Resilience Risk structure simplifies interactions with our key stakeholders by providing specialist skill and a single channel of contact, and actively challenges the business and delivers clear, consistent and credible responses, ensuring controls are being operated and risks are being managed.

A principal senior management meeting for Operational and Resilience Risk governance is the Group Non-Financial Risk Management Board, chaired by the Group Chief Risk Officer, with an escalation path to the Group Risk Management Meeting.

Operational Resilience is our ability to anticipate, prevent, adapt, respond to, recover and learn from internal or external disruption, protecting customers, the markets we operate in and their economic stability. Resilience is measured by assessing whether we are able to continue to provide our most important services, within an agreed tolerance, during a severe but

plausible event. We accept that we will not be able to prevent all disruption, but we prioritize investment to continuously improve our response and recovery capability for our most important business services.

Systems and cyber resilience The security of our information and technology infrastructure is crucial for maintaining our applications and processes while protecting our customers and the HSBC brand. In common with other financial institutions and multinational organizations, we face a growing threat of cyberattacks that continue to increase in sophistication. A failure of our defenses against such attacks could result in financial loss or the loss of customer data or other sensitive information which could undermine both our reputation and our ability to attract and retain our customers. As discussed above, cybersecurity risk is overseen by the Operational and Resilience Risk sub-function, with regular reporting of cyber risks to the RMM and the Board of Directors by both the First and Second LoD. We experienced cyberattacks in 2021, none of which resulted in material financial loss. We continue to mature our cyber intelligence capabilities as the cyber threat landscape evolves. These intelligence monitoring capabilities increase our agility and ability to respond with increased detection and response capabilities reducing potential exposure to cyber threats. Regulators have listed cybersecurity as one of their top concerns in 2021. Regulation continues to increase from multiple jurisdictions and perspectives, and is at times deployed without coordination with other regulators. HSBC is engaged with peer institutions and, in conjunction with them and the Cyber Risk Institute ("CRI"), developed a CRI Profile (previously known as a Financial Services Profile) which is recognized within the United States and globally. As part of this forum, we continue to meet with various U.S. regulators (e.g., the OCC, FRB, FDIC, Commodity Futures Trading Commission, New York State Department of Financial Services, etc.) and other financial institutions to progress acceptance and utilization of the CRI Profile to address regulatory harmonization as it relates to cyber and information security. Cybersecurity will continue to be a strong focus of ongoing initiatives to strengthen the control environment and our readiness to respond in the event of an attack.

Regulatory Compliance Risk Management Regulatory compliance risk arises from the risks associated with breaching our duty to clients and other counter-parties, inappropriate market conduct, and breaching other regulatory requirements. Regulatory compliance risk is measured by reference to identified metrics, key risk indicators, testing of controls by the three lines of defense, employee feedback, customer complaints and through regulatory feedback. Regulatory compliance risks are assessed through detailed assessments and reported to the RMM and the Board of Directors through the reporting of RAS metrics and the Regulatory Compliance Enterprise Risk Assessment report. Regulatory compliance risk is managed by establishing and communicating appropriate policies and procedures, training employees in regulatory requirements, establishing controls, and monitoring and testing controls to help ensure that the regulatory requirements are being adhered to. Proactive assessment and enhancement of controls is undertaken where required.

The Second LoD risk stewards provide independent, objective oversight and challenge and promote a compliance-orientated culture, supporting the businesses in delivering fair outcomes for customers, maintaining the integrity of financial markets and achieving our strategic objectives. Any actual or potential regulatory breaches require prompt identification and escalation to the Regulatory Compliance function or other applicable risk stewards. Any major breaches, gaps, issues and emerging risks are escalated to RMM and the Board of Directors, as appropriate.

The Compliance function oversees the management of regulatory compliance risk for laws, codes, rules, regulations and standards that align under its scope of oversight as the Second LoD risk steward. As a Board of Directors committee, the Risk Committee oversees our compliance risk management program (both Regulatory Compliance and Financial Crime Risk) as well as fiduciary matters as discussed further below.

Fiduciary risk is a component of regulatory compliance risk and represents the risk of breaching fiduciary duties where we act in a fiduciary capacity as trustee, investment manager or as mandated by law or regulation. It is the risk associated with failing to offer services honestly and properly to clients in that capacity. Fiduciary risks reside in our WPB businesses (such as Investment Management, Personal Trust, Security Operation Services) and other business lines outside of WPB (such as Corporate Trust). The Risk Committee of the Board of Directors has oversight responsibility of the management of fiduciary risk. The Risk Committee has delegated day-to-day management and oversight responsibilities to management, whose primary oversight body for management of fiduciary activity is the Fiduciary Risk Management Meeting, chaired by the U.S. Head of Enterprise Compliance. The U.S. Head of Enterprise Compliance reports to the U.S. Chief Compliance Officer.

Financial Crime Risk Management Financial crime risk management is the framework in place to identify and deter potential illegal activity from occurring by, at, or through the HSBC Group. It is embedded in our day-to-day operations and culture.

The Financial Crime function ("FC") is led by the U.S. Head of Financial Crime, who reports to the U.S. Chief Compliance Officer. FC provides oversight to enable us to build on our achievements in managing financial crime risk effectively and to continue to strengthen financial crime detection, and anti-money laundering, sanctions, fraud, tax evasion and anti-bribery and corruption compliance. We use a Financial Crime Risk Management Information Dashboard to monitor risk and performance indicators of financial crime, including trends and potential gaps in the management of financial crime risk that require attention.

Compliance continues to proactively identify, analyze and investigate financial crime risk and ensure proper mitigation of these risks. It embeds policies and procedures, introduces new technology solutions, and supports a culture of compliance needed to effectively manage financial crime risk, including the enterprise wide compliance risk management program.

Strategic Risk Management Strategic risk may be mitigated by consideration of the potential opportunities and challenges through the strategic planning process. This risk is also a function of the compatibility of our strategic goals, the business strategies developed to achieve those goals, the resources deployed against those goals and the quality of implementation.

We have established a strong internal control structure to minimize the impact of strategic risk to our earnings and capital. All changes in strategy as well as the process in which new strategies are implemented are subject to detailed reviews and approvals at business line, functional, regional, board and HSBC levels. This process is monitored by the Strategy and Planning function to ensure compliance with our policies and standards.

Reputational risk is a component of strategic risk and represents the risk arising from failure to meet stakeholder expectations as a result of any event, behavior, action or inaction, either by us, our employees, the HSBC Group or those with whom it is associated, that may cause stakeholders to form a negative view of us. Reputational risk relates to stakeholders' perceptions, whether based on fact or otherwise. Stakeholder expectations are constantly changing and thus, reputational risk is dynamic and will differ between geographies, groups and individuals. This might also result in financial or non-financial impacts, loss of confidence or other consequences. The safeguarding of our reputation is of paramount importance to our continued prosperity and is the responsibility of every member of our staff. Reputational risk can arise from social, ethical or environmental issues, or as a consequence of operational and other risk events. Our good reputation depends upon the way in which we conduct our business, but can also be affected by the way in which customers to whom we provide financial services conduct themselves.

We tolerate a limited degree of reputational risk arising from business activities or association where foreseeable reputational risk has been escalated to the appropriate level of management, carefully considered and/or mitigated and is determined to fall to acceptable risk thresholds as defined by the HSBC Group risk appetite statement. Since reputational risk can arise from all aspects of operations and activities, all businesses and functions are required to articulate and track reputational risk.

Reputational risk is considered and assessed by the HSBC Group Executive Committee, the HSBC Group, and senior management. The Risk Committee of the Board of Directors reviews, with senior management, and as appropriate, approves guidelines and policies related to the process for assessing and managing risk topics, including reputational risk. These policies, which are an integral part of the internal control systems, are communicated through manuals and statements of policy, internal communication and training. The policies form the basis for operational procedures, as well as consideration of reputational risk in areas including money laundering deterrence, economic sanctions, environmental impact, anti-corruption measures, employee relations, inappropriate market conduct and breach of regulatory duty and requirements. In addition, we continue to review our internal control structure to minimize the risk of operational and financial failure and to ensure that a full appraisal of reputational risk is made before strategic decisions are taken.

The RMM provides governance and oversight of reputational risk. Additionally, each business reviews transactions and customers that may adversely affect our public perception via their RRCSC. The RRCSCs are chaired by a senior executive and comprise senior members from the business, risk, legal, financial crime and compliance departments and other invited parties. The RRCSCs are responsible for reviewing the individual merits and involved parties in higher-risk transactions, and approving or declining customer relationships and transactions based on the potential risks to us. In addition to the RRCSCs, the responsibility of the practical implementation of such policies and the compliance with the letter and spirit of them rests with our CEO and senior management of our businesses.

Model Risk Management In order to manage the risk of inappropriate or incorrect business decisions (e.g. customer conduct, financial crime, pricing, profit & loss and balance sheet and capital reporting, etc.) arising from models that have been inadequately designed, implemented or used; or that models do not perform in line with expectations and predictions, a comprehensive model risk management framework has been established that provides oversight and challenge to all models across HSBC North America. The framework includes a Model Risk Policy that aligns with model risk management regulations. A model inventory is maintained and updated. In addition, model risk appetite measures are used to manage and monitor model risk. Model risk is managed on an ongoing basis as part of a Model Risk Committee, which is chaired by the CRO with representation from businesses and functions. The Independent Model Review team, which is part of the Model Risk Management function, is responsible for providing effective challenge to models and critical processes implemented for use within HSBC North America. Model risk controls that form the basis for model risk control assessments have been implemented for all of our businesses and functions and are being used to manage and mitigate model risk.

GLOSSARY OF TERMS

Basis point – A unit that is commonly used to calculate changes in interest rates. The relationship between percentage changes and basis points can be summarized as a 1 percent change equals a 100 basis point change or .01 percent change equals 1 basis point.

CDS – Credit Default Swap.

Contractual Delinquency – A method of determining aging of past due accounts based on the past due status of payments under the loan. Delinquency status may be affected by customer account management policies and practices such as the re-age of accounts or modification arrangements.

Delinquency Ratio – Two-months-and-over contractual delinquency expressed as a percentage of total loans at a given date.

Efficiency Ratio – Total operating expenses expressed as a percentage of the sum of net interest income and other revenues.

First Line of Defense or First LoD – Part of the Three Lines of Defense ("LoD") model for managing risk. The First LoD is composed predominately of management who are accountable and responsible for their day to day activities, processes and controls. The First LoD owns the risks and is responsible for identifying, recording, reporting and managing risks, and ensuring that the right controls and assessments are in place to mitigate them.

FRB – The Federal Reserve Board; our principal regulator.

Futures Contract – An exchange-traded contract to buy or sell a stated amount of a financial instrument or index at a specified future date and price.

Global Bank Note Program – A \$40 billion note program, under which HSBC Bank USA issues senior and subordinated debt.

Goodwill – The excess of purchase price over the fair value of identifiable net assets acquired, reduced by liabilities assumed in a business combination.

Group Reporting Basis – A measure of reporting results using financial information prepared on the basis of HSBC Group's accounting and reporting policies which apply International Financial Reporting Standards as issued by the International Accounting Standards Board.

HQLA - High Quality Liquid Assets; cash or assets that can be converted into cash quickly through sales (or by being pledged as collateral) with no significant loss of value.

Interest Rate Swap – Contract between two parties to exchange interest payments on a stated principal amount (notional principal) for a specified period. Typically, one party makes fixed rate payments, while the other party makes payments using a variable rate.

LIBOR – London Interbank Offered Rate; a widely quoted market rate which is frequently the index used to determine the rate at which we borrow funds.

Liquidity – A measure of how quickly we can convert assets to cash or raise additional cash by issuing debt.

Loan-to-Value ("LTV") Ratio – For first liens, the current loan balance expressed as a percentage of the current property value. For second liens, the current loan balance plus the senior lien amount at origination expressed as a percentage of the current property value.

Markets Treasury - Is responsible for managing our liquidity and funding. Markets Treasury also manages our structural interest rate position within a limit structure.

Net Charge-off Ratio – Net charge-offs of loans expressed as a percentage of average loans outstanding for a given period.

Net Interest Income – Interest income earned on interest-bearing assets less interest expense on deposits and borrowed funds.

Net Interest Margin – Net interest income expressed as a percentage of average interest earning assets for a given period.

Nonaccrual Loans – Loans on which we no longer accrue interest because ultimate collection is unlikely.

Nonperforming Ratio - Nonaccrual loans and accruing loans contractually 90 days or more past due expressed as a percentage of total loans at a given date.

OCC – The Office of the Comptroller of the Currency; the principal regulator for HSBC Bank USA.

Options – A contract giving the owner the right, but not the obligation, to buy or sell a specified item at a fixed price for a specified period.

Rate of Return on Common Equity – Net income (loss), reduced by preferred dividends, divided by average common equity for a given period.

Rate of Return on Tangible Common Equity - Net income (loss), reduced by preferred dividends, divided by average common equity less goodwill and intangible assets (purchased credit card relationships) for a given period.

Rate of Return on Total Assets – Net income (loss) divided by average total assets for a given period.

Rate of Return on Total Equity – Net income (loss) divided by average total equity for a given period.

Residential Mortgage Loan – Closed-end loans and revolving lines of credit secured by first or second liens on residential real estate. Depending on the type of residential mortgage, interest can either be fixed or adjustable.

SEC – The Securities and Exchange Commission.

Second Line of Defense or Second LoD – Part of the Three LoD model for managing risk. The Second LoD is composed predominately of various functions, such as Finance, Legal, Risk, Compliance and Human Resources, whose role as risk stewards is to set the policy and guidelines for managing specific risk areas, provide advice and guidance in relation to the risk, and challenge the First LoD on effective risk management.

TDR Loans – Troubled debt restructurings, which are loans for which the original contractual terms have been modified to provide for terms that are less than we would be willing to accept for new loans with comparable risk because of deterioration in the borrower's financial condition.

Third Line of Defense or Third LoD – Part of the Three LoD model for managing risk. The Third LoD is composed of our Internal Audit function, which provides independent and objective assurance of the adequacy of the design and operational effectiveness of our risk management framework and governance control process.

Three Lines of Defense Model – This model delineates management accountabilities and responsibilities for risk management and the control environment and underpins our approach to risk management by clarifying responsibilities, encouraging collaboration and enabling efficient coordination of risk and control activities.

Total Equity to Total Assets – Total equity expressed as a percentage of total assets as of a given date.

U.S. GAAP – Generally accepted accounting principles in the United States.

CONSOLIDATED AVERAGE BALANCES AND INTEREST RATES

The following table summarizes the year-to-date average daily balances of the principal components of assets, liabilities and equity together with their respective interest amounts and rates earned or paid. Net interest margin is calculated by dividing net interest income by the average interest earning assets from which interest income is earned. Loan interest for the years ended December 31, 2021, 2020 and 2019 included fees of \$88 million, \$79 million and \$77 million, respectively.

Year Ended December 31,	2021			2020			2019		
	Average Balance	Interest	Rate	Average Balance	Interest	Rate	Average Balance	Interest	Rate
	(dollars are in millions)								
Assets:									
Interest bearing deposits with banks	\$ 50,787	\$ 68	.13 %	\$ 21,807	\$ 74	.34 %	\$ 13,850	\$ 347	2.51 %
Federal funds sold and securities purchased under resale agreements	7,958	13	.16	16,046	69	.43	6,372	226	3.55
Trading securities	18,518	225	1.22	21,237	288	1.36	21,707	291	1.34
Securities	42,736	641	1.50	51,882	897	1.73	49,625	1,188	2.39
Loans:									
Commercial	40,677	1,048	2.58	50,463	1,484	2.94	51,296	2,089	4.07
Consumer:									
Residential mortgages	18,582	543	2.92	18,326	592	3.23	17,563	622	3.54
Home equity mortgages	658	18	2.74	788	24	3.05	909	45	4.95
Credit cards	803	77	9.59	1,197	77	6.43	1,172	77	6.57
Other consumer	277	19	6.86	281	25	8.90	259	23	8.88
Total consumer	20,320	657	3.23	20,592	718	3.49	19,903	767	3.85
Total loans	60,997	1,705	2.80	71,055	2,202	3.10	71,199	2,856	4.01
Other	2,535	23	.91	5,175	42	.81	3,722	82	2.20
Total interest earning assets	\$ 183,531	\$ 2,675	1.46 %	\$ 187,202	\$ 3,572	1.91 %	\$ 166,475	\$ 4,990	3.00 %
Allowance for credit losses	(699)			(932)			(609)		
Cash and due from banks	1,198			1,172			1,251		
Other assets	12,424			13,956			11,912		
Total assets	\$ 196,454			\$ 201,398			\$ 179,029		
Liabilities and Equity:									
Domestic deposits:									
Savings deposits	\$ 65,316	\$ 104	.16 %	\$ 62,218	\$ 266	.43 %	\$ 47,652	\$ 461	.97 %
Time deposits	12,729	93	.73	26,485	377	1.42	26,833	743	2.77
Other interest bearing deposits	20,571	58	.28	19,850	103	.52	11,615	231	1.99
Foreign deposits	6,102	2	.03	5,503	9	.16	5,011	40	.80
Deposits held for sale	4,606	10	.21	—	—	—	1	—	.59
Total interest bearing deposits	109,324	267	.24	114,056	755	.66	91,112	1,475	1.62
Short-term borrowings:									
Securities sold under repurchase agreements	1,739	2	.12	4,768	33	.70	4,130	135	3.28
Commercial paper	3,274	13	.40	2,930	32	1.09	2,842	74	2.60
Other short-term borrowings	264	3	1.14	435	4	.92	836	22	2.63
Total short-term borrowings	5,277	18	.34	8,133	69	.85	7,808	231	2.96
Long-term debt	18,897	296	1.57	23,407	558	2.38	30,102	1,137	3.78
Total interest bearing debt	133,498	581	.44	145,596	1,382	.95	129,022	2,843	2.20
Tax liabilities and other	885	11	1.24	678	16	2.36	985	35	3.55
Total interest bearing liabilities	\$ 134,383	\$ 592	.44 %	\$ 146,274	\$ 1,398	.96 %	\$ 130,007	\$ 2,878	2.21 %
Net interest income/Interest rate spread		\$ 2,083	1.02 %		\$ 2,174	.95 %		\$ 2,112	.79 %
Noninterest bearing deposits	38,147			28,881			23,102		
Other liabilities	5,763			7,904			7,176		
Total equity	18,161			18,339			18,744		
Total liabilities and equity	\$ 196,454			\$ 201,398			\$ 179,029		
Net interest margin on average earning assets			1.13 %			1.16 %			1.27 %

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Information required by this Item is included within Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in the Risk Management section under the captions "Treasury Risk Management - Interest Rate Risk" and "Market Risk Management."

Item 8. Financial Statements and Supplementary Data

Our 2021 Financial Statements meet the requirements of Regulation S-X. The 2021 Financial Statements and supplementary financial information specified by Item 302 of Regulation S-K are set forth below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholder of HSBC USA Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of HSBC USA Inc. and its subsidiaries (the "Company") as of December 31, 2021 and 2020, and the related consolidated statements of income (loss), of comprehensive income (loss), of changes in equity and of cash flows for each of the three years in the period ended December 31, 2021, including the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021 in conformity with accounting principles generally accepted in the United States of America.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for credit losses on certain financial instruments in 2020.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the Audit Committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Allowance for Credit Losses for Commercial Loans and the Liability for Off-Balance Sheet Credit Exposures

As described in Notes 2 and 8 to the consolidated financial statements, the Company's Allowance for Credit Losses for Commercial Loans and the Liability for Off-Balance Sheet Credit Exposures is recognized based on lifetime expected credit losses and amounted to \$420 million and \$103 million, respectively, as of December 31, 2021. The recognition and measurement of lifetime expected credit losses for commercial loans and off-balance sheet exposures is highly complex and involves the use of significant judgment and estimation by management, including the assignment of credit ratings, the application of forward economic guidance and the determination of a management judgment allowance. In assigning the credit ratings to a particular obligor, among the risk factors considered by management are the obligor's debt capacity and financial position, the level of earnings, the amount and sources of repayment, the level of contingencies, management strength and the industry or geography in which the obligor operates. In addition, multiple forward-looking economic scenarios are formulated and assigned a weighting in the application of forward economic guidance to reflect assumptions about future economic conditions, supplemented by the use of management judgment, which may result in using alternative or additional economic scenarios and/or management adjustments. Lastly, the management judgment allowance reflects management's judgment of risk factors that may not be fully reflected in the lifetime expected credit loss generated by management's models.

The principal considerations for our determination that performing procedures relating to the Allowance for Credit Losses for Commercial Loans and the Liability for Off-Balance Sheet Credit Exposures is a critical audit matter are (i) the significant judgment by management in estimating lifetime expected credit losses, which in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence relating to the credit ratings for obligors, application of forward economic guidance and management judgment allowance, and (ii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the Company's process for estimating the Allowance for Credit Losses for Commercial Loans and the Liability for Off-Balance Sheet Credit Exposures, including controls over the credit ratings, application of forward economic guidance and management judgment allowance. These procedures also included, among others, testing management's process for estimating lifetime expected credit losses on commercial loans and off-balance sheet exposures, which included (i) evaluating the appropriateness of management's methodology; (ii) testing certain data utilized in the estimate; and (iii) evaluating the reasonableness of the credit ratings for obligors, application of forward economic guidance and management judgment allowance, which also involved the use of professionals with specialized skill and knowledge to assist in performing these procedures to test management's process.

/s/ PricewaterhouseCoopers LLP
New York, New York
February 22, 2022

We have served as the Company's auditor since 2015.

CONSOLIDATED STATEMENT OF INCOME (LOSS)

Year Ended December 31,	2021	2020	2019
	(in millions)		
Interest income:			
Loans	\$ 1,705	\$ 2,202	\$ 2,856
Securities	641	897	1,188
Trading securities	225	288	291
Short-term investments	81	143	573
Other	23	42	82
Total interest income	2,675	3,572	4,990
Interest expense:			
Deposits	267	755	1,475
Short-term borrowings	18	69	231
Long-term debt	296	558	1,137
Other	11	16	35
Total interest expense	592	1,398	2,878
Net interest income	2,083	2,174	2,112
Provision for credit losses	(570)	810	195
Net interest income after provision for credit losses	2,653	1,364	1,917
Other revenues:			
Credit card fees, net	37	38	67
Trust and investment management fees	108	132	132
Other fees and commissions	652	567	619
Trading revenue	24	273	591
Other securities gains, net	73	137	88
Servicing and other fees from HSBC affiliates	321	347	354
Gain (loss) on instruments designated at fair value and related derivatives	35	34	(13)
Other income (loss)	(13)	7	16
Total other revenues	1,237	1,535	1,854
Operating expenses:			
Salaries and employee benefits	665	767	822
Support services from HSBC affiliates	1,620	1,551	1,638
Occupancy expense, net	248	281	197
Goodwill impairment	—	784	365
Other expenses	445	498	479
Total operating expenses	2,978	3,881	3,501
Income (loss) before income tax	912	(982)	270
Income tax expense (benefit)	224	(42)	157
Net income (loss)	\$ 688	\$ (940)	\$ 113

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS)

Year Ended December 31,	2021	2020	2019
	(in millions)		
<i>Net income (loss)</i>	\$ 688	\$ (940)	\$ 113
Net change in unrealized gains (losses), net of tax:			
Investment securities	(815)	864	403
Fair value option liabilities attributable to our own credit spread	12	24	(310)
Derivatives designated as cash flow hedges	(59)	72	8
Pension and post-retirement benefit plans	4	(4)	(14)
<i>Total other comprehensive income (loss)</i>	(858)	956	87
<i>Comprehensive income (loss)</i>	\$ (170)	\$ 16	\$ 200

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED BALANCE SHEET

At December 31,	2021	2020
	(in millions, except share data)	
Assets⁽¹⁾		
Cash and due from banks	\$ 954	\$ 1,302
Interest bearing deposits with banks	47,400	14,353
Federal funds sold and securities purchased under agreements to resell	10,514	35,746
Trading assets (includes \$1.7 billion and \$1.3 billion pledged to creditors at December 31, 2021 and 2020, respectively)	24,043	27,284
Securities available-for-sale (includes amortized cost of \$35.4 billion and \$39.6 billion at December 31, 2021 and 2020, respectively, an allowance for credit losses of \$1 million at both December 31, 2021 and 2020, and \$2.4 billion and \$2.1 billion pledged to creditors at December 31, 2021 and 2020, respectively)	35,298	40,672
Securities held-to-maturity, net of allowance for credit losses of \$1 million and \$2 million at December 31, 2021 and 2020, respectively (fair value of \$5.4 billion and \$9.4 billion at December 31, 2021 and 2020, respectively)	5,203	8,981
Loans (includes nil and \$32 million designated under fair value option at December 31, 2021 and 2020, respectively)	55,864	62,088
Less – allowance for credit losses	447	1,015
Loans, net	55,417	61,073
Loans held for sale (includes \$48 million and \$36 million designated under fair value option at December 31, 2021 and 2020, respectively, and \$2,441 million related to branch disposal group held for sale at December 31, 2021)	4,217	337
Properties and equipment, net	40	144
Goodwill	458	458
Other branch related assets held for sale	249	—
Other assets, net of allowance for credit losses of \$1 million and \$2 million at December 31, 2021 and 2020, respectively	5,439	6,084
Total assets	\$ 189,232	\$ 196,434
Liabilities⁽¹⁾		
Debt:		
Domestic deposits:		
Noninterest bearing	\$ 40,333	\$ 32,428
Interest bearing (includes \$2.7 billion and \$4.2 billion designated under fair value option at December 31, 2021 and 2020, respectively)	89,122	107,427
Foreign deposits - interest bearing	4,827	5,295
Deposits held for sale	8,750	—
Total deposits	143,032	145,150
Short-term borrowings	6,338	4,952
Long-term debt (includes \$8.9 billion and \$10.7 billion designated under fair value option at December 31, 2021 and 2020, respectively)	17,236	19,979
Total debt	166,606	170,081
Trading liabilities	3,023	5,397
Other branch related liabilities held for sale	152	—
Interest, taxes and other liabilities	2,411	2,665
Total liabilities	172,192	178,143
Equity		
Preferred stock (no par value; 40,999,000 shares authorized; 1,265 shares issued and outstanding at both December 31, 2021 and 2020)	1,265	1,265
Common equity:		
Common stock (\$5 par value; 150,000,000 shares authorized; 714 shares issued and outstanding at both December 31, 2021 and 2020)	—	—
Additional paid-in capital	14,742	15,746
Retained earnings	1,212	601
Accumulated other comprehensive income (loss)	(179)	679
Total common equity	15,775	17,026
Total equity	17,040	18,291
Total liabilities and equity	\$ 189,232	\$ 196,434

⁽¹⁾ The following table summarizes assets and liabilities related to our consolidated variable interest entities ("VIEs") at December 31, 2021 and 2020. Assets and liabilities exclude intercompany balances that eliminate in consolidation. See Note 27, "Variable Interest Entities," for additional information.

At December 31,	2021	2020
	(in millions)	
Assets		
Loans	\$ 46	\$ 10
Other assets	55	79
Total assets	<u>\$ 101</u>	<u>\$ 89</u>
Liabilities		
Interest, taxes and other liabilities	\$ 9	\$ 10
Total liabilities	<u>\$ 9</u>	<u>\$ 10</u>

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Year Ended December 31,	2021	2020	2019
	(in millions, except share data)		
Preferred stock			
Balance at beginning and end of period	\$ 1,265	\$ 1,265	\$ 1,265
Common stock			
Balance at beginning and end of period	—	—	—
Additional paid-in capital			
Balance at beginning of period	15,746	15,736	18,136
Return of capital to parent	(1,000)	—	(2,400)
Employee benefit plans	(4)	10	—
Balance at end of period	14,742	15,746	15,736
Retained earnings			
Balance at beginning of period	601	1,534	1,471
Cumulative effect adjustment to initially apply new accounting guidance for measuring credit losses on financial assets measured at amortized cost, net of tax	—	84	—
Cumulative effect adjustment to initially apply fair value option accounting election, as permitted under new accounting guidance, to certain student loans held for investment, net of tax	—	2	—
Reclassification from accumulated other comprehensive income (loss) of cumulative effect adjustment to initially apply new accounting guidance for measuring credit losses on securities available-for-sale, net of tax	—	(2)	—
Cumulative effect adjustment to initially apply new accounting guidance for leases to recognize the previously deferred gain on the sale and leaseback of property, net of tax	—	—	27
Balance at beginning of period, adjusted	601	1,618	1,498
Net income (loss)	688	(940)	113
Cash dividends declared on preferred stock	(77)	(77)	(77)
Balance at end of period	1,212	601	1,534
Accumulated other comprehensive income (loss)			
Balance at beginning of period	679	(279)	(366)
Reclassification to retained earnings of cumulative effect adjustment to initially apply new accounting guidance for measuring credit losses on securities available-for-sale, net of tax	—	2	—
Balance at beginning of period, adjusted	679	(277)	(366)
Other comprehensive income (loss), net of tax	(858)	956	87
Balance at end of period	(179)	679	(279)
Total common equity	15,775	17,026	16,991
Total equity	\$ 17,040	\$ 18,291	\$ 18,256
Shares of preferred stock			
Number of shares at beginning and end of period	1,265	1,265	1,265
Shares of common stock			
Number of shares at beginning and end of period	714	714	714

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

Year Ended December 31,	2021	2020	2019
	(in millions)		
<i>Cash flows from operating activities</i>			
Net income (loss)	\$ 688	\$ (940)	\$ 113
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	262	304	164
Goodwill impairment	—	784	365
Provision for credit losses	(570)	810	195
Deferred income tax provision	340	25	109
Net realized gains on securities available-for-sale	(73)	(137)	(88)
Net change in other assets and liabilities	172	(839)	1,846
Net change in loans held for sale:			
Originations and purchases of loans held for sale	(2,544)	(3,044)	(3,364)
Sales and collections of loans held for sale	2,699	3,001	3,271
Net change in trading assets and liabilities	867	3,330	(6,882)
Lower of amortized cost or fair value adjustments on loans held for sale	14	22	(1)
Loss (gain) on instruments designated at fair value and related derivatives	(35)	(34)	13
Net cash provided by (used in) operating activities	<u>1,820</u>	<u>3,282</u>	<u>(4,259)</u>
<i>Cash flows from investing activities</i>			
Net change in federal funds sold and securities purchased under agreements to resell	25,232	(17,908)	(7,670)
Securities available-for-sale:			
Purchases of securities available-for-sale	(18,501)	(25,165)	(24,829)
Proceeds from sales of securities available-for-sale	10,324	11,857	12,878
Proceeds from paydowns and maturities of securities available-for-sale	12,030	10,190	9,121
Securities held-to-maturity:			
Purchases of securities held-to-maturity	—	(515)	(1,468)
Proceeds from sales of securities held-to-maturity	—	340	—
Proceeds from paydowns and maturities of securities held-to-maturity	3,747	4,415	2,803
Change in loans:			
Originations, net of collections	(618)	5,312	(532)
Loans sold to third parties	2,758	916	1,209
Net cash provided by (used for) sales (acquisitions) of properties and equipment	(3)	1	(61)
Net inflow related to the sale of certain private banking client relationships	—	—	1
Other, net	103	(248)	119
Net cash provided by (used in) investing activities	<u>35,072</u>	<u>(10,805)</u>	<u>(8,429)</u>
<i>Cash flows from financing activities</i>			
Net change in deposits	(2,107)	20,110	8,287
Debt:			
Net change in short-term borrowings	1,386	1,293	(535)
Issuance of long-term debt	7,711	8,487	4,686
Repayment of long-term debt	(10,044)	(10,427)	(10,705)
Return of capital to parent	(1,000)	—	(2,400)
Other increases (decreases) in capital surplus	(4)	10	—
Dividends paid	(77)	(77)	(77)
Net cash provided by (used in) financing activities	<u>(4,135)</u>	<u>19,396</u>	<u>(744)</u>
Net change in cash and due from banks and interest bearing deposits with banks	32,757	11,873	(13,432)
Cash and due from banks and interest bearing deposits with banks at beginning of period	15,655	3,782	17,214
<i>Cash and due from banks and interest bearing deposits with banks at end of period⁽¹⁾</i>	<u><u>\$ 48,412</u></u>	<u><u>\$ 15,655</u></u>	<u><u>\$ 3,782</u></u>

CONSOLIDATED STATEMENT OF CASH FLOWS (Continued)

Year Ended December 31,	2021	2020	2019
	(in millions)		
<i>Supplemental disclosure of cash flow information</i>			
Interest paid during the period	\$ 606	\$ 1,518	\$ 2,921
Net income taxes paid (refunded) during the period	(52)	50	159
<i>Supplemental disclosure of non-cash investing activities</i>			
Transfer of loans to held for sale, net	6,982	1,030	1,209
Fair value of properties added to real estate owned upon foreclosure	—	2	16
<i>Supplemental disclosure of non-cash financing activities</i>			
Recharacterization of long-term debt to time deposits	—	5,000	—

⁽¹⁾ Includes \$58 million of cash which is reported in other branch related assets held for sale on the consolidated balance sheet at December 31, 2021.

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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1. Organization

HSBC USA Inc. ("HSBC USA"), incorporated under the laws of Maryland, is a New York State based bank holding company and a wholly-owned subsidiary of HSBC North America Holdings Inc. ("HSBC North America"), which is an indirect wholly-owned subsidiary of HSBC Holdings plc ("HSBC" and, together with its subsidiaries, "HSBC Group"). HSBC USA (together with its subsidiaries, "HUSI") may also be referred to in these notes to the consolidated financial statements as "we," "us" or "our."

Through our subsidiaries, we offer a wide range of commercial and consumer banking products and related financial services. HSBC Bank USA, National Association (together with its subsidiaries, "HSBC Bank USA"), our principal U.S. banking subsidiary, is a national banking association with branch offices and representative offices across the United States. In addition to our domestic offices, we maintain foreign branch offices, subsidiaries and/or representative offices in Europe, Asia and Latin America. HSBC Bank USA is also an international dealer in derivative instruments denominated in U.S. dollars and other currencies, focusing on structuring transactions to meet clients' needs.

2. Summary of Significant Accounting Policies and New Accounting Pronouncements

Significant Accounting Policies

Basis of Presentation The consolidated financial statements include the accounts of HSBC USA and all subsidiaries in which we hold, directly or indirectly, more than 50 percent of the voting rights, or where we exercise control, including all variable interest entities ("VIEs") in which we are the primary beneficiary. Investments in companies where we have significant influence over operating and financing decisions, which primarily are those where the percentage of ownership is at least 20 percent but not more than 50 percent, are accounted for under the equity method and reported as equity method investments in other assets. All significant intercompany accounts and transactions have been eliminated.

We assess whether an entity is a VIE and, if so, whether we are its primary beneficiary at the time of initial involvement with the entity and on an ongoing basis. A VIE is an entity in which the equity investment at risk is not sufficient to finance the entity's activities without additional subordinated financial support, or as a group, the holders of equity investment at risk lack either a) the power through voting rights or similar rights to direct the activities of the entity that most significantly impacts the

entity's economic performance; or b) the obligation to absorb the entity's expected losses, the right to receive the expected residual returns, or both. A VIE must be consolidated by its primary beneficiary, which is the entity with the power to direct the activities of a VIE that most significantly impact its economic performance and the obligation to absorb losses of, or the right to receive benefits from, the VIE that could potentially be significant to the VIE.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates. Areas which we consider to be critical accounting estimates and require a high degree of judgment and complexity include allowance for credit losses, goodwill impairment, valuation of financial instruments and deferred tax asset valuation allowances. Certain reclassifications have been made to prior period amounts to conform to the current period presentation.

Cash and Cash Equivalents For the purpose of reporting cash flows, cash and cash equivalents include both cash and due from banks and interest bearing deposits with banks, which are inclusive of any restricted cash. Prior to 2020, restricted cash represented required reserve balances maintained with the Federal Reserve Bank. In 2020, the Federal Reserve Board ("FRB") announced it had eliminated its reserve requirement.

Resale and Repurchase Agreements We enter into purchases and borrowings of securities under agreements to resell (resale agreements) and sales of securities under agreements to repurchase (repurchase agreements) substantially identical securities. Resale and repurchase agreements are accounted for as secured lending and secured borrowing transactions, respectively.

The amounts advanced under resale agreements and the amounts borrowed under repurchase agreements are carried on the consolidated balance sheet at the amount advanced or borrowed. Interest earned on resale agreements is reported as interest income. Interest paid on repurchase agreements is reported as interest expense. We offset resale and repurchase agreements executed with the same counterparty under legally enforceable netting agreements that meet the applicable netting criteria as permitted by generally accepted accounting principles.

Repurchase agreements may require us to deposit cash or other collateral with the lender. In connection with resale agreements, it is our policy to obtain possession of collateral, which may include the securities purchased, with market value in excess of the principal amount loaned. The market value of the collateral subject to the resale and repurchase agreements is regularly monitored, and additional collateral is obtained or provided when appropriate, to ensure appropriate collateral coverage of these secured financing transactions.

Trading Assets and Liabilities Financial instruments utilized in trading activities are stated at fair value. Fair value is generally based on quoted market prices. If quoted market prices are not available, fair values are estimated based on dealer quotes, pricing models, using observable inputs where available or quoted prices for instruments with similar characteristics. Where applicable, fair value is determined by reference to quotes provided by multiple independent pricing services. Fair value determined by internal pricing models is regularly substantiated by the price level executed in the market and the internal pricing models used are periodically validated by an internal Independent Model Review ("IMR") team. Realized and unrealized gains and losses are recognized in trading revenue.

Securities Securities acquired principally for the purpose of selling them in the near term are classified as trading assets and reported at fair value. Fair value adjustments to trading securities and gains and losses on the sale of such securities are reported in trading revenue.

Debt securities that we have the ability and intent to hold to maturity are reported at cost adjusted for amortization of premiums and accretion of discounts, which are recognized as adjustments to yield over the contractual lives of the related securities. Premiums for non-contingently callable debt securities are amortized to the earliest call date, rather than the contractual maturity date.

All other debt securities are classified as available-for-sale ("AFS") and carried at fair value, with unrealized gains and losses, net of related income taxes, recorded as adjustments to common equity as a component of accumulated other comprehensive income (loss).

Accrued interest receivables for securities available-for-sale and securities held-to-maturity are reported net of any related allowance for credit losses in other assets on the consolidated balance sheet. Realized gains and losses on sales of securities available-for-sale are computed on a specific identified cost basis and are reported in other securities gains, net.

Beginning January 1, 2020, an allowance for credit losses is recognized for debt securities, with changes in the allowance recorded in earnings. Prior to January 1, 2020, debt securities were assessed for other-than-temporary impairment. Other-than-temporary impairments were recorded as a direct write-down of the security's amortized cost basis. During 2019, none of our debt securities were determined to be other-than-temporarily impaired. See under the heading "Allowance for credit losses" below for further discussion of our policies for establishing an allowance for credit losses on debt securities.

Equity securities that are not classified as trading are reported in other assets and measured at fair value with changes in fair value recognized in other income (loss). Equity securities that are not considered to have readily determinable fair values are carried at amortized cost, less impairment, adjusted for observable price changes.

Investments in Federal Home Loan Bank stock and Federal Reserve Bank stock are recorded at cost less impairment.

Loans Loans are carried at amortized cost, with the exception of certain student loans for which the fair value option was elected beginning January 1, 2020 and are further discussed in Note 17, "Fair Value Option." These student loans were transferred to held for sale during the fourth quarter of 2021. Amortized cost represents the principal amount outstanding, net of unearned income, charge-offs, unamortized purchase premium or discount, unamortized nonrefundable fees and related direct loan origination costs and purchase accounting fair value adjustments. The carrying amount of loans represents their amortized cost reduced by the allowance for credit losses. See under the heading "Allowance for Credit Losses" below for further discussion of our policies for establishing an allowance for credit losses on loans.

Premiums and discounts and purchase accounting fair value adjustments are recognized as adjustments to yield over the estimated or contractual lives of the related loans. Interest income is recorded based on the effective interest method. Accrued interest receivables for loans are reported net of any related allowance for credit losses in other assets on the consolidated balance sheet. For credit card receivables, accrued interest is recognized in the loan balance as it is billed, with the related allowance recorded in the allowance for credit losses on loans.

Nonrefundable fees and related direct costs associated with the origination of loans are deferred and netted against outstanding loan balances. The amortization of net deferred fees, which include points on real estate secured loans and costs, is recognized in interest income, generally by the interest method, based on the estimated or contractual lives of the related loans. Amortization periods are periodically adjusted for loan prepayments and changes in other market assumptions. Annual fees on credit cards, net of direct lending costs, are deferred and amortized on a straight-line basis over one year.

Nonrefundable fees related to lending activities other than direct loan origination are recognized in other revenues over the period in which the related service is provided. This includes fees associated with loan commitments, revolving credit facilities, standby letters of credit, loan syndication and other transaction based fees. Loan syndication fees received for managing a syndication and other transaction based fees are recognized at the point in time the transaction occurs. Fees associated with loan commitments, revolving credit facilities and standby letters of credit are recognized on a straight-line basis over the period the service is performed. In the event a loan commitment or standby letter of credit is exercised, the remaining unamortized fee is recognized as an adjustment to yield over the loan term. For additional information, as well as a full discussion of how revenue associated with all of our various fee-based activities is recognized, see Note 23, "Fee Income from Contracts with Customers."

Troubled debt restructurings ("TDR Loans") represent loans for which the original contractual terms have been modified to provide for terms that are less than we would be willing to accept for new loans with comparable risk because of deterioration in the borrower's financial condition. Interest on TDR Loans is recognized when collection is reasonably assured. For commercial nonaccrual TDR Loans, the resumption of interest accrual generally occurs when the borrower has complied with the modified payment terms and conditions for twelve months while maintaining compliance with other terms and conditions of that specific restructuring. For consumer nonaccrual TDR Loans, interest accruals are resumed when the loan becomes current or becomes less than 90 days delinquent and six months of consecutive payments have been made. Modifications resulting in TDR Loans may include changes to one or more terms of the loan, including but not limited to, a change in interest rate, an extension of the amortization period, a reduction in payment amount and partial forgiveness or deferment of principal, accrued interest or other loan covenants. For reserving purposes, beginning in 2020, we also identify loans that we reasonably expect to become TDR Loans. See under the heading "Allowance for Credit Losses" below for further discussion.

Coronavirus ("COVID-19") Loan Forbearance Initiatives We implemented various loan modification programs to provide borrowers relief from the economic impacts of the COVID-19 pandemic. In 2020, the Coronavirus Aid, Relief and Economic Security Act ("CARES Act") was signed into law, which provided financial institutions with the option to temporarily suspend certain requirements under U.S. GAAP related to TDR Loans beginning March 1, 2020. This TDR Loan guidance expired on January 1, 2022. We elected to adopt the TDR Loan guidance in the CARES Act and did not apply TDR Loan classification to COVID-19 related loan modifications in the form of a long-term payment deferral (for commercial loans all payment modifications, including all payment deferrals) granted to borrowers that were current (less than 30 days past due) as of December 31, 2019 which otherwise may have been reported as TDR Loans.

In 2020, federal banking regulators issued a revised interagency statement on loan modifications and the reporting for financial institutions working with customers affected by the COVID-19 pandemic ("Interagency Statement"). The Interagency Statement confirmed that COVID-19 related short-term loan modifications (e.g., payment deferrals of six months or less) provided to borrowers that were current (less than 30 days past due) at the time the relief was granted were not TDR Loans. Borrowers that did not meet the criteria in the CARES Act or the Interagency Statement were assessed for TDR Loan classification in accordance with our accounting policies.

In addition, under the Interagency Statement, for COVID-19 related loan modifications in the form of a payment deferral, the borrower's past due status was not affected during the deferral period and, if the loan was accruing at the time the relief was granted, the loan was generally not placed on nonaccrual status as long as the borrower utilized a payment deferral of six months or less. For consumer mortgage loans, when a borrower utilized a payment deferral of more than six months, the loan was generally placed on nonaccrual status and, if the loan did not meet the criteria in the CARES Act, assessed for TDR Loan classification. Any accrued interest recorded on these loans was generally not reversed against income and remained recorded as accrued interest receivable. We did not modify our commercial loan nonaccrual policies as a result of this guidance.

Allowance for Credit Losses Beginning January 1, 2020, an allowance for credit losses is recognized based on lifetime expected credit losses ("lifetime ECL") for loans, securities held-to-maturity and certain other financial assets measured at amortized cost, and an allowance for credit losses is also recognized for securities available-for-sale. Prior to January 1, 2020, an allowance for credit losses was recognized based on probable incurred losses for loans only while debt securities were assessed for other-than-temporary impairment. In addition, beginning January 1, 2020, the liability for off-balance sheet credit exposures is recognized based on lifetime ECL while, prior to January 1, 2020, it was recognized based on probable incurred losses. Expected recoveries of amounts previously written off, limited to the cumulative amount of prior write-offs, are also considered when estimating the allowance for credit losses for in scope financial assets (including collateral-dependent assets). Prior to January 1, 2020, these expected recoveries were not recognized.

We maintain an allowance for credit losses that is, in the judgment of management, adequate to absorb estimated lifetime ECL for loans and other financial assets measured at amortized cost. The adequacy of the allowance for credit losses is assessed in accordance with generally accepted accounting principles and is based, in part, upon an evaluation of various factors including:

- an analysis of individual exposures where applicable;
- current and historical loss experience;
- changes in the overall size and composition of the portfolio;
- specific adverse situations; and
- general and forecasted economic conditions.

Allowance for credit loss estimates are reviewed periodically and adjustments are recognized in the provision for credit losses during the period they become known. Because our estimates of the allowance for credit losses involve management judgment and are influenced by factors outside of our control, there is uncertainty inherent in these estimates.

Measurement of ECL Estimates The recognition and measurement of lifetime ECL is highly complex and involves the use of significant judgment and estimation. Multiple forward-looking economic forecasts are formulated and incorporated into the lifetime ECL calculations when estimating the allowance for credit losses for in scope financial assets and the liability for off-balance sheet credit exposures as discussed below under *Calculation of Lifetime ECL*. We utilize a standard framework to form economic scenarios to reflect assumptions about future economic conditions supplemented by the use of management judgment, which may result in using alternative or additional economic scenarios and/or management adjustments.

Methodology HUSI has adopted the use of a minimum of three forward-looking economic scenarios, representative of management's view of forecasted economic conditions, sufficient to calculate unbiased expected loss in most economic environments. They represent a 'most likely outcome' (the "Central scenario") and two less likely 'outer' scenarios, referred to as the "Upside scenario" and the "Downside scenario". Each scenario is assigned a weighting with the significant majority of the weighting placed on the Central scenario and lower equal weights placed on the Upside and Downside scenarios. This weighting is deemed appropriate for the estimation of lifetime ECL in most economic environments, unless determined otherwise. At management's discretion, changes may be made to the weighting assigned to the three scenarios or additional scenarios may be included in order to consider current economic conditions. See Note 8, "Allowance for Credit Losses," for further discussion. Key Central scenario assumptions as further discussed below are set using the average of forecasts of external economists, helping to ensure the scenarios are unbiased and maximize the use of independent information, except when in management's judgment these scenarios may not adequately reflect the impact of recent events and it is believed not to be representative of the current economic environment. The Central, Upside and Downside scenarios selected with reference to external forecast distributions using the above approach are termed the "Consensus Economic Scenarios". We have determined that two years is a reasonable and supportable forecast period for the Consensus Economic Scenarios. At the end of the two year reasonable and supportable forecast period, assumption variables start to revert to their 20-year average of historical values over a reversion period. The reversion period for most assumption variables is generally three years, but is longer in some specific cases. The reversion path for this period is linear for all variables.

For the Central scenario, we set key assumptions such as Gross Domestic Product ("GDP") growth, inflation, unemployment, house price growth, U.S. Treasury yields, equity price growth, short-term interest rates and oil price using either the average of external forecasts (commonly referred to as consensus forecasts) or market implied rates. An external provider's model, conditioned to follow the consensus forecasts for the above key assumption variables, projects the remaining variable paths

required as inputs to credit models. This external provider is subject to our risk governance framework, including oversight by an internal IMR team.

The Upside and Downside scenarios are constructed following a standard process supported by a scenario narrative reflecting our top and emerging risks and by consulting external and internal subject matter experts. They are designed to be cyclical in that GDP growth, inflation and unemployment usually revert back to the Central scenario after the first two years. We determine the maximum divergence of GDP growth from the Central scenario using the 10th and the 90th percentile of the entire distribution of consensus forecast outcomes. Using externally available forecast distributions ensures independence in scenario construction. Key economic variables are set with reference to external distributional forecasts and we project additional variable paths using the external provider's model.

Generally, the Upside and Downside scenarios are generated at year-end and are only updated during the year if economic conditions change significantly. The Central scenario is generated every quarter. In quarters where only the Central scenario is updated, the Upside and Downside scenarios used for commercial loans are adjusted such that the relationship between the key assumptions used in the Central scenario and the Upside and Downside scenarios in the quarter is consistent with that observed at the last full scenario generation. For consumer loans, in quarters where only the Central scenario is updated, the relationship between the Central scenario and the Upside and Downside scenarios is held constant with that observed at the last full scenario generation. As a result of the deterioration of economic conditions and economic uncertainty caused by the COVID-19 pandemic, beginning in the second quarter of 2020 and throughout 2021, we have been updating our three Consensus Economic Scenarios as well as a fourth scenario, referred to as the "Alternative Downside Scenario", every quarter.

See Note 8, "Allowance for Credit Losses," for further discussion summarizing the key macroeconomic variable forecasts used in our economic scenarios as well as a discussion of updates to the economic scenarios and other changes during 2021.

We exclude from our lifetime ECL calculation financial assets for which we expect that non-payment of the amortized cost basis will be zero ("Zero Expected Credit Loss Exception"). As a result, no allowance for credit losses is recorded for these financial assets. We have identified the following types of financial assets which we believe qualify for this exclusion:

- U.S. Treasury securities;
- U.S. Government agency issued or guaranteed securities;
- U.S. Government sponsored enterprises securities;
- G10 sovereign foreign debt securities;
- Interest bearing deposits held with the Federal Reserve Bank; and
- Loans guaranteed by a U.S. Government agency or U.S. Government sponsored enterprise, including Paycheck Protection Program ("PPP") loans.

We also exclude from our lifetime ECL calculation financial assets which are secured by collateral maintenance provisions (e.g., the borrower is contractually required to adjust the amount of financial collateral securing the financial asset) if such collateral meets liquidity requirements. In most circumstances subject to such requirements, collateral exceeds our amortized cost basis and no allowance for credit losses is recorded for these financial assets, consisting of the substantial majority of our securities purchased under agreements to resell as well as substantially all of our margin loans provided to our private banking customers.

In addition, loans to other HSBC affiliated entities are exempt from ECL measurement.

Calculation of Lifetime ECL

Commercial loans Commercial loans are monitored on a continuous basis with a formal assessment completed, at a minimum, annually. As part of this process, a credit rating is assigned and a loss given default ("LGD") is estimated and serve as the basis for establishing an allowance for these loans' expected balance at default ("EAD") based on a probability of default ("PD") estimate associated with each credit rating under our credit risk policies. In assigning the credit ratings to a particular loan, among the risk factors considered are the obligor's debt capacity and financial position, the level of earnings, the amount and sources for repayment, the level of contingencies, management strength and the industry or geography in which the obligor operates. We utilize a consistent methodology for the application of forward economic guidance ("FEG") into the calculation of lifetime ECL by incorporating FEG into the estimation of the term structure of PD and LGD. For PDs, we consider the correlation of FEG to default rates for a particular industry. For LGDs, we consider the correlation of FEG to collateral values and realization rates for a particular industry and if applicable, country which is adjusted for recoveries. Our PD estimates are validated on an annual basis using back-testing of actual default rates and benchmarking of the internal ratings with external rating agency data like Standard and Poor's ("S&P") ratings and default rates. PDs and LGDs are estimated for the entire term structure of the loan. Credit Review, a function independent of the business, provides an on-going assessment of lending activities that includes independently assessing credit ratings and LGD estimates for sampled credits across various portfolios.

Loans with similar risk characteristics are pooled for determining lifetime ECL. When it is deemed probable based upon known facts and circumstances that full interest and principal on an individual loan will not be collected in accordance with its contractual terms, in general the loan is no longer considered part of the collective pool of homogeneous loans against which lifetime ECL are established. Instead, an allowance for credit losses is established on an individual basis ("individually assessed") primarily based on the present value of expected future cash flows, discounted at the loan's original effective interest rate, or the fair value of the collateral if the loan is collateral dependent. Individually assessed loans are evaluated quarterly. Generally, loans that are placed on non-accrual must be removed from a collective pool and individually assessed.

In addition, the allowance for credit losses reflects management judgment of risk factors that may not be fully reflected in the lifetime ECL generated by our models. In making this determination, we consider the characteristics of our portfolio and any other significant factors that are relevant. Factors that are relevant to determining the expected collectability of our loan portfolio include, but are not limited to, the volume and severity of past due loans, the volume and severity of adversely classified or rated loans, the underlying collateral on loans that are not collateral dependent, lending policies and procedures including changes in lending strategies, underwriting standards or collection and recovery practices as well as the obligor's operations, environmental factors of an obligor and the areas in which our credit exposure is concentrated, the non-homogeneous nature of the portfolio, changes and expected changes in the general market condition of either a geographical area or an industry, and changes in international, national, regional, and local economic and business conditions.

For loans which have been identified as TDR Loans, including beginning in 2020 loans which we reasonably expect to become TDR Loans, judgment will be used as to whether or not we expect full repayment of principal and interest. If full repayment is expected, the loan will remain in a collective pool of homogeneous loans for determining lifetime ECL. When full repayment of principal and interest is not expected or, beginning in 2020, when we anticipate offering payment concessions, the loan will be removed from the pool and individually assessed. If a commercial TDR Loan subsequently performs in accordance with the new terms and the loan is upgraded, it is possible the loan will no longer be reported as a TDR Loan at the earliest one year after the restructure had been anticipated.

Consumer loans For pools of homogeneous consumer loans and certain small business loans, we estimate lifetime ECL using a component based framework based on PD, LGD and EAD that estimates the likelihood that a loan will progress through the various stages of delinquency and ultimately charge-off based upon a forward-looking view of macro-economic expectations that impact a lifetime ECL and historical experience. The impact of FEG on PD is modeled at the loan or segment level depending on the portfolio. Historic relationships between observed default rates and macroeconomic variables are integrated into lifetime ECL estimates by leveraging economic response models. The impact of FEG on PD is modeled over a period equal to the remaining maturity of the underlying loans. The impact on LGD is modeled for mortgage portfolios by forecasting future loan-to-value ("LTV") profiles for the remaining maturity of the loans by leveraging national forecasts of the House Price Index ("HPI") and applying the corresponding LGD expectation. The models consider delinquency status, loss experience and severity, and take into account where borrowers have historically filed for bankruptcy or have been subject to account management actions, such as the re-age or modification of accounts. Expected loss severity is based on the underlying collateral, if any, for the loan in the event of default based on historical and recent trends which are updated periodically based on a rolling average of several months' data using the most recently available information and is typically in the range of 20-40 percent for residential mortgages and 70-100 percent for home equity mortgages.

The lifetime ECL recognized for consumer loans considers the effect on lifetime ECL over a range of potential outcomes, calculated on a probability-weighted basis, based on the economic scenarios described above, including management judgment where required. Management judgment reflects consideration of risk factors that may not be fully reflected in the lifetime ECL generated by our models. In making this determination, we consider the characteristics of our portfolio and any other significant factors that are relevant. Factors that are relevant to determining the expected collectability of our consumer loan portfolio include, but are not limited to, changes in risk selection or underwriting standards, changes in collection, account management, charge-off and recovery practices, changes in loan concentrations affecting either the frequency or severity of losses, and changes in economic conditions.

For loans which have been identified as TDR Loans, including beginning in 2020, loans which we reasonably expect to become TDR Loans, an allowance for credit losses is maintained primarily based on the present value of expected future cash flows, discounted at the loan's original effective interest rate, or the fair value of the collateral if the loan is collateral dependent. Once a loan is classified as a TDR Loan, it continues to be reported as such until it is paid off or charged-off.

Off-balance sheet credit exposures A separate liability for off-balance sheet credit exposures is also maintained, which is recorded in interest, taxes and other liabilities on the consolidated balance sheet and includes estimated lifetime ECL arising from off-balance sheet exposures such as letters of credit and unused commitments to extend credit. The process for measuring lifetime ECL on these exposures is consistent with that for commercial or consumer loans discussed above as applicable, but is subject to an additional parameter reflecting the likelihood that funding will occur. No lifetime ECL is recognized for off-balance sheet credit exposures that are unconditionally cancellable by us such as unused credit card lines.

Securities held-to-maturity Due to the composition of our portfolio of securities held-to-maturity, substantially all of our portfolio qualifies for the Zero Expected Credit Loss Exception and has been excluded from our lifetime ECL calculation. Our methodology for calculating lifetime ECL for our securities held-to-maturity which do not qualify for the Zero Expected Credit Loss Exception is consistent with our methodology for calculating lifetime ECL for loans discussed above, including the use of probability-weighted scenarios, forward economic guidance and key model inputs. We calculate lifetime ECL for securities held-for-maturity based on the present value of expected future cash flows, discounted using the contractual interest rate which approximates the effective interest rate.

Securities available-for-sale On a quarterly basis, we perform an assessment to determine whether there have been any events or economic circumstances to indicate that a debt security available-for-sale in an unrealized loss position has suffered impairment due to credit factors. A debt security available-for-sale is considered impaired if its fair value is less than its amortized cost basis at the reporting date. If impaired, we assess whether the impairment is due to credit factors.

If we intend to sell the debt security or if it is more-likely-than-not that we will be required to sell the debt security before the recovery of its amortized cost basis, the impairment is recognized and the unrealized loss is recorded as a direct write-down of the security's amortized cost basis with an offsetting entry to earnings. If we do not intend to sell the debt security or believe we will not be required to sell the debt security before the recovery of its amortized cost basis, the impairment is assessed to determine if a credit loss component exists. We use a discounted cash flow method to determine the credit loss component. In the event a credit loss exists, an allowance for credit losses is recorded in earnings for the credit loss component of the impairment while the remaining portion of the impairment attributable to factors other than credit loss is recognized, net of tax, in other comprehensive income (loss). The amount of impairment recognized due to credit factors is limited to the excess of the amortized cost basis over the fair value of the security available-for-sale.

Allowance for credit losses prior to 2020 Prior to January 1, 2020, we maintained an allowance for credit losses that was, in the judgment of management, adequate to absorb estimated probable incurred losses in our commercial and consumer loan portfolios.

Formula-based reserves were established against commercial loans when, based upon an analysis of relevant data, it was probable that a loss had been incurred and the amount of that loss could be reasonably estimated, even though an actual loss had yet to be identified. This methodology used the PD from the credit rating assigned to each counterparty together with the estimated loss emergence period (estimate of the period of time between a loss occurring and the confirming event of its charge-off) of the separate portfolios. The LGD rating assigned to each transaction or facility was based on the collateral securing the transaction and the measure of exposure based on the transaction. When it was deemed probable based upon known facts and circumstances that full interest and principal on an individual loan would not be collected in accordance with its contractual terms, the loan was considered impaired and an impairment reserve was established primarily based on the present value of expected future cash flows, discounted at the loan's original effective interest rate, or as a practical expedient, the fair value of the collateral if the loan was collateral dependent or the loan's observable market price if the loan was traded in the market.

For pools of homogeneous consumer loans and certain small business loans which did not qualify as TDR Loans, we estimated probable losses using a roll rate migration analysis that estimated the likelihood that a loan would progress through the various stages of delinquency and ultimately charge-off. This migration analysis incorporated estimates of the period of time between a loss occurring and the confirming event of its charge-off.

In addition, loss reserves on consumer and commercial loans were maintained to reflect our judgment of portfolio risk factors which may not have been fully reflected in the statistical calculations or when historical trends were not reflective of current inherent losses in the portfolio.

For loans which had been identified as TDR Loans, provisions for credit losses were maintained primarily based on the present value of expected future cash flows, discounted at the loan's original effective interest rate, or as a practical expedient, the fair value of the collateral if the loan was collateral dependent or, for commercial loans, the observable market price if the loan was traded in the market.

A separate reserve was also maintained for probable incurred credit losses associated with off-balance sheet credit exposures. This reserve was determined by reference to continuously monitored and updated historical loss rates or factors, derived from a migration analysis which considered net charge-off experience by loan and industry type in relation to internal credit rating.

Charge-Off and Nonaccrual Policies and Practices Our charge-off and nonaccrual policies differ by product and are summarized below:

Product	Charge-off Policies and Practices	Nonaccrual Policies and Practices
Commercial Loans <i>Real estate, including construction</i> <i>Business and corporate banking</i> <i>Global banking</i> <i>Other commercial</i>	Commercial loan balances are charged off at the time all or a portion of the balance is deemed uncollectible. For loans secured with collateral, loan balances are generally written down to the estimated fair value of the collateral less costs to sell.	Loans are generally categorized as nonaccruing when contractually delinquent for more than three months or in the opinion of management, reasonable doubt exists with respect to the ultimate collectibility of interest or principal based on certain factors including the period of time past due and adequacy of collateral. When classified as nonaccruing, any accrued interest recorded on the loan is generally deemed uncollectible and reversed against income. Interest income is subsequently recognized only to the extent of cash received until the loan is placed on accrual status. In instances where there is doubt as to collectibility of principal, interest payments received are applied to principal. Loans are not reclassified as accruing until interest and principal payments are current and future payments are reasonably assured.
Residential Mortgage Loans	Carrying amounts in excess of fair value less costs to sell are generally charged off at the time foreclosure is initiated or when settlement is reached with the borrower, but not to exceed the end of the month in which the account becomes six months contractually delinquent. If foreclosure is not pursued and there is no reasonable expectation for recovery, the account is generally charged off no later than the end of the month in which the account becomes six months contractually delinquent. ⁽¹⁾	Loans are generally designated as nonaccruing when contractually delinquent for more than three months. When classified as nonaccruing, any accrued interest on the loan is generally deemed uncollectible and reversed against income. Interest accruals are resumed when the loan either becomes current or becomes less than three months delinquent and six months of consecutive payments have been made. ⁽²⁾
Credit Cards	Loan balances are generally charged off by the end of the month in which the account becomes six months contractually delinquent. ⁽³⁾	Interest generally accrues until charge-off.
Other Consumer Loans	Loan balances are generally charged off by the end of the month in which the account becomes four months contractually delinquent.	Interest generally accrues until charge-off.

⁽¹⁾ Values are determined based upon broker price opinions or appraisals which are updated at least every 180 days less estimated costs to sell. During the quarterly period between updates, real estate price trends are reviewed on a geographic basis and additional downward adjustments are recorded as necessary. Fair values of foreclosed properties at the time of acquisition are initially determined based upon broker price opinions. Subsequent to acquisition, a more detailed property valuation is performed, reflecting information obtained from a walk-through of the property in the form of a listing agent broker price opinion as well as an independent broker price opinion or appraisal. A valuation is determined from this information within 90 days and any additional write-downs required are recorded through charge-off at that time. In determining the appropriate amounts to charge-off when a property is acquired in exchange for a loan, we do not consider losses on sales of foreclosed properties resulting from deterioration in value during the period the collateral is held because these losses result from future loss events which cannot be considered in determining the fair value of the collateral at the acquisition date.

⁽²⁾ As discussed further under the heading "Loans" above, for COVID-19 related loan modifications, when a borrower utilized a payment deferral of more than six months, the loan was generally placed on nonaccrual status. Any accrued interest recorded on these loans was generally not reversed against income and remained recorded as accrued interest receivable.

⁽³⁾ Charge-offs involving a bankruptcy for credit card receivables occurs by the end of the month, 60 days after notification or 180 days contractually delinquent, whichever comes first.

Due to the composition of our debt securities portfolio, a substantial majority of which comprises U.S. Government securities, we typically do not charge them off or place them on nonaccrual status.

Delinquency status for loans is determined using the contractual method which is based on the status of payments under the loan. An account is generally considered to be contractually delinquent when payments have not been made in accordance with the loan terms. Delinquency status may be affected by customer account management policies and practices such as the restructure, re-age or modification of accounts. For COVID-19 related loan modifications in the form of a payment deferral, the borrower's past due status was not affected during the deferral period.

Payments received on commercial nonaccrual loans are generally applied to reduce the principal balance of such loans. For consumer nonaccrual loans, payments are generally applied first to reduce the current interest on the earliest payment due with any remainder applied to reduce the principal balance associated with that payment date.

Loans Held for Sale Loans are classified as held for sale when they are not expected to be held for the foreseeable future because of management's lack of intent to hold. With the exception of certain loans for which the fair value option has been elected and are further discussed in Note 17, "Fair Value Option," loans classified as held for sale are recorded at the lower of amortized cost or estimated fair value, which is not in excess of their carrying value at the time of designation. Consumer loans are valued on an aggregate portfolio basis while commercial loans are generally valued on an individual loan basis. Periodic adjustments to fair value are recognized in other income (loss) in the consolidated statement of income (loss). For loans other than those classified as nonaccrual, interest income is determined by applying each loan's contractual rate to the loan's outstanding customer balance, exclusive of unearned income, deferred fees, deferred costs, premium and discount.

Transfers of Financial Assets Transfers of financial assets in which we have surrendered control over the transferred assets are accounted for as sales. In assessing whether control has been surrendered, we consider whether the transferee would be a consolidated affiliate, the existence and extent of any continuing involvement in the transferred financial assets and the impact of all arrangements or agreements made contemporaneously with, or in contemplation of, the transfer, even if they were not entered into at the time of transfer.

If the sale criteria are met, the transferred financial assets are removed from our balance sheet and a gain or loss on sale is recognized. If the sale criteria are not met, the transfer is recorded as a secured borrowing in which the assets remain on our balance sheet and the proceeds from the transaction are recognized as a liability. For the majority of financial asset transfers, it is clear whether or not we have surrendered control. For other transfers, such as in connection with complex transactions or where we have continuing involvement such as servicing responsibilities, we generally obtain a legal opinion as part of evaluating whether the transfer results in a sale.

Properties and Equipment, Net Properties and equipment are recorded at cost, net of accumulated depreciation. Depreciation is recorded on a straight-line basis over the estimated useful lives of the related assets, which generally range from 3 to 40 years. Leasehold improvements are depreciated over the shorter of the useful life of the improvement or the term of the lease. The costs of maintenance and repairs are expensed as incurred. Impairment testing is performed whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable.

Leases Lease right-of-use ("ROU") assets and lease liabilities for operating leases are recognized at commencement date based on the present value of lease payments over the lease term, discounted using our incremental borrowing rate at the effective commencement date of each lease. Operating lease ROU assets are recorded in other assets while operating lease liabilities are recorded in interest, taxes and other liabilities. We are not currently a lessee under any finance leases.

Options to renew or terminate the lease are recognized as part of our ROU assets and liabilities when it is reasonably certain the options will be exercised. We have lease agreements that contain both lease and non-lease components, such as maintenance costs, which are accounted for separately. Operating lease expense for fixed lease payments is recognized on a straight-line basis over the lease term. Variable lease payments for real estate taxes, insurance, maintenance and utilities, which are generally based on our pro rata share of the total property, are not included in the measurement of the ROU assets or lease liabilities and are expensed as incurred. In addition, we do not recognize ROU assets or lease liabilities with a term of 12 months or less, which are also expensed as incurred.

Goodwill and Other Long-Lived Assets Goodwill, representing the excess of purchase price over the fair value of identifiable net assets acquired, results from business combinations. Goodwill is not amortized, but is reviewed for impairment at a minimum on an annual basis at the reporting unit level using discounted cash flow and market approaches. The market approach focuses on valuation multiples for reasonably similar publicly traded companies and also considers recent market transactions, while the discounted cash flows method utilizes cash flow estimates based on recent internal forecasts and discount rates that we believe adequately reflect the risk and uncertainty in our internal forecasts and are appropriate based on the implicit market rates in current comparable transactions. Impairment is reviewed as of an interim date if circumstances indicate that it is more likely than not that the carrying amount of a reporting unit is above fair value. The carrying amount of a reporting unit is determined on the basis of capital invested in the unit including attributable goodwill. We determine the invested capital of a reporting unit by applying to the reporting unit's risk-weighted assets a capital charge consistent with the targets assigned and monitored through our capital management monitoring framework, and additionally, allocating to each reporting unit the remaining carrying amount of HUSI's net assets. Accordingly, the entire carrying amount of HUSI's net assets

is allocated to our reporting units. Reporting units were identified based upon an analysis of each of our individual operating segments. A reporting unit is defined as an operating segment or any distinct, separately identifiable component one level below an operating segment for which complete, discrete financial information is available that management regularly reviews. We consider significant and long-term changes in industry and economic conditions to be examples of primary indicators of potential impairment.

In addition, we generally conduct impairment tests of capitalized software and other long-lived assets at the reporting unit level when events or circumstances indicate their carrying amount may not be recoverable. If impairment testing is required, long-lived assets are grouped at the lowest level for which there are identifiable cash flows. If the estimated undiscounted cash flows of the long-lived asset group exceed its carrying amount, an impairment is not recognized. However, if the estimated undiscounted cash flows are less than the carrying amount of the long-lived asset group, a second step is performed to determine fair value and an impairment loss is required if the carrying amount of the long-lived asset group exceeds fair value. Impairment losses are not reversible. Fair value calculations when required are consistent with the methodology used to determine fair value for goodwill impairment.

Reposessed Collateral Non-financial collateral acquired in satisfaction of a loan is initially recognized at the collateral's fair value less estimated costs to sell and is reported in other assets. Any subsequent declines in fair value less estimated costs to sell are recorded through a valuation allowance. Recoveries in fair value less estimated costs to sell are recognized as a reduction of the valuation allowance but not in excess of cumulative losses previously recognized subsequent to the date of repossession. Adjustments to the valuation allowance, costs of holding reposessed collateral, and any gain or loss on disposition are credited or charged to operating expense.

Collateral We pledge assets as collateral as required for various transactions involving security repurchase agreements, public deposits, derivative financial instruments, short-term borrowings and long-term borrowings. Non-cash assets that have been pledged as collateral, including those that can be sold or repledged by the secured party, continue to be reported on our consolidated balance sheet.

We also accept collateral, primarily as part of various transactions involving security resale agreements. Non-cash collateral accepted by us, including collateral that we can sell or re-pledge, is excluded from our consolidated balance sheet. If we resell the collateral, we recognize the proceeds and a liability to return the collateral.

The market value of collateral we have accepted or pledged is regularly monitored and additional collateral is obtained or provided as necessary to ensure appropriate collateral coverage in these transactions.

Derivative Financial Instruments Derivative financial instruments are recognized on the consolidated balance sheet at fair value. On the date a derivative contract is entered into, we designate it as either:

- a qualifying hedge of the fair value of a recognized asset or liability or of an unrecognized firm commitment (fair value hedge);
- a qualifying hedge of the variability of cash flows to be received or paid related to a recognized asset, liability or forecasted transaction (cash flow hedge); or
- a trading instrument or a non-qualifying (economic) hedge.

Changes in the fair value of a derivative designated as a fair value hedge, along with the changes in the fair value of the hedged asset or liability that is attributable to the hedged risk (including losses or gains on firm commitments), are recorded in current period earnings. Changes in the fair value of a derivative that has been designated as a cash flow hedge are recorded in accumulated other comprehensive income (loss), net of income taxes, and reclassified into earnings in the period during which the hedged item affects earnings. Changes in the fair value of derivatives held for trading purposes or which do not qualify for hedge accounting are reported in current period earnings.

At the inception of each designated qualifying hedge, we formally document all relationships between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions, the nature of the hedged risk, and how hedge effectiveness will be assessed. This process includes linking all derivatives that are designated as fair value or cash flow hedges to specific assets and liabilities on the balance sheet or to specific firm commitments or forecasted transactions. We also formally assess both at inception and on a quarterly basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items and whether they are expected to continue to be highly effective in future periods. This assessment is conducted using statistical regression analysis.

Earnings volatility may result from the on-going mark to market of certain economically viable derivative contracts that do not satisfy the hedging requirements in accordance with U.S. GAAP as well as from the hedge ineffectiveness associated with the qualifying hedges.

Embedded Derivatives We may acquire or originate a financial instrument that contains a derivative instrument embedded within it. Upon origination or acquisition of any such instrument, we assess whether the economic characteristics of the embedded derivative are clearly and closely related to the economic characteristics of the principal component of the financial instrument (i.e., the host contract) and whether a separate instrument with the same terms as the embedded instrument would meet the definition of a derivative instrument.

When we determine that: (1) the embedded derivative possesses economic characteristics that are not clearly and closely related to the economic characteristics of the host contract; and (2) a separate instrument with the same terms would qualify as a derivative instrument, the embedded derivative is either separated from the host contract (bifurcated), carried at fair value, and designated as a trading instrument or the entire financial instrument is carried at fair value with all changes in fair value recorded to current period earnings. If bifurcation is elected, the consideration for the hybrid financial instrument that is allocated to the bifurcated derivative reduces the consideration that is allocated to the host contract with the difference being recognized over the life of the financial instrument.

Hedge Discontinuation We discontinue hedge accounting prospectively when:

- the derivative is no longer effective or expected to be effective in offsetting changes in the fair value or cash flows of a hedged item (including firm commitments or forecasted transactions) related to the designated risk;
- the derivative expires or is sold, terminated, or exercised;
- it is unlikely that a forecasted transaction will occur;
- the hedged firm commitment no longer meets the definition of a firm commitment; or
- the designation of the derivative as a hedging instrument is no longer appropriate.

When hedge accounting is discontinued because it is determined that the derivative no longer qualifies as an effective fair value or cash flow hedge, the hedging relationship will cease. The hedging instrument will continue to be carried on the balance sheet at fair value, with changes in fair value recognized in current period earnings.

In the case of a discontinued fair value hedge of a recognized asset or liability, as long as the hedged item continues to exist on the balance sheet, the hedged item will no longer be adjusted for changes in fair value attributable to the hedged risk. The basis adjustment that had previously been recorded to the hedged item during the period from the hedge designation date to the hedge discontinuation date is recognized as an adjustment to the yield of the hedged item over the remaining life of the hedged item.

In the case of a discontinued cash flow hedge of a recognized asset or liability, as long as the hedged item continues to exist on the balance sheet, further changes in fair value of the hedging derivative will no longer be recorded in other comprehensive income (loss). The balance applicable to the discontinued hedging relationship will be recognized in earnings over the remaining life of the hedged item as an adjustment to yield. If the discontinued hedged item was a forecasted transaction where it is probable the forecasted transaction will not occur at the end of the original specified time period or within an additional two-month period thereafter, any amounts recorded in accumulated other comprehensive income (loss) are immediately reclassified to current period earnings.

In the case of a cash flow hedge, if the previously hedged item is sold or extinguished, the basis adjustment to the underlying asset or liability or any remaining unamortized accumulated other comprehensive income (loss) balance will be reclassified to current period earnings.

In all other situations in which hedge accounting is discontinued, the derivative will be carried at fair value on the consolidated balance sheet, with changes in its fair value recognized in current period earnings unless redesignated in a qualifying cash flow hedge.

Interest Rate Lock Commitments We enter into commitments to originate residential mortgage loans whereby the interest rate on the loan is set prior to funding (rate lock commitments). The interest rate lock commitments on residential mortgage loans that are classified as held for sale are considered to be derivatives and are recorded at fair value in other assets or other liabilities in the consolidated balance sheet. Changes in fair value are recorded as a component of other income (loss) in the consolidated statement of income (loss).

Share-Based Compensation We use the fair value based method of accounting for awards of HSBC stock granted to employees under various restricted share and employee stock purchase plans. Stock compensation costs are recognized prospectively for all new awards granted under these plans. Compensation expense relating to restricted share awards is based upon the fair value on the date of grant and is charged to earnings over the requisite service period (e.g., vesting period), less estimated forfeitures. When modeling awards with vesting that is dependent on performance conditions, these performance conditions are incorporated into the model using Monte Carlo simulation. The expected life of these awards depends on the behavior of the award holders, which is incorporated into the model consistent with historical observable data.

All excess tax benefits and tax deficiencies for share-based payment awards are recorded within income tax expense (benefit) in the consolidated statement of income (loss).

Pension and Other Postretirement Benefits We recognize the funded status of the postretirement benefit plans on the consolidated balance sheet. Net postretirement benefit cost charged to current earnings related to these plans is based on various actuarial assumptions regarding expected future experience.

Certain employees are participants in various defined contribution, defined benefit and other supplemental retirement plans sponsored by HSBC North America. Our portion of the expense related to these plans is allocated to us and charged to current earnings.

We maintain various 401(k) plans covering substantially all employees. Employer contributions to the plan, which are charged to current earnings, are based on employee contributions.

Income Taxes HSBC USA is included in HSBC North America's consolidated Federal income tax return and in various combined State income tax returns. As such, we have entered into a tax allocation agreement with HSBC North America and its subsidiary entities (the "HNAH Group") which governs the current amount of taxes to be paid or received by the various entities included in the consolidated return filings. Generally, such agreements allocate taxes to members of the HNAH Group based on the calculation of tax on a separate return basis, adjusted for the utilization or limitation of credits of the consolidated group. To the extent all the tax attributes available cannot be currently utilized by the consolidated group, the proportionate share of the utilized attribute is allocated based on each affiliate's percentage of the available attribute computed in a manner that is consistent with the taxing jurisdiction's laws and regulations regarding the ordering of utilization. In addition, we file some separate company State tax returns.

We recognize deferred tax assets and liabilities for the future tax consequences related to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and for Federal and State net operating losses. Deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when the deferred tax items are expected to be realized. If applicable, valuation allowances are recorded to reduce deferred tax assets to the amounts we conclude are more likely than not to be realized. Since we are included in HSBC North America's consolidated Federal tax return and various combined State tax returns, the related evaluation of the recoverability of the deferred tax assets is performed at the HSBC North America consolidated level. We consider the HNAH Group's consolidated deferred tax assets and various sources of taxable income in reaching conclusions on recoverability of deferred tax assets. The HNAH Group evaluates deferred tax assets for recoverability using a consistent approach which considers the relative impact of negative and positive evidence, including historical financial performance, projections of future taxable income, future reversals of existing taxable temporary differences, tax planning strategies and any available carryback capacity. In evaluating the need for a valuation allowance, the HNAH Group estimates future taxable income based on management approved business plans. This process involves significant management judgment about assumptions that are subject to change from period to period.

Where a valuation allowance is determined to be necessary at the HSBC North America consolidated level, such allowance is allocated to principal subsidiaries within the HNAH Group in a manner that is systematic, rational and consistent with the broad principles of accounting for income taxes. The methodology generally allocates the valuation allowance to the principal subsidiaries based primarily on the entity's relative contribution to the HNAH Group's consolidated deferred tax asset against which the valuation allowance is being recorded.

Further evaluation is performed at the HSBC USA legal entity level to evaluate the need for a valuation allowance where we file separate company State income tax returns. Foreign taxes paid are applied as credits to reduce Federal income taxes payable, to the extent that such credits can be utilized.

We recognize accrued interest related to uncertain tax positions in interest expense in the consolidated statement of income (loss) and recognize penalties, if any, related to uncertain tax positions as a component of other expenses in the consolidated statement of income (loss).

Transactions with Related Parties In the normal course of business, we enter into transactions with HSBC and its subsidiaries. These transactions occur at prevailing market rates and terms and include funding arrangements, derivatives, servicing arrangements, information technology, centralized support services, banking and other miscellaneous services.

New Accounting Pronouncements

There were no new accounting pronouncements adopted during 2021 that had a material impact on our consolidated financial statements and there have been no accounting pronouncements issued that are expected to have or could have a material impact on our consolidated financial statements.

3. Strategic Initiatives

In February 2020, our Board of Directors approved a strategic plan to restructure our operations ("Restructuring Plan") in alignment with HSBC's global strategy to refocus our wholesale operations to better serve our international corporate clients and restructure our retail operations to better meet the needs of globally mobile and affluent clients. Our Restructuring Plan also includes streamlining our functional and operations support model by removing duplication and reducing the size of our balance sheet to better align with the scope and scale of the U.S. opportunity. As a result of the May 2021 decision to further reposition our Wealth and Personal Banking business, along with the identification of additional restructuring activities primarily relating to further simplifying our wholesale operations and support service functions as well as additional investments in systems infrastructure and new technologies, we currently expect to incur pre-tax charges over the three-year period of 2020-2022 of approximately \$780-\$860 million (\$590-\$650 million after-tax). The following table presents a summary of the total pre-tax charges we expect to incur by reportable segment:

	Expected Charges in Connection with Restructuring Plan	
	Minimum	Maximum
	(in millions)	
Wealth and Personal Banking	\$ 215	\$ 235
Commercial Banking	8	10
Markets and Securities Services	82	88
Global Banking and Markets Other	10	12
Corporate Center ⁽¹⁾	465	515
Total	<u>\$ 780</u>	<u>\$ 860</u>

⁽¹⁾ Includes restructuring charges primarily related to lease impairment and other related costs, support service project costs and severance costs associated with certain centralized activities and functions.

We continue to progress our Restructuring Plan, including simplification of our support service functions, consolidation of our retail middle and back office functions under a single operations structure and the exit of certain derivative contracts. In 2021, we also completed the consolidation of our wholesale middle and back office functions as well as the transfer of interest rate derivative contracts associated with Fixed Income activities to HSBC Bank plc. In addition, as noted above, during the second quarter of 2021, we made the decision to exit our mass market retail banking business, including the sale or closure of certain branches, and transferred certain assets and liabilities to held for sale. See Note 4, "Branch Assets and Liabilities Held for Sale," for additional information. In 2020, we also completed the initial consolidation of our retail branch network and the creation of our Wealth and Personal Banking business. To date, we have recorded a total of \$569 million of pre-tax charges in connection with our Restructuring Plan, of which \$289 million and \$280 million were recorded during 2021 and 2020, respectively. We remain committed to our multi-year strategic plan to re-profile our business.

The following table summarizes the changes in the liability associated with our Restructuring Plan during 2021 and 2020:

	Severance and Other Employee Costs ⁽¹⁾	Lease Termination and Associated Costs ⁽²⁾	Other ⁽³⁾	Total
	(in millions)			
Year Ended December 31, 2021				
Restructuring liability at beginning of period	\$ 10	\$ 23	\$ —	\$ 33
Restructuring costs accrued during the period	12	38	15	65
Restructuring costs paid during the period	(12)	(15)	(15)	(42)
Restructuring liability at end of period	<u>\$ 10</u>	<u>\$ 46</u>	<u>\$ —</u>	<u>\$ 56</u>
Year Ended December 31, 2020				
Restructuring liability at beginning of period	\$ —	\$ —	\$ —	\$ —
Restructuring costs accrued during the period	28	29	—	57
Restructuring costs paid during the period	(18)	(6)	—	(24)
Restructuring liability at end of period	<u>\$ 10</u>	<u>\$ 23</u>	<u>\$ —</u>	<u>\$ 33</u>

⁽¹⁾ Severance and other employee costs are included in salaries and employee benefits in the consolidated statement of income (loss). The majority of these costs were reported in the Wealth and Personal Banking business segment. Not included in these costs are allocated severance costs from HSBC Technology & Services ("HTSU") discussed further below.

- ⁽²⁾ Primarily includes real estate taxes, service charges and decommissioning costs. Lease termination and associated costs are included in occupancy expense, net in the consolidated statement of income (loss) and were reported in the Wealth and Personal Banking and the Corporate Center business segments.
- ⁽³⁾ Primarily includes professional fees and other staff costs, which are included in other expenses in the consolidated statement of income (loss).

In addition to the restructuring costs reflected in the rollforward table above, during the second quarter of 2021, as part of our decision to exit our mass market retail banking business we determined that we would exit approximately 30 branches. As a result, we recorded impairment charges during the second quarter of 2021 to write-off the assets associated with these branches, including \$29 million of lease ROU assets, \$18 million of leasehold improvement assets and \$3 million of equipment assets. During 2021, we also recorded impairment charges of \$40 million to write-down the lease ROU assets and leasehold improvement assets primarily associated with certain office space that we determined we would exit and \$13 million to write-down one of our owned office space properties to fair value upon transferring it to held for sale during the fourth quarter.

During the first quarter of 2020, we determined that we would exit approximately 60 branches (in addition to the approximately 20 branches for which we disclosed plans to exit in 2019). As a result, we recorded impairment charges during 2020 to write-down the lease ROU assets, net of estimated sublease income, by \$67 million and to write-down the leasehold improvement assets associated with these branches by \$16 million based on their estimated remaining useful lives. These branches were closed in 2020. During 2020, we also recorded impairment charges of \$9 million to write-down the lease ROU assets associated with certain office space that we determined we would exit. Lease impairment charges are reflected in occupancy expense, net in the consolidated statement of income (loss) and were reported in the Wealth and Personal Banking and the Corporate Center business segments.

In addition, during 2021 and 2020, we recorded \$35 million and \$67 million, respectively, of trading losses associated with the continued exit of certain derivative contracts as part of our Restructuring Plan. These losses are included in trading revenue in the consolidated statement of income (loss) and were reported in the Markets and Securities Services and the Corporate Center business segments. Beginning in 2020 and into 2021, we also completed the transfer of substantially all interest rate derivative contracts associated with Fixed Income activities to HSBC Bank plc. These activities were being consolidated in and operated from HSBC Bank plc to better utilize HSBC Group's global scale, which allows us to record revenue as a business introducer and hold fewer assets on our balance sheet. Transfers of interest rate derivative contracts with a notional value of \$25.9 billion and \$64.6 billion were completed during 2021 and 2020, respectively. The remainder of these contracts not transferred are being retained as a run-off portfolio. The transferred derivatives were substantially fully collateralized which resulted in an immaterial impact on our consolidated balance sheet.

Our Restructuring Plan also resulted in costs being allocated to us from HTSU, primarily support service project costs and severance costs, which are reflected in support services from HSBC affiliates in the consolidated statement of income (loss). During 2021, we recorded \$86 million of allocated costs from HTSU related to restructuring activities compared with \$64 million of allocated costs during 2020. These costs were reported in the Corporate Center business segment.

HSBC Group Restructuring Separate from the charges related to our Restructuring Plan as detailed above, during 2021, we also recorded \$53 million of allocated costs from other HSBC affiliates related to the HSBC Group's restructuring activities, primarily support service project costs and severance costs, compared with \$16 million of allocated costs during 2020. These costs are reflected in support services from HSBC affiliates in the consolidated statement of income (loss) and were reported in the Corporate Center business segment.

4. Branch Assets and Liabilities Held for Sale

In May 2021, as part of our Restructuring Plan we announced that we would take further actions to strategically reposition our Wealth and Personal Banking business to focus on the banking and wealth management needs of globally-connected affluent and high net worth clients through our Premier, Jade and Private Banking propositions. We will exit our mass market retail banking business, including our Personal and Advance propositions as well as retail business banking, and will rebrand approximately 20-25 of our retail branches into international wealth centers to serve our Premier and Jade customers. In conjunction with the execution of this strategy, we have entered into definitive sale agreements with third parties to sell 90 of our retail branches along with substantially all residential mortgage, unsecured and retail business banking loans and all deposits in our branch network not associated with our Premier, Jade and Private Banking customers. Certain assets under management associated with our mass market retail banking operations which are managed by an affiliate will also be transferred to one of the buyers. The remaining branches not sold or rebranded will be closed. As a result of entering into these sale agreements, assets and liabilities with an aggregate carrying value of approximately \$2.9 billion and \$10.1 billion, respectively, were transferred to held for sale during the second quarter of 2021. The lower of amortized cost or fair value adjustment upon transferring these assets to held for sale was not material. We completed the sale of the disposal group in February 2022 which is expected to result in a gain on sale.

During 2021, we recorded \$8 million of transaction costs directly associated with these sales, which are reflected in other income (loss) in the consolidated statement of income (loss). Revenues (net interest income and other revenues) associated with the disposal group represented approximately 7 percent of total consolidated revenues for the year ended December 31, 2021. Income before tax associated with the disposal group was not material.

The following table summarizes the assets and liabilities in the disposal group classified as held for sale at December 31, 2021 in our consolidated balance sheet:

	December 31, 2021
	(in millions)
Loans held for sale ⁽¹⁾	\$ 2,441
Other branch related assets held for sale:	
Lease ROU assets	151
Properties and equipment, net	40
Cash and other assets	58
Total other branch related assets held for sale	249
Total branch assets held for sale ⁽²⁾	\$ 2,690
Deposits held for sale	\$ 8,750
Other branch related liabilities held for sale:	
Lease liabilities	144
Other liabilities	8
Total other branch related liabilities held for sale	152
Total branch liabilities held for sale ⁽²⁾	\$ 8,902

⁽¹⁾ Includes \$72 million of commercial loans, \$1,845 million of residential mortgage loans, \$217 million of home equity mortgage loans, \$178 million of credit card loans and \$129 million of other consumer loans.

⁽²⁾ The sale of this disposal group will result in a net cash payment as the liabilities being assumed are greater than the assets being purchased.

In addition, mass market retail banking loans not included in the transaction described above as well as our remaining retail credit card portfolio, which collectively totaled \$1.1 billion, were also transferred to held for sale during the second quarter of 2021 as we did not intend to hold these loans for the foreseeable future. The lower of amortized cost or fair value adjustment upon transferring these assets to held for sale was not material. During the fourth quarter of 2021, we sold a portfolio of mass market retail credit cards to a third party and, upon completion of the sale, a portfolio of Premier credit cards was transferred back to held for investment. See Note 9, "Loans Held for Sale," for additional details.

Releases of the allowance for credit losses on the loans transferred to held for sale discussed above during the second quarter of 2021 resulted in a reduction to the provision for credit losses of approximately \$101 million (\$100 million of which related to consumer loans) during the second quarter of 2021. See Note 8, "Allowance for Credit Losses," for additional details.

5. Trading Assets and Liabilities

Trading assets and liabilities consisted of the following:

At December 31,	2021	2020
	(in millions)	
Trading assets:		
U.S. Treasury	\$ 2,337	\$ 5,145
U.S. Government sponsored enterprises	432	192
Asset-backed securities	—	143
Foreign bonds	167	7,971
Equity securities	15,795	6,043
Precious metals	3,907	4,989
Derivatives, net	1,405	2,801
Total trading assets	<u>\$ 24,043</u>	<u>\$ 27,284</u>
Trading liabilities:		
Securities sold, not yet purchased	\$ 1,103	\$ 727
Payables for precious metals	46	2,312
Derivatives, net	1,874	2,358
Total trading liabilities	<u>\$ 3,023</u>	<u>\$ 5,397</u>

At December 31, 2021 and 2020, the fair value of derivatives included in trading assets is net of \$1,419 million and \$2,763 million, respectively, relating to amounts recognized for the obligation to return cash collateral received under master netting agreements with derivative counterparties.

At December 31, 2021 and 2020, the fair value of derivatives included in trading liabilities is net of \$1,296 million and \$3,377 million, respectively, relating to amounts recognized for the right to reclaim cash collateral paid under master netting agreements with derivative counterparties.

See Note 16, "Derivative Financial Instruments," for further information on our trading derivatives and related collateral.

Dividend income on equity securities held for trading, which is recorded in interest income in the consolidated statement of income (loss), totaled \$157 million, \$78 million and \$37 million in 2021, 2020 and 2019, respectively. Trading security positions are held as economic hedges of derivative products issued to our clients.

6. Securities

Our securities available-for-sale and securities held-to-maturity portfolios consisted of the following:

December 31, 2021	Amortized Cost	Allowance for Credit Losses	Unrealized Gains	Unrealized Losses	Fair Value
	(in millions)				
Securities available-for-sale:					
U.S. Treasury	\$ 9,490	\$ —	\$ 144	\$ (72)	\$ 9,562
U.S. Government sponsored enterprises:					
Mortgage-backed securities	7,365	—	114	(115)	7,364
Collateralized mortgage obligations	1,787	—	8	(48)	1,747
Direct agency obligations	1,775	—	16	(4)	1,787
U.S. Government agency issued or guaranteed:					
Mortgage-backed securities	8,489	—	7	(66)	8,430
Collateralized mortgage obligations	3,730	—	7	(49)	3,688
Direct agency obligations	282	—	6	—	288
Asset-backed securities collateralized by:					
Home equity	20	(1)	—	—	19
Other	107	—	—	(6)	101
Foreign debt securities ⁽¹⁾	2,311	—	3	(2)	2,312
Total available-for-sale securities	<u>\$ 35,356</u>	<u>\$ (1)</u>	<u>\$ 305</u>	<u>\$ (362)</u>	<u>\$ 35,298</u>
Securities held-to-maturity:					
U.S. Government sponsored enterprises:					
Mortgage-backed securities	\$ 684	\$ —	\$ 21	\$ —	\$ 705
Collateralized mortgage obligations	492	—	26	—	518
U.S. Government agency issued or guaranteed:					
Mortgage-backed securities	1,104	—	24	—	1,128
Collateralized mortgage obligations	2,915	—	85	(1)	2,999
Obligations of U.S. states and political subdivisions	8	—	—	—	8
Asset-backed securities collateralized by residential mortgages	1	(1)	1	—	1
Total held-to-maturity securities	<u>\$ 5,204</u>	<u>\$ (1)</u>	<u>\$ 157</u>	<u>\$ (1)</u>	<u>\$ 5,359</u>

December 31, 2020	Amortized Cost	Allowance for Credit Losses	Unrealized Gains	Unrealized Losses	Fair Value
	(in millions)				
Securities available-for-sale:					
U.S. Treasury	\$ 16,087	\$ —	\$ 608	\$ (47)	\$ 16,648
U.S. Government sponsored enterprises:					
Mortgage-backed securities	5,986	—	280	(2)	6,264
Collateralized mortgage obligations	1,676	—	19	(2)	1,693
Direct agency obligations	1,236	—	17	—	1,253
U.S. Government agency issued or guaranteed:					
Mortgage-backed securities	6,993	—	152	—	7,145
Collateralized mortgage obligations	2,093	—	22	(11)	2,104
Direct agency obligations	296	—	5	—	301
Asset-backed securities collateralized by:					
Home equity	28	(1)	—	—	27
Other	114	—	—	(10)	104
Foreign debt securities ⁽¹⁾	5,127	—	6	—	5,133
Total available-for-sale securities	<u>\$ 39,636</u>	<u>\$ (1)</u>	<u>\$ 1,109</u>	<u>\$ (72)</u>	<u>\$ 40,672</u>
Securities held-to-maturity:					
U.S. Government sponsored enterprises:					
Mortgage-backed securities	\$ 1,137	\$ —	\$ 44	\$ —	\$ 1,181
Collateralized mortgage obligations	780	—	53	—	833
U.S. Government agency issued or guaranteed:					
Mortgage-backed securities	1,947	—	76	—	2,023
Collateralized mortgage obligations	5,107	—	212	—	5,319
Obligations of U.S. states and political subdivisions	10	—	1	—	11
Asset-backed securities collateralized by residential mortgages	2	(2)	2	—	2
Total held-to-maturity securities	<u>\$ 8,983</u>	<u>\$ (2)</u>	<u>\$ 388</u>	<u>\$ —</u>	<u>\$ 9,369</u>

⁽¹⁾ Foreign debt securities represent public sector entity, bank or corporate debt.

Securities Available-for-Sale The following provides additional information about our portfolio of securities available-for-sale:

Allowance for credit losses On a quarterly basis, we perform an assessment to determine whether there have been any events or economic circumstances to indicate that a debt security available-for-sale in an unrealized loss position has suffered impairment due to credit factors. A debt security available-for-sale is considered impaired if its fair value is less than its amortized cost basis at the reporting date. If impaired, we assess whether the impairment is due to credit factors.

If we intend to sell the debt security or if it is more-likely-than-not that we will be required to sell the debt security before the recovery of its amortized cost basis, the impairment is recognized and the unrealized loss is recorded as a direct write-down of the security's amortized cost basis with an offsetting entry to earnings. If we do not intend to sell the debt security or believe we will not be required to sell the debt security before the recovery of its amortized cost basis, the impairment is assessed to determine if a credit loss component exists. We use a discounted cash flow method to determine the credit loss component. In the event a credit loss exists, an allowance for credit losses is recorded in earnings for the credit loss component of the impairment while the remaining portion of the impairment attributable to factors other than credit loss is recognized, net of tax, in other comprehensive income (loss). The amount of impairment recognized due to credit factors is limited to the excess of the amortized cost basis over the fair value of the security available-for-sale.

In determining whether a credit loss component exists, we consider a series of factors which include:

- The extent to which the fair value is less than the amortized cost basis;
- The credit protection features embedded within the instrument, which includes but is not limited to credit subordination positions, payment structure, over collateralization, protective triggers and financial guarantees provided by third parties;
- Changes in the near term prospects of the issuer or the underlying collateral of a security such as changes in default rates, loss severities given default and significant changes in prepayment assumptions;
- The level of excess cash flows generated from the underlying collateral supporting the principal and interest payments of the debt securities; and
- Any adverse change to the credit conditions of the issuer, the monoline insurer or the security such as credit downgrades by external rating agencies or changes to internal ratings.

At both December 31, 2021 and 2020, the allowance for credit losses on securities available-for-sale was \$1 million.

Securities in an unrealized loss position for which no allowance for credit losses has been recognized The following table summarizes gross unrealized losses and related fair values for securities available-for-sale by major security type at December 31, 2021 and 2020 classified as to the length of time the losses have existed:

	One Year or Less			Greater Than One Year		
	Number of Securities	Gross Unrealized Losses	Aggregate Fair Value of Investment	Number of Securities	Gross Unrealized Losses	Aggregate Fair Value of Investment
(dollars are in millions)						
At December 31, 2021						
U.S. Treasury	11	\$ (28)	\$ 1,784	9	\$ (44)	\$ 856
U.S. Government sponsored enterprises	63	(155)	6,224	14	(12)	354
U.S. Government agency issued or guaranteed	59	(91)	8,972	15	(24)	769
Asset-backed securities	—	—	—	3	(6)	101
Foreign debt securities	8	(2)	1,188	—	—	—
Securities available-for-sale	<u>141</u>	<u>\$ (276)</u>	<u>\$ 18,168</u>	<u>41</u>	<u>\$ (86)</u>	<u>\$ 2,080</u>
At December 31, 2020						
U.S. Treasury	5	\$ (5)	\$ 751	13	\$ (42)	\$ 1,271
U.S. Government sponsored enterprises	15	(3)	715	8	(1)	46
U.S. Government agency issued or guaranteed	13	(11)	1,482	3	—	8
Asset-backed securities	3	(10)	104	2	—	—
Foreign debt securities	6	—	766	5	—	241
Securities available-for-sale	<u>42</u>	<u>\$ (29)</u>	<u>\$ 3,818</u>	<u>31</u>	<u>\$ (43)</u>	<u>\$ 1,566</u>

Gross unrealized losses increased as compared with December 31, 2020 due primarily to increasing yields on U.S. Government sponsored mortgage-backed, U.S. Government agency mortgage-backed and U.S. Treasury securities.

Although the fair value of a particular security may be below its amortized cost, it does not necessarily result in a credit loss and hence an allowance for credit losses. The decline in fair value may be caused by, among other things, the illiquidity of the market. We have reviewed the securities in an unrealized loss position for which no allowance for credit losses has been recognized in accordance with our accounting policies, discussed further above. At December 31, 2021, we do not consider any of these securities to be impaired due to credit factors as we expect to recover their amortized cost basis and we neither intend nor expect to be required to sell these securities prior to recovery, even if that equates to holding them until their individual maturities. However, impairments due to credit factors may occur in future periods if the credit quality of the securities deteriorates.

Securities Held-to-Maturity The following provides additional information about our portfolio of securities held-to-maturity:

Allowance for credit losses Due to the composition of our portfolio of securities held-to-maturity, substantially all of our portfolio qualifies for the Zero Expected Credit Loss Exception and has been excluded from our lifetime ECL calculation. See Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," for further discussion. At December 31, 2021 and 2020, the allowance for credit losses on securities held-to-maturity was \$1 million and \$2 million, respectively.

At December 31, 2021 and 2020, none of our securities held-to-maturity were past due or in nonaccrual status.

Credit risk profile Securities are assigned a credit rating based on the estimated probability of default. The credit ratings are used as a credit quality indicator to monitor our securities held-to-maturity portfolio. We utilize S&P as the primary source of our credit ratings. If S&P ratings are not available, ratings by Moody's and Fitch are used in that order. Investment grade includes securities with credit ratings of at least BBB- or above. At December 31, 2021 and 2020, all of our securities held-to-maturity were investment grade.

Other securities gains, net The following table summarizes realized gains and losses on investment securities transactions attributable to available-for-sale securities:

	2021	2020	2019
	(in millions)		
Gross realized gains	\$ 159	\$ 174	\$ 148
Gross realized losses	(86)	(37)	(60)
Net realized gains	<u>\$ 73</u>	<u>\$ 137</u>	<u>\$ 88</u>

Contractual Maturities and Yields The following table summarizes the amortized cost and fair values of securities available-for-sale and securities held-to-maturity at December 31, 2021 by contractual maturity. Expected maturities differ from contractual maturities because borrowers have the right to prepay obligations without prepayment penalties in certain cases. The table below also reflects the distribution of maturities of debt securities held at December 31, 2021, together with the approximate yield of the portfolio. The yields shown are calculated by dividing annualized interest income, including the accretion of discounts and the amortization of premiums, by the amortized cost of securities outstanding at December 31, 2021.

	Within One Year		After One But Within Five Years		After Five But Within Ten Years		After Ten Years	
	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
	(dollars are in millions)							
Available-for-sale:								
U.S. Treasury	\$ 246	1.99 %	\$ 3,364	1.38 %	\$ 2,075	1.39 %	\$ 3,805	1.87 %
U.S. Government sponsored enterprises	—	—	1,712	1.63	2,079	2.35	7,136	1.64
U.S. Government agency issued or guaranteed	71	.24	23	1.17	1	5.54	12,406	1.83
Asset-backed securities	—	—	—	—	107	4.14	20	.23
Foreign debt securities	1,122	.10	1,189	.57	—	—	—	—
Total amortized cost	<u>\$ 1,439</u>	.43 %	<u>\$ 6,288</u>	1.30 %	<u>\$ 4,262</u>	1.93 %	<u>\$ 23,367</u>	1.78 %
Total fair value	<u>\$ 1,442</u>		<u>\$ 6,340</u>		<u>\$ 4,346</u>		<u>\$ 23,170</u>	
Held-to-maturity:								
U.S. Government sponsored enterprises	\$ 3	2.69 %	\$ 179	2.64 %	\$ 299	2.26 %	\$ 695	3.31 %
U.S. Government agency issued or guaranteed	1	3.51	—	—	8	5.38	4,010	2.55
Obligations of U.S. states and political subdivisions	3	3.92	3	2.68	2	4.32	—	—
Asset-backed securities	—	—	—	—	—	—	1	7.52
Total amortized cost	<u>\$ 7</u>	3.33 %	<u>\$ 182</u>	2.65 %	<u>\$ 309</u>	2.36 %	<u>\$ 4,706</u>	2.66 %
Total fair value	<u>\$ 8</u>		<u>\$ 184</u>		<u>\$ 318</u>		<u>\$ 4,849</u>	

Equity Securities Equity securities that are not classified as trading and are included in other assets consisted of the following:

At December 31,	2021	2020
	(in millions)	
Equity securities carried at fair value	\$ 282	\$ 284
Equity securities without readily determinable fair values	16	14

On a quarterly basis, we perform an assessment to determine whether any equity securities without readily determinable fair values are impaired. In the event an equity security is deemed impaired, the security is written down to fair value with

impairment recorded in earnings. During 2021 and 2020, we determined that certain equity securities without readily determinable fair values were impaired and, as a result, we recorded impairment losses of \$3 million and \$2 million, respectively, as a component of other income (loss) in the consolidated statement of income (loss). During 2019, none of our equity securities without readily determinable fair values were determined to be impaired.

Also included in other assets were investments in Federal Home Loan Bank ("FHLB") stock and Federal Reserve Bank stock of \$110 million and \$558 million, respectively, at December 31, 2021 and \$259 million and \$559 million, respectively, at December 31, 2020.

7. Loans

Loans consisted of the following:

At December 31,	2021	2020
	(in millions)	
Commercial loans:		
Real estate, including construction	\$ 8,234	\$ 10,464
Business and corporate banking ⁽¹⁾	13,958	13,479
Global banking ⁽²⁾	11,109	13,519
Other commercial:		
Affiliates ⁽³⁾	2,793	1,100
Other	3,702	3,037
Total other commercial	6,495	4,137
Total commercial	39,796	41,599
Consumer loans:		
Residential mortgages	15,469	18,377
Home equity mortgages	325	727
Credit cards	204	1,066
Other consumer ⁽⁴⁾	70	319
Total consumer ⁽⁵⁾	16,068	20,489
Total loans	\$ 55,864	\$ 62,088

⁽¹⁾ Includes loans funded under the PPP which totaled \$262 million and \$1,043 million at December 31, 2021 and 2020, respectively. PPP loans are fully guaranteed by the Small Business Administration, if certain conditions are met.

⁽²⁾ Represents large multinational firms including globally focused U.S. corporate and financial institutions, U.S. dollar lending to multinational banking clients managed by HSBC on a global basis and complex large business clients supported by Global Banking and Markets relationship managers.

⁽³⁾ See Note 24, "Related Party Transactions," for additional information regarding loans to HSBC affiliates.

⁽⁴⁾ Included certain student loans that we have elected to designate under the fair value option and are therefore carried at fair value, which totaled \$32 million at December 31, 2020. These student loans were transferred to held for sale during the fourth quarter of 2021. See Note 17, "Fair Value Option," for further details.

⁽⁵⁾ The decrease in consumer loans at December 31, 2021 includes the impact of transfers of certain loans to held for sale during 2021. See Note 9, "Loans Held for Sale," for additional information.

We have loans outstanding to certain executive officers and directors. The loans were made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons and do not involve more than normal risk of collectibility. The aggregate amount of such loans did not exceed 5 percent of total equity at either December 31, 2021 or 2020.

Net deferred origination costs totaled \$40 million and \$57 million at December 31, 2021 and 2020, respectively. At December 31, 2021 and 2020, we had a net unamortized premium on our loans of \$5 million and \$9 million, respectively.

COVID-19 Loan Forbearance Initiatives We implemented various loan modification programs to provide borrowers relief from the economic impacts of the COVID-19 pandemic. Substantially all of the loans under these programs were not classified as TDR Loans due to our election to suspend TDR Loan classification under the CARES Act (which expired on January 1, 2022) or their short-term nature as discussed under the Interagency Statement. In addition, under the Interagency Statement, for COVID-19 related loan modifications in the form of a payment deferral, the borrower's past due status was not affected during the deferral period and, if the loan was accruing at the time the relief was granted, the loan was generally not placed on

nonaccrual status as long as the borrower utilized a payment deferral of six months or less. For consumer mortgage loans, when a borrower utilized a payment deferral of more than six months, the loan was generally placed on nonaccrual status and, if the loan did not meet the criteria in the CARES Act, assessed for TDR Loan classification. We did not modify our commercial loan nonaccrual policies as a result of this guidance. See Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," for further discussion.

Aging Analysis of Past Due Loans The following table summarizes the past due status of our loans at December 31, 2021 and 2020. The aging of past due amounts is determined based on the contractual delinquency status of payments under the loan. An account is generally considered to be contractually delinquent when payments have not been made in accordance with the loan terms. Delinquency status is affected by customer account management policies and practices such as re-age, which results in the re-setting of the contractual delinquency status to current. For COVID-19 related loan modifications in the form of a payment deferral, the borrower's past due status was not affected during the deferral period.

	Past Due		Total Past Due	Current ⁽¹⁾	Total Loans
	30 - 89 Days	90+ Days	30 Days or More		
(in millions)					
At December 31, 2021					
Commercial loans:					
Real estate, including construction	\$ 38	\$ —	\$ 38	\$ 8,196	\$ 8,234
Business and corporate banking	112	17	129	13,829	13,958
Global banking	—	27	27	11,082	11,109
Other commercial	47	—	47	6,448	6,495
Total commercial	197	44	241	39,555	39,796
Consumer loans:					
Residential mortgages	138	63	201	15,268	15,469
Home equity mortgages	2	1	3	322	325
Credit cards	5	2	7	197	204
Other consumer	1	—	1	69	70
Total consumer ⁽²⁾	146	66	212	15,856	16,068
Total loans	\$ 343	\$ 110	\$ 453	\$ 55,411	\$ 55,864
At December 31, 2020					
Commercial loans:					
Real estate, including construction	\$ 78	\$ —	\$ 78	\$ 10,386	\$ 10,464
Business and corporate banking	126	19	145	13,334	13,479
Global banking	—	60	60	13,459	13,519
Other commercial	24	—	24	4,113	4,137
Total commercial	228	79	307	41,292	41,599
Consumer loans:					
Residential mortgages	435	311	746	17,631	18,377
Home equity mortgages	11	22	33	694	727
Credit cards	23	19	42	1,024	1,066
Other consumer	7	6	13	306	319
Total consumer	476	358	834	19,655	20,489
Total loans	\$ 704	\$ 437	\$ 1,141	\$ 60,947	\$ 62,088

⁽¹⁾ Loans less than 30 days past due are presented as current.

⁽²⁾ The decrease in consumer past due loans at December 31, 2021 includes the impact of transfers of certain loans to held for sale during 2021, which collectively included \$419 million of consumer loans which were past due 30 days or more at the time of transfer. See Note 9, "Loans Held for Sale," for additional information.

Contractual Maturities Contractual maturities of loans outstanding at December 31, 2021 were as follows:

	2022	2023 - 2026	2027 - 2036	Thereafter	Total
	(in millions)				
Commercial loans:					
Real estate, including construction	\$ 4,843	\$ 3,183	\$ 202	\$ 6	\$ 8,234
Business and corporate banking	8,211	5,395	342	10	13,958
Global banking	6,535	4,294	272	8	11,109
Other commercial	3,821	2,511	159	4	6,495
Consumer loans:					
Residential mortgages	223	57	667	14,522	15,469
Home equity mortgages ⁽¹⁾	118	157	33	17	325
Credit cards ⁽²⁾	—	204	—	—	204
Other consumer	65	3	2	—	70
Total	<u>\$ 23,816</u>	<u>\$ 15,804</u>	<u>\$ 1,677</u>	<u>\$ 14,567</u>	<u>\$ 55,864</u>

⁽¹⁾ Home equity mortgage maturities reflect estimates based on historical payment patterns.

⁽²⁾ As credit card receivables do not have stated maturities, the table reflects an average estimate based on historical payment patterns.

As a substantial portion of consumer loans, based on our experience, will be renewed or repaid prior to contractual maturity, the above maturity schedule should not be regarded as a forecast of future cash collections. The following table summarizes loans outstanding at December 31, 2021 due after one year by repricing characteristic:

December 31, 2021	Receivables at Predetermined Interest Rates	Receivables at Floating or Adjustable Rates	Total Loans Due After One Year
	(in millions)		
Commercial loans:			
Real estate, including construction	\$ 240	\$ 3,151	\$ 3,391
Business and corporate banking	407	5,340	5,747
Global banking	324	4,250	4,574
Other commercial	189	2,485	2,674
Consumer loans:			
Residential mortgages	5,181	10,065	15,246
Home equity mortgages	23	184	207
Credit cards	26	178	204
Other consumer	—	5	5
Total	<u>\$ 6,390</u>	<u>\$ 25,658</u>	<u>\$ 32,048</u>

Nonperforming Loans Nonperforming loans, including nonaccrual loans and accruing loans contractually 90 days or more past due, consisted of the following:

	Nonaccrual Loans	Accruing Loans Contractually Past Due 90 Days or More	Nonaccrual Loans With No Allowance For Credit Losses
	(in millions)		
At December 31, 2021			
Commercial:			
Real estate, including construction	\$ 140	\$ —	\$ 20
Business and corporate banking	134	1	69
Global banking	105	—	63
Total commercial	379	1	152
Consumer:			
Residential mortgages ⁽¹⁾⁽²⁾⁽³⁾	229	—	55
Home equity mortgages ⁽¹⁾⁽²⁾	9	—	4
Credit cards	—	2	—
Other consumer	—	—	—
Total consumer ⁽⁴⁾	238	2	59
Total nonperforming loans	\$ 617	\$ 3	\$ 211
At December 31, 2020			
Commercial:			
Real estate, including construction	\$ 44	\$ —	\$ 31
Business and corporate banking	163	—	1
Global banking	337	—	93
Total commercial	544	—	125
Consumer:			
Residential mortgages ⁽¹⁾⁽²⁾⁽³⁾	1,079	—	241
Home equity mortgages ⁽¹⁾⁽²⁾	63	—	34
Credit cards	—	19	—
Other consumer	—	2	—
Total consumer	1,142	21	275
Total nonperforming loans	\$ 1,686	\$ 21	\$ 400

⁽¹⁾ At December 31, 2021 and 2020, nonaccrual consumer mortgage loans include \$86 million and \$375 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less cost to sell.

⁽²⁾ Nonaccrual consumer mortgage loans include all loans which are 90 or more days contractually delinquent as well as loans discharged under Chapter 7 bankruptcy and not re-affirmed and second lien loans where the first lien loan that we own or service is 90 or more days contractually delinquent. At December 31, 2021 and 2020, nonaccrual consumer mortgage loans also included \$12 million and \$590 million, respectively, of loans under COVID-19 related payment deferral programs where the borrowers utilized a payment deferral of more than six months and, as a result, have been placed on nonaccrual status.

⁽³⁾ Nonaccrual consumer mortgage loans for all periods does not include guaranteed loans purchased from the Government National Mortgage Association. Repayment of these loans is predominantly insured by the Federal Housing Administration and as such, these loans have different risk characteristics from the rest of our consumer loan portfolio.

⁽⁴⁾ The decrease in consumer nonperforming loans at December 31, 2021 includes the impact of transfers of certain loans to held for sale during 2021, which collectively included \$698 million of nonperforming consumer loans at the time of transfer, of which \$21 million were accruing loans contractually 90 days or more past due. See Note 9, "Loans Held for Sale," for additional information.

Interest income that was recorded on nonaccrual loans and included in interest income totaled \$34 million, \$12 million and \$15 million during the years ended December 31, 2021, 2020 and 2019, respectively.

Collateral-Dependent Loans Loans for which the repayment is expected to be provided substantially through the operation or sale of the collateral and the borrower is experiencing financial difficulty are considered to be collateral-dependent loans. Collateral can have a significant financial effect in mitigating our exposure to credit risk.

Collateral-dependent residential mortgage loans are carried at the lower of amortized cost or fair value of the collateral less costs to sell, with any excess in the carrying amount of the loan generally charged off at the time foreclosure is initiated or when

settlement is reached with the borrower, but not to exceed the end of the month in which the account becomes six months contractually delinquent. Collateral values are based on broker price opinions or appraisals which are updated at least every 180 days less estimated costs to sell. During the quarterly period between updates, real estate price trends are reviewed on a geographic basis and incorporated as necessary. At December 31, 2021 and 2020, we had collateral-dependent residential mortgage loans totaling \$214 million and \$817 million, respectively.

For collateral-dependent commercial loans, the allowance for expected credit losses is individually assessed based on the fair value of the collateral. Various types of collateral are used, including real estate, inventory, equipment, accounts receivable, securities and cash, among others. For commercial real estate loans, collateral values are generally based on appraisals which are updated based on management judgment under the specific circumstances on a case-by-case basis. In situations where an appraisal is not used, borrower-specific factors such as operating results, cash flows and debt service ratios are reviewed along with relevant market data of comparable properties in order to create a 10-year cash flow model to be discounted at appropriate rates to present value. The collateral value for securities is based on their quoted market prices or broker quotes. The collateral value for other financial assets is generally based on appraisals or is estimated using a discounted cash flow analysis. Commercial loan balances are charged off at the time all or a portion of the balance is deemed uncollectible. At December 31, 2021 and 2020, we had collateral-dependent commercial loans totaling \$347 million and \$456 million, respectively.

Troubled debt restructurings TDR Loans represent loans for which the original contractual terms have been modified to provide for terms that are less than what we would be willing to accept for new loans with comparable risk because of deterioration in the borrower's financial condition.

Modifications for consumer or commercial loans may include changes to one or more terms of the loan, including, but not limited to, a change in interest rate, extension of the amortization period, reduction in payment amount and partial forgiveness or deferment of principal, accrued interest or other loan covenants. A substantial amount of our modifications involve interest rate reductions on consumer loans, which lower the amount of interest income we are contractually entitled to receive in future periods. Through lowering the interest rate and other loan term changes, we believe we are able to increase the amount of cash flow that will ultimately be collected from the loan, given the borrower's financial condition. Once a consumer loan is classified as a TDR Loan, it continues to be reported as such until it is paid off or charged-off. For commercial loans, if subsequent performance is in accordance with the new terms and the loan is upgraded, it is possible the loan will no longer be reported as a TDR Loan at the earliest one year after the restructuring. During 2021 and 2020, there were no commercial loans that met this criteria and were removed from TDR Loan classification. During 2019, a \$12 million commercial loan met this criteria and was removed from TDR Loan classification.

As previously discussed, we implemented various loan modification payment deferral programs to provide borrowers relief from the economic impacts of COVID-19. Substantially all of the loans under these programs were not classified as TDR Loans due to our election to suspend TDR Loan classification under the CARES Act (which expired on January 1, 2022) or their short-term nature as discussed under the Interagency Statement. If a borrower is experiencing financial difficulty when the payment relief period ends, they may enter into a modification program to reduce the interest rate and/or extend the term of the loan which would result in the loan being classified as a TDR Loan. We currently have \$76 million of loans under COVID-19 related payment deferral programs that will need to be assessed for TDR Loan classification when they exit the program.

The following table summarizes our TDR Loans at December 31, 2021 and 2020:

At December 31,	2021	2020
	(in millions)	
Commercial loans:		
Business and corporate banking.....	\$ 38	\$ 94
Global banking.....	25	74
Total commercial ⁽¹⁾⁽²⁾	63	168
Consumer loans:		
Residential mortgages ⁽³⁾⁽⁴⁾	125	582
Home equity mortgages ⁽³⁾⁽⁴⁾	9	31
Credit cards.....	3	5
Total consumer ⁽⁵⁾	137	618
Total TDR Loans ⁽⁶⁾	\$ 200	\$ 786

⁽¹⁾ Additional commitments to lend to commercial borrowers whose loans have been modified in TDR Loans totaled \$13 million and \$107 million at December 31, 2021 and 2020, respectively.

- (2) Not included in the table at December 31, 2021 and 2020 are \$42 million and \$924 million, respectively, of commercial loans that were exempted from TDR assessment due to our CARES Act election.
- (3) At December 31, 2021 and 2020, the carrying value of consumer mortgage TDR Loans includes \$104 million and \$487 million, respectively, of loans that are recorded at the lower of amortized cost or fair value of the collateral less cost to sell.
- (4) Not included in the table at December 31, 2021 and 2020 are \$16 million and \$736 million, respectively, of consumer mortgage loans under COVID-19 related payment deferral programs where the borrowers were provided with extended payment deferral relief of more than six months that were exempted from TDR assessment due to our CARES Act election.
- (5) The decrease in consumer TDR Loans at December 31, 2021 includes the impact of transfers of certain loans to held for sale during 2021, which collectively included \$416 million of consumer TDR Loans at the time of transfer. See Note 9, "Loans Held for Sale," for additional information.
- (6) At December 31, 2021 and 2020, the carrying value of TDR Loans includes \$115 million and \$463 million, respectively, of loans which are classified as nonaccrual.

The following table presents information about loans which were modified during 2021, 2020 and 2019 and as a result of this action became classified as TDR Loans:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Commercial loans:			
Business and corporate banking	\$ 11	\$ 95	\$ —
Global banking	15	44	—
Total commercial	26	139	—
Consumer loans:			
Residential mortgages	36	78	8
Home equity mortgages	1	3	1
Credit cards	2	4	3
Total consumer	39	85	12
Total	\$ 65	\$ 224	\$ 12

The weighted-average contractual rate reduction for consumer loans which became classified as TDR Loans during 2021, 2020 and 2019 was 2.08 percent, 1.75 percent and 2.18 percent, respectively. The weighted-average contractual rate reduction for commercial loans was not significant in either the number of loans or rate.

The following table presents consumer loans which were classified as TDR Loans during the previous 12 months which subsequently became 60 days or greater contractually delinquent during the years ended December 31, 2021, 2020 and 2019:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Consumer loans:			
Residential mortgages	\$ 5	\$ 5	\$ 3
Total consumer	\$ 5	\$ 5	\$ 3

During the years ended December 31, 2021, 2020 and 2019, there were no commercial TDR Loans which were classified as TDR Loans during the previous 12 months which subsequently became 90 days or greater contractually delinquent.

Commercial Loan Credit Quality Indicators The following credit quality indicators are utilized to monitor our commercial loan portfolio:

Criticized loans Criticized loan classifications presented in the table below are determined by the assignment of various criticized facility grades based on the risk rating standards of our regulator. The following facility grades are deemed to be criticized:

Special Mention - generally includes loans that are protected by collateral and/or the credit worthiness of the customer, but are potentially weak based upon economic or market circumstances which, if not checked or corrected, could weaken our credit position at some future date.

Substandard - includes loans that are inadequately protected by the underlying collateral and/or general credit worthiness of the customer. These loans present a distinct possibility that we will sustain some loss if the deficiencies are not corrected.

Doubtful - includes loans that have all the weaknesses exhibited by substandard loans, with the added characteristic that the weaknesses make collection or liquidation in full of the recorded loan highly improbable. However, although the possibility of loss is extremely high, certain factors exist which may strengthen the credit at some future date, and therefore the decision to charge-off the loan is deferred. Loans graded as doubtful are required to be placed in nonaccrual status.

The following table summarizes our criticized commercial loans, including a disaggregation of the loans by year of origination as of December 31, 2021 and 2020:

	2021	2020	2019	2018	2017	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Dec. 31, 2021
(in millions)									
Real estate, including construction:									
Special mention	\$ —	\$ —	\$ 350	\$ 487	\$ 90	\$ 259	\$ —	\$ —	\$ 1,186
Substandard	—	1	272	263	308	461	20	11	1,336
Doubtful	—	—	80	2	—	53	—	—	135
Total real estate, including construction	—	1	702	752	398	773	20	11	2,657
Business and corporate banking:									
Special mention	—	1	91	60	26	274	173	—	625
Substandard	—	18	36	9	3	226	424	8	724
Doubtful	—	—	—	20	—	28	16	—	64
Total business and corporate banking	—	19	127	89	29	528	613	8	1,413
Global banking:									
Special mention	8	—	—	—	—	8	47	—	63
Substandard	—	—	—	—	—	54	232	—	286
Doubtful	—	—	—	—	—	—	31	—	31
Total global banking	8	—	—	—	—	62	310	—	380
Other commercial:									
Special mention	—	—	—	—	—	7	—	—	7
Substandard	—	—	—	—	—	—	40	—	40
Doubtful	—	—	—	—	—	—	—	—	—
Total other commercial	—	—	—	—	—	7	40	—	47
Total commercial:									
Special mention	8	1	441	547	116	548	220	—	1,881
Substandard	—	19	308	272	311	741	716	19	2,386
Doubtful	—	—	80	22	—	81	47	—	230
Total commercial	<u>\$ 8</u>	<u>\$ 20</u>	<u>\$ 829</u>	<u>\$ 841</u>	<u>\$ 427</u>	<u>\$ 1,370</u>	<u>\$ 983</u>	<u>\$ 19</u>	<u>\$ 4,497</u>

	2020	2019	2018	2017	2016	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Dec. 31, 2020
(in millions)									
Real estate, including construction:									
Special mention	\$ —	\$ 306	\$ 115	\$ 171	\$ 85	\$ 437	\$ —	\$ —	\$ 1,114
Substandard	—	186	—	169	—	86	—	—	441
Doubtful	—	—	—	—	—	—	—	—	—
Total real estate, including construction	—	492	115	340	85	523	—	—	1,555
Business and corporate banking:									
Special mention	17	71	43	32	10	390	600	48	1,211
Substandard	1	44	25	23	31	181	435	1	741
Doubtful	—	—	—	—	—	41	57	—	98
Total business and corporate banking	18	115	68	55	41	612	1,092	49	2,050
Global banking:									
Special mention	—	—	—	—	—	142	98	—	240
Substandard	—	—	48	—	—	131	477	—	656
Doubtful	—	—	—	—	—	82	160	—	242
Total global banking	—	—	48	—	—	355	735	—	1,138
Other commercial:									
Special mention	—	—	—	—	—	44	40	—	84
Substandard	—	—	—	—	—	70	—	—	70
Doubtful	—	—	—	—	—	—	—	—	—
Total other commercial	—	—	—	—	—	114	40	—	154
Total commercial:									
Special mention	17	377	158	203	95	1,013	738	48	2,649
Substandard	1	230	73	192	31	468	912	1	1,908
Doubtful	—	—	—	—	—	123	217	—	340
Total commercial	<u>\$ 18</u>	<u>\$ 607</u>	<u>\$ 231</u>	<u>\$ 395</u>	<u>\$ 126</u>	<u>\$ 1,604</u>	<u>\$ 1,867</u>	<u>\$ 49</u>	<u>\$ 4,897</u>

Nonperforming The following table summarizes the nonperforming status of our commercial loan portfolio, including a disaggregation of the loans by year of origination as of December 31, 2021 and 2020:

	2021	2020	2019	2018	2017	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Dec. 31, 2021
(in millions)									
Real estate, including construction:									
Performing loans	\$ 969	\$ 651	\$ 2,436	\$ 2,076	\$ 593	\$ 1,307	\$ 46	\$ 16	\$ 8,094
Nonaccrual loans	—	2	80	40	—	18	—	—	140
Total real estate, including construction	969	653	2,516	2,116	593	1,325	46	16	8,234
Business and corporate banking:									
Performing loans	1,630	709	594	190	187	4,756	5,540	217	13,823
Nonaccrual loans	—	4	14	30	51	1	34	—	134
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	1	—	1
Total business and corporate banking	1,630	713	608	220	238	4,757	5,575	217	13,958
Global banking:									
Performing loans	547	540	203	80	243	4,580	4,811	—	11,004
Nonaccrual loans	—	—	—	—	—	40	65	—	105
Total global banking	547	540	203	80	243	4,620	4,876	—	11,109
Other commercial:									
Performing loans	589	552	451	174	110	1,045	3,574	—	6,495
Total other commercial	589	552	451	174	110	1,045	3,574	—	6,495
Total commercial:									
Performing loans	3,735	2,452	3,684	2,520	1,133	11,688	13,971	233	39,416
Nonaccrual loans	—	6	94	70	51	59	99	—	379
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	1	—	1
Total commercial	\$ 3,735	\$ 2,458	\$ 3,778	\$ 2,590	\$ 1,184	\$ 11,747	\$ 14,071	\$ 233	\$ 39,796
(in millions)									
	2020	2019	2018	2017	2016	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Dec. 31, 2020
Real estate, including construction:									
Performing loans	\$ 545	\$ 3,775	\$ 2,775	\$ 1,368	\$ 264	\$ 1,594	\$ 79	\$ 20	\$ 10,420
Nonaccrual loans	—	—	24	—	—	20	—	—	44
Total real estate, including construction	545	3,775	2,799	1,368	264	1,614	79	20	10,464
Business and corporate banking:									
Performing loans	1,079	606	253	275	151	3,485	7,145	322	13,316
Nonaccrual loans	1	15	12	60	1	3	71	—	163
Total business and corporate banking	1,080	621	265	335	152	3,488	7,216	322	13,479
Global banking:									
Performing loans	507	495	190	231	104	6,023	5,632	—	13,182
Nonaccrual loans	—	—	—	—	—	127	210	—	337
Total global banking	507	495	190	231	104	6,150	5,842	—	13,519
Other commercial:									
Performing loans	378	431	215	105	119	630	2,259	—	4,137
Total other commercial	378	431	215	105	119	630	2,259	—	4,137
Total commercial:									
Performing loans	2,509	5,307	3,433	1,979	638	11,732	15,115	342	41,055
Nonaccrual loans	1	15	36	60	1	150	281	—	544
Total commercial	\$ 2,510	\$ 5,322	\$ 3,469	\$ 2,039	\$ 639	\$ 11,882	\$ 15,396	\$ 342	\$ 41,599

Credit risk profile Commercial loans are assigned a credit rating based on the estimated probability of default. Investment grade includes loans with credit ratings of at least BBB- or above or the equivalent based on our internal credit rating system. The following table summarizes the credit risk profile of our commercial loan portfolio, including a disaggregation of the loans by year of origination as of December 31, 2021 and 2020:

	2021	2020	2019	2018	2017	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Dec. 31, 2021
(in millions)									
Real estate, including construction:									
Investment grade	\$ 1	\$ 361	\$ 491	\$ 772	\$ 57	\$ 248	\$ 12	\$ —	\$ 1,942
Non-investment grade	968	292	2,025	1,344	536	1,077	34	16	6,292
Total real estate, including construction	969	653	2,516	2,116	593	1,325	46	16	8,234
Business and corporate banking:									
Investment grade	881	254	240	52	43	2,122	2,498	55	6,145
Non-investment grade	749	459	368	168	195	2,635	3,077	162	7,813
Total business and corporate banking	1,630	713	608	220	238	4,757	5,575	217	13,958
Global banking:									
Investment grade	530	539	189	64	235	3,910	4,240	—	9,707
Non-investment grade	17	1	14	16	8	710	636	—	1,402
Total global banking	547	540	203	80	243	4,620	4,876	—	11,109
Other commercial:									
Investment grade	120	442	153	174	69	943	3,527	—	5,428
Non-investment grade	469	110	298	—	41	102	47	—	1,067
Total other commercial	589	552	451	174	110	1,045	3,574	—	6,495
Total commercial:									
Investment grade	1,532	1,596	1,073	1,062	404	7,223	10,277	55	23,222
Non-investment grade	2,203	862	2,705	1,528	780	4,524	3,794	178	16,574
Total commercial	<u>\$ 3,735</u>	<u>\$ 2,458</u>	<u>\$ 3,778</u>	<u>\$ 2,590</u>	<u>\$ 1,184</u>	<u>\$ 11,747</u>	<u>\$ 14,071</u>	<u>\$ 233</u>	<u>\$ 39,796</u>
(in millions)									
	2020	2019	2018	2017	2016	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Dec. 31, 2020
Real estate, including construction:									
Investment grade	\$ 339	\$ 1,123	\$ 817	\$ 318	\$ 179	\$ 640	\$ 6	\$ —	\$ 3,422
Non-investment grade	206	2,652	1,982	1,050	85	974	73	20	7,042
Total real estate, including construction	545	3,775	2,799	1,368	264	1,614	79	20	10,464
Business and corporate banking:									
Investment grade	342	147	37	34	23	1,486	2,499	47	4,615
Non-investment grade	738	474	228	301	129	2,002	4,717	275	8,864
Total business and corporate banking	1,080	621	265	335	152	3,488	7,216	322	13,479
Global banking:									
Investment grade	464	477	46	231	30	4,618	4,281	—	10,147
Non-investment grade	43	18	144	—	74	1,532	1,561	—	3,372
Total global banking	507	495	190	231	104	6,150	5,842	—	13,519
Other commercial:									
Investment grade	372	163	117	105	116	525	1,932	—	3,330
Non-investment grade	6	268	98	—	3	105	327	—	807
Total other commercial	378	431	215	105	119	630	2,259	—	4,137
Total commercial:									
Investment grade	1,517	1,910	1,017	688	348	7,269	8,718	47	21,514
Non-investment grade	993	3,412	2,452	1,351	291	4,613	6,678	295	20,085
Total commercial	<u>\$ 2,510</u>	<u>\$ 5,322</u>	<u>\$ 3,469</u>	<u>\$ 2,039</u>	<u>\$ 639</u>	<u>\$ 11,882</u>	<u>\$ 15,396</u>	<u>\$ 342</u>	<u>\$ 41,599</u>

Consumer Loan Credit Quality Indicators The following credit quality indicators are utilized to monitor our consumer loan portfolio:

Delinquency The following table summarizes dollars of two-months-and-over contractual delinquency for our consumer loan portfolio, including a disaggregation of the loans by year of origination as of December 31, 2021 and 2020:

	2021	2020	2019	2018	2017	Prior	Revolving Loans	Total at Dec. 31, 2021
(in millions)								
Residential mortgages ⁽¹⁾⁽²⁾	\$ 5	\$ 2	\$ 11	\$ 13	\$ 8	\$ 64	\$ —	\$ 103
Home equity mortgages ⁽¹⁾⁽²⁾	—	—	—	—	—	1	—	1
Credit cards	—	—	—	—	—	—	3	3
Other consumer	—	—	—	—	—	—	—	—
Total consumer	<u>\$ 5</u>	<u>\$ 2</u>	<u>\$ 11</u>	<u>\$ 13</u>	<u>\$ 8</u>	<u>\$ 65</u>	<u>\$ 3</u>	<u>\$ 107</u>
(in millions)								
Residential mortgages ⁽¹⁾⁽²⁾	\$ 3	\$ 15	\$ 13	\$ 25	\$ 19	\$ 329	\$ —	\$ 404
Home equity mortgages ⁽¹⁾⁽²⁾	—	—	—	—	—	25	—	25
Credit cards	—	—	—	—	—	—	28	28
Other consumer	1	1	—	—	—	4	2	8
Total consumer	<u>\$ 4</u>	<u>\$ 16</u>	<u>\$ 13</u>	<u>\$ 25</u>	<u>\$ 19</u>	<u>\$ 358</u>	<u>\$ 30</u>	<u>\$ 465</u>

⁽¹⁾ At December 31, 2021 and 2020, consumer mortgage loan delinquency includes \$24 million and \$281 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less cost to sell.

⁽²⁾ At December 31, 2021 and 2020, consumer mortgage loans include \$87 million and \$109 million, respectively, of loans that were in the process of foreclosure.

Nonperforming The following table summarizes the nonperforming status of our consumer loan portfolio, including a disaggregation of the loans by year of origination as of December 31, 2021 and 2020:

	2021	2020	2019	2018	2017	Prior	Revolving Loans	Total at Dec. 31, 2021
(in millions)								
Residential mortgages:								
Performing loans	\$ 4,496	\$ 3,296	\$ 1,481	\$ 851	\$ 955	\$ 4,161	\$ —	\$ 15,240
Nonaccrual loans	2	9	15	21	14	168	—	229
Total residential mortgages	<u>4,498</u>	<u>3,305</u>	<u>1,496</u>	<u>872</u>	<u>969</u>	<u>4,329</u>	<u>—</u>	<u>15,469</u>
Home equity mortgages:								
Performing loans	15	30	30	18	17	206	—	316
Nonaccrual loans	—	—	—	—	—	9	—	9
Total home equity mortgages	<u>15</u>	<u>30</u>	<u>30</u>	<u>18</u>	<u>17</u>	<u>215</u>	<u>—</u>	<u>325</u>
Credit cards:								
Performing loans	—	—	—	—	—	—	202	202
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	2	2
Total credit cards	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>204</u>	<u>204</u>
Other consumer:								
Performing loans	8	8	5	1	1	45	2	70
Total other consumer	<u>8</u>	<u>8</u>	<u>5</u>	<u>1</u>	<u>1</u>	<u>45</u>	<u>2</u>	<u>70</u>
Total consumer:								
Performing loans	<u>4,519</u>	<u>3,334</u>	<u>1,516</u>	<u>870</u>	<u>973</u>	<u>4,412</u>	<u>204</u>	<u>15,828</u>
Nonaccrual loans	<u>2</u>	<u>9</u>	<u>15</u>	<u>21</u>	<u>14</u>	<u>177</u>	<u>—</u>	<u>238</u>
Accruing loans contractually past due 90 days or more	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>2</u>	<u>2</u>
Total consumer	<u>\$ 4,521</u>	<u>\$ 3,343</u>	<u>\$ 1,531</u>	<u>\$ 891</u>	<u>\$ 987</u>	<u>\$ 4,589</u>	<u>\$ 206</u>	<u>\$ 16,068</u>

	2020	2019	2018	2017	2016	Prior	Revolving Loans	Total at Dec. 31, 2020
(in millions)								
Residential mortgages:								
Performing loans	\$ 4,491	\$ 2,369	\$ 1,338	\$ 1,572	\$ 1,852	\$ 5,676	\$ —	\$ 17,298
Nonaccrual loans	38	107	93	86	78	677	—	1,079
Total residential mortgages	4,529	2,476	1,431	1,658	1,930	6,353	—	18,377
Home equity mortgages:								
Performing loans	50	51	33	34	45	451	—	664
Nonaccrual loans	—	—	1	1	2	59	—	63
Total home equity mortgages	50	51	34	35	47	510	—	727
Credit cards:								
Performing loans	—	—	—	—	—	—	1,047	1,047
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	19	19
Total credit cards	—	—	—	—	—	—	1,066	1,066
Other consumer:								
Performing loans	87	39	—	1	8	128	54	317
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	2	2
Total other consumer	87	39	—	1	8	128	56	319
Total consumer:								
Performing loans	4,628	2,459	1,371	1,607	1,905	6,255	1,101	19,326
Nonaccrual loans	38	107	94	87	80	736	—	1,142
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	21	21
Total consumer	<u>\$ 4,666</u>	<u>\$ 2,566</u>	<u>\$ 1,465</u>	<u>\$ 1,694</u>	<u>\$ 1,985</u>	<u>\$ 6,991</u>	<u>\$ 1,122</u>	<u>\$ 20,489</u>

Troubled debt restructurings The following table summarizes TDR Loans in our consumer loan portfolio, including a disaggregation of the loans by year of origination as of December 31, 2021 and 2020:

	2021	2020	2019	2018	2017	Prior	Revolving Loans	Total at Dec. 31, 2021
(in millions)								
Residential mortgages	\$ —	\$ 1	\$ 3	\$ 3	\$ —	\$ 118	\$ —	\$ 125
Home equity mortgages	—	—	—	—	—	9	—	9
Credit cards	—	—	—	—	—	—	3	3
Total consumer	<u>\$ —</u>	<u>\$ 1</u>	<u>\$ 3</u>	<u>\$ 3</u>	<u>\$ —</u>	<u>\$ 127</u>	<u>\$ 3</u>	<u>\$ 137</u>
(in millions)								
Residential mortgages	\$ 3	\$ 5	\$ 6	\$ 3	\$ 2	\$ 563	\$ —	\$ 582
Home equity mortgages	—	—	—	—	—	31	—	31
Credit cards	—	—	—	—	—	—	5	5
Total consumer	<u>\$ 3</u>	<u>\$ 5</u>	<u>\$ 6</u>	<u>\$ 3</u>	<u>\$ 2</u>	<u>\$ 594</u>	<u>\$ 5</u>	<u>\$ 618</u>

Concentration of Credit Risk At December 31, 2021 and 2020, our loan portfolios included interest-only residential mortgage and home equity mortgage loans totaling \$3,739 million and \$3,597 million, respectively. An interest-only residential mortgage loan allows a customer to pay the interest-only portion of the monthly payment for a period of time which results in lower payments during the initial loan period. However, subsequent events affecting a customer's financial position could affect the ability of customers to repay the loan in the future when the principal payments are required which increases the credit risk of this loan type.

8. Allowance for Credit Losses

As discussed further in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," beginning January 1, 2020, an allowance for credit losses is recognized based on lifetime ECL for loans, securities held-to-maturity and certain other financial assets measured at amortized cost, and an allowance for credit losses is also recognized for securities available-for-sale. Prior to January 1, 2020, an allowance for credit losses was recognized based on probable incurred losses for loans only while debt securities were assessed for other-than-temporary impairment. In addition, beginning January 1, 2020, the liability for off-balance sheet credit exposures is recognized based on lifetime ECL while, prior to January 1, 2020, it was recognized based on probable incurred losses. The new guidance also requires inclusion of expected recoveries of amounts previously written off, limited to the cumulative amount of prior write-offs, when estimating the allowance for credit losses for in scope financial assets (including collateral-dependent assets). Prior to January 1, 2020, these expected recoveries were not recognized.

Description of Economic Scenarios at December 31, 2021 and Other Changes During the Year Ended December 31, 2021

Although economic conditions improved during 2021, the impact of the COVID-19 pandemic continues to create uncertainty about the future economic environment. As a result, we updated our three Consensus Economic Scenarios and our Alternative Downside scenario to reflect management's current view of forecasted economic conditions and utilized the four updated scenarios for estimating lifetime ECL at December 31, 2021. Each of the four scenarios were assigned weightings with the majority of the weighting placed on the Central scenario, lower equal weights placed on the Downside and Alternative Downside scenarios, and the lowest weighting placed on the Upside scenario. This weighting was deemed appropriate for the estimation of lifetime ECL under current conditions. The following discussion summarizes the Central, Upside, Downside and Alternative Downside scenarios at December 31, 2021. The economic assumptions described in this section have been formed specifically for the purpose of calculating ECL.

In the Central scenario, GDP maintains its strong recovery path and carries its expansion into 2022, under the assumption that economic activities continue to grow while impact from new COVID-19 infections subsides. With a strong economic recovery, the unemployment rate continues on its downward trend, while demand for housing, combined with limited supply, continues to drive the residential housing market to carry its growth momentum into 2022. Commercial real estate prices continue the recent trend of appreciation, after a period of sluggish growth driven by pandemic induced adjustments. In the financial markets, growth in financial asset prices remains moderate, the federal funds rate remains at the current near-zero level until mid-2022, and the 10-year U.S. Treasury yield continues to rise.

In the Upside scenario, the economy is assumed to grow at a faster pace than in the Central scenario. As a result, the unemployment rate falls faster than in the Central scenario and, both commercial and residential real estate prices grow at faster rates than in the Central Scenario. In this scenario, the equity price index climbs with strong momentum, and overall optimism allows the Federal Reserve Board ("FRB") to start normalizing monetary policy earlier than currently anticipated, which consequently drives the 10-year U.S. Treasury yield to a level that is substantially higher than in the Central Scenario.

In the Downside scenario, the economy stagnates, with the unemployment rate reversing its downward trend and remaining at a higher level. In this scenario, the residential housing market slowly loses its momentum in 2022 due to weakness in the labor market, and the commercial real estate market suffers a heavier deceleration than the residential housing market. The equity price index in this scenario loses about half of its value by the middle of 2023, driven by an overall erosion of consumer and business sentiments, which also results in a lower 10-year U.S. Treasury yield than in the Central Scenario, and the federal funds rate remains at the lowest level for the next two years.

In the Alternative Downside scenario, the U.S. economy re-enters into a recession in early 2022 and stays in until mid-2023, followed by a very anemic recovery thereafter. An extended period of economic contraction keeps the unemployment rate at a very high level, which pressures residential housing prices to fall moderately, while at the same time, contracting corporate activities and rising unemployment pushes the commercial real estate market into a severe downturn. In this scenario, financial markets experience a major sell-off and volatility in the financial markets remains extremely high over the next year, widening corporate credit spreads substantially, and flight to safe haven assets pushes the 10-year U.S. Treasury yield lower.

The following table presents the forecasted key macroeconomic variables in our Central scenarios used for estimating lifetime ECL at December 31, 2021 and December 31, 2020:

	For the Quarter Ended	
	June 30, 2022	December 31, 2022
Unemployment rate (quarterly average):		
Forecast at December 31, 2021	4.3 %	4.0 %
Forecast at December 31, 2020	5.9	5.4
GDP growth rate (year-over-year):		
Forecast at December 31, 2021	4.1	2.8
Forecast at December 31, 2020	3.1	1.8

In addition to the updates to the economic scenarios, we decreased the management judgment allowance on our commercial loan portfolio for risk factors associated with economic uncertainty, large loan exposures and higher risk industry exposures that are not fully captured in the models. The decrease for risk factors associated with higher risk industry exposures reflects the transfer of certain commercial real estate loans to held for sale during the third quarter of 2021, which resulted in the reversal of the existing allowance for credit losses on these loans totaling \$24 million. We also decreased the management judgment allowance on our consumer loan portfolio for risk factors associated with economic uncertainty and forbearance accounts that are not fully captured in the models. The decrease in the management judgment allowance on our consumer loan portfolio reflects the transfers of certain loans to held for sale. As previously disclosed, during the second quarter of 2021, we made the decision to exit our mass market retail banking business as well as our remaining retail credit card portfolio which resulted in the transfer of certain loans to held for sale and the reversal or charge-off of the existing allowances for credit losses on these loans which collectively totaled \$157 million. During the fourth quarter of 2021, a portfolio of Premier credit cards was transferred back to held for investment which resulted in an increase in the allowance for credit losses of \$14 million. During the fourth quarter of 2021, we also transferred certain non-performing mortgage loans and government-backed mortgage loans to held for sale which resulted in the reversal of the existing allowance for expected recoveries on these loans totaling \$22 million.

While we believe that the assumptions used in our credit loss models are reasonable within the parameters for which the models have been built and calibrated to operate, the severe projections of macro-economic variables during the current COVID-19 pandemic represent events outside the parameters for which the models have been built. As a result, adjustments to model outputs to reflect consideration of management judgment are used with stringent governance in place to ensure an appropriate lifetime ECL estimate.

The circumstances around the COVID-19 pandemic are evolving and will continue to impact our business and our allowance for credit losses in future periods. The details of how various U.S. Government actions will impact our customers and therefore the impact on our allowance for credit losses remains uncertain. We will continue to monitor the COVID-19 situation closely and will continue to adapt our Consensus Economic Scenarios approach as necessary to reflect management's current view of forecasted economic conditions.

Allowance for Credit Losses / Liability for Off-Balance Sheet Credit Exposures The following table summarizes our allowance for credit losses and the liability for off-balance sheet credit exposures:

At December 31,	2021	2020
	(in millions)	
Allowance for credit losses:		
Loans	\$ 447	\$ 1,015
Securities held-to-maturity ⁽¹⁾	1	2
Other financial assets measured at amortized cost ⁽²⁾	1	2
Securities available-for-sale ⁽¹⁾	1	1
Total allowance for credit losses	<u>\$ 450</u>	<u>\$ 1,020</u>
Liability for off-balance sheet credit exposures	\$ 103	\$ 237

⁽¹⁾ See Note 6, "Securities," for additional information regarding the allowance for credit losses associated with our security portfolios.

⁽²⁾ Primarily includes accrued interest receivables and customer acceptances.

The following table summarizes the changes in the allowance for credit losses on loans by product or line of business during the years ended December 31, 2021, 2020 and 2019:

	Commercial Loans				Consumer Loans					
	Real Estate, including Construction	Business and Corporate Banking	Global Banking	Other Comm'l	Residential Mortgages	Home Equity Mortgages	Credit Cards	Other Consumer	Total Loans	
	(in millions)									
Year Ended December 31, 2021										
Allowance for credit losses – beginning of period.....	\$ 145	\$ 375	\$ 287	\$ 7	\$ (9)	\$ 22	\$ 161	\$ 27	\$ 1,015	
Provision charged (credited) to income ⁽¹⁾	(72)	(107)	(174)	(3)	21	(18)	(66)	(18)	(437)	
Charge-offs ⁽¹⁾	—	(29)	(13)	—	(19)	(5)	(89)	(10)	(165)	
Recoveries.....	—	4	—	—	15	6	8	1	34	
Net (charge-offs) recoveries.....	—	(25)	(13)	—	(4)	1	(81)	(9)	(131)	
Allowance for credit losses – end of period.....	<u>\$ 73</u>	<u>\$ 243</u>	<u>\$ 100</u>	<u>\$ 4</u>	<u>\$ 8</u>	<u>\$ 5</u>	<u>\$ 14</u>	<u>\$ —</u>	<u>\$ 447</u>	
Year Ended December 31, 2020										
Allowance for credit losses – beginning of period.....	\$ 153	\$ 239	\$ 106	\$ 9	\$ 12	\$ 6	\$ 105	\$ 7	\$ 637	
Cumulative effect adjustment to initially apply new accounting guidance for measuring credit losses ⁽²⁾	(112)	(60)	51	(5)	(86)	7	32	3	(170)	
Allowance for credit losses – beginning of period, adjusted.....	41	179	157	4	(74)	13	137	10	467	
Provision charged (credited) to income.....	116	274	149	2	55	6	107	27	736	
Charge-offs.....	(12)	(90)	(20)	—	(2)	(3)	(90)	(11)	(228)	
Recoveries.....	—	12	1	1	12	6	7	1	40	
Net (charge-offs) recoveries.....	(12)	(78)	(19)	1	10	3	(83)	(10)	(188)	
Allowance for credit losses – end of period.....	<u>\$ 145</u>	<u>\$ 375</u>	<u>\$ 287</u>	<u>\$ 7</u>	<u>\$ (9)</u>	<u>\$ 22</u>	<u>\$ 161</u>	<u>\$ 27</u>	<u>\$ 1,015</u>	
Year Ended December 31, 2019										
Allowance for credit losses – beginning of period.....	\$ 116	\$ 219	\$ 108	\$ 15	\$ 13	\$ 7	\$ 58	\$ 5	\$ 541	
Provision charged (credited) to income.....	37	62	1	(6)	(3)	(2)	101	5	195	
Charge-offs.....	—	(45)	(3)	—	(8)	(4)	(60)	(5)	(125)	
Recoveries.....	—	3	—	—	10	5	6	2	26	
Net (charge-offs) recoveries.....	—	(42)	(3)	—	2	1	(54)	(3)	\$ (99)	
Allowance for credit losses – end of period.....	<u>\$ 153</u>	<u>\$ 239</u>	<u>\$ 106</u>	<u>\$ 9</u>	<u>\$ 12</u>	<u>\$ 6</u>	<u>\$ 105</u>	<u>\$ 7</u>	<u>\$ 637</u>	

⁽¹⁾ For loans that are transferred to held for sale, the existing allowance for credit losses at the time of transfer is recognized as a charge-off to the extent fair value is less than amortized cost and attributable to credit. Any remaining allowance for credit losses is released to the provision for credit losses.

During the second quarter of 2021, we made the decision to exit our mass market retail banking business as well as our remaining retail credit card portfolio which resulted in the transfer of certain loans to held for sale. As a result of transferring these loans to held for sale, we recognized \$56 million of the existing allowance for credit losses on consumer loans as charge-offs, primarily related to non-performing credit cards, and released \$100 million of the existing allowance for credit losses on consumer loans as reductions to the provision for credit losses, primarily related to credit cards. The existing commercial allowance for credit losses on the retail business banking loan portfolio transferred to held for sale was not material. See Note 4, "Branch Assets and Liabilities Held for Sale." During the fourth quarter of 2021, a portfolio of Premier credit cards was transferred back to held for investment which resulted in increases to the allowance for credit losses and provision for credit losses of \$14 million.

During the third quarter of 2021, we transferred certain commercial real estate loans to held for sale and, as a result, we released \$24 million of the existing allowance for credit losses as a reduction to the provision for credit losses.

During the fourth quarter of 2021, we also transferred certain non-performing mortgage loans and government-backed mortgage loans to held for sale. As a result, we recognized \$4 million of the existing allowance for credit losses as charge-offs and released \$22 million of the existing allowance for expected recoveries on these loans as an increase to the provision for credit losses.

⁽²⁾ Reflects the adoption of new accounting guidance in 2020 as discussed above. In addition, see Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," for further discussion.

The following table summarizes the changes in the liability for off-balance sheet credit exposures during the years ended December 31, 2021, 2020 and 2019:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Balance at beginning of period	\$ 237	\$ 104	\$ 96
Cumulative effect adjustment to initially apply new accounting guidance for measuring credit losses ⁽¹⁾	—	54	—
Balance at beginning of period, adjusted	237	158	96
Provision charged (credited) to income	(134)	79	8
Balance at end of period	<u>\$ 103</u>	<u>\$ 237</u>	<u>\$ 104</u>

⁽¹⁾ Reflects the adoption of new accounting guidance in 2020 as discussed above. In addition, see Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," for further discussion.

Accrued Interest Receivables The following table summarizes accrued interest receivables associated with financial assets carried at amortized cost and securities available-for-sale along with the related allowance for credit losses, which are reported net in other assets on the consolidated balance sheet. These accrued interest receivables are excluded from the amortized cost basis disclosures presented elsewhere in these financial statements, including Note 6, "Securities," and Note 7, "Loans."

At December 31,	2021	2020
	(in millions)	
Accrued interest receivables:		
Loans	\$ 109	\$ 140
Securities held-to-maturity	13	23
Other financial assets measured at amortized cost	1	1
Securities available-for-sale	82	100
Total accrued interest receivables	205	264
Allowance for credit losses	1	2
Accrued interest receivables, net	<u>\$ 204</u>	<u>\$ 262</u>

During 2021 and 2020, we charged-off accrued interest receivables by reversing interest income for loans of \$5 million and \$7 million, respectively.

9. Loans Held for Sale

Loans held for sale consisted of the following:

At December 31,	2021	2020
	(in millions)	
Commercial loans:		
Real estate, including construction	\$ —	\$ 10
Business and corporate banking	123	—
Global banking	338	119
Total commercial	461	129
Consumer loans:		
Residential mortgages	3,082	208
Home equity mortgages	275	—
Credit cards	195	—
Other consumer	204	—
Total consumer	3,756	208
Total loans held for sale	\$ 4,217	\$ 337

Commercial Loans During the second quarter of 2021, as part of our Restructuring Plan we made the decision to exit our mass market retail banking business. See Note 4, "Branch Assets and Liabilities Held for Sale," for additional information. As a result, during the second quarter of 2021, we transferred our retail business banking loan portfolio to held for sale with a carrying value of \$149 million. The lower of amortized cost or fair value adjustment upon transferring these loans to held for sale was not material. At December 31, 2021, the carrying value of these loans was \$79 million.

Also included in commercial loans held for sale are certain other loans that we no longer intend to hold for investment and were transferred to held for sale which totaled \$359 million and \$93 million at December 31, 2021 and 2020, respectively. During 2021, 2020 and 2019, we recorded \$7 million, \$23 million and nil, respectively, of lower of amortized cost or fair value adjustments associated with the write-down of these commercial loans held for sale as a component of other income (loss) in the consolidated statement of income (loss).

During the fourth quarter of 2021, we sold a portfolio of commercial real estate loans to a third-party sponsored asset-backed financing entity with a carrying value of \$1,032 million at the time of sale and recognized an immaterial loss on sale, including transaction costs. These commercial real estate loans were transferred to held for sale during the third quarter of 2021 as part of an effort to reduce exposure to this sector and improve returns on risk-weighted assets. There was no lower of amortized cost or fair value adjustment recorded upon transferring these loans to held for sale. In connection with the sale, we provided a loan to the third-party buyer sponsored asset-backed financing entity for a portion of the purchase price. See Note 27, "Variable Interest Entities," for additional information.

In addition, commercial loans held for sale includes certain loans that we have elected to designate under the fair value option which consists of loans that we originate in connection with our participation in a number of syndicated credit facilities with the intent of selling them to unaffiliated third parties as well as loans that we purchase from the secondary market and hold as hedges against our exposure to certain total return swaps. The fair value of these loans totaled \$23 million and \$36 million at December 31, 2021 and 2020, respectively. See Note 17, "Fair Value Option," for additional information.

Consumer Loans As discussed above, during the second quarter of 2021, as part of our Restructuring Plan we made the decision to exit our mass market retail banking business as well as our remaining retail credit card portfolio. As a result, during the second quarter of 2021, we transferred certain consumer loans to held for sale, including loans related to the branch disposal group, with a carrying value which collectively totaled \$3,616 million, including \$2,364 million of residential mortgages, \$265 million of home equity mortgages, \$829 million of credit cards and \$158 million of other consumer loans. There was no lower of amortized cost or fair value adjustment recorded upon transferring these loans to held for sale. During the second half of 2021, we recorded \$7 million of lower of amortized cost or fair value adjustments on these consumer loans held for sale as a component of other income (loss) in the consolidated statement of income (loss) as a result of a reduction in the estimated pricing on specific pools of loans.

During the fourth quarter of 2021, consistent with our Restructuring Plan, we identified additional consumer loans that we no longer have the intent to hold for investment, consisting primarily of certain non-performing mortgage loans and government-backed mortgage loans as well as our remaining student loans. As a result, during the fourth quarter of 2021, we transferred

loans to held for sale with a carrying value which collectively totaled \$778 million, including related escrow advances. The lower of amortized cost or fair value adjustment upon transferring these loans to held for sale was not material. At December 31, 2021, the carrying value of these transferred loans totaled \$3,681 million, including \$3,007 million of residential mortgages, \$275 million of home equity mortgages, \$195 million of credit cards and \$204 million of other consumer loans (of which \$25 million are student loans that we have previously elected to designate under the fair value option and are therefore carried at fair value).

During the fourth quarter of 2021, we sold a portfolio of mass market retail credit cards to a third party with a carrying value of \$382 million at the time of sale and recognized a gain on sale of approximately \$9 million, net of transaction costs. Under the terms of the sale agreement, we will continue to service the portfolio for a period of time not anticipated to exceed one year. Upon completion of the sale, a portfolio of Premier credit cards with a carrying value of \$204 million was transferred back to held for investment as we now intend to hold these loans for the foreseeable future. These credit card portfolios were transferred to held for sale during the second quarter of 2021 as discussed above, but were not included in the branch disposal group.

Also included in residential mortgage loans held for sale are agency-eligible conforming residential mortgage loans which are originated and held for sale to third parties, currently on a servicing retained basis. Gains and losses from the sale of these residential mortgage loans are reflected as a component of other income (loss) in the consolidated statement of income (loss).

Loans held for sale are subject to market risk, liquidity risk and interest rate risk, in that their value will fluctuate as a result of changes in market conditions, as well as the credit environment. Interest rate risk for residential mortgage loans which are originated and held for sale is partially mitigated through an economic hedging program to offset changes in the fair value of these mortgage loans held for sale, from the time of commitment to sale, attributable to changes in market interest rates. Revenue associated with this economic hedging program, which is reflected as a component of other income (loss) in the consolidated statement of income (loss), was losses of \$2 million, \$6 million and \$1 million during 2021, 2020 and 2019, respectively.

Valuation Allowances Excluding the loans designated under the fair value option discussed above, loans held for sale are recorded at the lower of amortized cost or fair value, with adjustments to fair value being recorded as a valuation allowance through other revenues. The valuation allowance on consumer loans held for sale was \$7 million and nil at December 31, 2021 and 2020, respectively. The valuation allowance on commercial loans held for sale was \$5 million and \$1 million at December 31, 2021 and 2020, respectively.

10. Properties and Equipment, Net

Properties and equipment, net is summarized in the following table:

At December 31,	2021	2020
	(in millions)	
Land	\$ 2	\$ 5
Buildings and improvements ⁽¹⁾	291	543
Furniture and equipment ⁽¹⁾	67	129
Total	360	677
Accumulated depreciation and amortization ⁽¹⁾	(320)	(533)
Properties and equipment, net	<u>\$ 40</u>	<u>\$ 144</u>

⁽¹⁾ The decreases since December 31, 2020 are due primarily to the impact of our decision to exit our mass market retail banking business which resulted in the transfer of assets to other branch related assets held for sale during the second quarter of 2021 as well as the retirement of assets associated with certain branches and office space which we exited in 2021 as part of our Restructuring Plan. See Note 3, "Strategic Initiatives," and Note 4, "Branch Assets and Liabilities Held for Sale," for further discussion. During 2020, we also recognized \$18 million of gains on sales of certain owned retail branch properties. These gains are reflected in other income (loss) in the consolidated statement of income (loss) and were reported in the Corporate Center business segment.

Depreciation and amortization expense totaled \$22 million, \$34 million and \$43 million in 2021, 2020 and 2019, respectively.

11. Goodwill

Goodwill was \$458 million at both December 31, 2021 and 2020. Goodwill for these periods reflects accumulated impairment losses of \$1,819 million, which were recognized in prior periods.

During the fourth quarter of 2021, we completed our annual impairment test of goodwill and determined that the fair value of our Commercial Banking reporting unit exceeded its carrying value, including goodwill.

During 2020, as a result of the deterioration in economic conditions caused by the spread of the COVID-19 pandemic and its impact on our businesses including changes to the interest rate environment as a result of FRB actions to combat the economic effects of the virus, we performed an interim impairment test of goodwill and determined that the fair value of our Commercial Banking reporting unit exceeded its carrying value, including goodwill. However, the cash flow projections for our previously separate Retail Banking and Wealth Management and our Private Banking reporting units were significantly lower than previous estimates which, in conjunction with valuation estimates under a market approach and in consideration of a challenging macroeconomic outlook, resulted in a fair value that was significantly lower than their book values, including goodwill. As a result, we recorded a non-cash impairment charge of \$784 million in 2020, representing the entire amount of goodwill previously allocated to these reporting units.

During 2019, we completed our annual impairment test of goodwill and determined that the fair value of our Commercial Banking and Private Banking reporting units exceeded or approximated their carrying values, including goodwill. However, the cash flow projections for our Retail Banking and Wealth Management reporting unit were significantly lower than previous estimates due to changes in circumstances at that time, in particular changes to the interest rate environment as a result of slowing economic growth along with various revenue headwinds such as increased competition for deposits and a shift in demand to lower fee wealth products, as well as higher levels of allocated capital which, in conjunction with valuation estimates determined under a market approach, resulted in a fair value that was significantly lower than its book value, including goodwill. As a result, we recorded a non-cash impairment charge of \$365 million, representing a portion of the \$737 million of goodwill previously allocated to this reporting unit.

12. Leases

We have entered into operating leases for premises and equipment. The following table summarizes the components of total operating lease costs, net and provides supplemental cash flow information related to leases:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Operating lease cost	\$ 87	\$ 127	\$ 136
Variable lease cost	48	59	63
Short-term lease cost	—	—	4
Sublease income ⁽¹⁾	(43)	(54)	(60)
Total operating lease costs, net	<u>\$ 92</u>	<u>\$ 132</u>	<u>\$ 143</u>

Supplemental disclosure of cash flow information:

Cash paid for amounts included in the measurement of operating lease liabilities	\$ 129	\$ 135	\$ 126
ROU assets recognized for new operating lease liabilities	—	24	132

⁽¹⁾ We have entered into agreements to sublease certain office space, including agreements to receive rental income from our affiliates. As owner or lessee of the properties, we have entered into agreements with these affiliates to charge them rent based on the office space utilized by their employees during the period. See Note 24, "Related Party Transactions," for further disclosure.

In addition to the operating lease costs reflected in the table above, during 2021 and 2020, we recorded lease impairment charges of \$63 million and \$76 million, respectively, to write-down the lease ROU assets associated with certain branches and office space that we determined we would exit as part of our Restructuring Plan. See Note 3, "Strategic Initiatives," for further discussion. During 2019, we determined that we would exit approximately 20 branches and, as a result, we recorded lease impairment charges of \$13 million to write-down the lease ROU assets associated with these branches based on their estimated remaining useful lives. These impairment charges are reflected in occupancy expense, net in the consolidated statement of income (loss) and were reported in the Wealth and Personal Banking and the Corporate Center business segment.

The following table presents information about our operating lease ROU assets and liabilities:

At December 31,	2021	2020
	(dollars are in millions)	
Operating lease ROU assets ⁽¹⁾⁽²⁾	\$ 181	\$ 527
Operating lease liabilities ⁽²⁾	305	625
Weighted-average remaining lease term	6.7 years	6.8 years
Weighted-average discount rate	3.0 %	3.0 %

⁽¹⁾ Reported net of level lease adjustments and accumulated impairment losses.

⁽²⁾ The decreases since December 31, 2020 include the impact of our decision to exit our mass market retail banking business which resulted in the transfer of lease ROU assets and lease liabilities to other branch related assets held for sale and other branch related liabilities held for sale during the second quarter of 2021. See Note 4, "Branch Assets and Liabilities Held for Sale," for further discussion.

The following table presents a maturity analysis of our operating lease liabilities at December 31, 2021:

Year Ending December 31,	(in millions)
2022	\$ 79
2023	78
2024	70
2025	35
2026	15
Thereafter	65
Total future operating lease payments	342
Less - imputed interest	(37)
Total operating lease liabilities	<u>\$ 305</u>

At December 31, 2021, additional operating leases for premises that have not yet commenced and are not reflected in the table above were not material.

13. Deposits

Total deposits were \$143,032 million and \$145,150 million at December 31, 2021 and 2020, respectively, of which \$2,749 million and \$4,155 million, respectively, were carried at fair value. At December 31, 2021, total deposits include \$8,750 million of deposits classified as held for sale.

The following table presents the aggregate amount of time deposit accounts in denominations exceeding \$250,000 at December 31, 2021 and 2020:

At December 31,	2021	2020
	(in millions)	
Domestic deposits	\$ 6,140	\$ 14,270
Foreign deposits	265	232
Total	<u>\$ 6,405</u>	<u>\$ 14,502</u>

The scheduled maturities of all time deposits at December 31, 2021 are summarized in the following table:

	Domestic Deposits	Foreign Deposits	Total
	(in millions)		
2022	\$ 5,721	\$ 265	\$ 5,986
2023	541	—	541
2024	391	—	391
2025	315	—	315
2026	1,719	—	1,719
Thereafter	558	—	558
	<u>\$ 9,245</u>	<u>\$ 265</u>	<u>\$ 9,510</u>

During 2020, we recorded a \$12 million gain on extinguishment of time deposits reflecting early client withdrawals.

Overdraft deposits, which are classified as loans, were approximately \$345 million and \$392 million at December 31, 2021 and 2020, respectively.

Federal Deposit Insurance Corporation ("FDIC") assessment fees, which are recorded as a component of other expenses in the consolidated statement of income (loss), totaled \$63 million, \$71 million and \$24 million in 2021, 2020 and 2019, respectively.

14. Short-Term Borrowings

Short-term borrowings consisted of the following:

	December 31,			
	2021	Rate	2020	Rate
	(dollars are in millions)			
Securities sold under repurchase agreements	\$ 2,315	.05 %	\$ 1,765	.22 %
Commercial paper	3,683	.36	2,998	.52
Other	340		189	
Total short-term borrowings	<u>\$ 6,338</u>		<u>\$ 4,952</u>	

During 2019, we recorded a loss of \$14 million on extinguishment of certain repurchase agreements.

15. Long-Term Debt

The composition of long-term debt is presented in the following table. Interest rates on floating rate notes are determined periodically by formulas based on certain money market rates or, in certain instances, by minimum interest rates as specified in the agreements governing the issues. Interest rates and maturity dates in effect at December 31, 2021 are shown in the below table.

				At December 31,	
	Maturity Date Range	Interest Rate Range	Interest Rate Weighted Average	2021	2020
				(in millions)	
Issued or acquired by HSBC USA:					
Senior debt:					
Fixed-rate notes	2024 - 2030	1.12% - 4.20%	2.63%	\$ 6,347	\$ 2,990
Structured notes	2022 - 2045	.13 - 2.51	.62	6,346	7,938
Total senior debt				12,693	10,928
Subordinated debt:					
Fixed-rate notes	2097	7.20	7.20	222	422
Floating-rate notes ⁽¹⁾				—	850
Total subordinated debt				222	1,272
Mark-to-market adjustment on fair value option debt				1,145	1,344
Total issued or acquired by HSBC USA				14,060	13,544
Issued or acquired by HSBC Bank USA and its subsidiaries:					
Senior debt:					
Floating-rate notes	2024 - 2040	.02 - .91	.31	25	42
Structured notes	2022 - 2028	(.08) - 3.04	1.22	488	394
FHLB advances - fixed-rate				—	3,250
FHLB advances - floating-rate	2036	.23	.23	1,000	1,000
Total senior debt				1,513	4,686
Subordinated fixed-rate notes	2034 - 2039	5.63 - 7.00	6.36	1,441	1,441
Mark-to-market adjustment on fair value option debt				222	308
Total issued or acquired by HSBC Bank USA and its subsidiaries				3,176	6,435
Total long-term debt				\$ 17,236	\$ 19,979

⁽¹⁾ During 2021, \$850 million of floating-rate subordinated debt with HSBC North America was called and repaid.

At December 31, 2021 and 2020, we had structured notes totaling \$7,997 million and \$9,695 million, respectively, and subordinated debt totaling \$945 million and \$1,030 million, respectively, for which we have elected fair value option accounting and are therefore carried at fair value. See Note 17, "Fair Value Option," for further details. During 2019, HSBC Bank USA repurchased \$1,269 million of its outstanding subordinated debt that was designated under fair value option and recorded a net pre-tax gain on extinguishment of \$84 million.

As a member of the FHLB and the Federal Reserve Bank of New York, we have secured borrowing facilities which are collateralized by loans and investment securities. At December 31, 2021 and 2020, borrowings from the FHLB facility totaled \$1,000 million and \$4,250 million, respectively, which is included in long-term debt. Based upon the amounts pledged as collateral under these facilities, we have additional borrowing capacity of up to \$15,057 million at December 31, 2021.

Maturities of long-term debt at December 31, 2021 were as follows:

	(in millions)
2022	\$ 2,930
2023	1,593
2024	2,014
2025	4,474
2026	631
Thereafter	5,594
Total	<u>\$ 17,236</u>

16. Derivative Financial Instruments

In the normal course of business, the derivative instruments we enter into are for trading, market making and risk management purposes. For financial reporting purposes, derivative instruments are designated in one of the following categories: (a) hedging instruments designated as qualifying hedges under derivative and hedge accounting principles, (b) financial instruments held for trading or (c) non-qualifying economic hedges. The derivative instruments held are predominantly swaps, futures, options and forward contracts. All derivatives are stated at fair value. Where we enter into enforceable master netting agreements with counterparties, the master netting agreements permit us to net those derivative asset and liability positions and to offset cash collateral held and posted with the same counterparty.

The following table presents the fair value of derivative contracts by major product type on a gross basis. Gross fair values exclude the effects of both counterparty netting as well as collateral, and therefore are not representative of our exposure. The table below also presents the amounts of counterparty netting and cash collateral that have been offset in the consolidated balance sheet, as well as cash and securities collateral posted and received under enforceable master netting agreements that do not meet the criteria for netting. Derivative assets and liabilities which are not subject to an enforceable master netting agreement, or are subject to a netting agreement where an appropriate legal opinion to determine such agreements are enforceable has not been either sought or obtained, have not been netted in the following table. Where we have received or posted collateral under netting agreements where an appropriate legal opinion to determine such agreements are enforceable has not been either sought or obtained, the related collateral also has not been netted in the following table.

	December 31, 2021		December 31, 2020	
	Derivative Assets	Derivative Liabilities	Derivative Assets	Derivative Liabilities
(in millions)				
Derivatives accounted for as fair value hedges⁽¹⁾				
Interest rate contracts - bilateral OTC ⁽²⁾	\$ —	\$ 5	\$ —	\$ 2
Derivatives accounted for as cash flow hedges⁽¹⁾				
Foreign exchange contracts - bilateral OTC ⁽²⁾	29	—	—	53
Interest rate contracts - bilateral OTC ⁽²⁾	—	2	—	—
Total derivatives accounted for as hedges	29	7	—	55
Trading derivatives not accounted for as hedges⁽³⁾				
Exchange-traded ⁽²⁾	8	10	14	9
OTC-cleared ⁽²⁾	37	—	—	58
Bilateral OTC ⁽²⁾	1,756	1,877	6,584	6,555
Interest rate contracts⁽⁴⁾	1,801	1,887	6,598	6,622
OTC-cleared ⁽²⁾	—	—	168	—
Bilateral OTC ⁽²⁾	11,321	11,125	18,299	18,549
Foreign exchange contracts	11,321	11,125	18,467	18,549
Equity contracts - bilateral OTC⁽²⁾	588	1,240	4,009	4,200
Exchange-traded ⁽²⁾	4	—	—	28
Bilateral OTC ⁽²⁾	936	779	1,323	1,550
Precious metals contracts	940	779	1,323	1,578
Credit contracts - bilateral OTC⁽²⁾	28	25	367	233
Other non-qualifying derivatives not accounted for as hedges⁽¹⁾				
Interest rate contracts - bilateral OTC ⁽²⁾	47	5	89	1
Foreign exchange contracts - bilateral OTC ⁽²⁾	—	1	—	1
Equity contracts - bilateral OTC ⁽²⁾	1,470	121	1,607	91
OTC-cleared ⁽²⁾	—	19	—	14
Bilateral OTC ⁽²⁾	—	38	—	50
Credit contracts	—	57	—	64
Other contracts - bilateral OTC⁽²⁾⁽⁵⁾	5	38	8	67
Total derivatives	16,229	15,285	32,468	31,461
Less: Gross amounts of receivable / payable subject to enforceable master netting agreements⁽⁶⁾⁽⁸⁾	11,991	11,991	25,537	25,537
Less: Gross amounts of cash collateral received / posted subject to enforceable master netting agreements⁽⁷⁾⁽⁸⁾	2,797	1,296	4,079	3,377
Net amounts of derivative assets / liabilities presented in the balance sheet	1,441	1,998	2,852	2,547
Less: Gross amounts of financial instrument collateral received / posted subject to enforceable master netting agreements but not offset in the consolidated balance sheet	179	194	817	691
Net amounts of derivative assets / liabilities	\$ 1,262	\$ 1,804	\$ 2,035	\$ 1,856

⁽¹⁾ Derivative assets / liabilities related to cash flow hedges, fair value hedges and derivative instruments held for purposes other than for trading are recorded in other assets / interest, taxes and other liabilities on the consolidated balance sheet.

⁽²⁾ Over-the-counter ("OTC") derivatives include derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. The credit risk associated with bilateral OTC derivatives is managed through obtaining collateral and enforceable master netting agreements. OTC-cleared derivatives are executed bilaterally in the OTC market but then novated to a central clearing counterparty, whereby the central clearing counterparty becomes the counterparty to each of the original counterparties. Exchange traded derivatives are executed directly on an organized exchange. Credit risk is minimized for OTC-cleared derivatives and exchange traded derivatives through daily margining requirements. In addition, OTC-cleared interest rate and credit derivatives with certain central clearing counterparties are settled daily.

⁽³⁾ Trading related derivative assets / liabilities are recorded in trading assets / trading liabilities on the consolidated balance sheet.

⁽⁴⁾ The decreases in interest rate derivative assets and liabilities at December 31, 2021 primarily reflects reduced positions driven by the exit or transfer of certain contracts as part of our Restructuring Plan. See Note 3, "Strategic Initiatives," for additional information.

⁽⁵⁾ Consists of swap agreements entered into in conjunction with the sales of Visa Inc. ("Visa") Class B common shares ("Class B Shares").

⁽⁶⁾ Represents the netting of derivative receivable and payable balances for the same counterparty under enforceable netting agreements.

⁽⁷⁾ Represents the netting of cash collateral posted and received by counterparty under enforceable netting agreements.

⁽⁸⁾ Netting is performed at a counterparty level in cases where enforceable master netting agreements are in place, regardless of the type of derivative instrument. Therefore, we have not allocated netting to the different types of derivative instruments shown in the table above.

See Note 28, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," for further information on offsetting related to resale and repurchase agreements.

Derivatives Held for Risk Management Purposes Our risk management policy requires us to identify, analyze and manage risks arising from the activities conducted during the normal course of business. We use derivative instruments as an asset and liability management tool to manage our exposures in interest rate, foreign currency and credit risks in existing assets and liabilities, commitments and forecasted transactions. The accounting for changes in fair value of a derivative instrument will depend on whether the derivative has been designated and qualifies for hedge accounting.

We designate derivative instruments to offset the fair value risk and cash flow risk arising from fixed-rate and floating-rate assets and liabilities as well as forecasted transactions. We assess the hedging relationships, both at the inception of the hedge and on an ongoing basis, using a regression approach to determine whether the designated hedging instrument is highly effective in offsetting changes in the fair value or the cash flows attributable to the hedged risk. Accounting principles for qualifying hedges require us to prepare detailed documentation describing the relationship between the hedging instrument and the hedged item, including, but not limited to, the risk management objective, the hedging strategy and the methods to assess and measure the ineffectiveness of the hedging relationship. We discontinue hedge accounting when we determine that the hedge is no longer highly effective, the hedging instrument is terminated, sold or expired, the designated forecasted transaction is not probable of occurring, or when the designation is removed by us.

Fair Value Hedges In the normal course of business, we hold fixed-rate loans and securities, and issue fixed-rate deposits and senior and subordinated debt obligations. The fair value of fixed-rate assets and liabilities fluctuates in response to changes in interest rates. We utilize interest rate swaps, forward and futures contracts to minimize our exposure to changes in fair value caused by interest rate volatility. The changes in the fair value of the hedged item designated in a qualifying hedge are captured as an adjustment to the carrying amount of the hedged item (basis adjustment). If the hedging relationship is discontinued and the hedged item continues to exist, the basis adjustment is amortized over the remaining life of the hedged item.

The following table presents the carrying amount of hedged items in fair value hedges recognized in the consolidated balance sheet at December 31, 2021 and 2020, along with the cumulative amount of fair value hedging adjustments included in the carrying amount of those hedged items:

	Carrying Amount of Hedged Items ⁽¹⁾	Cumulative Amount of Fair Value Hedging Adjustments Increasing (Decreasing) the Carrying Amount of Hedged Items		
		Active	Discontinued	Total
(in millions)				
At December 31, 2021				
Securities available-for-sale ("AFS")	\$ 7,919	\$ (72)	\$ 1,010	\$ 938
Deposits	1,598	(27)	125	98
Long-term debt	5,587	(61)	148	87
At December 31, 2020				
Securities AFS	7,966	681	738	1,419
Deposits	5,214	214	—	214
Long-term debt	2,227	242	(15)	227

⁽¹⁾ The carrying amount of securities AFS represents the amortized cost basis.

The following table presents information on gains and losses on derivative instruments designated and qualifying as hedging instruments and the hedged items in fair value hedges and their locations on the consolidated statement of income (loss):

		Location of Gain (Loss) Recognized in Income	Gain (Loss) on Derivatives	Gain (Loss) on Hedged Items
(in millions)				
Year Ended December 31, 2021				
Interest rate contracts / Securities AFS	Net interest income	\$	129	\$ (29)
Interest rate contracts / Deposits	Net interest income		(49)	(6)
Interest rate contracts / Long-term debt	Net interest income		(30)	(14)
Total		\$	50	\$ (49)

Year Ended December 31, 2020

Interest rate contracts / Securities AFS	Net interest income	\$	(731)	\$ 900
Interest rate contracts / Deposits	Net interest income		148	(261)
Interest rate contracts / Long-term debt	Net interest income		165	(261)
Total		\$	(418)	\$ 378

Year Ended December 31, 2019

Interest rate contracts / Securities AFS	Net interest income	\$	(776)	\$ 1,086
Interest rate contracts / Long-term debt	Net interest income		235	(703)
Total		\$	(541)	\$ 383

Cash Flow Hedges We own or issue floating rate financial instruments and enter into forecasted transactions that give rise to variability in future cash flows. As a part of our risk management strategy, we use interest rate swaps, currency swaps and futures contracts to mitigate risk associated with variability in the cash flows. Changes in fair value of a derivative instrument associated with a qualifying cash flow hedge are recognized in other comprehensive income (loss). When the cash flows being hedged materialize and are recorded in income or expense, the associated gain or loss from the hedging derivative previously recorded in accumulated other comprehensive income (loss) ("AOCI") is reclassified into earnings in the same accounting period in which the designated forecasted transaction or hedged item affects earnings. If a cash flow hedge of a forecasted transaction is discontinued because it is no longer highly effective, or if the hedge relationship is terminated, the cumulative gain or loss on the hedging derivative to that date will continue to be reported in AOCI unless it is probable that the hedged forecasted transaction will not occur by the end of the originally specified time period as documented at the inception of the hedge, at which time the cumulative gain or loss is released into earnings.

At December 31, 2021, active cash flow hedge relationships extend or mature through July 2031. During 2021, \$13 million of gains related to discontinued cash flow hedge relationships were amortized to earnings from AOCI compared with losses of \$11 million and \$35 million during 2020 and 2019, respectively. During the next twelve months, we expect to amortize \$10 million of remaining losses to earnings resulting from these discontinued cash flow hedges. The interest accrual related to the hedging instruments is recognized in net interest income.

The following table presents information on gains and losses on derivative instruments designated and qualifying as hedging instruments in cash flow hedges (including amounts recognized in AOCI from discontinued cash flow hedges) and their locations on the consolidated statement of income (loss):

	Gain (Loss) Recognized in AOCI on Derivatives			Location of Gain (Loss) Reclassified from AOCI into Income	Gain (Loss) Reclassified From AOCI into Income		
	2021	2020	2019		2021	2020	2019
(in millions)							
Year Ended December 31,							
Foreign exchange contracts	\$ (1)	\$ —	\$ 3	Net interest income	\$ —	\$ —	\$ —
Interest rate contracts	(64)	84	(27)	Net interest income	13	(11)	(35)
Total	\$ (65)	\$ 84	\$ (24)		\$ 13	\$ (11)	\$ (35)

Trading Derivatives and Non-Qualifying Hedging Activities In addition to risk management, we also enter into derivative contracts, including buy- and sell-protection credit derivatives, for the purposes of trading and market making, or repackaging risks to form structured trades to meet clients' risk taking objectives. Additionally, we buy or sell securities and use derivatives to mitigate the market risks arising from our trading activities with our clients that exceed our risk appetite. We also use buy-protection credit derivatives to manage our counterparty credit risk exposure. Where we enter into derivatives for trading purposes, realized and unrealized gains and losses are recognized in trading revenue. Counterparty credit risk associated with OTC derivatives, including risk-mitigating buy-protection credit derivatives, are recognized as an adjustment to the fair value of the derivatives and are recorded in trading revenue.

Our non-qualifying hedging and other activities include:

- Derivative contracts related to the fixed-rate long-term debt issuances and hybrid instruments, including all structured notes and deposits, for which we have elected fair value option accounting. These derivative contracts are non-qualifying hedges but are considered economic hedges.
- Credit default swaps which are designated as economic hedges against the credit risks within our loan portfolio. In the event of an impairment loss occurring in a loan that is economically hedged, the impairment loss is recognized as provision for credit losses while the gain on the credit default swap is recorded as other income (loss).
- Swap agreements entered into in conjunction with the sales of Visa Class B Shares to a third party to retain the litigation risk associated with the Class B Shares sold until the related litigation is settled and the Class B Shares can be converted into Class A common shares ("Class A Shares"). See Note 28, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," for additional information.
- Forward purchases or sales of to-be-announced ("TBA") securities used to economically hedge changes in the fair value of residential mortgage loans which are originated and held for sale attributable to changes in market interest rates. Changes in the fair value of TBA positions, which are considered derivatives, are recorded in other income (loss). See Note 9, "Loans Held for Sale," for additional information.

Derivative instruments designated as economic hedges that do not qualify for hedge accounting are recorded at fair value through profit and loss. Realized and unrealized gains and losses on economic hedges are recognized in gain (loss) on instruments designated at fair value and related derivatives or other income (loss) while the derivative asset or liability positions are reflected as other assets or other liabilities.

The following table presents information on gains and losses on derivative instruments held for trading purposes and their locations on the consolidated statement of income (loss):

		Gain (Loss) Recognized in Income on Derivatives		
		Year Ended December 31,		
		2021	2020	2019
Location of Gain (Loss) Recognized in Income on Derivatives		(in millions)		
Interest rate contracts	Trading revenue	\$ (11)	\$ 396	\$ (89)
Foreign exchange contracts	Trading revenue	274	(747)	310
Equity contracts	Trading revenue	(2,432)	57	(496)
Precious metals contracts	Trading revenue	145	594	312
Credit contracts	Trading revenue	83	(556)	(445)
Total		<u>\$ (1,941)</u>	<u>\$ (256)</u>	<u>\$ (408)</u>

The following table presents information on gains and losses on derivative instruments held for non-qualifying hedging and other activities and their locations on the consolidated statement of income (loss):

		Gain (Loss) Recognized in Income on Derivatives		
		Year Ended December 31,		
		2021	2020	2019
Location of Gain (Loss) Recognized in Income on Derivatives		(in millions)		
Interest rate contracts	Gain (loss) on instruments designated at fair value and related derivatives	\$ (61)	\$ 229	\$ 364
Interest rate contracts	Other income (loss)	(2)	(6)	(1)
Foreign exchange contracts	Gain (loss) on instruments designated at fair value and related derivatives	—	(1)	(3)
Equity contracts	Gain (loss) on instruments designated at fair value and related derivatives	1,139	592	1,809
Credit contracts	Gain (loss) on instruments designated at fair value and related derivatives	—	37	—
Credit contracts	Other income (loss)	(19)	(18)	(24)
Other contracts ⁽¹⁾	Other income (loss)	(2)	(9)	(63)
Total		<u>\$ 1,055</u>	<u>\$ 824</u>	<u>\$ 2,082</u>

⁽¹⁾ Consists of swap agreements entered into in conjunction with the sales of Visa Class B Shares.

Credit-Risk Related Contingent Features The majority of our derivative contracts contain provisions that require us to maintain a specific credit rating from each of the major credit rating agencies. Sometimes the derivative instrument transactions are a part of broader structured product transactions. If our credit ratings were to fall below the current ratings, the counterparties to our derivative instruments could demand us to post additional collateral. The amount of additional collateral required to be posted will depend on whether we are downgraded by one or more notches. The aggregate fair value of all derivative instruments with credit-risk related contingent features that were in a net liability position at December 31, 2021 was \$361 million, for which we had posted collateral of \$172 million. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that were in a net liability position at December 31, 2020 was \$221 million, for which we had posted collateral of \$67 million. Substantially all of the collateral posted is in the form of cash or securities available-for-sale. See Note 28, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," for further details.

The following table presents the amount of additional collateral that we would be required to post (from the current collateral level) related to derivative instruments with credit-risk related contingent features if our long-term ratings were downgraded by one or two notches. A downgrade by a single rating agency that does not result in a rating lower than a preexisting corresponding rating provided by another rating agency will generally not result in additional collateral.

	One-notch downgrade	Two-notch downgrade
(in millions)		
Amount of additional collateral to be posted upon downgrade	\$ 20	\$ 68

Notional Value of Derivative Contracts The following table summarizes the notional values of derivative contracts:

At December 31,	2021	2020
	(in millions)	
Interest rate:		
Futures and forwards	\$ 44,686	\$ 37,098
Swaps	177,876	406,609
Options written	10,842	33,269
Options purchased	12,688	32,427
Total interest rate	246,092	509,403
Foreign exchange:		
Swaps, futures and forwards	974,725	1,195,449
Options written	28,577	53,200
Options purchased	28,678	53,595
Spot	31,319	57,040
Total foreign exchange	1,063,299	1,359,284
Commodities, equities and precious metals:		
Swaps, futures and forwards	60,054	54,458
Options written	5,873	17,078
Options purchased	11,800	27,083
Total commodities, equities and precious metals	77,727	98,619
Credit derivatives	7,023	52,611
Other contracts ⁽¹⁾	1,204	1,216
Total	\$ 1,395,345	\$ 2,021,133

⁽¹⁾ Consists of swap agreements entered into in conjunction with the sales of Visa Class B Shares.

17. Fair Value Option

We report our results to HSBC in accordance with HSBC Group accounting and reporting policies ("Group Reporting Basis"), which apply International Financial Reporting Standards ("IFRSs") as issued by the International Accounting Standards Board ("IASB"). We typically have elected to apply fair value option ("FVO") accounting to selected financial instruments to align the measurement attributes of those instruments under U.S. GAAP and the Group Reporting Basis and to simplify the accounting model applied to those financial instruments. We elected to apply FVO accounting to certain commercial loans held for sale, certain student loans, certain fixed-rate long-term debt issuances and all of our hybrid instruments, including structured notes and deposits. Excluding the fair value movement on fair value option liabilities attributable to our own credit spread, which is recorded in other comprehensive income (loss), changes in the fair value of fair value option assets and liabilities as well as the mark-to-market adjustment on the related derivatives and the net realized gains or losses on these derivatives are reported in gain (loss) on instruments designated at fair value and related derivatives in the consolidated statement of income (loss).

Loans and Loans Held For Sale We elected to apply FVO accounting to certain commercial syndicated loans which are originated with the intent to sell and certain commercial loans that we purchased from the secondary market and hold as hedges against our exposure to certain total return swaps and include these loans as loans held for sale in the consolidated balance sheet. We also previously elected to apply FVO accounting to certain student loans (which were subsequently transferred from held for investment to held for sale during the fourth quarter of 2021). These elections allow us to account for these loans at fair value which is consistent with the manner in which the instruments are managed. Where available, fair value is based on observable market pricing obtained from independent sources, relevant broker quotes or observed market prices of instruments with similar characteristics. Where observable market parameters are not available, fair value is determined based on contractual cash flows adjusted for estimates of prepayment rates, expected default rates and loss severity discounted at management's estimate of the expected rate of return required by market participants. We also consider loan-specific risk mitigating factors such as collateral arrangements in determining the fair value estimate. Interest from these loans is recorded as interest income in the consolidated statement of income (loss). Because a substantial majority of the loans elected for the fair value option are floating-rate commercial loans, changes in their fair value are primarily attributable to changes in loan-specific credit risk factors. The components of gain (loss) related to loans designated at fair value are summarized in the table below. At

December 31, 2021 and 2020, no loans for which the fair value option has been elected were 90 days or more past due or in nonaccrual status.

Long-Term Debt (Own Debt Issuances) We elected to apply FVO accounting for certain fixed-rate long-term debt for which we had applied or otherwise would elect to apply fair value hedge accounting. The election allows us to achieve a similar accounting effect without having to meet the hedge accounting requirements. The own debt issuances elected under FVO are traded in secondary markets and, as such, the fair value is determined based on observed prices for the specific instruments. The observed market price of these instruments reflects the effect of changes to our own credit spreads and interest rates. Interest on the fixed-rate debt accounted for under FVO is recorded as interest expense in the consolidated statement of income (loss). Excluding the fair value movement attributable to our own credit spread, the components of gain (loss) in the consolidated statement of income (loss) related to long-term debt designated at fair value are summarized in the table below.

Hybrid Instruments We elected to apply FVO accounting to all of our hybrid instruments issued, including structured notes and deposits. The valuation of the hybrid instruments is predominantly driven by the derivative features embedded within the instruments and our own credit risk. Cash flows of the hybrid instruments in their entirety, including the embedded derivatives, are discounted at an appropriate rate for the applicable duration of the instrument adjusted for our own credit spreads. The credit spreads applied to structured notes are determined with reference to our own debt issuance rates observed in the primary and secondary markets, internal funding rates, and structured note rates in recent executions while the credit spreads applied to structured deposits are determined using market rates currently offered on comparable deposits with similar characteristics and maturities. Interest on this debt is recorded as interest expense in the consolidated statement of income (loss). Excluding the fair value movement attributable to our own credit spread, the components of gain (loss) in the consolidated statement of income (loss) related to hybrid instruments designated at fair value are summarized in the table below.

The following table summarizes the fair value and unpaid principal balance for items we account for under FVO:

	Fair Value	Unpaid Principal Balance	Fair Value Over (Under) Unpaid Principal Balance
	(in millions)		
At December 31, 2021			
Student loans held for sale	\$ 25	\$ 28	\$ (3)
Commercial loans held for sale	23	23	—
Fixed rate long-term debt	945	741	204
Hybrid instruments:			
Structured deposits	2,749	2,465	284
Structured notes	7,997	6,834	1,163
At December 31, 2020			
Student loans held for investment	\$ 32	\$ 34	\$ (2)
Commercial loans held for sale	36	36	—
Fixed rate long-term debt	1,030	741	289
Hybrid instruments:			
Structured deposits	4,155	3,844	311
Structured notes	9,695	8,332	1,363

Components of Gain (Loss) on Instruments Designated at Fair Value and Related Derivatives The following table summarizes the components of gain (loss) on instruments designated at fair value and related derivatives reflected in the consolidated statement of income (loss) for the years ended December 31, 2021, 2020 and 2019:

	Loans and Loans Held for Sale	Long-Term Debt	Hybrid Instruments	Total
(in millions)				
Year Ended December 31, 2021				
Interest rate and other components ⁽¹⁾	\$ —	\$ 74	\$ (1,119)	\$ (1,045)
Credit risk component ⁽²⁾	2	—	—	2
Total mark-to-market on financial instruments designated at fair value	2	74	(1,119)	(1,043)
Mark-to-market on related derivatives	—	(88)	1,128	1,040
Net realized gain on related long-term debt derivatives	—	38	—	38
Gain (loss) on instruments designated at fair value and related derivatives	<u>\$ 2</u>	<u>\$ 24</u>	<u>\$ 9</u>	<u>\$ 35</u>
Year Ended December 31, 2020				
Interest rate and other components ⁽¹⁾	\$ —	\$ (79)	\$ (695)	\$ (774)
Credit risk component ⁽²⁾⁽³⁾	(49)	—	—	(49)
Total mark-to-market on financial instruments designated at fair value	(49)	(79)	(695)	(823)
Mark-to-market on related derivatives	37	88	699	824
Net realized gain on related long-term debt derivatives	—	33	—	33
Gain (loss) on instruments designated at fair value and related derivatives	<u>\$ (12)</u>	<u>\$ 42</u>	<u>\$ 4</u>	<u>\$ 34</u>
Year Ended December 31, 2019				
Interest rate and other components ⁽¹⁾	\$ —	\$ (200)	\$ (1,986)	\$ (2,186)
Credit risk component ⁽²⁾	3	—	—	3
Total mark-to-market on financial instruments designated at fair value	3	(200)	(1,986)	(2,183)
Mark-to-market on related derivatives	—	148	1,983	2,131
Net realized gain on related long-term debt derivatives	—	39	—	39
Gain (loss) on instruments designated at fair value and related derivatives	<u>\$ 3</u>	<u>\$ (13)</u>	<u>\$ (3)</u>	<u>\$ (13)</u>

⁽¹⁾ As it relates to hybrid instruments, interest rate and other components primarily includes interest rate, foreign exchange and equity contract risks.

⁽²⁾ The fair value movement on fair value option liabilities attributable to our own credit spread is recorded in other comprehensive income (loss).

⁽³⁾ During 2020, the loss in the credit risk component for loans and loans held for sale was attributable to the widening of credit spreads associated with certain commercial loans held for sale which were impacted by the COVID-19 pandemic.

18. Income Taxes

Total income taxes was as follows:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Provision (benefit) for income taxes	\$ 224	\$ (42)	\$ 157
Income tax expense (benefit) included in common equity related to:			
Unrealized gains (losses) on investment securities	(258)	274	128
Unrealized gains (losses) on fair value option liabilities attributable to our own credit spread	4	8	(98)
Unrealized gains (losses) on derivatives designated as cash flow hedges	(19)	23	3
Employer accounting for post-retirement plans	1	(1)	(5)
Total income taxes	<u>\$ (48)</u>	<u>\$ 262</u>	<u>\$ 185</u>

The components of the provision for income taxes were as follows:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Current:			
Federal	\$ (111)	\$ (45)	\$ (3)
State and local	(7)	(9)	35
Foreign	2	(13)	16
Total current	(116)	(67)	48
Deferred	340	25	109
Provision (benefit) for income taxes	<u>\$ 224</u>	<u>\$ (42)</u>	<u>\$ 157</u>

The following table provides an analysis of the difference between effective rates based on the provision (benefit) for income taxes attributable to pretax income (loss) and the statutory U.S. Federal income tax rate:

Year Ended December 31,	2021		2020		2019	
	(dollars are in millions)					
Tax expense (benefit) at the U.S. Federal statutory income tax rate	\$ 192	21.0 %	\$ (206)	(21.0)%	\$ 57	21.0 %
Increase (decrease) in rate resulting from:						
State and local taxes, net of Federal benefit	31	3.4	(2)	(.2)	23	8.5
Non-deductible FDIC assessment fees	13	1.4	15	1.5	5	1.9
Non-deductible goodwill impairment ⁽¹⁾	—	—	165	16.8	77	28.5
Items affecting prior periods ⁽²⁾	—	—	3	.3	7	2.6
Uncertain tax positions	6	.7	(8)	(.8)	5	1.9
Low income housing and other tax credit investments	(15)	(1.7)	(14)	(1.4)	(13)	(4.8)
Other	(3)	(.2)	5	.5	(4)	(1.5)
Provision (benefit) for income taxes	\$ 224	24.6 %	\$ (42)	(4.3)%	\$ 157	58.1 %

⁽¹⁾ For 2020, the amount represents non-deductible goodwill impairment related to our previously separate Retail Banking and Wealth Management and Private Banking businesses. For 2019, the amount represents non-deductible goodwill impairment related to our previously separate Retail Banking and Wealth Management business.

⁽²⁾ For 2020, the amount primarily relates to prior year State audit settlements, partially offset by changes in estimates as a result of filing the 2019 Federal and State income tax returns. For 2019, the amount primarily relates to changes in estimates as a result of filing the 2018 Federal income tax return and a reduction in a State and local capital loss carryback claim, partially offset by prior year State audit adjustments.

The components of the net deferred tax asset are presented in the following table:

At December 31,	2021	2020
	(in millions)	
Deferred tax assets:		
Allowance for credit losses	\$ 150	\$ 245
Accrued expenses	64	108
Interests in real estate mortgage investment conduits ⁽¹⁾	127	158
Unrealized losses on investment securities	21	—
Capitalized costs ⁽²⁾	495	501
Lease liabilities	111	152
Other	219	268
Total deferred tax assets	<u>1,187</u>	<u>1,432</u>
Deferred tax liabilities:		
Lease ROU assets	80	127
Unrealized gains on investment securities	—	237
Amortization of intangible assets	21	19
Fair value adjustments	43	1
Other	14	37
Total deferred tax liabilities	<u>158</u>	<u>421</u>
Net deferred tax asset	<u>\$ 1,029</u>	<u>\$ 1,011</u>

⁽¹⁾ Real estate mortgage investment conduits ("REMICs") are investment vehicles that hold commercial and residential mortgages in trust and issue securities representing an undivided interest in these mortgages. HSBC Bank USA holds portfolios of noneconomic residual interests in a number of REMICs. This item represents tax basis in such interests which has accumulated as a result of tax rules requiring the recognition of income related to such noneconomic residuals.

⁽²⁾ Reflects our tax return election to capitalize certain service costs.

A reconciliation of the beginning and ending amount of unrecognized tax benefits related to uncertain tax positions is as follows:

	2021	2020	2019
	(in millions)		
Balance at January 1,	\$ 20	\$ 30	\$ 24
Additions for tax positions of prior years	9	—	7
Reductions for tax positions of prior years	(3)	(1)	(1)
Reductions related to settlements with taxing authorities	—	(9)	—
Balance at December 31,	<u>\$ 26</u>	<u>\$ 20</u>	<u>\$ 30</u>

The total amount of unrecognized tax benefits that, if recognized, would affect the effective income tax rate was \$22 million, \$16 million and \$24 million at December 31, 2021, 2020 and 2019, respectively. Included in the unrecognized tax benefits are certain items the recognition of which would not affect the effective tax rate, such as the tax effect of temporary differences and the amount of State taxes that would be deductible for U.S. Federal tax purposes. It is reasonably possible that there could be a change in the amount of our unrecognized tax benefits within the next 12 months due to settlements or statutory expirations in various State and local tax jurisdictions.

It is our policy to recognize accrued interest related to uncertain tax positions in interest expense in the consolidated statement of income (loss) and to recognize penalties, if any, related to uncertain tax positions as a component of other expenses in the consolidated statement of income (loss). Accruals for the payment of interest associated with uncertain tax positions totaled \$6 million, \$5 million and \$10 million at December 31, 2021, 2020 and 2019, respectively. Our accrual for the payment of interest associated with uncertain tax positions increased by \$1 million during 2021 and decreased by \$5 million during 2020.

Deferred tax assets and liabilities are recognized for the future tax consequences related to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, for State net operating losses and for State tax credits. Our net deferred tax assets, including deferred tax liabilities, totaled \$1,029 million and \$1,011 million at December 31, 2021 and 2020, respectively.

See Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," for further discussion regarding our accounting policy relating to the evaluation, recognition and measurement of both the HNAH Group's and HSBC USA's deferred tax assets and liabilities. In evaluating the need for a valuation allowance at December 31, 2021, it has been determined that HNAH Group projections of future taxable income from U.S. operations based on management approved business plans provide sufficient and appropriate support for the recognition of our net deferred tax assets.

Federal income tax returns for 2017 and forward remain open to examination by the Internal Revenue Service.

We remain subject to State and local income tax examinations for years 2010 and forward. We are currently under audit by various State and local tax jurisdictions. Uncertain tax positions are reviewed on an ongoing basis and are adjusted in light of changing facts and circumstances, including progress of tax audits, developments in case law and the closing of statute of limitations. Such adjustments are reflected in the tax provision.

At December 31, 2021, for State tax purposes, we had apportioned and pre-tax effected net operating loss carryforwards of \$13 million which expire as follows: \$1 million in 2028 and \$12 million in 2030 and beyond.

19. Preferred Stock

HSBC USA preferred stock outstanding was \$1,265 million at both December 31, 2021 and 2020 and included 1,265 shares of 6.0 percent Non-Cumulative Series I Preferred Stock issued to HSBC North America. Dividends on the 6.0 percent Non-Cumulative Series I Preferred Stock are non-cumulative and will be payable when and if declared by our Board of Directors semi-annually on the first business day of June and December of each year at the stated rate of 6.0 percent. The Series I Preferred Stock may be redeemed at our option, in whole or in part, at a redemption price equal to \$1,000,000 per share, plus an amount equal to any declared and unpaid dividends, but only after receipt of written approval from the FRB.

20. Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) includes certain items that are reported directly within a separate component of equity. The following table presents changes in accumulated other comprehensive income (loss) balances:

Year Ended December 31,	2021	2020	2019
	(in millions)		
Unrealized gains (losses) on investment securities:			
Balance at beginning of period	\$ 750	\$ (116)	\$ (519)
Cumulative effect adjustment to initially apply new accounting guidance for measuring credit losses on securities available-for-sale, net of tax of \$1 million ⁽¹⁾	—	2	—
Balance at beginning of period, adjusted	750	(114)	(519)
Other comprehensive income (loss) for period:			
Net unrealized gains (losses) arising during period, net of tax of \$(244) million, \$298 million and \$145 million, respectively	(774)	944	459
Reclassification adjustment for gains realized in net income (loss), net of tax of \$(18) million, \$(33) million and \$(21) million, respectively ⁽²⁾	(55)	(104)	(67)
Reversal of provision for credit losses realized in net income (loss), net of tax of nil, less than \$(1) million and nil, respectively ⁽³⁾	—	(2)	—
Amortization of net unrealized losses on securities transferred from available-for-sale to held-to-maturity realized in net income (loss), net of tax of \$4 million, \$8 million and \$4 million, respectively ⁽⁴⁾	14	26	11
Total other comprehensive income (loss) for period	(815)	864	403
Balance at end of period	(65)	750	(116)
Unrealized gains (losses) on fair value option liabilities attributable to our own credit spread:			
Balance at beginning of period	15	(9)	301
Other comprehensive income (loss) for period:			
Net unrealized gains (losses) arising during period, net of tax of \$4 million, \$8 million and \$(68) million, respectively	12	24	(217)
Reclassification adjustment for a gain realized in net income (loss), net of tax of \$(30) million ⁽⁵⁾	—	—	(93)
Total other comprehensive income (loss) for period	12	24	(310)
Balance at end of period	27	15	(9)
Unrealized gains (losses) on derivatives designated as cash flow hedges:			
Balance at beginning of period	(79)	(151)	(159)
Other comprehensive income (loss) for period:			
Net unrealized gains (losses) arising during period, net of tax of \$(16) million, \$20 million and \$(5) million, respectively	(49)	64	(19)
Reclassification adjustment for (gains) losses realized in net income (loss), net of tax of \$(3) million, \$3 million and \$8 million, respectively ⁽⁶⁾	(10)	8	27
Total other comprehensive income (loss) for period	(59)	72	8
Balance at end of period	(138)	(79)	(151)
Pension and postretirement benefit liability:			
Balance at beginning of period	(7)	(3)	11
Other comprehensive income (loss) for period:			
Change in unfunded pension and postretirement liability, net of tax of \$1 million, \$(1) million and \$(5) million, respectively	4	(4)	(14)
Total other comprehensive income (loss) for period	4	(4)	(14)
Balance at end of period	(3)	(7)	(3)
Total accumulated other comprehensive income (loss) at end of period	\$ (179)	\$ 679	\$ (279)

⁽¹⁾ As a result of adopting new accounting guidance in 2020, beginning January 1, 2020, an allowance for credit losses is recognized for debt securities, with changes in the allowance recorded in earnings. Prior to January 1, 2020, debt securities were assessed for other-than-temporary impairment.

⁽²⁾ Amount reclassified to net income (loss) is included in other securities gains, net in our consolidated statement of income (loss).

⁽³⁾ Changes in the allowance for credit losses on securities available-for-sale are included in the provision for credit losses in our consolidated statement of income (loss).

⁽⁴⁾ Amount amortized to net income (loss) is included in interest income in our consolidated statement of income (loss). During 2014, we transferred securities from available-for-sale to held-to-maturity. At the date of transfer, AOCI included net pretax unrealized losses related to the transferred securities which are being amortized over the remaining contractual life of each security as an adjustment of yield in a manner consistent with the amortization of any premium or discount.

⁽⁵⁾ In 2019, HSBC Bank USA repurchased long-term debt that was designated under fair value option. As a result, the cumulative gain attributable to our own credit spread associated with the debt was reclassified to other income (loss) in our consolidated statement of income (loss).

⁽⁶⁾ Amount reclassified to net income (loss) is included in net interest income in our consolidated statement of income (loss).

21. Share-Based Plans

Employee Stock Purchase Plans The HSBC International Employee Share Purchase Plan (the "HSBC ShareMatch Plan") allowed eligible employees to purchase HSBC shares with a maximum monthly contribution of \$342 in 2021, \$327 in 2020 and \$302 in 2019. For every three shares purchased under the HSBC ShareMatch Plan (the "Investment Share") the employee is awarded an additional share at no charge (the "Matching Share"). The Investment Share is fully vested at the time of purchase while the Matching Share vests at the end of three years contingent upon continuing employment with the HSBC Group. Compensation expense related to Employee Stock Purchase Plans was less than \$1 million in 2021, 2020 and 2019, respectively.

Restricted Share Plans Under the HSBC Group Share Plan, share-based awards have been granted to key employees typically in the form of restricted share units. These shares have been granted subject to either time-based vesting or performance based-vesting, typically over three to five years. Annual awards to employees are generally subject to three-year time-based vesting. We also issue a small number of off-cycle grants each year, primarily for reasons related to recruitment of new employees. Compensation expense for restricted share awards totaled \$15 million, \$22 million and \$25 million in 2021, 2020 and 2019, respectively. At December 31, 2021, future compensation cost related to grants which have not yet fully vested is approximately \$7 million. This amount is expected to be recognized over a weighted-average period of one year.

22. Pension and Other Postretirement Benefits

Defined Benefit Pension Plan Certain employees are eligible to participate in the HSBC North America qualified defined benefit pension plan (either the "HSBC North America Pension Plan" or the "Plan") which facilitates a unified employee benefit policy and unified employee benefit plan administration for HSBC companies operating in the United States. Future benefit accruals for legacy participants under the final average pay formula and future contributions under the cash balance formula were previously discontinued and, as a result, the Plan is frozen.

The following table reflects the portion of pension expense and its related components of the combined HSBC North America Pension Plan which has been allocated to us and is recorded in our consolidated statement of income (loss). We have not been allocated any portion of the Plan's net pension asset.

Year Ended December 31,	2021	2020	2019
	(in millions)		
Interest cost on projected benefit obligation	\$ 42	\$ 45	\$ 56
Expected return on plan assets	(58)	(68)	(78)
Amortization of net actuarial loss	—	4	21
Administrative costs	3	4	4
Pension (income) expense	<u>\$ (13)</u>	<u>\$ (15)</u>	<u>\$ 3</u>

The assumptions used in determining pension expense of the HSBC North America Pension Plan are as follows:

	2021	2020	2019
Discount rate ⁽¹⁾	2.45% / 3.10% / 2.70% / 2.80%	3.15% / 3.20% / 2.70% / 2.55%	4.25% / 3.85% / 3.55% / 3.15%
Expected long-term rate of return on Plan assets ⁽²⁾	3.50	3.50	5.00

⁽¹⁾ Since the Plan is measured on a quarterly basis, pension expense for the Plan is calculated each quarter based on the preceding quarter-end rate. Shown are the discount rates used to determine pension expense for each respective quarter (i.e., first quarter / second quarter / third quarter / fourth quarter). Prior period amounts have been revised to conform to the current period presentation.

⁽²⁾ As a result of a significant decrease in yields on fixed income securities driven by the COVID-19 pandemic and subsequent reduction in longer term capital market returns, as well as a shift in investment mix that reduced the Plan's exposure to equity investments, HSBC North America decided to reduce its expected long-term rate of return on Plan assets assumption to 3.50 percent, effective beginning July 1, 2020. The expected long-term rate of return on Plan assets used during the first half of 2020 was 5.00 percent.

Defined Contribution and Other Supplemental Retirement Plans We maintain a 401(k) plan covering substantially all employees. Employer contributions to the plan are based on employee contributions. Total expense recognized for this plan was \$26 million, \$28 million and \$31 million in 2021, 2020 and 2019, respectively.

Certain employees are participants in various defined contribution and other non-qualified supplemental retirement plans all of which have been frozen. Total expense recognized for these plans was \$2 million in 2021, 2020 and 2019, respectively.

Postretirement Plans Other Than Pensions Certain employees also participate in plans which provide medical and life insurance benefits to retirees and eligible dependents. These plans cover all eligible employees who meet certain age and vested service requirements. We have instituted dollar limits on payments under the plans to control the cost of future medical benefits. Net periodic postretirement benefit cost was immaterial in 2021, 2020 and 2019, respectively.

Our postretirement benefit plans are funded on a pay-as-you-go basis. The funded status of our postretirement benefit plans was a liability of \$40 million and \$45 million at December 31, 2021 and 2020, respectively. We currently estimate that we will pay benefits of approximately \$4 million relating to our postretirement benefit plans in 2022.

The assumptions used in determining the benefit obligation of our postretirement benefit plans at December 31 are as follows:

	2021	2020	2019
Discount rate	2.70 %	2.25 %	3.00 %
Salary increase assumption	3.00	3.00	3.00

For measurement purposes, 6.3 percent (pre-age 65) and, as it relates to the postretirement benefit plans which were not amended to eliminate future health cost increases, 6.5 percent (post-age 65) annual rates of increase in the per capita costs of covered health care benefits were assumed for 2021. These rates are assumed to decrease gradually reaching the ultimate rate of 4.5 percent in 2032, and remain at that level thereafter.

23. Fee Income from Contracts with Customers

The following table summarizes fee income from contracts with customers disaggregated by type of activity, as well as a reconciliation to total other revenues, during the years ended December 31, 2021, 2020 and 2019. Following the table is a description of the various types of fee-based activities and how revenue associated with these activities is recognized.

Year Ended December 31,	2021	2020	2019
	(in millions)		
Credit card fees, net	\$ 37	\$ 38	\$ 67
Trust and investment management fees	108	132	132
Other fees and commissions:			
Account services	290	251	264
Credit facilities	320	268	302
Other fees	42	48	53
Total other fees and commissions	652	567	619
Servicing and other fees from HSBC affiliates	321	347	354
Insurance ⁽¹⁾	6	7	12
Total fee income from contracts with customers	1,124	1,091	1,184
Other non-fee revenues	113	444	670
Total other revenues ⁽²⁾	\$ 1,237	\$ 1,535	\$ 1,854

⁽¹⁾ Included within other income (loss) in the consolidated statement of income (loss).

⁽²⁾ See Note 25, "Business Segments," for a reconciliation of total other revenues on a U.S. GAAP basis to other operating income for each business segment under the Group Reporting Basis.

Credit card fees, net Credit card fees, net includes interchange fees earned from merchants who accept our cards in connection with the purchase of their goods and/or services. These fees are recognized when we satisfy the performance obligation by simultaneously approving a card holder's purchase at the point of sale and remitting payment to the merchant. We recognized interchange fees of \$93 million, \$71 million and \$101 million during the years ended December 31, 2021, 2020 and 2019, respectively. Annual fees on credit cards, net of direct lending costs, are billed upfront and recognized on a straight-line basis over one year. Other credit card fees such as cash advance and over-limit fees are transaction based and are recognized and billed at the point in time the transaction occurs which is when the performance obligation is met. Costs related to our credit card rewards program vary based on multiple factors including card holder activity, card holder reward redemption rates and card holder reward selections. These costs are recorded when the rewards are earned by the customer and are presented as a reduction to credit card fees. Credit card rewards program costs totaled \$67 million, \$41 million and \$44 million during the years ended December 31, 2021, 2020 and 2019, respectively.

Trust and investment management fees Trust and investment management fees include investment management and administration fees which are typically billed as a percentage of the average value of a customer's assets during an agreed payment period or for some contracts, the value of a customer's assets at the end of an agreed payment period and therefore represent variable consideration. The fee percentage and payment period are agreed with the customer upfront. Generally, payment periods are monthly or quarterly and coincide with our reporting periods, thereby resolving the uncertainty of the variable consideration by the reporting date. For payment periods that do not coincide with our reporting periods, judgment is required to estimate the fee and determine the amount to include in an accrual. An accrual is only recorded to the extent it is highly probable that a significant reversal of revenue will not occur. In most cases, a significant reversal of revenue is not highly probable. Other trust and investment management fees are transaction based and are recognized and billed at the point in time the transaction occurs which is when the performance obligation is met. From time to time, we may also receive performance fees from some funds, though these fees are typically only recognized when the performance fee is determinable and the uncertainty of the variable consideration is resolved.

Account services We provide services for commercial and consumer customer accounts that generate fees from various activities including: account statements, ATM transactions, cash withdrawals, wire transfers, remittances, check cashing, debit cards and internet and phone banking. The fees for these services are established in the customer account agreement and are either billed individually at the time the service is performed or on a monthly basis for a package or bundle of services as the services are performed. The performance obligation for these services is met when the services are performed. Customer account agreements typically include a package of services with multiple performance obligations or a bundle of services making up a single performance obligation. In the case of a package of services, the pattern of transfer to the customer is usually the same for all services, and therefore the package of services is treated as a single performance obligation. In some cases, a package or bundle of services is billed upfront as an annual fee and recognized on a straight-line basis over one year as the services are performed and the performance obligation is met.

Credit facilities Credit facilities fees include fees generated from lending activities that are not included in the direct loan origination fees which are recognized in interest income as an adjustment to yield. This includes fees associated with loan commitments, revolving credit facilities, standby letters of credit, loan syndication and other transaction based fees. These fees are either billed as a fixed price or as a percentage of the approved lending limit or transaction value. The fee percentage is agreed with the customer upfront. Although the percentage-based fees represent variable consideration, the uncertainty of the variable consideration is resolved by the time the revenue is recognized as the lending limit or transaction value is known on the contract or transaction date. Loan syndication fees received for managing a syndication and other transaction based fees are recognized and billed at the point in time the transaction occurs, which is when the performance obligation is met. Fees associated with loan commitments, revolving credit facilities and standby letters of credit are billed upfront and recognized on a straight-line basis over the period the service is performed which is when the performance obligation is met (e.g., the commitment period). In the event a loan commitment or standby letter of credit is exercised, the remaining unamortized fee is recognized as an adjustment to yield over the loan term.

Other fees and commissions Other fees and commissions include fees received associated with various other activities such as custody services, imports/exports, clearing and other miscellaneous services. These fees are typically transaction based and are recognized and billed at the point in time the transaction occurs which is when the performance obligation is met. Fees earned from providing customers with custody services are typically recognized and billed on a monthly basis, which is the period over which the service is performed and the performance obligation is met, as a percentage of the value of the customer's assets held in custody (calculated daily or monthly).

Servicing and other fees from HSBC affiliates We receive fees from other HSBC affiliates for providing them with various banking, wealth management and other miscellaneous services as well as support for certain administrative and global business activities. These fees are reported in servicing and other fees from HSBC affiliates and are typically recognized and billed on a monthly basis over the period the service is performed or for some fees that are transaction based, at the point in time the transaction occurs, which is when the performance obligation is met. See Note 24, "Related Party Transactions," for additional information regarding the various services provided and other transactions with HSBC affiliates.

Insurance We earn commissions from the sale of third-party insurance policies which are typically recognized on a weekly or monthly basis, when the policy goes into effect which is when the performance obligation is met.

Deferred Fee Income

Information related to deferred fee income on loan commitments, revolving credit facilities and standby letters of credit is included in Note 28, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," and Note 29, "Fair Value Measurements." Excluding these items, we had deferred fee income related to certain account service fees that are paid upfront and recognized over the service period and annual fees on credit cards which collectively was \$4 million and \$3 million at December 31, 2021 and 2020, respectively. We expect to recognize this revenue over a remaining period of one year or less.

Other than trust and investment management fees, we do not use significant judgments in the determination of the amount and timing of fee income from contracts with customers. Additionally, costs to obtain or fulfill contracts with customers were immaterial.

24. Related Party Transactions

In the normal course of business, we conduct transactions with HSBC and its subsidiaries. HSBC policy requires that these transactions occur at prevailing market rates and terms and, where applicable, these transactions are compliant with United States banking regulations. All extensions of credit by (and certain credit exposures of) HSBC Bank USA to other HSBC affiliates (other than FDIC insured banks) are legally required to be secured by eligible collateral. The following tables and discussions below present the more significant related party balances and the income (expense) generated by related party transactions:

At December 31,	2021	2020
	(in millions)	
Assets:		
Cash and due from banks	\$ 300	\$ 516
Interest bearing deposits with banks	59	187
Securities purchased under agreements to resell ⁽¹⁾	594	3,941
Trading assets	119	314
Loans	2,793	1,100
Other ⁽²⁾	401	319
Total assets	<u>\$ 4,266</u>	<u>\$ 6,377</u>
Liabilities:		
Deposits	\$ 9,137	\$ 15,163
Trading liabilities ⁽³⁾	130	2,375
Short-term borrowings	309	270
Long-term debt	5,511	2,878
Other ⁽²⁾	277	268
Total liabilities	<u>\$ 15,364</u>	<u>\$ 20,954</u>

⁽¹⁾ Reflects purchases of securities under which other HSBC affiliates have agreed to repurchase.

⁽²⁾ Other assets and other liabilities primarily consist of derivative balances associated with hedging activities and other miscellaneous account receivables and payables.

⁽³⁾ The decrease in trading liabilities at December 31, 2021 primarily reflects a decrease in borrowing of gold inventory from HSBC Bank plc to support client activity levels.

Year Ended December 31,	2021	2020	2019
	(in millions)		
Income (Expense):			
Interest income	\$ 26	\$ 55	\$ 168
Interest expense	(237)	(354)	(538)
Net interest expense	(211)	(299)	(370)
Trading revenue (expense)	(3,182)	(93)	(2,669)
Servicing and other fees from HSBC affiliates:			
HSBC Bank plc	176	186	171
HSBC Markets (USA) Inc. ("HMUS")	91	107	111
Other HSBC affiliates	54	54	72
Total servicing and other fees from HSBC affiliates	321	347	354
Gain on instruments designated at fair value and related derivatives	1,128	699	1,986
Support services from HSBC affiliates:			
HTSU	(1,061)	(1,066)	(1,153)
HMUS	(118)	(89)	(100)
Other HSBC affiliates	(441)	(396)	(385)
Total support services from HSBC affiliates	(1,620)	(1,551)	(1,638)
Rental income from HSBC affiliates, net ⁽¹⁾	42	44	55
Stock based compensation expense ⁽²⁾	(15)	(22)	(25)

⁽¹⁾ We receive rental income from our affiliates, and in some cases pay rental expense to our affiliates, for certain office space. Net rental income from our affiliates is recorded as a component of occupancy expense, net in our consolidated statement of income (loss).

⁽²⁾ Employees may participate in one or more stock compensation plans sponsored by HSBC. These expenses are included in salaries and employee benefits in our consolidated statement of income (loss). Certain employees are also eligible to participate in a defined benefit pension plan and other postretirement plans sponsored by HSBC North America which are discussed in Note 22, "Pension and Other Postretirement Benefits."

Funding Arrangements with HSBC Affiliates:

We use HSBC affiliates to fund a portion of our borrowing and liquidity needs. At December 31, 2021 and 2020, long-term debt with affiliates reflected \$5.5 billion and \$2.9 billion, respectively, of borrowings from HSBC North America. The remaining outstanding balances include:

- \$2.0 billion of fixed-rate senior debt which matures in September 2025;
- \$1.5 billion of fixed-rate senior debt which was issued during the first quarter of 2021 and matures in June 2030; and
- \$2.0 billion of fixed-rate senior debt which was issued during the second quarter of 2021 and matures in June 2025.

We have a \$4.0 billion uncommitted line of credit with HSBC North America. The available borrowing capacity under this facility is fungible between HSBC USA, HSBC Securities (USA) Inc. ("HSI") and HSBC North America, but total borrowings cannot collectively exceed \$4.0 billion at any time. We had no outstanding borrowing under this credit facility at either December 31, 2021 or 2020.

We have also incurred short-term borrowings with certain affiliates. In addition, certain affiliates have placed deposits with us.

Lending and Derivative Related Arrangements Extended to HSBC Affiliates:

At December 31, 2021 and 2020, we had the following loan balances outstanding with HSBC affiliates:

At December 31,	2021	2020
	(in millions)	
HMUS and subsidiaries	\$ 1,576	\$ 1,088
HSBC North America	1,000	—
Other short-term affiliate lending	217	12
Total loans	\$ 2,793	\$ 1,100

HMUS and subsidiaries We have extended loans and lines of credit, some of them uncommitted, to HMUS and its subsidiaries in the amount of \$11.9 billion and \$12.0 billion at December 31, 2021 and 2020, respectively, of which \$1.6 billion and \$1.1

billion, respectively, was outstanding. The maturities of the outstanding balances range from overnight to three months. Each borrowing is re-evaluated prior to its maturity date and either extended or allowed to mature.

HSBC North America Under the \$4.0 billion uncommitted fungible line of credit with HSBC North America as discussed above, there was \$1.0 billion and nil outstanding at December 31, 2021 and 2020, respectively. The outstanding balance matures in April 2022.

We have extended lines of credit to various other HSBC affiliates totaling \$4.0 billion and \$4.7 billion which did not have any outstanding balances at either December 31, 2021 or 2020.

Other short-term affiliate lending In addition to loans and lines extended to affiliates discussed above, from time to time we may extend loans to affiliates which are generally short term in nature. At December 31, 2021 and 2020, there were \$217 million and \$12 million, respectively, of these loans outstanding.

Derivative contracts As part of a global HSBC strategy to offset interest rate or other market risks associated with certain securities, debt issues and derivative contracts with unaffiliated third parties, we routinely enter into derivative transactions with HSBC Bank plc and other HSBC affiliates. The notional value of derivative contracts related to these transactions was approximately \$753.2 billion and \$923.6 billion at December 31, 2021 and 2020, respectively. The net credit exposure (defined as the net fair value of derivative assets and liabilities, including any collateral received) related to the contracts was approximately \$127 million and \$66 million at December 31, 2021 and 2020, respectively. We account for these transactions on a mark to market basis, with the change in value of contracts with HSBC affiliates substantially offset by the change in value of related contracts entered into with unaffiliated third parties.

As discussed further in Note 3, "Strategic Initiatives," during 2021, we continued to transfer certain interest rate derivative contracts to HSBC Bank plc as part of our Restructuring Plan. In addition, during the third quarter of 2021, we unwound our remaining legacy structured credit products which resulted in the sale of our remaining non-government asset-backed securities held for trading and the termination of the related derivatives. A majority of the securities were sold to HSBC Bank plc and a portion of the related terminated derivatives were total return swaps with HSBC Bank plc. The loss resulting from these unwind related transactions with HSBC Bank plc was not material.

Services Provided Between HSBC Affiliates:

Under multiple service level agreements, we provide services to and receive services from various HSBC affiliates. The following summarizes these activities:

- HSBC North America's technology and support services, including risk management, compliance, operations, finance, tax, legal, human resources, corporate affairs and other shared services, are centralized within HTSU. HTSU also provides certain item processing and statement processing activities to us. The fees we pay HTSU for the centralized support services and processing activities are included in support services from HSBC affiliates. We also receive fees from HTSU for providing certain administrative services to them. The fees we receive from HTSU are included in servicing and other fees from HSBC affiliates. In certain cases, for facilities used by HTSU, we may guarantee their performance under the lease agreements.
- We use other subsidiaries of HSBC, including HSBC Global Services Limited an HSBC subsidiary located outside of the United States, to provide various support services to our operations, including among other areas, information technology, software development, customer service, collection, risk management and accounting. The expenses related to these services are included in support services from HSBC affiliates.
- We utilize HSI, a subsidiary of HMUS, for broker dealer, debt underwriting, customer referrals, loan syndication and other treasury and traded markets related services, pursuant to service level agreements. Debt underwriting fees charged by HSI are deferred as a reduction of long-term debt and amortized to interest expense over the life of the related debt. Fees charged by HSI for the other services are included in support services from HSBC affiliates. We also receive fees from HSI for providing certain wealth management services to them. The fees we receive from HSI are included in servicing and other fees from HSBC affiliates.
- We receive fees from other subsidiaries of HSBC, including HSBC Bank plc, for providing them with banking and other miscellaneous services as well as support for certain administrative and global business activities. These fees are reported in servicing and other fees from HSBC affiliates.

Other Transactions with HSBC Affiliates:

At both December 31, 2021 and 2020, we had \$1,265 million of non-cumulative preferred stock issued and outstanding to HSBC North America. See Note 19, "Preferred Stock," for additional details.

During the fourth quarter of 2021, we paid a distribution on our common stock of \$1.0 billion from surplus capital to HSBC North America. See Note 26, "Retained Earnings and Regulatory Capital Requirements," for additional details.

25. Business Segments

We have distinct businesses, which are aligned with HSBC's global business strategy: Wealth and Personal Banking ("WPB"), Commercial Banking ("CMB"), and Global Banking and Markets ("GBM"). These businesses and a Corporate Center ("CC") serve as our reportable segments with the exception of GBM. Our GBM business is comprised of three distinct operating segments: Global Banking ("GB"), Markets and Securities Services ("MSS"), and Global Banking and Markets Other ("GBM Other"), which are separately reported as discussed further below.

During the fourth quarter of 2021, we implemented a change to our internal management reporting to align with changes to the governance structure and how we assess business performance of our GBM business, which is now being reported and managed as three separate operating segments: GB, MSS and GBM Other. As a result, we have aligned our segment reporting to reflect this change for all periods presented.

The following tables summarize the impact of this change on reported segment profit (loss) before tax, total assets and total deposits for the periods below:

	Year Ended December 31, 2020		Year Ended December 31, 2019	
	As Previously Reported	After Reporting Changes	As Previously Reported	After Reporting Changes
(in millions)				
Segment profit (loss) before tax:				
GBM	\$ 387	NSR	\$ 571	NSR
GB	NSR	\$ 209	NSR	\$ 544
MSS	NSR	194	NSR	132
GBM Other	NSR	(16)	NSR	(105)

NSR Not Separately Reported

	At December 31, 2020		At December 31, 2019	
	As Previously Reported	After Reporting Changes	As Previously Reported	After Reporting Changes
(in millions)				
Segment total assets:				
GBM	\$ 132,363	NSR	\$ 126,710	NSR
GB	NSR	\$ 11,473	NSR	\$ 16,002
MSS	NSR	67,293	NSR	71,742
GBM Other ⁽¹⁾	NSR	53,597	NSR	38,966
Segment total deposits:				
GBM	\$ 44,668	NSR	\$ 29,050	NSR
GB	NSR	\$ 37,320	NSR	\$ 24,596
MSS	NSR	3,417	NSR	2,956
GBM Other	NSR	3,931	NSR	1,498

NSR Not Separately Reported

⁽¹⁾ Includes assets allocated from Markets Treasury.

As of January 1, 2021, we also implemented a change to our internal management reporting to prospectively report assets related to our active branches within our WPB segment, which were historically reported within our CC segment. As a result, lease impairment and other related costs associated with these branches is recorded within our WPB segment beginning in 2021. Prior periods were not impacted by this change.

There have been no additional changes in the basis of our segmentation as compared with the presentation in our Annual Report on Form 10-K for the year ended December 31, 2020 ("2020 Form 10-K").

Net interest income of each segment represents the difference between actual interest earned on assets and interest incurred on liabilities of the segment, adjusted for a funding charge or credit that includes both interest rate and liquidity components. Segments are charged a cost to fund assets (e.g. customer loans) and receive a funding credit for funds provided (e.g. customer deposits) based on equivalent market rates that incorporate both repricing (interest rate risk) and tenor (liquidity) characteristics. The objective of these charges/credits is to transfer interest rate risk to one centralized unit in Markets Treasury. Markets

Treasury income statement and balance sheet results are allocated to each of the global businesses based upon tangible equity levels and levels of any surplus liabilities.

Certain other revenue and operating expense amounts are also apportioned among the business segments based upon the benefits derived from this activity or the relationship of this activity to other segment activity. These inter-segment transactions have not been eliminated, and we generally account for them as if they were with third parties.

Our segment results are presented in accordance with HSBC Group accounting and reporting policies, which apply IFRSs as issued by the IASB. As a result, our segment results are prepared and presented using financial information prepared on the Group Reporting Basis as operating results are monitored and reviewed, trends are evaluated and decisions about allocating resources, such as employees, are primarily made on this basis. We continue, however, to monitor capital adequacy and report to regulatory agencies on a U.S. GAAP basis.

There have been no changes in the measurement of segment profit as compared with the presentation in our 2020 Form 10-K.

A summary of significant differences between U.S. GAAP and the Group Reporting Basis as they impact our results is presented below:

Net Interest Income

Loan origination - The scope of loan origination costs deferred is more stringent under the Group Reporting Basis and generally results in lower costs being deferred than permitted under U.S. GAAP. In addition, deferred loan origination fees, costs and loan premiums are generally amortized to earnings based on the expected life of the loan under the Group Reporting Basis as part of the effective interest calculation, while under U.S. GAAP, they are generally amortized to earnings based on either a contractual or expected life basis. In the case of credit cards, while under the Group Reporting Basis deferred costs are amortized over the expected life of the credit card relationship, they are amortized over a shorter period of one year under U.S. GAAP.

Leases - Under the Group Reporting Basis, all leases are recognized as financing arrangements with interest expense on the lease liability recognized separately from depreciation of the ROU asset, which generally results in a front-loaded pattern of total lease expense. Under U.S. GAAP, expense on operating leases is generally recognized on a straight-line basis in operating expenses.

Deposit incentives - Under the Group Reporting Basis, costs associated with cash back incentives offered on customer deposits are deferred and amortized to interest expense over the incentive period, while under U.S. GAAP, such costs are recognized immediately in operating expenses.

Other Operating Income (Total Other Revenues)

Loans held for sale - For loans transferred to held for sale subsequent to origination, the Group Reporting Basis requires these loans to be reported separately on the balance sheet when certain criteria are met which are generally more stringent than those under U.S. GAAP, but does not change the recognition and measurement criteria. Accordingly, for the Group Reporting Basis, such loans continue to be accounted for and credit losses continue to be measured in accordance with IFRS 9, "Financial Instruments," with any gain or loss recorded at the time of sale. U.S. GAAP requires loans that meet the held for sale classification requirements be transferred to a held for sale category and subsequently measured at the lower of amortized cost or fair value. The existing allowance for credit losses at the time of transfer is recognized as a charge-off to the extent fair value is less than amortized cost and attributable to credit, with any remaining allowance for credit losses released to the provision for credit losses. Under U.S. GAAP, the component of the lower of amortized cost or fair value adjustment upon transfer to held for sale related to credit risk is recorded in provision for credit losses while the component related to interest rates and liquidity factors is recorded in other revenues. Changes in the lower of amortized cost or fair value after the initial transfer to held for sale are recorded in other revenues to the extent permissible.

For loans originated with the intent to sell, the Group Reporting Basis requires these loans to be classified as trading assets and recorded at their fair value, with gains and losses recorded in trading revenue. Under U.S. GAAP, such loans are classified as loans held for sale and, with the exception of certain loans accounted for under FVO accounting, are recorded at the lower of amortized cost or fair value, with changes in the lower of amortized cost or fair value adjustment recorded in other revenues to the extent permissible.

Renewable energy tax credit investments - Under the Group Reporting Basis, renewable energy tax credit investments are measured at fair value, with changes in fair value recognized in earnings. Under U.S. GAAP, certain of these investments are accounted for under the equity method, with the amortization of our investment balance presented in other revenues and the tax benefits obtained presented in income tax expense (benefit).

Low income housing tax credit investments - Under the Group Reporting Basis, the amortization of our investment balance and associated tax benefits are presented net in other operating income. Under U.S. GAAP, amortization of our investment balance and associated tax benefits are presented net in income tax expense (benefit).

Debt extinguishment - During 2019, extinguishment of long-term debt resulted in a gain under U.S. GAAP compared with a loss under the Group Reporting Basis. As we previously elected to apply fair value option accounting to this debt, under U.S. GAAP, the extinguishment resulted in the realization of a gain associated with our own credit spread that was previously recorded in AOCI which more than offset the premium paid to extinguish the debt. Under the Group Reporting Basis, the gain associated with our own credit spread remains in equity and does not get recognized in earnings.

Expected Credit Losses (Provision for Credit Losses)

Expected credit losses - In 2020, we adopted new accounting guidance under U.S. GAAP which requires entities to recognize an allowance for credit losses based on lifetime ECL. However, under the Group Reporting Basis only financial assets which are considered to have experienced a significant increase in credit risk ("stage 2") or for which there is objective evidence of impairment ("stage 3") require an allowance based on lifetime ECL. Under the Group Reporting Basis, financial assets at initial recognition and which have not experienced a significant increase in credit risk since initial recognition are considered to be in "stage 1" and only require an allowance based on expected credit losses resulting from default events that are possible within the next 12 months ("12-month ECL"). Under the Group Reporting Basis, a majority of our loans are considered to be in stage 1 and only a 12-month ECL is recorded. Primarily as a result of this difference, the allowance for credit losses is higher under U.S. GAAP than under the Group Reporting Basis in 2021 and 2020.

Prior to 2020, we maintained an allowance for credit losses under U.S. GAAP that reflected our estimate of probable incurred losses in the existing loan portfolio, while under the Group Reporting Basis, we used the ECL approach as discussed above. For commercial loans collectively evaluated for impairment, we utilized a loss emergence period greater than 12 months for calculating the allowance for credit losses under U.S. GAAP, while under the Group Reporting Basis, a loss emergence period is not applicable. Under the Group Reporting Basis, a majority of our commercial loans were considered to be in stage 1 and only a 12-month ECL was recorded. Primarily as a result of the different approaches, the allowance for credit losses for commercial loans was higher under U.S. GAAP than under the Group Reporting Basis in 2019.

In addition to the differences discussed above, under the Group Reporting Basis, the allowance for credit losses includes estimated ECL arising from expected future draws on unused credit card lines, while under U.S. GAAP, unused credit card lines are considered unconditionally cancellable and expected future draws are not reserved for. Also, the new accounting guidance adopted under U.S. GAAP in 2020 requires inclusion of expected recoveries, limited to the cumulative amount of prior write-offs, when estimating the allowance for credit losses for in scope financial assets (including collateral-dependent assets), which results in an impact to earnings substantially consistent with the Group Reporting Basis. Prior to 2020, these expected recoveries were not recognized under U.S. GAAP.

Loans held for sale - As discussed more fully above under "Other Operating Income (Total Other Revenues)," under U.S. GAAP for loans that are transferred to held for sale, the existing allowance for credit losses at the time of transfer is recognized as a charge-off or released to the provision for credit losses. There is no similar requirement under the Group Reporting Basis.

Operating Expenses

Other long-lived assets impairment - A long-lived asset group is tested for impairment when events or changes in circumstances indicate that the carrying amount of a long-lived asset group might not be recoverable. Under U.S. GAAP, if the estimated undiscounted cash flows of the long-lived asset group exceed its carrying amount, an impairment is not recognized. However, if the estimated undiscounted cash flows are less than the carrying amount of the long-lived asset group, a second step is performed to determine fair value and an impairment loss is required if the carrying amount of the long-lived asset group exceeds fair value. Under the Group Reporting Basis, there is no separate undiscounted cash flow test and an impairment loss is recognized if the carrying amount of the cash generating unit exceeds the higher of its value in use or fair value less costs to sell. In 2020, we recorded an impairment charge under the Group Reporting Basis related to the write-off of all the capitalized software and a portion of the leasehold improvements associated with our WPB business segment. Under U.S. GAAP, the estimated undiscounted cash flows of the long-lived asset group exceeded its carrying amount and no impairment charge was required. Consequently, the carrying amounts of capitalized software and leasehold improvements are higher under U.S. GAAP than under the Group Reporting Basis and, as a result, corresponding amortization expense is higher under U.S. GAAP. In addition, during 2021, we determined we would exit certain branches as part of our Restructuring Plan and, as a result, we recorded an impairment charge of \$18 million under U.S. GAAP to write-off the leasehold improvements associated with these branches. These leasehold improvements were previously written-off under the Group Reporting Basis.

Deposit incentives - As discussed more fully above under "Net Interest Income," incentive costs on customer deposits are deferred and amortized to interest expense under the Group Reporting Basis, while under U.S. GAAP, such costs are recognized immediately in operating expenses.

Loan origination - As discussed more fully above under "Net Interest Income," loan origination cost deferrals are more stringent under the Group Reporting Basis and generally result in lower costs being deferred than permitted under U.S. GAAP.

Pension and other postretirement benefit costs - Under U.S. GAAP, pension expense reflects the expected return on plan assets based on the fair value of plan assets. Additionally, under U.S. GAAP, pension expense includes the amortization of the amount by which actuarial losses exceeds the higher of 10 percent of the projected benefit obligation or fair value of plan assets (the corridor). Under the Group Reporting Basis, pension expense is determined using a finance cost component comprising the net interest on the net defined benefit liability, which does not reflect the benefit from the expectation of higher returns on plan assets. In 2021, 2020 and 2019, pension expense was lower under U.S. GAAP due primarily to the benefit of higher expected returns on plan assets.

Leases - As discussed more fully above under "Net Interest Income," all leases are recognized as financing arrangements under the Group Reporting Basis with interest expense on the lease liability recognized separately from depreciation of the ROU asset. Under U.S. GAAP, expense on operating leases is generally recognized on a straight-line basis in operating expenses.

Goodwill impairment - Under the Group Reporting Basis, goodwill was amortized until 2005, however goodwill was amortized under U.S. GAAP until 2002, which resulted in a lower carrying amount of goodwill and, therefore, lower impairment charges under the Group Reporting Basis in 2020 and 2019.

Litigation expense - Under U.S. GAAP, litigation accruals are recorded when it is probable a liability has been incurred and the amount is reasonably estimable. Under the Group Reporting Basis, a present obligation and a probable outflow of economic benefits must exist for an accrual to be recorded. This may create differences in the timing of accrual recognition between the Group Reporting Basis and U.S. GAAP. Additionally, under the Group Reporting Basis, legal costs to defend litigation are accrued at the time that a liability is recorded for the related litigation, while under U.S. GAAP, these costs are recognized as services are performed.

Assets

Derivatives - Under U.S. GAAP, derivative receivables and payables with the same counterparty may be reported on a net basis in the balance sheet when there is a legally enforceable netting agreement in place. In addition, under U.S. GAAP, fair value amounts recognized for the obligation to return cash collateral received or the right to reclaim cash collateral paid are offset against the fair value of derivative instruments. Under the Group Reporting Basis, these agreements do not necessarily meet the requirements for offset, and therefore such derivative receivables and payables are presented gross on the balance sheet.

Loans - As discussed more fully above under "Other Operating Income (Total Other Revenues)," on a Group Reporting Basis, loans designated as held for sale at the time of origination and accrued interest are classified as trading assets. In addition, the accounting requirements governing when loans previously held for investment are transferred to a held for sale category are more stringent under the Group Reporting Basis than under U.S. GAAP which results in loans generally being reported as held for sale later than under U.S. GAAP.

Precious metal loans - Under U.S. GAAP, precious metals leased or loaned to customers are reclassified from trading precious metals into loans and interest is accrued, while under the Group Reporting Basis, precious metals leased or loaned to customers continue to be part of the precious metal inventory recorded in other assets and are carried at fair value.

Loan allowance - As discussed more fully above under "Expected Credit Losses (Provision for Credit Losses)," beginning in 2020, under U.S. GAAP, the allowance for credit losses is recognized based on lifetime ECL. Prior to 2020, we used an incurred loss approach for estimating credit losses under U.S. GAAP which, for commercial loans collectively evaluated for impairment, included the utilization of a loss emergence period greater than 12 months. Under the Group Reporting Basis, the allowance for credit losses in all periods is recognized based on expected credit losses, however, financial assets which have not experienced a significant increase in credit risk since initial recognition only require an allowance based on a 12-month ECL.

Other long-lived assets - As discussed more fully above under "Operating Expenses," in 2020, we recorded an impairment charge under the Group Reporting Basis related to the write-off of all the capitalized software and a portion of the leasehold improvements associated with our WPB business segment. Consequently, the carrying amounts of capitalized software and leasehold improvements are higher under U.S. GAAP than under the Group Reporting Basis.

Goodwill - The Group Reporting Basis and U.S. GAAP require goodwill to be tested for impairment at least annually, or more frequently if circumstances indicate that goodwill may be impaired. Under the Group Reporting Basis, goodwill was amortized until 2005, however goodwill was amortized under U.S. GAAP until 2002, which resulted in a lower carrying amount of goodwill under the Group Reporting Basis. Methods, assumptions and reporting groups used to calculate impairment under the Group Reporting Basis may differ locally from that utilized by HSBC.

Securities transferred to held-to-maturity - During 2014, we transferred securities from available-for-sale to held-to-maturity. Under the Group Reporting Basis, the remaining unamortized net pretax unrealized losses related to the transferred securities

were adjusted against the carrying value of the securities held-to-maturity, while under U.S. GAAP, such unrealized losses are included in AOCI and are being amortized over the remaining contractual life of each security as an adjustment to yield.

The following table summarizes the results for each segment on a Group Reporting Basis, as well as provides a reconciliation of total results under the Group Reporting Basis to U.S. GAAP consolidated totals:

	Group Reporting Basis Consolidated Amounts							Group Reporting Basis Adjustments ⁽¹⁾	Group Reporting Basis Reclassifications ⁽²⁾	U.S. GAAP Consolidated Totals
	GBM									
	WPB	CMB	GB	MSS	GBM Other	CC	Total			
(in millions)										
Year Ended December 31, 2021										
Net interest income (expense)	\$ 801	\$ 771	\$ 315	\$ 47	\$ (24)	\$ (6)	\$ 1,904	\$ 19	\$ 160	\$ 2,083
Other operating income	303	297	409	318	100	3	1,430	(51)	(142)	1,237
Total operating income (expense)	1,104	1,068	724	365	76	(3)	3,334	(32)	18	3,320
Expected credit losses / provision for credit losses	(21)	(26)	(157)	—	(1)	—	(205)	(365)	—	(570)
	1,125	1,094	881	365	77	(3)	3,539	333	18	3,890
Operating expenses	1,221	581	407	275	98	316	2,898	62	18	2,978
Profit (loss) before income tax ...	\$ (96)	\$ 513	\$ 474	\$ 90	\$ (21)	\$ (319)	\$ 641	\$ 271	\$ —	\$ 912
Balances at end of period:										
Total assets	\$ 62,904	\$ 43,052	\$ 10,486	\$ 43,007	\$ 44,151	\$ 1,746	\$ 205,346	\$ (16,114)	\$ —	\$ 189,232
Total loans, net	22,285	21,971	9,930	178	881	—	55,245	(1,991)	2,163	55,417
Goodwill	—	358	—	—	—	—	358	100	—	458
Total deposits	40,232	45,082	41,343	1,298	981	—	128,936	(2,889)	16,985	143,032
Year Ended December 31, 2020										
Net interest income (expense)	\$ 837	\$ 821	\$ 369	\$ 91	\$ (62)	\$ (30)	\$ 2,026	\$ 9	\$ 139	\$ 2,174
Other operating income	368	234	351	454	165	129	1,701	(46)	(120)	1,535
Total operating income	1,205	1,055	720	545	103	99	3,727	(37)	19	3,709
Expected credit losses / provision for credit losses	189	293	139	—	1	—	622	188	—	810
	1,016	762	581	545	102	99	3,105	(225)	19	2,899
Operating expenses	2,203	587	372	351	118	403	4,034	(172)	19	3,881
Profit (loss) before income tax ...	\$ (1,187)	\$ 175	\$ 209	\$ 194	\$ (16)	\$ (304)	\$ (929)	\$ (53)	\$ —	\$ (982)
Balances at end of period:										
Total assets	\$ 59,200	\$ 36,354	\$ 11,473	\$ 67,293	\$ 53,597	\$ 1,760	\$ 229,677	\$ (33,243)	\$ —	\$ 196,434
Total loans, net	24,048	23,377	11,260	329	475	—	59,489	(2,307)	3,891	61,073
Goodwill	—	358	—	—	—	—	358	100	—	458
Total deposits	50,000	42,369	37,320	3,417	3,931	—	137,037	(4,253)	12,366	145,150
Year Ended December 31, 2019										
Net interest income (expense)	\$ 1,018	\$ 829	\$ 513	\$ 91	\$ (83)	\$ (65)	\$ 2,303	\$ 13	\$ (204)	\$ 2,112
Other operating income	330	239	415	358	127	68	1,537	102	215	1,854
Total operating income	1,348	1,068	928	449	44	3	3,840	115	11	3,966
Expected credit losses / provision for credit losses	115	55	1	—	—	—	171	32	(8)	195
	1,233	1,013	927	449	44	3	3,669	83	19	3,771
Operating expenses	1,645	581	383	317	149	238	3,313	169	19	3,501
Profit (loss) before income tax ...	\$ (412)	\$ 432	\$ 544	\$ 132	\$ (105)	\$ (235)	\$ 356	\$ (86)	\$ —	\$ 270
Balances at end of period:										
Total assets	\$ 50,851	\$ 34,241	\$ 16,002	\$ 71,742	\$ 38,966	\$ 2,421	\$ 214,223	\$ (38,848)	\$ —	\$ 175,375
Total loans, net	24,243	24,647	15,875	777	907	—	66,449	(2,965)	4,432	67,916
Goodwill	693	358	—	—	—	—	1,051	191	—	1,242
Total deposits	44,553	29,986	24,596	2,956	1,498	—	103,589	(4,747)	20,851	119,693

⁽¹⁾ Represents adjustments associated with differences between U.S. GAAP and the Group Reporting Basis. These adjustments, which are more fully described above, consist of the following:

	Net Interest Income	Other Revenues	Provision for Credit Losses	Operating Expenses	Profit (Loss) before Income Tax Expense	Total Assets
(in millions)						
December 31, 2021						
Deposit incentives	\$ 13	\$ —	\$ —	\$ 9	\$ 4	\$ (25)
Derivatives	—	—	—	—	—	(16,172)
Expected credit losses	—	—	(272)	—	272	(148)
Goodwill	—	—	—	—	—	100
Leases	16	—	—	22	(6)	13
Loan origination	(11)	—	—	(20)	9	23
Loans held for sale	—	(31)	(93)	—	62	(31)
Other long-lived assets impairment	—	—	—	61	(61)	152
Pension and other postretirement benefit costs	—	—	—	(10)	10	—
Renewable energy tax credit investments	—	(21)	—	—	(21)	3
Securities transferred to held-to-maturity	—	—	—	—	—	(24)
Other	1	1	—	—	2	(5)
Total adjustments	\$ 19	\$ (51)	\$ (365)	\$ 62	\$ 271	\$ (16,114)
December 31, 2020						
Deposit incentives	\$ 14	\$ —	\$ —	\$ 21	\$ (7)	\$ (28)
Derivatives	—	—	—	—	—	(33,163)
Expected credit losses	(4)	—	200	—	(204)	(357)
Goodwill impairment	—	—	—	91	(91)	100
Leases	23	—	—	14	9	33
Loan origination	(24)	(2)	—	(20)	(6)	18
Loans held for sale	—	(25)	(12)	—	(13)	—
Other long-lived assets impairment	—	—	—	(264)	264	201
Pension and other postretirement benefit costs	—	—	—	(15)	15	—
Renewable energy tax credit investments	—	(11)	—	—	(11)	2
Securities transferred to held-to-maturity	—	—	—	—	—	(38)
Other	—	(8)	—	1	(9)	(11)
Total adjustments	\$ 9	\$ (46)	\$ 188	\$ (172)	\$ (53)	\$ (33,243)
December 31, 2019						
Debt extinguishment	\$ —	\$ 123	\$ —	\$ —	\$ 123	\$ —
Deposit incentives	15	—	—	32	(17)	(23)
Derivatives	—	—	—	—	—	(38,651)
Expected credit losses	(3)	(1)	32	—	(36)	(357)
Goodwill impairment	—	—	—	156	(156)	191
Leases	25	—	—	8	17	15
Loan origination	(27)	—	—	(19)	(8)	38
Loans held for sale	2	(1)	—	—	1	(5)
Pension and other postretirement benefit costs	—	—	—	(12)	12	—
Renewable energy tax credit investments	—	(7)	—	—	(7)	3
Securities transferred to held-to-maturity	—	—	—	—	—	(65)
Other	1	(12)	—	4	(15)	6
Total adjustments	\$ 13	\$ 102	\$ 32	\$ 169	\$ (86)	\$ (38,848)

⁽²⁾ Represents differences in financial statement presentation between U.S. GAAP and the Group Reporting Basis.

26. Retained Earnings and Regulatory Capital Requirements

Bank dividends are one of the sources of funds used for payment of shareholder dividends and other HSBC USA cash needs. Approval from the Office of the Comptroller of the Currency ("OCC") is required if the total of all dividends HSBC Bank USA declares in any year exceeds the cumulative net income for that year, combined with the net income for the two preceding years reduced by dividends attributable to those years. OCC approval also is required for a reduction of permanent capital of HSBC Bank USA. Under a separate restriction, payment of dividends is prohibited in amounts greater than undivided profits then on hand, after deducting actual losses and bad debts. Bad debts are debts due and unpaid for a period of six months unless well secured, as defined, and in the process of collection.

We are subject to regulatory capital rules issued by U.S. banking regulators including Basel III (the "Basel III rule"). A bank or bank holding company's failure to meet minimum capital requirements can result in certain mandatory actions and possibly additional discretionary actions by its regulators. The following table summarizes the capital amounts and ratios of HSBC USA and HSBC Bank USA, calculated in accordance with the Basel III rule at December 31, 2021 and 2020:

	December 31, 2021			December 31, 2020		
	Capital Amount	Well-Capitalized Ratio ⁽¹⁾	Actual Ratio	Capital Amount	Well-Capitalized Ratio ⁽¹⁾	Actual Ratio
(dollars are in millions)						
Common equity Tier 1 ratio: ⁽⁴⁾						
HSBC USA	\$ 15,341	4.5 % ⁽²⁾	15.1 %	\$ 15,891	4.5 % ⁽²⁾	14.5 %
HSBC Bank USA	17,665	6.5	17.6	18,180	6.5	16.4
Tier 1 capital ratio: ⁽⁴⁾						
HSBC USA	16,606	6.0	16.3	17,156	6.0	15.6
HSBC Bank USA	20,165	8.0	20.1	20,680	8.0	18.7
Total capital ratio: ⁽⁴⁾						
HSBC USA	18,821	10.0	18.5	20,680	10.0	18.8
HSBC Bank USA	22,157	10.0	22.1	23,303	10.0	21.1
Tier 1 leverage ratio:						
HSBC USA	16,606	4.0 ⁽²⁾	8.5	17,156	4.0 ⁽²⁾	8.6
HSBC Bank USA	20,165	5.0	10.5	20,680	5.0	10.3
Supplementary leverage ratio ("SLR"):						
HSBC USA	16,606	3.0 ⁽³⁾	6.6	17,156	3.0 ⁽³⁾	7.8
HSBC Bank USA	20,165	3.0 ⁽³⁾	8.1	20,680	3.0 ⁽³⁾	9.3
Risk-weighted assets: ⁽⁴⁾⁽⁵⁾						
HSBC USA	101,827			109,809		
HSBC Bank USA	100,363			110,682		
Adjusted quarterly average assets: ⁽⁶⁾						
HSBC USA	194,469			198,698		
HSBC Bank USA	192,521			200,026		
Total leverage exposure: ⁽⁷⁾						
HSBC USA	251,531			221,216		
HSBC Bank USA	248,584			221,334		

⁽¹⁾ HSBC USA and HSBC Bank USA are categorized as "well-capitalized," as defined by their principal regulators. To be categorized as well-capitalized under regulatory guidelines, a banking institution must maintain capital equal to or in excess of the ratios reflected in the above table, and must not be subject to a directive, order, or written agreement to meet and maintain specific capital levels.

⁽²⁾ There are no common equity Tier 1 or Tier 1 leverage ratio components in the definition of a well-capitalized bank holding company. The ratios shown are the regulatory minimums.

⁽³⁾ There is no SLR component in the definition of a well-capitalized banking institution. The ratios shown are the regulatory minimums.

⁽⁴⁾ During the first quarter of 2021, it was determined that certain collateral did not qualify for risk-weighted asset reduction purposes under U.S. capital rules. As a result, reported risk-weighted assets were understated and reported Common equity Tier 1 capital, Tier 1 capital and Total capital ratios were

overstated at HSBC USA and HSBC Bank USA at December 31, 2020. We have revised December 31, 2020 amounts to conform to the current period presentation. The following table summarizes the impact of this change on reported risk-weighted assets and capital ratios as of December 31, 2020:

	December 31, 2020			
	As Previously Reported		As Revised	
	HSBC USA	HSBC Bank USA	HSBC USA	HSBC Bank USA
	(in millions)			
Common equity Tier 1 ratio	14.7 %	17.2 %	14.5 %	16.4 %
Tier 1 capital ratio	15.9 %	19.6 %	15.6 %	18.7 %
Total capital ratio	19.2 %	22.0 %	18.8 %	21.1 %
Risk-weighted assets	\$ 107,808	\$ 105,681	\$ 109,809	\$ 110,682

(5) Calculated using the generally-applicable Standardized Approach.

(6) Represents the Tier 1 leverage ratio denominator which reflects quarterly average assets adjusted for amounts permitted to be deducted from Tier 1 capital.

(7) Represents the SLR denominator which includes adjusted quarterly average assets plus certain off-balance sheet exposures.

In response to the COVID-19 pandemic, the federal banking agencies issued a final rule that provides the option to transition in the regulatory capital impacts of the new current expected credit loss accounting standard over a five-year period. In 2020, HSBC North America and HSBC Bank USA elected the five-year transition option and, as a result, our capital ratios are being reported in accordance with the transition rules in the final rule. Accordingly, during 2020 and 2021, we excluded from regulatory capital the change in retained earnings resulting from adoption of the new accounting standard on January 1, 2020 as well as 25 percent of the change in the allowance for credit losses recognized between January 1, 2020 and December 31, 2021. Beginning January 1, 2022, the excluded impacts will be phased into regulatory capital over a three-year transition period and will be fully reflected at January 1, 2025.

Also in response to the COVID-19 pandemic, the FRB issued final rules that permitted intermediate holding companies, such as HSBC North America, and depository institutions, such as HSBC Bank USA, to temporarily exclude U.S. Treasury securities and deposits at Federal Reserve Banks from the denominator of their SLR. The rules were designed to allow banking institutions to expand their balance sheets to accommodate increased customer deposits while continuing to provide credit to companies and households. These changes took effect in 2020 and expired on April 1, 2021.

During 2021 and 2020, HSBC USA did not receive any cash capital contributions from its parent, HSBC North America, and did not make any capital contributions to its subsidiary, HSBC Bank USA.

During the fourth quarter of 2021, HSBC USA received a common stock return of capital of \$1.0 billion from its subsidiary, HSBC Bank USA, and paid a distribution on its common stock of \$1.0 billion from surplus capital to its parent, HSBC North America.

27. Variable Interest Entities

In the ordinary course of business, we have organized special purpose entities ("SPEs") primarily to structure financial products to meet our clients' investment needs, to facilitate clients to access and raise financing from capital markets and to securitize financial assets held to meet our own funding needs. For disclosure purposes, we aggregate SPEs based on the purpose, risk characteristics and business activities of the SPEs. An SPE is a VIE if it lacks sufficient equity investment at risk to finance its activities without additional subordinated financial support or, as a group, the holders of the equity investment at risk lack either a) the power through voting or similar rights to direct the activities of the entity that most significantly impacts the entity's economic performance; or b) the obligation to absorb the entity's expected losses, the right to receive the expected residual returns, or both.

Variable Interest Entities We consolidate VIEs in which we hold a controlling financial interest as evidenced by the power to direct the activities of a VIE that most significantly impact its economic performance and the obligation to absorb losses of, or the right to receive benefits from, the VIE that could potentially be significant to the VIE and therefore are deemed to be the primary beneficiary. We take into account our entire involvement in a VIE (explicit or implicit) in identifying variable interests that individually or in the aggregate could be significant enough to warrant our designation as the primary beneficiary and hence require us to consolidate the VIE or otherwise require us to make appropriate disclosures. We consider our involvement to be potentially significant where we, among other things, (i) enter into derivative contracts to absorb the risks and benefits from the VIE or from the assets held by the VIE; (ii) provide a financial guarantee that covers assets held or liabilities issued by a VIE; (iii) sponsor the VIE in that we design, organize and structure the transaction; and (iv) retain a financial or servicing interest in the VIE.

We are required to evaluate whether to consolidate a VIE when we first become involved and on an ongoing basis. In almost all cases, a qualitative analysis of our involvement in the entity provides sufficient evidence to determine whether we are the primary beneficiary. In rare cases, a more detailed analysis to quantify the extent of variability to be absorbed by each variable interest holder is required to determine the primary beneficiary.

Consolidated VIEs The following table summarizes assets and liabilities related to our consolidated VIEs at December 31, 2021 and 2020 which are consolidated on our balance sheet. Assets and liabilities exclude intercompany balances that eliminate in consolidation.

	December 31, 2021		December 31, 2020	
	Consolidated Assets	Consolidated Liabilities	Consolidated Assets	Consolidated Liabilities
(in millions)				
Low income housing limited liability partnership:				
Other assets	\$ 54	\$ —	\$ 79	\$ —
Interest, taxes and other liabilities	—	7	—	9
Subtotal	54	7	79	9
Venture debt financing entity:				
Loans	46	—	10	—
Other assets	1	—	—	—
Interest, taxes and other liabilities	—	2	—	1
Subtotal	47	2	10	1
Total	\$ 101	\$ 9	\$ 89	\$ 10

Low income housing limited liability partnership In 2009, all low income housing investments held by us at the time were transferred to a Limited Liability Partnership ("LLP") in exchange for debt and equity while a third party invested cash for an equity interest that was mandatorily redeemable. The LLP was created in order to ensure the utilization of future tax benefits from these low income housing tax projects. The LLP was deemed to be a VIE as it does not have sufficient equity investment at risk to finance its activities. Upon entering into this transaction, we concluded that we were the primary beneficiary of the LLP due to the nature of our continuing involvement and, as a result, we consolidated the LLP and reported the equity interest issued to the third party investor in long-term debt and the assets of the LLP in other assets on our consolidated balance sheet. The investments held by the LLP represent equity investments in the underlying low income housing partnerships. The LLP does not consolidate the underlying partnerships because it does not have the power to direct the activities of the partnerships that most significantly impact the economic performance of the partnerships. In 2019, the equity interest issued to the third party investor was redeemed.

We amortize our low income housing investments in proportion to the allocated tax benefits under the proportional amortization method and present the associated tax benefits net of investment amortization in income tax expense (benefit).

Venture debt financing entity HSBC USA has organized and provided equity financing to HSBC Ventures USA Inc. ("HSBC Ventures"), an entity designed to provide debt financing to venture capital-backed companies generally in the form of term or revolving loans, or loan commitments. Given the generally early stage and development of the companies, the loans are typically collateralized by all of the company's assets and intellectual property, or by specific items such as receivables or equipment. The loan terms may, at times, also include warrants for company stock granting HSBC Ventures a share of the financial returns in case of a positive realization event. HSBC USA also provides debt financing to HSBC Ventures in the form of loans on an as-needed basis. HSBC Ventures is a VIE because it does not have sufficient equity investment at risk to finance its activities. As the sole investor, HSBC USA is considered to be the primary beneficiary because it has the obligation to absorb losses and the right to receive benefits that could be potentially significant to HSBC Ventures. As a result, we consolidate HSBC Ventures and report the third party loans and warrants, if any, on our consolidated balance sheet.

Unconsolidated VIEs We also have variable interests in other VIEs that are not consolidated because we are not the primary beneficiary. The following table provides additional information on these unconsolidated VIEs, including the variable interests held by us and our maximum exposure to loss arising from our involvement in these VIEs, at December 31, 2021 and 2020:

	Total Assets Held by Unconsolidated VIEs	Carrying Value of Variable Interests Held Reported as		Maximum Exposure to Loss
		Assets	Liabilities	
(in millions)				
At December 31, 2021				
Limited partnership investments	\$ 6,700	\$ 825	\$ 407	\$ 825
Asset-backed financing SPE	1,033	873	—	873
Total	<u>\$ 7,733</u>	<u>\$ 1,698</u>	<u>\$ 407</u>	<u>\$ 1,698</u>
At December 31, 2020				
Limited partnership investments	\$ 4,266	\$ 629	\$ 285	\$ 629

Information on the types of VIEs with which we are involved, the nature of our involvement and the variable interests held in those entities is presented below.

Limited partnership investments We invest as a limited partner in partnerships that operate qualified affordable housing, renewable energy and community development projects. The returns of these investments are generated primarily from the tax benefits, including Federal tax credits and tax deductions from operating losses in the project companies. In addition, some of the investments also help us comply with the Community Reinvestment Act. Certain limited partnership structures are considered to be VIEs because either (a) they do not have sufficient equity investment at risk or (b) the limited partners with equity at risk do not have substantive kick-out rights through voting rights or substantive participating rights over the general partner. As a limited partner, we are not the primary beneficiary of the VIEs and do not consolidate them. Our investments in these partnerships are recorded in other assets on the consolidated balance sheet. The maximum exposure to loss shown in the table above represents our recorded investments as well as any outstanding funding commitments extended to the partnerships.

Asset-backed financing SPE During the fourth quarter of 2021, we sold a portfolio of commercial real estate loans and provided a loan to the third-party buyer sponsored SPE for a portion of the purchase price. The SPE is an asset-backed financing entity that issued residual beneficial interests to third-party investors. The loan we provided to the SPE is senior to the residual beneficial interests and is secured by the commercial real estate loans held by the SPE. Cash flows from the commercial real estate loans will be used first to settle the interest and principal payments of the loan, with any excess cash flows attributable to the residual interest holders. The SPE is a VIE in which we have a variable interest through our ownership of the loan, which is an arm's-length transaction. We do not have the power to direct the activities that most significantly impact the VIE's economic performance. In addition, the VIE is designed such that the residual interest holders absorb any expected loss and/or benefit that could be potentially significant to the VIE and, therefore, we are not the primary beneficiary. The maximum exposure to loss shown in the table above represents our recorded investment in the loan without consideration of any recovery benefits from the value of the commercial real estate loans.

Third-party sponsored securitization entities We invest in asset-backed securities issued by third-party sponsored securitization entities which may be considered VIEs. The investments are transacted at arm's-length and decisions to invest are based on a credit analysis of the underlying collateral assets or the issuer. We are a passive investor in these issuers and do not have the power to direct the activities of these issuers. As such, we do not consolidate these securitization entities. Additionally, we do not have other involvements in servicing or managing the collateral assets or provide financial or liquidity support to these issuers which potentially give rise to risk of loss exposure. These investments are an integral part of the disclosure in Note 5, "Trading Assets and Liabilities," Note 6, "Securities," and Note 29, "Fair Value Measurements," and, therefore, are not disclosed in this note to avoid redundancy.

In addition to the above, we have established and manage money market funds and non-money market mutual funds to provide customers with investment opportunities. As fund manager, we may be entitled to receive management fees based on the assets under management. We do not consolidate the funds because we do not absorb the majority of the expected future risk associated with the fund's assets, including interest rate, liquidity, credit and other relevant risks that are expected to affect the value of the assets.

28. Guarantee Arrangements, Pledged Assets and Repurchase Agreements

Guarantee Arrangements As part of our normal operations, we enter into credit derivatives and various off-balance sheet guarantee arrangements with affiliates and third parties. These arrangements arise principally in connection with our lending and client intermediation activities and include standby letters of credit and certain credit derivative transactions. The contractual amounts of these arrangements represent our maximum possible credit exposure in the event that we are required to fulfill the maximum obligation under the contractual terms of the guarantee.

The following table presents total carrying value and contractual amounts of our sell protection credit derivatives and major off-balance sheet guarantee arrangements at December 31, 2021 and 2020. Following the table is a description of the various arrangements.

	December 31, 2021		December 31, 2020	
	Carrying Value	Notional / Maximum Exposure to Loss	Carrying Value	Notional / Maximum Exposure to Loss
	(in millions)			
Credit derivatives ⁽¹⁾⁽²⁾	\$ 7	\$ 2,174	\$ 144	\$ 19,500
Financial standby letters of credit, net of participations ⁽³⁾⁽⁴⁾	—	5,339	—	5,703
Performance standby letters of credit, net of participations ⁽³⁾⁽⁴⁾	—	2,961	—	2,842
Total	<u>\$ 7</u>	<u>\$ 10,474</u>	<u>\$ 144</u>	<u>\$ 28,045</u>

⁽¹⁾ Includes \$1,591 million and \$13,550 million of notional issued for the benefit of HSBC affiliates at December 31, 2021 and 2020, respectively.

⁽²⁾ For credit derivatives, the maximum loss is represented by the notional amounts without consideration of mitigating effects from collateral or recourse arrangements.

⁽³⁾ Includes \$1,969 million and \$1,836 million of both financial and performance standby letters of credit issued for the benefit of HSBC affiliates at December 31, 2021 and 2020, respectively.

⁽⁴⁾ For standby letters of credit, maximum loss represents losses to be recognized assuming the letters of credit have been fully drawn and the obligors have defaulted with zero recovery.

Credit-Risk Related Guarantees

Credit derivatives Credit derivatives are financial instruments that transfer the credit risk of a reference obligation from the credit protection buyer to the credit protection seller who is exposed to the credit risk without buying the reference obligation. We sell credit protection on underlying reference obligations (such as loans or securities) by entering into credit derivatives, primarily in the form of credit default swaps, with various institutions. We account for all credit derivatives at fair value. Where we sell credit protection to a counterparty that holds the reference obligation, the arrangement is effectively a financial guarantee on the reference obligation. Under a credit derivative contract, the credit protection seller will reimburse the credit protection buyer upon occurrence of a credit event (such as bankruptcy, insolvency, restructuring or failure to meet payment obligations when due) as defined in the derivative contract, in return for a periodic premium. Upon occurrence of a credit event, we will pay the counterparty the stated notional amount of the derivative contract and receive the underlying reference obligation. The recovery value of the reference obligation received could be significantly lower than its notional principal amount when a credit event occurs.

Certain derivative contracts are subject to master netting arrangements and related collateral agreements. A party to a derivative contract may demand that the counterparty post additional collateral in the event its net exposure exceeds certain predetermined limits and when the credit rating falls below a certain grade. We set the collateral requirements by counterparty such that the collateral covers various transactions and products, and is not allocated to specific individual contracts.

We manage our exposure to credit derivatives using a variety of risk mitigation strategies where we enter into offsetting hedge positions or transfer the economic risks, in part or in entirety, to investors through the issuance of structured credit products. We actively manage the credit and market risk exposure in the credit derivative portfolios on a net basis and, as such, retain no or a limited net position at any time. The following table summarizes our net credit derivative positions at December 31, 2021 and 2020:

	December 31, 2021		December 31, 2020	
	Carrying / Fair Value	Notional	Carrying / Fair Value	Notional
(in millions)				
Sell-protection credit derivative positions.....	\$ 7	\$ 2,174	\$ 144	\$ 19,500
Buy-protection credit derivative positions.....	(62)	4,849	(74)	33,111
Net position ⁽¹⁾	<u>\$ (55)</u>	<u>\$ 2,675</u>	<u>\$ 70</u>	<u>\$ 13,611</u>

⁽¹⁾ Positions are presented net in the table above to provide a complete analysis of our risk exposure and depict the way we manage our credit derivative portfolio. The offset of the sell-protection credit derivatives against the buy-protection credit derivatives may not be legally binding in the absence of master netting agreements with the same counterparty. Furthermore, the credit loss triggering events for individual sell protection credit derivatives may not be the same or occur in the same period as those of the buy protection credit derivatives thereby not providing an exact offset.

Standby letters of credit A standby letter of credit is issued to a third party for the benefit of a client and is a guarantee that the client will perform or satisfy certain obligations under a contract. It irrevocably obligates us to pay a specified amount to the third party beneficiary if the client fails to perform the contractual obligation. We issue two types of standby letters of credit: performance and financial. A performance standby letter of credit is issued where the client is required to perform some non-financial contractual obligation, such as the performance of a specific act, whereas a financial standby letter of credit is issued where the client's contractual obligation is of a financial nature, such as the repayment of a loan or debt instrument.

The issuance of a standby letter of credit is subject to our credit approval process and collateral requirements. We charge fees for issuing letters of credit commensurate with the client's credit evaluation and the nature of any collateral. Included in other liabilities are deferred fees on standby letters of credit amounting to \$51 million and \$44 million at December 31, 2021 and 2020, respectively. Also included in other liabilities is an allowance for credit losses on unfunded standby letters of credit of \$14 million and \$32 million at December 31, 2021 and 2020, respectively.

The following table summarizes the credit ratings related to guarantees including the ratings of counterparties against which we sold credit protection and financial standby letters of credit at December 31, 2021 as an indicative proxy of payment risk:

Notional/Contractual Amounts	Average Life (in years)	Credit Ratings of the Obligors		
		Investment Grade	Non-Investment Grade	Total
(dollars are in millions)				
Sell-protection Credit Derivatives ⁽¹⁾				
Single name credit default swaps ("CDS")	2.2	\$ 1,125	\$ 594	\$ 1,719
Index credit derivatives	13.5	400	55	455
Subtotal		1,525	649	2,174
Standby Letters of Credit ⁽²⁾	1.3	6,478	1,822	8,300
Total		\$ 8,003	\$ 2,471	\$ 10,474

⁽¹⁾ The credit ratings in the table represent external credit ratings for classification as investment grade and non-investment grade.

⁽²⁾ External ratings for most of the obligors are not available. Presented above are the internal credit ratings which are developed using similar methodologies and rating scale equivalent to external credit ratings for purposes of classification as investment grade and non-investment grade.

Our internal credit ratings are determined based on HSBC's risk rating systems and processes which assign a credit grade based on a scale which ranks the risk of default of a client. The credit grades are assigned and used for managing risk and determining level of credit exposure appetite based on the client's operating performance, liquidity, capital structure and debt service ability. In addition, we also incorporate subjective judgments into the risk rating process concerning such things as industry trends, comparison of performance to industry peers and perceived quality of management. We compare our internal risk ratings to outside external rating agency benchmarks, where possible, at the time of formal review and regularly monitor whether our risk ratings are comparable to the external ratings benchmark data.

A non-investment grade rating of a referenced obligor has a negative impact to the fair value of the credit derivative and increases the likelihood that we will be required to perform under the credit derivative contract. We employ market-based parameters and, where possible, use the observable credit spreads of the referenced obligors as measurement inputs in

determining the fair value of the credit derivatives. We believe that such market parameters are more indicative of the current status of payment/performance risk than external ratings by the rating agencies which may not be forward-looking in nature and, as a result, lag behind those market-based indicators.

Non Credit-Risk Related Guarantees and Other Arrangements

Visa covered litigation In 2008, we received Class B Shares as part of Visa's initial public offering ("IPO"). Pursuant to the IPO, we, along with all the other Class B shareholders, agreed to indemnify Visa for the claims and obligations arising from certain specific covered litigation. The Class B Shares are not eligible to be converted into publicly traded Class A Shares until settlement of the covered litigation described in Note 30, "Litigation and Regulatory Matters". Accordingly, the Class B Shares are considered restricted and are only transferable under limited circumstances, which include transfers to other Class B shareholders.

In 2017, we sold substantially all of our remaining Visa Class B Shares to a third party. Under the terms of the sale agreements, we entered into swap agreements with the purchaser to retain the litigation risk associated with the Class B Shares sold until the related litigation is settled and the Class B Shares can be converted into Class A Shares. These swaps had a carrying value of \$38 million and \$67 million at December 31, 2021 and 2020, respectively. The swap agreements we entered into with the purchaser requires us to (a) make periodic payments, calculated by reference to the market price of Class A Shares and (b) make or receive payments based on subsequent changes in the conversion rate of Class B Shares into Class A Shares. We have entered into a total return swap position to economically hedge the periodic payments made under these swap agreements. The payments under the derivative will continue until the Class B Shares are able to be converted into Class A Shares. The fair value of the swap agreements is estimated using a discounted cash flow methodology and is dependent upon the final resolution of the related litigation. Changes in fair value between periods are recognized in other income (loss). In 2021, we recorded a loss of \$3 million related to a change in the Visa Class B Share conversion rate. In 2020, we recorded a loss of \$9 million primarily related to extending the maturity of the total return swap position used to economically hedge the periodic payments made under the swap agreements. In 2019, we recorded a loss of \$52 million related to an increase in the expected timing of the final resolution of the related litigation and, to a lesser extent, changes in the Visa Class B Share conversion rate. See Note 16, "Derivative Financial Instruments," for further information.

Clearing houses and exchanges We are a member of various exchanges and clearing houses that trade and clear securities and/or derivatives contracts. Under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, members of a clearing house may be required to contribute to a guaranty fund to backstop members' obligations to the clearing house. As a member, we may be required to pay a proportionate share of the financial obligations of another member who defaults on its obligations to the exchange or the clearing house. Our guarantee obligations would arise only if the exchange or clearing house had exhausted its resources. Any potential contingent liability under these membership agreements cannot be estimated.

Lease Obligations We are obligated under a number of noncancellable operating leases for premises and equipment. See Note 12, "Leases," for information regarding our leases, including a maturity analysis of our operating lease liabilities.

Mortgage Loan Repurchase Obligations We originate and sell mortgage loans to third parties and provide various representations and warranties related to, among other things, the ownership of the loans, the validity of the liens, the loan selection and origination process, and the compliance to the origination criteria established by the government agencies. In the event of a breach of our representations and warranties, we may be obligated to repurchase the loans with identified defects or to indemnify the buyers. Our contractual obligation arises only when the breach of representations and warranties are discovered and repurchase is demanded.

In estimating our repurchase liability arising from breaches of representations and warranties, we consider historical losses on residual risks not covered by settlement agreements adjusted for any risk factors not captured in the historical losses as well as the level of outstanding repurchase demands received. Outstanding repurchase demands received were immaterial at December 31, 2021 and 2020.

Our estimated repurchase liability for obligations arising from the breach of representations and warranties associated with mortgage loans sold was \$3 million at both December 31, 2021 and 2020. Our repurchase liability represents our best estimate of the loss that has been incurred, including interest, arising from breaches of representations and warranties associated with mortgage loans sold. Because the level of mortgage loan repurchase losses is dependent upon economic factors, investor demand strategies and other external risk factors such as housing market trends that may change, the level of the liability for mortgage loan repurchase losses requires significant judgment. We continue to evaluate our methods of determining the best estimate of loss based on recent trends. As these estimates are influenced by factors outside our control, there is uncertainty inherent in these estimates making it reasonably possible that they could change. The range of reasonably possible losses in excess of our recorded repurchase liability is between zero and \$25 million at December 31, 2021. This estimated range of reasonably possible losses was determined based upon modifying the assumptions utilized in our best estimate of probable losses to reflect what we believe to be reasonably possible adverse assumptions.

Securitization Activity In addition to the repurchase risk described above, we have also been involved as a sponsor/seller of loans used to facilitate whole loan securitizations underwritten by our affiliate, HSI. In this regard, we began acquiring residential mortgage loans in 2005 which were warehoused on our balance sheet with the intent of selling them to HSI to facilitate HSI's whole loan securitization program which was discontinued in 2007. During 2005-2007, we purchased and sold \$24 billion of such loans to HSI which were subsequently securitized and sold by HSI to third parties. See "Mortgage Securitization Matters" in Note 30, "Litigation and Regulatory Matters," for additional discussion of related exposure.

Pledged Assets

Pledged assets included in the consolidated balance sheet consisted of the following:

At December 31,	2021	2020
	(in millions)	
Interest bearing deposits with banks ⁽¹⁾	\$ 563	\$ 2,158
Trading assets ⁽²⁾	1,773	1,265
Securities available-for-sale ⁽³⁾	7,618	8,652
Securities held-to-maturity ⁽³⁾	599	1,076
Loans ⁽⁴⁾	17,777	18,146
Other assets ⁽⁵⁾	1,211	2,352
Total	<u>\$ 29,541</u>	<u>\$ 33,649</u>

⁽¹⁾ Represents gross amount of cash on deposit with banks related to derivative collateral-support agreements, of which a majority has been netted against derivative liabilities on the consolidated balance sheet.

⁽²⁾ Trading assets are primarily pledged against liabilities associated with repurchase agreements.

⁽³⁾ Securities are primarily pledged against derivatives, public fund deposits, trust deposits and various short-term and long term borrowings, as well as providing capacity for potential secured borrowings from the FHLB and the Federal Reserve Bank of New York.

⁽⁴⁾ Loans are primarily residential mortgage loans pledged against current and potential borrowings from the FHLB and the Federal Reserve Bank of New York.

⁽⁵⁾ Represents gross amount of cash on deposit with non-banks related to derivative collateral support agreements, of which a majority has been netted against derivative liabilities on the consolidated balance sheet.

Debt securities pledged as collateral under repurchase agreements that can be sold or repledged by the secured party continue to be reported on the consolidated balance sheet. The fair value of securities available-for-sale that could be sold or repledged was \$2,410 million and \$2,077 million at December 31, 2021 and 2020, respectively. The fair value of trading assets that could be sold or repledged was \$1,749 million and \$1,265 million at December 31, 2021 and 2020, respectively.

The fair value of collateral we accepted under security resale agreements but was not reported on the consolidated balance sheet was \$12,848 million and \$41,447 million at December 31, 2021 and 2020, respectively. Of this collateral, \$12,848 million and \$41,047 million could be sold or repledged at December 31, 2021 and 2020, respectively, of which \$538 million and \$4,063 million, respectively, had been sold or repledged as collateral under repurchase agreements or to cover short sales.

Repurchase Agreements

We enter into purchases of securities under agreements to resell (resale agreements) and sales of securities under agreements to repurchase (repurchase agreements) identical or substantially the same securities. Resale and repurchase agreements are accounted for as secured lending and secured borrowing transactions, respectively.

Repurchase agreements may require us to deposit cash or other collateral with the lender. In connection with resale agreements, it is our policy to obtain possession of collateral, which may include the securities purchased, with market value in excess of the principal amount loaned. The market value of the collateral subject to the resale and repurchase agreements is regularly monitored, and additional collateral is obtained or provided when appropriate, to ensure appropriate collateral coverage of these secured financing transactions.

The following table provides information about resale and repurchase agreements that are subject to offset at December 31, 2021 and 2020:

	Gross Amounts Recognized	Gross Amounts Offset in the Balance Sheet ⁽¹⁾	Net Amounts Presented in the Balance Sheet	Gross Amounts Not Offset in the Balance Sheet		Net Amount ⁽³⁾
				Financial Instruments ⁽²⁾	Cash Collateral Received / Pledged	
(in millions)						
At December 31, 2021						
Assets:						
Securities purchased under resale agreements ...	\$ 12,871	\$ 2,357	\$ 10,514	\$ 10,464	\$ 50	\$ —
Liabilities:						
Securities sold under repurchase agreements.....	\$ 4,672	\$ 2,357	\$ 2,315	\$ 2,315	\$ —	\$ —
At December 31, 2020						
Assets:						
Securities purchased under resale agreements ...	\$ 41,382	\$ 5,636	\$ 35,746	\$ 35,746	\$ —	\$ —
Liabilities:						
Securities sold under repurchase agreements.....	\$ 7,401	\$ 5,636	\$ 1,765	\$ 1,762	\$ —	\$ 3

⁽¹⁾ Represents recognized amount of resale and repurchase agreements with counterparties subject to legally enforceable netting agreements that meet the applicable netting criteria as permitted by generally accepted accounting principles.

⁽²⁾ Represents securities received or pledged to cover financing transaction exposures.

⁽³⁾ Represents the amount of our exposure that is not collateralized / covered by pledged collateral.

The following table provides the class of collateral pledged and remaining contractual maturity of repurchase agreements accounted for as secured borrowings at December 31, 2021 and 2020:

	Overnight and Continuous	Up to 30 Days	31 to 90 Days	91 Days to One Year	Greater Than One Year	Total
(in millions)						
At December 31, 2021						
U.S. Treasury, U.S. Government sponsored and U.S. Government agency securities	\$ —	\$ 3,442	\$ 1,151	\$ 79	\$ —	\$ 4,672
At December 31, 2020						
U.S. Treasury, U.S. Government sponsored and U.S. Government agency securities	\$ 4,091	\$ 2,810	\$ 500	\$ —	\$ —	\$ 7,401

29. Fair Value Measurements

Accounting principles related to fair value measurements provide a framework for measuring fair value that focuses on the exit price that would be received to sell an asset or paid to transfer a liability in the principal market (or in the absence of the principal market, the most advantageous market) accessible in an orderly transaction between willing market participants (the "Fair Value Framework"). Where required by the applicable accounting standards, assets and liabilities are measured at fair value using the "highest and best use" valuation premise. Fair value measurement guidance clarifies that financial instruments do not have alternative use and, as such, the fair value of financial instruments should be determined using an "in-exchange" valuation premise. However, the fair value measurement guidance provides a valuation exception and permits an entity to measure the fair value of a group of financial assets and financial liabilities with offsetting credit risks and/or market risks based on the exit price it would receive or pay to transfer the net risk exposure of a group of assets or liabilities if certain conditions are met. We elected to apply the measurement exception to a group of derivative instruments with offsetting credit risks and market risks, which primarily relate to interest rate, foreign currency, debt and equity price risk, and commodity price risk as of the reporting date.

Fair Value Adjustments The best evidence of fair value is quoted market price in an actively traded market, where available. In the event listed price or market quotes are not available, valuation techniques that incorporate relevant transaction data and market parameters reflecting the attributes of the asset or liability under consideration are applied. Where applicable, fair value adjustments are made to ensure the financial instruments are appropriately recorded at fair value. The fair value adjustments reflect the risks associated with the products, contractual terms of the transactions, and the liquidity of the markets in which the transactions occur. The fair value adjustments are broadly categorized by the following major types:

Credit valuation adjustment - The credit valuation adjustment is an adjustment to a group of financial assets and financial liabilities, predominantly derivative assets and derivative liabilities, to reflect the credit quality of the parties to the transaction in arriving at fair value. A credit valuation adjustment to a financial asset is required to reflect the default risk of the counterparty. A debit valuation adjustment to a financial liability is recorded to reflect the default risk of HUSI. See "Valuation Techniques - Derivatives" below for additional details.

Liquidity risk adjustment - The liquidity risk adjustment (primarily in the form of bid-offer adjustment) reflects the cost that would be incurred to close out the market risks by hedging, disposing or unwinding the position. Valuation models generally produce mid-market values. The bid-offer adjustment is made in such a way that results in a measure that reflects the exit price that most represents the fair value of the financial asset or financial liability under consideration or, where applicable, the fair value of the net market risk exposure of a group of financial assets or financial liabilities. These adjustments relate primarily to Level 2 assets.

Model valuation adjustment - Where fair value measurements are determined using an internal valuation model based on observable and unobservable inputs, certain valuation inputs may be less readily determinable. There may be a range of possible valuation inputs that market participants may assume in determining the fair value measurement. The resultant fair value measurement has inherent measurement risk if one or more parameters are unobservable and must be estimated. An input valuation adjustment is necessary to reflect the likelihood that market participants may use different input parameters, and to mitigate the possibility of measurement error. In addition, the values derived from valuation techniques are affected by the choice of valuation model and model limitation. When different valuation techniques are available, the choice of valuation model can be subjective. Furthermore, the valuation model applied may have measurement limitations. In those cases, an additional valuation adjustment is also applied to mitigate the measurement risk. Model valuation adjustments are not material and relate primarily to Level 2 instruments.

We apply stress scenarios in determining appropriate liquidity risk and model risk adjustments for Level 3 fair values by reviewing the historical data for unobservable inputs (e.g., correlation, volatility). Some stress scenarios involve at least a 95 percent confidence interval (i.e., two standard deviations). We also utilize unobservable parameter adjustments when instruments are valued using internally developed models which reflects the uncertainty in the value estimates provided by the model.

Funding Fair Value Adjustment ("FFVA") - The FFVA reflects the estimated present value of the future market funding cost or benefit associated with funding uncollateralized derivative exposure at unsecured funding spreads. See "Valuation Techniques - Derivatives" below for additional details.

Fair Value Hierarchy The Fair Value Framework establishes a three-tiered fair value hierarchy as follows:

Level 1 quoted market price - Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 valuation technique using observable inputs - Level 2 inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are inactive, and measurements

determined using valuation models where all significant inputs are observable, such as interest rates and yield curves that are observable at commonly quoted intervals.

Level 3 valuation technique with significant unobservable inputs - Level 3 inputs are unobservable inputs for the asset or liability and include situations where fair values are measured using valuation techniques based on one or more significant unobservable inputs.

Classification within the fair value hierarchy is based on whether the lowest hierarchical level input that is significant to the fair value measurement is observable. As such, the classification within the fair value hierarchy is dynamic and can be transferred to other hierarchy levels in each reporting period.

Where fair value measurements are determined based on information obtained from independent pricing services or brokers, Finance applies appropriate validation procedures to substantiate fair value. For price validation purposes, quotations from at least two independent pricing sources are obtained for each financial instrument, where possible.

The following factors are considered in determining fair values:

- similarities between the asset or the liability under consideration and the asset or liability for which quotation is received;
- collaboration of pricing by referencing to other independent market data such as market transactions and relevant benchmark indices;
- consistency among different pricing sources;
- the valuation approach and the methodologies used by the independent pricing sources in determining fair value;
- the elapsed time between the date to which the market data relates and the measurement date;
- the source of the fair value information; and
- whether the security is traded in an active or inactive market.

Greater weight is given to quotations of instruments with recent market transactions, pricing quotes from dealers who stand ready to transact, quotations provided by market-makers who structured such instrument and market consensus pricing based on inputs from a large number of survey participants. Any significant discrepancies among the external quotations are reviewed and adjustments to fair values are recorded where appropriate. Where the transaction volume of a specific instrument has been reduced and the fair value measurement becomes less transparent, Finance will apply more detailed procedures to understand and challenge the appropriateness of the unobservable inputs and the valuation techniques used by the independent pricing service. Where applicable, Finance will develop a fair value estimate using its own pricing model inputs to test reasonableness. Where fair value measurements are determined using internal valuation models, Finance will validate the fair value measurement by either developing unobservable inputs based on the industry consensus pricing surveys in which we participate or back testing by observing the actual settlements occurring soon after the measurement date.

Assets and Liabilities Recorded at Fair Value on a Recurring Basis The following table presents information about our assets and liabilities measured at fair value on a recurring basis at December 31, 2021 and 2020, and indicates the fair value hierarchy of the valuation techniques utilized to determine such fair value. Unless otherwise noted below, assets and liabilities in the following table are recorded at fair value through net income (loss).

December 31, 2021	Fair Value Measurements on a Recurring Basis					
	Level 1	Level 2	Level 3	Gross Balance	Netting ⁽⁶⁾	Net Balance
	(in millions)					
Assets:						
Trading assets, excluding derivatives:						
U.S. Treasury, U.S. Government agencies and sponsored enterprises	\$ 2,337	\$ 432	\$ —	\$ 2,769	\$ —	\$ 2,769
Debt securities issued by foreign entities	134	33	—	167	—	167
Equity securities	15,795	—	—	15,795	—	15,795
Precious metals trading	—	3,907	—	3,907	—	3,907
Derivatives: ⁽¹⁾						
Interest rate contracts	8	1,839	1	1,848	—	1,848
Foreign exchange contracts	—	11,350	—	11,350	—	11,350
Equity contracts	—	1,845	213	2,058	—	2,058
Precious metals contracts	4	936	—	940	—	940
Credit contracts	—	28	—	28	—	28
Other contracts ⁽²⁾	—	—	5	5	—	5
Derivatives netting	—	—	—	—	(14,788)	(14,788)
Total derivatives	12	15,998	219	16,229	(14,788)	1,441
Securities available-for-sale: ⁽³⁾						
U.S. Treasury, U.S. Government agencies and sponsored enterprises	10,817	22,049	—	32,866	—	32,866
Asset-backed securities:						
Home equity	—	—	19	19	—	19
Other	—	—	101	101	—	101
Debt securities issued by foreign entities	2,201	111	—	2,312	—	2,312
Loans held for sale ⁽⁴⁾	—	48	—	48	—	48
Other assets:						
Mortgage servicing rights	—	—	16	16	—	16
Equity securities	—	144	—	144	—	144
Equity securities measured at net asset value ⁽⁵⁾	—	—	—	138	—	138
Total assets	\$ 31,296	\$ 42,722	\$ 355	\$ 74,511	\$ (14,788)	\$ 59,723
Liabilities:						
Domestic deposits ⁽⁴⁾	\$ —	\$ 2,214	\$ 535	\$ 2,749	\$ —	\$ 2,749
Trading liabilities, excluding derivatives	1,103	46	—	1,149	—	1,149
Derivatives: ⁽¹⁾						
Interest rate contracts	10	1,888	1	1,899	—	1,899
Foreign exchange contracts	—	11,124	2	11,126	—	11,126
Equity contracts	—	1,194	167	1,361	—	1,361
Precious metals contracts	—	779	—	779	—	779
Credit contracts	—	80	2	82	—	82
Other contracts ⁽²⁾	—	—	38	38	—	38
Derivatives netting	—	—	—	—	(13,287)	(13,287)
Total derivatives	10	15,065	210	15,285	(13,287)	1,998
Long-term debt ⁽⁴⁾	—	7,089	1,853	8,942	—	8,942
Total liabilities	\$ 1,113	\$ 24,414	\$ 2,598	\$ 28,125	\$ (13,287)	\$ 14,838

December 31, 2020	Fair Value Measurements on a Recurring Basis					
	Level 1	Level 2	Level 3	Gross Balance	Netting ⁽⁶⁾	Net Balance
	(in millions)					
Assets:						
Trading assets, excluding derivatives:						
U.S. Treasury, U.S. Government agencies and sponsored enterprises	\$ 5,145	\$ 192	\$ —	\$ 5,337	\$ —	\$ 5,337
Asset-backed securities:						
Collateralized debt obligations	—	63	—	63	—	63
Residential mortgages	—	—	15	15	—	15
Student loans	—	65	—	65	—	65
Debt securities issued by foreign entities	7,953	18	—	7,971	—	7,971
Equity securities	6,043	—	—	6,043	—	6,043
Precious metals trading	—	4,989	—	4,989	—	4,989
Derivatives: ⁽¹⁾						
Interest rate contracts	15	6,637	35	6,687	—	6,687
Foreign exchange contracts	—	18,452	15	18,467	—	18,467
Equity contracts	—	5,051	565	5,616	—	5,616
Precious metals contracts	—	1,323	—	1,323	—	1,323
Credit contracts	—	298	69	367	—	367
Other contracts ⁽²⁾	—	—	8	8	—	8
Derivatives netting	—	—	—	—	(29,616)	(29,616)
Total derivatives	15	31,761	692	32,468	(29,616)	2,852
Securities available-for-sale: ⁽³⁾						
U.S. Treasury, U.S. Government agencies and sponsored enterprises	22,880	12,528	—	35,408	—	35,408
Asset-backed securities:						
Home equity	—	—	27	27	—	27
Other	—	—	104	104	—	104
Debt securities issued by foreign entities	1,942	3,191	—	5,133	—	5,133
Loans ⁽⁴⁾	—	32	—	32	—	32
Loans held for sale ⁽⁴⁾	—	36	—	36	—	36
Other assets:						
Mortgage servicing rights	—	—	7	7	—	7
Equity securities	—	149	—	149	—	149
Equity securities measured at net asset value ⁽⁵⁾	—	—	—	135	—	135
Total assets	\$ 43,978	\$ 53,024	\$ 845	\$ 97,982	\$ (29,616)	\$ 68,366
Liabilities:						
Domestic deposits ⁽⁴⁾	\$ —	\$ 3,509	\$ 646	\$ 4,155	\$ —	\$ 4,155
Trading liabilities, excluding derivatives	727	2,312	—	3,039	—	3,039
Derivatives: ⁽¹⁾						
Interest rate contracts	9	6,615	1	6,625	—	6,625
Foreign exchange contracts	—	18,597	6	18,603	—	18,603
Equity contracts	—	3,845	446	4,291	—	4,291
Precious metals contracts	28	1,550	—	1,578	—	1,578
Credit contracts	—	291	6	297	—	297
Other contracts ⁽²⁾	—	—	67	67	—	67
Derivatives netting	—	—	—	—	(28,914)	(28,914)
Total derivatives	37	30,898	526	31,461	(28,914)	2,547
Long-term debt ⁽⁴⁾	—	10,277	448	10,725	—	10,725
Total liabilities	\$ 764	\$ 46,996	\$ 1,620	\$ 49,380	\$ (28,914)	\$ 20,466

⁽¹⁾ Includes trading derivative assets of \$1,405 million and \$2,801 million and trading derivative liabilities of \$1,874 million and \$2,358 million at December 31, 2021 and 2020, respectively, as well as derivatives held for hedging and commitments accounted for as derivatives. See Note 16, "Derivative Financial Instruments," for additional information. Excluding changes in fair value of a derivative instrument associated with a qualifying cash flow hedge, which are recognized initially in other comprehensive income (loss), derivative assets and liabilities are recorded at fair value through net income (loss).

⁽²⁾ Consists of swap agreements entered into in conjunction with the sales of Visa Class B Shares.

⁽³⁾ Securities available-for-sale are recorded at fair value through other comprehensive income (loss). Changes in the allowance for credit losses on securities available-for-sale are recorded through net income (loss).

- (4) See Note 17, "Fair Value Option," for additional information. Excluding the fair value movement on fair value option liabilities attributable to our own credit spread, which is recorded in other comprehensive income (loss), fair value option assets and liabilities are recorded at fair value through net income (loss).
- (5) Investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy.
- (6) Represents counterparty and cash collateral netting which allow the offsetting of amounts relating to certain contracts if certain conditions are met.

Information on Level 3 assets and liabilities The following table summarizes additional information about changes in the fair value of Level 3 assets and liabilities during 2021 and 2020. As a risk management practice, we may risk manage the Level 3 assets and liabilities, in whole or in part, using securities and derivative positions that are classified as Level 1 or Level 2 measurements within the fair value hierarchy. Since those Level 1 and Level 2 risk management positions are not included in the table below, the information provided does not reflect the effect of such risk management activities related to the Level 3 assets and liabilities.

	Total Realized / Unrealized Gains (Losses) Included in								Current Period Unrealized Gains (Losses) Still Held Included in			
	Jan. 1, 2021	Earnings	Other Compre- hensive Income (Loss)	Purch- ases	Issu- ances	Settle- ments	Transfers Into Level 3	Transfers Out of Level 3	Dec. 31, 2021	Earnings	Other Compre- hensive Income (Loss)	
(in millions)												
Assets:												
Trading assets, excluding derivatives: ⁽¹⁾												
Residential mortgage asset- backed securities	\$ 15	\$ 9	\$ —	\$ —	\$ —	\$ —	\$ —	\$ (24)	\$ —	\$ —	\$ —	
Derivatives, net: ⁽²⁾												
Interest rate contracts	34	(34)	—	—	—	—	—	—	—	(4)	—	
Foreign exchange contracts	9	(11)	—	—	—	—	—	—	(2)	—	—	
Equity contracts ..	119	(214)	—	—	—	84	(27)	84	46	14	—	
Credit contracts ..	63	(65)	—	—	—	—	—	—	(2)	(2)	—	
Other contracts ⁽³⁾ ..	(59)	(2)	—	—	—	28	—	—	(33)	—	—	
Asset-backed securities available-for- sale ⁽⁴⁾	131	—	(3)	—	—	(8)	—	—	120	—	(3)	
Mortgage servicing rights ⁽⁵⁾	7	—	—	—	9	—	—	—	16	—	—	
Total assets	<u>\$ 319</u>	<u>\$ (317)</u>	<u>\$ (3)</u>	<u>\$ —</u>	<u>\$ 9</u>	<u>\$ 104</u>	<u>\$ (27)</u>	<u>\$ 60</u>	<u>\$ 145</u>	<u>\$ 8</u>	<u>\$ (3)</u>	
Liabilities:												
Domestic deposits ⁽⁶⁾	\$ (646)	\$ (16)	\$ 2	\$ —	\$ —	\$ 184	\$ (151)	\$ 92	\$ (535)	\$ (16)	\$ 2	
Long-term debt ⁽⁶⁾	(448)	(35)	—	—	(1,732)	408	(100)	54	(1,853)	(13)	—	
Total liabilities	<u>\$ (1,094)</u>	<u>\$ (51)</u>	<u>\$ 2</u>	<u>\$ —</u>	<u>\$ (1,732)</u>	<u>\$ 592</u>	<u>\$ (251)</u>	<u>\$ 146</u>	<u>\$ (2,388)</u>	<u>\$ (29)</u>	<u>\$ 2</u>	

	Total Realized / Unrealized Gains (Losses) Included in								Current Period Unrealized Gains (Losses) Still Held Included in		
	Jan. 1, 2020	Earnings	Other Compre- hensive Income (Loss)	Purch- ases	Issu- ances	Settle- ments	Transfers Into Level 3	Transfers Out of Level 3	Dec. 31, 2020	Earnings	Other Compre- hensive Income (Loss)
(in millions)											
Assets:											
Trading assets, excluding derivatives: ⁽¹⁾											
Residential mortgage asset- backed securities	\$ 17	\$ (2)	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 15	\$ (2)	\$ —
Corporate and other domestic debt securities ..	510	(13)	—	—	—	(497)	—	—	—	—	—
Derivatives, net: ⁽²⁾											
Interest rate contracts	10	23	—	—	—	—	1	—	34	23	—
Foreign exchange contracts	(1)	(1)	—	—	—	—	11	—	9	(1)	—
Equity contracts ..	72	129	—	—	—	(47)	(37)	2	119	147	—
Credit contracts ..	59	7	—	—	—	(3)	—	—	63	(7)	—
Other contracts ⁽³⁾ ..	(75)	(9)	—	—	—	25	—	—	(59)	—	—
Asset-backed securities available-for- sale ⁽⁴⁾	111	—	(9)	—	—	1	28	—	131	—	(9)
Mortgage servicing rights ⁽⁵⁾	4	(2)	—	—	5	—	—	—	7	(2)	—
Total assets	<u>\$ 707</u>	<u>\$ 132</u>	<u>\$ (9)</u>	<u>\$ —</u>	<u>\$ 5</u>	<u>\$ (521)</u>	<u>\$ 3</u>	<u>\$ 2</u>	<u>\$ 319</u>	<u>\$ 158</u>	<u>\$ (9)</u>
Liabilities:											
Domestic deposits ⁽⁶⁾ ..	\$ (774)	\$ (15)	\$ (2)	\$ —	\$ (43)	\$ 125	\$ —	\$ 63	\$ (646)	\$ (20)	\$ (2)
Long-term debt ⁽⁶⁾	(354)	(12)	—	—	(262)	159	(1)	22	(448)	(30)	—
Total liabilities	<u>\$ (1,128)</u>	<u>\$ (27)</u>	<u>\$ (2)</u>	<u>\$ —</u>	<u>\$ (305)</u>	<u>\$ 284</u>	<u>\$ (1)</u>	<u>\$ 85</u>	<u>\$ (1,094)</u>	<u>\$ (50)</u>	<u>\$ (2)</u>

⁽¹⁾ Gains (losses) on trading assets, excluding derivatives are included in trading revenue in the consolidated statement of income (loss).

⁽²⁾ Level 3 net derivatives included derivative assets of \$219 million and derivative liabilities of \$210 million at December 31, 2021 and derivative assets of \$692 million and derivative liabilities of \$526 million at December 31, 2020. Gains (losses) on derivatives, net are predominantly included in trading revenue and gain (loss) on instruments designated at fair value and related derivatives in the consolidated statement of income (loss).

⁽³⁾ Consists of swap agreements entered into in conjunction with the sales of Visa Class B Shares. Gains (losses) on these swap agreements are included in other income (loss) in the consolidated statement of income (loss).

⁽⁴⁾ Realized gains (losses) on securities available-for-sale are included in other securities gains, net in the consolidated statement of income (loss). Changes in the allowance for credit losses on securities available-for-sale are included in the provision for credit losses in the consolidated statement of income (loss). Unrealized gains (losses) on securities available-for-sale are included in other comprehensive income (loss).

⁽⁵⁾ Gain (losses) on mortgage servicing rights are included in other income (loss) in the consolidated statement of income (loss).

⁽⁶⁾ Excluding unrealized gains (losses) on fair value option liabilities attributable to our own credit spread, which are recorded in other comprehensive income (loss), gains (losses) on fair value option liabilities are included in gain (loss) on instruments designated at fair value and related derivatives in the consolidated statement of income (loss).

Significant Unobservable Inputs for Recurring Fair Value Measurements

The following table presents quantitative information about the unobservable inputs used to determine the recurring fair value measurement of assets and liabilities classified as Level 3 fair value measurements at December 31, 2021 and 2020:

December 31, 2021

Financial Instrument Type	Fair Value (in millions)	Valuation Technique(s)	Significant Unobservable Inputs	Range of Inputs	Weighted Average⁽¹⁾
Interest rate derivative contracts.....	\$ —	Market comparable adjusted for probability to fund and, where applicable, discounted cash flows or option pricing model	Probability to fund for rate lock commitments	36% - 99%	83%
			Interest rate yield curve	8%	N/A
Foreign exchange derivative contracts ⁽²⁾	\$ (2)	Option pricing model	Implied volatility of currency pairs	0% - 9%	6%
			Cross-currency basis	(86)bps	N/A
Equity derivative contracts ⁽²⁾	\$ 46	Option pricing model	Equity / Equity Index volatility	8% - 85%	40%
			Equity / Equity and Equity / Index correlation	44% - 98%	81%
			Equity dividend yields and forward price	(4)% - 1%	0%
Credit derivative contracts.....	\$ (2)	Option pricing model and, where applicable, discounted cash flows	Credit default swap spreads	76bps - 325bps	234bps
Other derivative contracts.....	\$ (33)	Discounted cash flows	Conversion rate	1.6 times	N/A
			Expected duration	1.0 year	N/A
Asset-backed securities available-for-sale.....	\$ 120	Discounted cash flows	Market assumptions related to yields for comparable instruments	3% - 4%	3%
Mortgage servicing rights.....	\$ 16	Discounted cash flows	Constant prepayment rates	10% - 16%	12%
			Discount rate	8% - 13%	8%
			Estimated annualized costs to service	\$72 - \$85 per account	\$75 per account
Domestic deposits (structured deposits) ⁽²⁾⁽³⁾	\$ (535)	Option adjusted discounted cash flows	Equity / Equity Index volatility	8% - 21%	15%
			Equity / Equity and Equity / Index correlation	49% - 85%	62%
Long-term debt (structured notes) ⁽²⁾⁽³⁾	\$ (1,853)	Option adjusted discounted cash flows	Implied volatility of currency pairs	0% - 9%	6%
			Equity / Equity Index volatility	8% - 71%	31%
			Equity / Equity and Equity / Index correlation	44% - 98%	82%
			Credit default swap spreads	798bps	N/A

December 31, 2020

Financial Instrument Type	Fair Value (in millions)	Valuation Technique(s)	Significant Unobservable Inputs	Range of Inputs	Weighted Average ⁽¹⁾
Residential mortgage asset-backed securities.....	\$ 15	Broker quotes or consensus pricing and, where applicable, discounted cash flows	Prepayment rates	10%	N/A
			Conditional default rates	5%	N/A
			Loss severity rates	65%	N/A
			Discount margin	500bps	N/A
Interest rate derivative contracts.....	\$ 34	Market comparable adjusted for probability to fund and, where applicable, discounted cash flows or option pricing model	Probability to fund for rate lock commitments	41% - 100%	78%
			Likelihood of transaction being executed	90%	N/A
			Interest rate yield curve	4% - 7%	6%
Foreign exchange derivative contracts ⁽²⁾	\$ 9	Option pricing model	Implied volatility of currency pairs	9% - 11%	10%
			Cross-currency basis	(9)bps - 40bps	24bps
Equity derivative contracts ⁽²⁾	\$ 119	Option pricing model	Equity / Equity Index volatility	0% - 67%	27%
			Equity / Equity and Equity / Index correlation	17% - 62%	30%
			Equity dividend yields and forward price	(1)% - 0%	0%
Credit derivative contracts.....	\$ 63	Option pricing model and, where applicable, discounted cash flows	Credit default swap spreads	150bps	N/A
Other derivative contracts.....	\$ (59)	Discounted cash flows	Conversion rate	1.6 times	N/A
			Expected duration	2 years	N/A
Asset-backed securities available-for-sale.....	\$ 131	Discounted cash flows	Market assumptions related to yields for comparable instruments	4%	N/A
Mortgage servicing rights.....	\$ 7	Discounted cash flows	Constant prepayment rates	17% - 26%	19%
			Discount rate	9% - 10%	9%
			Estimated annualized costs to service	\$73 - \$157 per account	\$76 per account
Domestic deposits (structured deposits) ⁽²⁾⁽³⁾	\$ (646)	Option adjusted discounted cash flows	Implied volatility of currency pairs	9% - 11%	10%
			Equity / Equity Index volatility	0% - 42%	15%
			Equity / Equity and Equity / Index correlation	43% - 47%	45%
Long-term debt (structured notes) ⁽²⁾⁽³⁾	\$ (448)	Option adjusted discounted cash flows	Implied volatility of currency pairs	9% - 11%	10%
			Equity / Equity Index volatility	0% - 67%	23%
			Equity / Equity and Equity / Index correlation	32% - 62%	52%

⁽¹⁾ For foreign exchange derivatives, equity derivatives, credit derivatives, structured deposits and structured notes, weighted averages are calculated based on the fair value of the instruments. For all remaining instrument types, weighted averages are calculated based on the notional value of the instruments.

⁽²⁾ We are the client-facing entity and, except for structured notes and deposits with embedded credit derivative features, we enter into identical but opposite derivatives to transfer the resultant risks to our affiliates. With the exception of counterparty credit risks, we are market risk neutral in substantially all of the structured notes and deposits. The corresponding intra-group derivatives are presented as equity derivatives and foreign exchange derivatives in the table.

⁽³⁾ Structured deposits and structured notes contain embedded derivative features whose fair value measurements contain significant Level 3 inputs. See equity and foreign exchange derivatives and credit derivatives below for a discussion of the uncertainty of Level 3 inputs related to structured deposits and structured notes.

N/A Not Applicable

Uncertainty of Level 3 Inputs to Fair Value Measurements

Interest rate derivatives - For mortgage rate lock commitments, the fair value measurement is affected by the probability of executing and funding the mortgage. An increase (decrease) in the likelihood of a mortgage being executed would have resulted in a lower (higher) fair value measurement of the interest rate derivative. For certain other interest rate derivatives, the interest

rates for longer dated tenors were not observable. An increase (decrease) in the interest rate would have resulted in a higher (lower) fair value measurement of the derivative depending on if we receive or pay the floating rate.

Equity and foreign exchange derivatives - The fair value measurement of a structured equity or foreign exchange derivative is primarily affected by the implied volatility of the underlying equity price or exchange rate of the paired foreign currencies. The level of volatility is a function of the nature of the underlying risk, the level of strike price and the years to maturity of the option. Depending on the underlying risk and tenure, we determine the implied volatility based on observable input where information is available. However, substantially all of the implied volatilities are derived based on historical information and are not observable. A significant increase (decrease) in the implied volatility would have resulted in a higher (lower) fair value of a long position in the derivative contract. For a derivative referenced to a basket of variables such as equities or foreign currencies, the fair value measurement is also affected by the correlation of the referenced variables. Correlation measures the relative change in values among two or more variables (i.e., equity or foreign currency pair), which can be positively or negatively correlated. A majority of the correlations are not observable, but are derived based on historical data. A significant increase (decrease) in the correlation of the referenced variables would have resulted in a higher (lower) fair value of a long position in the derivative contract. For certain other foreign exchange derivatives, the cross-currency basis for longer dated tenors were not observable. An increase (decrease) in the cross-currency basis would have resulted in a higher (lower) fair value measurement of the derivative depending on if we receive or pay the floating rate plus the basis spread.

Credit derivatives - The fair value measurement of certain credit derivatives is primarily affected by the credit spreads of credit default swap contracts. A significant increase (decrease) in the credit spreads would have resulted in a lower (higher) fair value measurement of the credit derivative.

Other derivatives - The fair value of the swap agreements we entered into in conjunction with the sales of Visa Class B Shares is dependent upon the final resolution of the related litigation. Significant unobservable inputs used in the fair value measurement include estimated changes in the conversion rate of Visa Class B Shares into Visa Class A Shares and the expected timing of the final resolution. An increase (decrease) in the loss estimate or in the timing of the resolution of the related litigation would have resulted in a higher (lower) fair value measurement of the derivative.

Asset-backed securities available-for-sale - The fair value measurement of certain asset-backed securities is primarily affected by estimated yields which are determined based on current market yields of comparable instruments adjusted for market liquidity. An increase (decrease) in the yields would have resulted in a lower (higher) fair value measurement of the securities.

Mortgage servicing rights - The fair value measurement of mortgage servicing rights is primarily affected by the estimated prepayment rates of the mortgage loans and the discount rates. An increase (decrease) in either of these inputs would have resulted in a lower (higher) fair value measurement of the mortgage servicing rights.

Significant Transfers Into and Out of Level 3 Measurements During 2021, we transferred \$92 million of domestic deposits and \$54 million of long-term debt, which we have elected to carry at fair value, from Level 3 to Level 2 as a result of the embedded derivative no longer being unobservable as the derivative option is closer to maturity and there is more observability in short term volatility. During 2021, we also transferred \$24 million of residential mortgage asset-backed securities and \$84 million of equity derivatives from Level 3 to Level 2 as the inputs used to value these securities and derivative contracts have become more observable. During 2021, we transferred \$151 million of domestic deposits and \$100 million of long-term debt, which we elected to carry at fair value, from Level 2 to Level 3 as a result of a change in the observability of underlying inputs that resulted in the embedded derivative being unobservable. Additionally, during 2021, we transferred \$27 millions of equity derivatives from Level 2 to Level 3 as the inputs used to value these contracts have become less observable.

During 2020, we transferred \$63 million of domestic deposits and \$22 million of long-term debt, which we have elected to carry at fair value, from Level 3 to Level 2 as a result of the embedded derivative no longer being unobservable as the derivative option is closer to maturity and there is more observability in short term volatility. During 2020, we also transferred \$37 million of equity contracts from Level 2 to Level 3 as the inputs used to value these contracts have become less observable. Additionally, during 2020 we transferred \$28 million of asset-backed securities available-for-sale from Level 2 to Level 3 due to the lack of availability of inputs in the market including independent pricing service valuations.

Assets and Liabilities Recorded at Fair Value on a Non-recurring Basis Certain financial and non-financial assets are measured at fair value on a non-recurring basis and therefore, are not included in the tables above. These assets include (a) loans classified as held for sale reported at the lower of amortized cost or fair value, (b) impaired loans or assets that are written down to fair value based on the valuation of underlying collateral during the period and (c) goodwill, lease ROU assets or leasehold improvement assets that were written down during the period. These instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustment in certain circumstances (e.g., impairment). The following table presents the fair value hierarchy level within which the fair value of the financial and non-financial assets has been recorded at December 31, 2021 and 2020. The gains (losses) during 2021 and 2020 are also included.

	Non-Recurring Fair Value Measurements at December 31, 2021				Total Gains (Losses) For the Year Ended December 31, 2021
	Level 1	Level 2	Level 3	Total	
	(in millions)				
Consumer loans held for sale ⁽¹⁾	\$ —	\$ 24	\$ 1,742	\$ 1,766	\$ (12)
Consumer loans ⁽²⁾	—	102	—	102	10
Commercial loans held for sale ⁽³⁾	—	75	68	143	(17)
Commercial loans ⁽⁴⁾	—	—	186	186	60
Leases ⁽⁵⁾	—	—	5	5	(103)
Total assets at fair value on a non-recurring basis	<u>\$ —</u>	<u>\$ 201</u>	<u>\$ 2,001</u>	<u>\$ 2,202</u>	<u>\$ (62)</u>
	Non-Recurring Fair Value Measurements at December 31, 2020				Total Gains (Losses) For the Year Ended December 31, 2020
	Level 1	Level 2	Level 3	Total	
	(in millions)				
Consumer loans held for sale ⁽¹⁾	\$ —	\$ 4	\$ —	\$ 4	\$ —
Consumer loans ⁽²⁾	—	312	—	312	18
Commercial loans held for sale ⁽³⁾	—	68	—	68	(23)
Commercial loans ⁽⁴⁾	—	—	270	270	(169)
Real estate owned ⁽⁶⁾	—	1	—	1	2
Goodwill ⁽⁷⁾	—	—	—	—	(784)
Leases ⁽⁵⁾	—	—	3	3	(92)
Total assets at fair value on a non-recurring basis	<u>\$ —</u>	<u>\$ 385</u>	<u>\$ 273</u>	<u>\$ 658</u>	<u>\$ (1,048)</u>

⁽¹⁾ At December 31, 2021 and 2020, the fair value of the loans held for sale was below cost. During 2021, certain consumer loans were transferred to held for sale for which significant inputs in estimating fair value were unobservable.

⁽²⁾ Represents residential mortgage loans held for investment whose carrying amount was adjusted during the period based on the fair value of the underlying collateral.

⁽³⁾ At December 31, 2021 and 2020, the fair value of the loans held for sale was below cost. During the second quarter of 2021, certain commercial loans were transferred to held for sale for which significant inputs in estimating fair value were unobservable.

⁽⁴⁾ Certain commercial loans are individually assessed for impairment. We measure the credit impairment of a collateral-dependent loan based on the fair value of the collateral asset. The collateral often involves real estate properties that are illiquid due to market conditions. As a result, these loans are classified as a Level 3 fair value measurement within the fair value hierarchy.

⁽⁵⁾ During the second quarter of 2021, we determined that we would exit certain branches and, as a result, the lease ROU assets, leasehold improvement assets and equipment assets associated with these branches were written off. During 2021, we also wrote down the lease ROU assets and leasehold improvement assets primarily associated with certain office space that we determined we would exit. In addition, during the fourth quarter of 2021, we transferred one of our owned office space properties to held for sale and, as a result, its carrying amount was written down to an estimated fair value of \$5 million. During 2020, we determined that we would exit certain branches and, as a result, the lease ROU assets and leasehold improvement assets associated with these branches were written down based on their estimated remaining useful lives. During 2020, we also wrote down the lease ROU assets associated with certain office space that we determined we would exit. See Note 3, "Strategic Initiatives," and Note 12, "Leases," for further discussion.

⁽⁶⁾ Real estate owned is required to be reported on the balance sheet net of transactions costs. The real estate owned amounts in the table above reflect the fair value unadjusted for transaction costs.

⁽⁷⁾ During 2020, the goodwill allocated to our previously separate RBWM and PB businesses were both written down to \$0 million. See Note 11, "Goodwill," for further discussion of the results of our goodwill impairment testing, including the events and circumstances leading to the impairments.

Significant Unobservable Inputs for Non-Recurring Fair Value Measurements

The following tables present quantitative information about non-recurring fair value measurements of assets and liabilities classified with Level 3 of the fair value hierarchy at December 31, 2021 and 2020:

At December 31, 2021

Financial Instrument Type	Fair Value (in millions)	Valuation Technique(s)	Significant Unobservable Inputs	Range of Inputs	Weighted Average ⁽¹⁾
Consumer loans held for sale	\$ 1,742	Market comparables and internal assumptions	Adjusted market price	10% - 100%	98%
Commercial loans held for sale	68	Market comparables and internal assumptions	Adjusted market price	94%	N/A
Commercial loans	186	Valuation of third party appraisal on underlying collateral	Loss severity rates	2% - 76%	23%

At December 31, 2020

Financial Instrument Type	Fair Value (in millions)	Valuation Technique(s)	Significant Unobservable Inputs	Range of Inputs	Weighted Average ⁽¹⁾
Commercial loans	\$ 270	Valuation of third party appraisal on underlying collateral	Loss severity rates	0% - 76%	35%

⁽¹⁾ Weighted average is calculated based on the carrying value of the loans.

N/A - Not Applicable

Valuation Techniques

Following is a description of valuation methodologies used for assets and liabilities recorded at fair value.

Consumer loans designated under FVO – We elected to apply FVO accounting to certain student loans. The fair value of these loans is based on observed market prices of instruments with similar characteristics.

Consumer loans held for sale – Consumer loans held for sale are recorded at the lower of amortized cost or fair value. The fair value of consumer loans held for sale is estimated using observed market prices of instruments with similar characteristics. Adjustments are made to reflect differences in collateral location, loan-to-value ratio, FICO scores, vintage year, default rates, the completeness of the loan documentation and other risk characteristics. Where observable market parameters are not available, fair value is estimated using the discounted cash flow method using assumptions consistent with those which would be used by market participants in valuing such loans, including estimates of prepayment rates, default rates, loss severities and market rates of return. We also may hold discussions on value directly with potential investors. For consumer loans transferred to held for sale during 2021, the fair value measurement processes use significant unobservable inputs to adjust market prices which are specific to the characteristics of the various loan portfolios.

Commercial loans held for sale - Commercial loans held for sale (that are not designated under FVO as discussed below) are recorded at the lower of amortized cost or fair value. The fair value of commercial loans held for sale is estimated using observable market pricing obtained from independent sources, relevant broker quotes or observed market prices of instruments with similar characteristics. We also may hold discussions on value directly with potential investors or take into account underlying collateral values. For certain commercial loans transferred to held for sale during the second quarter of 2021, the fair value measurement process uses significant unobservable inputs to adjust market prices which are specific to the characteristics of the loan portfolio.

Commercial loans held for sale designated under FVO – We elected to apply FVO accounting to certain commercial loans held for sale at fair value. Where available, fair value is based on observable market pricing obtained from independent sources, relevant broker quotes or observed market prices of instruments with similar characteristics. Where observable market parameters are not available, fair value is determined based on contractual cash flows adjusted for estimates of prepayment rates, expected default rates and loss severity discounted at management's estimate of the expected rate of return required by market participants. We also consider loan-specific risk mitigating factors such as collateral arrangements in determining the fair value estimate.

Commercial loans individually assessed for impairment – Generally represents collateral-dependent commercial loans with fair value determined based on pricing quotes obtained from an independent third party appraisal.

Precious metals trading - Precious metals trading primarily includes physical inventory which is valued using spot prices.

Securities - Where available, debt and equity securities are valued based on quoted market prices. If a quoted market price for the identical security is not available, the security is valued based on quotes from similar securities, where possible. For certain

securities, internally developed valuation models are used to determine fair values or validate quotes obtained from pricing services. The following summarizes the valuation methodology used for our major security classes:

- U.S. Treasury, U.S. Government agency issued or guaranteed and obligations of U.S. state and political subdivisions – As these securities transact in an active market, fair value measurements are based on quoted prices for the identical security or quoted prices for similar securities with adjustments as necessary made using observable inputs which are market corroborated.
- U.S. Government sponsored enterprises – For government sponsored mortgage-backed securities which transact in an active market, fair value measurements are based on quoted prices for the identical security or quoted prices for similar securities with adjustments as necessary made using observable inputs which are market corroborated. For government sponsored mortgage-backed securities which do not transact in an active market, fair value is determined primarily based on pricing information obtained from pricing services and is verified by internal review processes.
- Asset-backed securities – Fair value is primarily determined based on pricing information obtained from independent pricing services adjusted for the characteristics and the performance of the underlying collateral.
- Foreign debt securities (government and corporate) - Government securities transact in an active market and therefore fair value measurements are based on quoted prices for the identical security or quoted prices for similar securities with adjustments as necessary made using observable inputs which are market corroborated. For non-callable corporate securities, a credit spread scale is created for each issuer. These spreads are then added to the equivalent maturity U.S. Treasury yield to determine current pricing. Credit spreads are obtained from the primary market, secondary trading levels and dealer quotes. For securities with early redemption features, an option adjusted spread model is incorporated to adjust the spreads determined above. Additionally, we survey the broker/dealer community to obtain relevant trade data including benchmark quotes and updated spreads.
- Equity securities – Fair value measurements are determined based on quoted prices for the identical security. Certain equity securities represent investments in private equity funds that help us comply with the Community Reinvestment Act. The fair value of these investments are estimated using the net asset value per share as calculated by the fund managers. Distributions will be received from the funds as the underlying assets are liquidated. While the funds do not allow us to redeem our investments, we are permitted to sell or transfer our investments subject to the approval of the fund manager. Unfunded commitments associated with these investments totaled \$29 million and \$33 million at December 31, 2021 and 2020, respectively.

The following tables provide additional information relating to our available-for-sale asset-backed securities at December 31, 2021:

Rating of Securities: ⁽¹⁾	Collateral Type:	Level 3 (in millions)
AAA - A	Home equity - Alt A	\$ 19
BBB - B	Other	101
		<u>\$ 120</u>

⁽¹⁾ We utilize S&P as the primary source of credit ratings in the tables above. If S&P ratings are not available, ratings by Moody's and Fitch are used in that order.

Derivatives – Derivatives are recorded at fair value. Asset and liability positions in individual derivatives that are covered by legally enforceable master netting agreements, including receivables (payables) for cash collateral posted (received), are offset and presented net in accordance with accounting principles which allow the offsetting of amounts.

Derivatives traded on an exchange are valued using quoted prices. OTC derivatives, which comprise a majority of derivative contract positions, are valued using valuation techniques. The fair value for the majority of our derivative instruments are determined based on internally developed models that utilize independently corroborated market parameters, including interest rate yield curves, option volatilities, and currency rates. For complex or long-dated derivative products where market data is not available, fair value may be affected by the underlying assumptions about, among other things, the timing of cash flows, expected exposure, probability of default and recovery rates. The fair values of certain structured derivative products are sensitive to unobservable inputs such as correlations of the referenced variables and volatilities of embedded options. These estimates are susceptible to significant change in future periods as market conditions change.

We typically use the risk-free rate/overnight indexed swap curves as the base discounting curve for measuring the fair value of all derivatives, both collateralized and uncollateralized, and apply a FFVA to reflect the estimated present value of the future market funding cost or benefit associated with funding uncollateralized derivative exposure at an unsecured market funding rate. The FFVA is calculated by applying future market funding spreads to the expected future funding exposure of any uncollateralized component of the OTC derivative portfolio. The expected future funding exposure is calculated by a simulation

methodology, where available, and is adjusted for events that may terminate the exposure, such as the default of HUSI or the counterparty.

Significant inputs related to derivative classes are broken down as follows:

- Credit Derivatives – Use credit default curves and recovery rates which are generally provided by broker quotes and various pricing services. Certain credit derivatives may also use correlation inputs in their model valuation.
- Interest Rate Derivatives – Swaps use interest rate curves based on currency that are actively quoted by brokers and other pricing services. Options will also use volatility inputs which are also quoted in the broker market.
- Foreign Exchange ("FX") Derivatives – FX transactions, to the extent possible, use spot and forward FX rates which are quoted in the broker market. Where applicable, we also use implied volatility of currency pairs as inputs.
- Equity Derivatives – Use listed equity security pricing and implied volatilities from equity traded options position.
- Precious Metal Derivatives – Use spot and forward metal rates which are quoted in the broker market.

As discussed earlier, we make fair value adjustments to model valuations in order to ensure that those values represent appropriate estimates of fair value. These adjustments, which are applied consistently over time, are generally required to reflect factors such as bid-ask spreads and counterparty credit risk that can affect prices in arms-length transactions with unrelated third parties. Such adjustments are based on management judgment and may not be observable.

We estimate the counterparty credit risk for financial assets and our own credit standing for financial liabilities (the "credit valuation adjustments") in determining the fair value measurement. For derivative instruments, we calculate the credit valuation adjustment by applying the probability of default of the counterparty to the expected exposure, and multiplying the result by the expected loss given default. We also take into consideration the risk mitigating factors including collateral agreements and master netting agreements in determining credit valuation adjustments. We estimate the implied probability of default based on the credit spread of the specific counterparty observed in the credit default swap market. Where credit default spread of the counterparty is not available, we use the credit default spread of a specific proxy (e.g., the credit default swap spread of the counterparty's parent) or a proxy based on credit default swaps referencing to credit names of similar credit standing.

Real estate owned - Fair value is determined based on third party appraisals obtained at the time we take title to the property and, if less than the carrying amount of the loan, the carrying amount of the loan is adjusted to the fair value. The carrying amount of the property is further reduced, if necessary, at least every 90 days to reflect observable local market data, including local area sales data.

Mortgage servicing rights - Mortgage servicing rights are recorded at fair value. The fair value for the mortgage servicing rights is determined based on a single rate path cash flow analysis approach which involves discounting servicing cash flows under static interest rate projections at risk-adjusted rates. The valuation model also incorporates our best estimates of the prepayment speed of the mortgage loans, current cost to service and discount rates which are unobservable.

Structured notes and deposits designated under FVO – Structured notes and deposits are hybrid instruments containing embedded derivatives and are elected to be measured at fair value in their entirety under FVO accounting principles. The valuation of hybrid instruments is predominantly driven by the derivative features embedded within the instruments and our own credit risk. The valuation of embedded derivatives may include significant unobservable inputs such as correlation of the referenced credit names or volatility of the embedded option. Cash flows of the funded notes and deposits in their entirety, including the embedded derivatives, are discounted at the relevant interest rates for the duration of the instrument adjusted for our own credit spreads. The credit spreads so applied are determined with reference to our own debt issuance rates observed in primary and secondary markets, internal funding rates, and the structured note rates in recent executions.

Long-term debt designated under FVO – We elected to apply FVO accounting to certain of our own debt issuances for which fair value hedge accounting otherwise would have been applied. These own debt issuances elected under FVO are traded in secondary markets and, as such, the fair value is determined based on observed prices for the specific instrument. The observed market price of these instruments reflects the effect of our own credit spreads. The credit spreads applied to these instruments were derived from the spreads at the measurement date.

Additional Disclosures About the Fair Value of Financial Instruments that are Not Carried at Fair Value on the Consolidated Balance Sheet The fair value estimates set forth below are made solely to comply with disclosures required by generally accepted accounting principles in the United States and should be read in conjunction with the financial statements and notes included in this report.

The carrying amount of certain financial instruments recorded at cost on the consolidated balance sheet is considered to approximate fair value because they are short-term in nature, bear interest rates that approximate market rates, and generally have negligible credit risk. These items include cash and due from banks, interest bearing deposits with banks, customer acceptance assets and liabilities, federal funds sold and purchased, securities purchased and sold under resale and repurchase

agreements, deposits with no stated maturity (e.g., demand, savings and certain money market deposits), short-term borrowings and dividends payable.

The following table summarizes the carrying value and estimated fair value of our financial instruments, excluding financial instruments that are carried at fair value on a recurring basis, at December 31, 2021 and 2020, and their classification within the fair value hierarchy:

December 31, 2021	Carrying Value	Fair Value	Level 1	Level 2	Level 3
(in millions)					
Financial assets:					
Short-term financial assets, net of allowance for credit losses	\$ 48,404	\$ 48,404	\$ 954	\$ 47,400	\$ 50
Federal funds sold and securities purchased under agreements to resell	10,514	10,514	—	10,514	—
Securities held-to-maturity, net of allowance for credit losses	5,203	5,359	—	5,359	—
Commercial loans, net of allowance for credit losses	39,376	39,862	—	—	39,862
Commercial loans held for sale	438	443	—	359	84
Consumer loans, net of allowance for credit losses	16,041	15,672	—	—	15,672
Consumer loans held for sale	3,731	3,809	—	77	3,732
Financial liabilities:					
Short-term financial liabilities	\$ 6,389	\$ 6,389	\$ —	\$ 6,338	\$ 51
Deposits	131,533	131,533	—	131,533	—
Deposits held for sale	8,750	8,750	—	8,750	—
Long-term debt	8,294	8,861	—	8,861	—
December 31, 2020	Carrying Value	Fair Value	Level 1	Level 2	Level 3
(in millions)					
Financial assets:					
Short-term financial assets, net of allowance for credit losses	\$ 15,667	\$ 15,667	\$ 1,302	\$ 14,353	\$ 12
Federal funds sold and securities purchased under agreements to resell	35,746	35,746	—	35,746	—
Securities held-to-maturity, net of allowance for credit losses	8,981	9,369	—	9,369	—
Commercial loans, net of allowance for credit losses	40,785	41,417	—	—	41,417
Commercial loans held for sale	93	93	—	93	—
Consumer loans, net of allowance for credit losses	20,256	19,865	—	—	19,865
Consumer loans held for sale	208	217	—	217	—
Financial liabilities:					
Short-term financial liabilities	\$ 4,965	\$ 4,965	\$ —	\$ 4,952	\$ 13
Deposits	140,995	141,001	—	141,001	—
Long-term debt	9,254	9,720	—	9,720	—

Lending-related commitments - The fair value of loan commitments, revolving credit facilities and standby letters of credit are not included in the above table. The majority of the lending-related commitments are not carried at fair value on a recurring basis nor are they actively traded. These instruments generate fees, which approximate those currently charged to originate similar commitments, which are recognized over the term of the commitment period. Deferred fees on loan commitments, revolving credit facilities and standby letters of credit totaled \$151 million and \$137 million at December 31, 2021 and 2020, respectively.

30. *Litigation and Regulatory Matters*

In addition to the matters described below, in the ordinary course of business, we are routinely named as defendants in, or as parties to, various legal actions and proceedings relating to activities of our current and/or former operations. These legal actions and proceedings may include claims for substantial or indeterminate compensatory or punitive damages, or for injunctive relief. In the ordinary course of business, we also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In connection with formal and informal inquiries by these regulators, we receive numerous requests, subpoenas and orders seeking documents, testimony and other information in connection with various aspects of our regulated activities.

Due to the inherent unpredictability of legal matters, including litigation, governmental and regulatory matters, particularly where the damages sought are substantial or indeterminate or when the proceedings or investigations are in the early stages, we cannot determine with any degree of certainty the timing or ultimate resolution of such matters or the eventual loss, fines, penalties or business impact, if any, that may result. We establish reserves for litigation, governmental and regulatory matters when those matters present loss contingencies that are both probable and can be reasonably estimated. Once established, reserves are adjusted from time to time, as appropriate, in light of additional information. The actual costs of resolving litigation and regulatory matters, however, may be substantially higher than the amounts reserved for those matters. Some of our exposure may be offset by applicable insurance coverage. We do not consider the possible availability of insurance coverage in determining the amounts of any accruals (although we record the amount of related insurance recoveries that are deemed probable up to the amount of the accrual).

For the legal matters disclosed below, including litigation and governmental and regulatory matters, as to which a loss in excess of accrued liability is reasonably possible in future periods and for which there is sufficient currently available information on the basis of which management believes it can make a reliable estimate, we believe a reasonable estimate could be as much as \$150 million for HUSI. The legal matters underlying this estimate of possible loss will change from time to time and actual results may differ significantly from this current estimate.

In addition, based on the facts currently known for each of the ongoing investigations, it is not practicable at this time for us to determine the terms on which these ongoing investigations will be resolved or the timing of such resolution. As matters progress, it is possible that any fines and/or penalties could be significant.

Given the substantial or indeterminate amounts sought in certain of these matters, and the inherent unpredictability of such matters, an adverse outcome in certain of these matters could have a material adverse effect on our consolidated financial statements in any particular quarterly or annual period.

Credit Card Litigation Since 2005, HSBC Bank USA, HSBC Finance, HSBC North America and HSBC, as well as other banks and Visa Inc. ("Visa") and MasterCard Incorporated ("MasterCard"), have been named as defendants in a number of consolidated merchant class actions and individual merchant actions, alleging that the imposition of a no-surcharge rule by the associations and/or the establishment of the interchange fee charged for credit card transactions causes the merchant discount fee paid by retailers to be set at supracompetitive levels in violation of the federal antitrust laws. *In re Payment Card Interchange Fee and Merchant Discount Antitrust Litigation*, MDL 1720, E.D.N.Y. ("MDL 1720"). In 2011, MasterCard, Visa, the other defendants, including HSBC Bank USA, and certain affiliates of the defendants entered into settlement and judgment sharing agreements (the "Sharing Agreements") that provide for the apportionment of certain defined costs and liabilities that the defendants, including HSBC Bank USA and our affiliates, may incur, jointly and/or severally, in the event of an adverse judgment or global settlement of one or all of these actions. The district court granted final approval of a class settlement in 2013 and entered a Class Settlement Order and final judgment dismissing the class action.

In June 2016, the U.S. Court of Appeals for the Second Circuit ("Second Circuit") issued a decision vacating class certification and approval of the class settlement in MDL 1720, concluding the class was inadequately represented by their counsel in violation of the Federal Rule of Civil Procedure governing class actions as well as the Due Process Clause of the U.S. Constitution. Specifically, the Second Circuit held that there was a conflict between two different but overlapping settlement classes: (1) an opt-out class, which permitted individual class members to forgo their share of the monetary relief and pursue individual claims; and (2) a non-opt-out class of merchants which provided injunctive relief mainly in the form of a rule change by Visa and MasterCard to allow merchants to surcharge card transactions until July 20, 2021.

In June 2018, the defendants, including the HSBC entities, reached an agreement with counsel for the putative opt-out class, seeking monetary relief, to resolve all claims as filed in a third consolidated amended class action complaint in *In re Payment Card Interchange Fee and Merchant Discount Antitrust Litigation*, MDL 1720, E.D.N.Y. The court granted final approval of the settlement in December 2019. Certain HSBC entities are responsible for a *pro rata* portion of the settlement amount, for which they are reserved, pursuant to the Sharing Agreements entered into by the defendants. In January 2020, objectors to the settlement filed an appeal, which remains pending. In September 2021, the court certified a non-opt-out class, seeking

injunctive relief, consisting of all persons, businesses, and other entities that accept Visa and/or MasterCard credit and/or debit cards in the United States at any time during the period between December 18, 2020 and the date of entry of any eventual final judgment in the case.

Various opt-out merchants have filed individual opt-out suits in either state or federal court, most of which have been transferred to the consolidated multidistrict litigation, MDL 1720. To date, certain groups of opt-out merchants have entered into settlement agreements with the defendants in those actions and certain HSBC entities that, pursuant to the Sharing Agreements, are responsible for a *pro rata* portion of any judgment or settlement amount awarded in actions consolidated into MDL 1720.

U.S. Commodity Futures Trading Commission ("CFTC") Investigation

As previously disclosed, the CFTC is conducting an investigation of HSBC Bank USA regarding, among other issues, interest rate swap transactions related to bond issuances, which has expanded to include the use of non-HSBC approved messaging platforms for business communications. The CFTC's civil enforcement action filed in December 2019 against a now-former HSBC employee charging him with violating the Commodity Exchange Act's anti-fraud provisions in relation to a 2012 interest rate swap transaction remains ongoing.

Foreign Exchange ("FX") Matters

FX Opt Out Litigation In November 2018, a complaint was filed in the U.S. District Court for the Southern District of New York by several institutions that opted out of the consolidated FX action that settled in August 2018 naming, among other institutions, the same HSBC defendants that had been named in that settled consolidated action. (*Allianz Global Investors GMBH, et al. v Bank of America Corporation, et al.* (the "FX Opt Out Litigation")). A motion to dismiss the third amended complaint was denied. Discovery is underway.

Another putative class action making similar allegations has been pending against the HSBC defendants, as well as other defendants, in the U.S. District Court for the Southern District of New York on behalf of retail customers (*Nypl v. JPMorgan Chase, et al.*; Case No. 1:15-CV-9300). Plaintiffs have moved for class certification.

It is possible that additional actions will be initiated against the HSBC entities, including HSBC Bank USA, in relation to their historical foreign exchange activities.

Investigations

In January 2018, following the conclusion of the Department of Justice's ("DOJ") investigation into HSBC's historical foreign exchange activities, HSBC Holdings entered into a three-year deferred prosecution agreement with the Criminal Division of the DOJ (the "FX DPA"), regarding fraudulent conduct in connection with two particular transactions in 2010 and 2011. In January 2021, HSBC Holdings exited the FX DPA and in August 2021, the charges deferred by the FX DPA were dismissed.

In September 2017, HSBC and HSBC North America entered into a consent order with the FRB in connection with its investigation into HSBC Group's historical FX exchange activities, which required HSBC and HSBC North America to undertake certain remedial steps.

In June 2020, the Competition Commission of South Africa, having initially referred a complaint for proceedings before the South African Competition Tribunal in February 2017, filed a revised complaint against 28 financial institutions, including HSBC Bank USA, for alleged anti-competitive behavior in the South African foreign exchange market. In August 2020, HSBC Bank USA filed an application to dismiss the revised complaint, which remains pending.

Precious Metals Fix Matters

In re Commodity Exchange Inc., Gold Futures and Options Trading Litigation (Gold Fix Litigation) Since 2014, numerous putative class actions have been filed in the U.S. District Court for the Southern District of New York and the Northern District of California, which were then transferred and centralized in the U.S. District Court for the Southern District of New York, naming as defendants HSBC USA, HSI, HSBC and HSBC Bank plc, in addition to other members of the London Gold Fix. The complaints allege that from January 2004 through June 2013, defendants conspired to manipulate the price of gold and gold derivatives during the afternoon London Gold Fix in order to reap profits on proprietary trades. In November 2020, the HSBC defendants entered into a settlement agreement with the plaintiffs to resolve the consolidated action. HSBC Bank USA is fully reserved for its portion of the settlement. The court granted preliminary approval of the settlement, which remains subject to final court approval.

In re London Silver Fixing, Ltd. Antitrust Litigation (Silver Fix Litigation) In 2014, putative class actions were filed in the U.S. District Court for the Southern and Eastern Districts of New York naming HSBC, HSBC Bank plc, HSBC Bank USA and the other members of The London Silver Market Fixing Ltd as defendants. The complaints allege that, from January 2007 through December 2013, defendants conspired to manipulate the price of physical silver and silver derivatives for their collective benefit in violation of the U.S. Commodity Exchange Act and U.S. antitrust laws. The actions have been transferred to and

centralized in the U.S. District Court for the Southern District of New York. The parties are proceeding under a third amended complaint. The plaintiffs have moved for class certification.

Platinum and Palladium Fix Litigation Since 2014, several putative class actions have been filed in the U.S. District Court for the Southern District of New York naming as defendants members of The London Platinum and Palladium Fixing Company (the "Platinum Group Metals or PGM Fixing"), including HSBC Bank USA, BASF Metals Limited, Goldman Sachs International and Standard Bank, plc. The complaints allege that, from January 2008 through November 2014, defendants conspired to manipulate the benchmark prices for physical Platinum Group Metals ("PGM") and PGM-based financial products. In March 2020 the court granted the defendants' joint motion to dismiss the third amended complaint. Plaintiffs have filed an appeal, which remains pending.

Canada Litigation Beginning in December 2015, HSBC, HSBC Bank plc, HSBC USA, HSI, HSBC Bank Canada and HSBC Securities Canada have been named, along with other institutions, in several putative class actions filed in the Superior Courts of Justice in the Provinces of Ontario and Quebec, Canada. These suits allege, among other things, that the defendants conspired to manipulate the prices of gold and silver derivatives. These claims include: (1) *DiFilippo and Caron v. The Bank of Nova Scotia, et al.* (Superior Court of Justice, Ontario Province) (Gold Fix); (2) *DiFilippo and Caron v. The Bank of Nova Scotia, et al.* (Superior Court of Justice, Ontario Province) (Silver Fix); (3) *Benoit v. Bank of Nova Scotia, et al.* (Superior Court of Justice, Quebec Province) (Gold Fix); and (4) *Ayas v. La Banque de Nouvelle-Ecosse, et. al.* (Superior Court of Justice, Quebec Province) (Silver Fix). These actions are proceeding.

Madoff Litigation

In 2008, Bernard L. Madoff ("Madoff") was arrested and ultimately pleaded guilty to running a Ponzi scheme and a trustee was appointed for the liquidation of his firm, Bernard L. Madoff Investment Securities LLC ("Madoff Securities"), an SEC-registered broker-dealer and investment adviser. Various non-U.S. HSBC companies provided custodial, administration and similar services to a number of funds incorporated outside the United States whose assets were invested with Madoff Securities. Plaintiffs (including funds, funds investors and the Madoff Securities trustee ("Trustee"), as described below) have commenced Madoff-related proceedings against numerous defendants arising out of Madoff Securities' fraud.

In 2010, the Trustee commenced suits against various HSBC companies in the U.S. Bankruptcy Court for the Southern District of New York ("U.S. Bankruptcy Court") and in the English High Court. The Trustee filed a suit in the U.S. captioned *Picard v. HSBC et al* (Bankr S.D.N.Y. Case No. 09-01364), which also names certain funds, investment managers, and other entities and individuals, against HSBC Bank USA and certain of our foreign affiliates. The Trustee's claims seek recovery of prepetition transfers pursuant to U.S. bankruptcy law. The amount of these claims has not been pleaded or determined as against the HSBC entities. In November 2016, the U.S. Bankruptcy Court granted the motion to dismiss with respect to certain of the Trustee's claims filed by numerous defendants, including a number of foreign affiliates of HSBC Bank USA. In February 2019, the Second Circuit reversed that dismissal and remanded the cases to the US Bankruptcy Court. In August 2019, HSBC and other parties filed a petition for a writ of certiorari in the US Supreme Court, which was denied. The matter is now pending in the US Bankruptcy Court.

The Trustee's English action, which names HSBC Bank USA and other HSBC entities as defendants, seeks recovery of unspecified transfers of money from Madoff Securities to or through the HSBC entities. The Trustee's deadline for serving the claims has been extended through September 2022 for the U.K.-based defendants and November 2022 for all other defendants.

Beginning in 2009, Fairfield Sentry Limited, Fairfield Sigma Limited and Fairfield Lambda Limited (together "Fairfield"), funds whose assets were directly or indirectly invested with Madoff Securities, commenced multiple suits in the British Virgin Islands ("BVI") and the United States against numerous fund shareholders, including various HSBC companies that acted as nominees for clients of HSBC's private banking business and other clients who invested in the Fairfield funds, seeking restitution of payments made in connection with share redemptions. The Fairfield liquidators voluntarily discontinued their actions against the HSBC defendants in BVI. In December 2018, the U.S. Bankruptcy Court issued a decision that partially granted defendants' motion to dismiss claims by the Fairfield liquidators and granted a motion by the liquidators to file amended complaints. In May 2019, the liquidators appealed certain issues from the U.S. Bankruptcy Court opinion to the US District Court for the Southern District of New York. The HSBC defendants also filed motions to dismiss the remaining claims in the US Bankruptcy Court in March 2020. In December 2020, the US Bankruptcy Court granted in part and denied in part the HSBC defendants' motion to dismiss. The liquidators appealed certain issues from the December 2020 ruling and that appeal is consolidated with the earlier appeal to the Southern District of New York. The consolidated appeal remains pending.

There are many factors that may affect the range of possible outcomes, and the resulting financial impact, of the various Madoff-related proceedings including, but not limited to, the circumstances of the fraud, the multiple jurisdictions in which proceedings have been brought and the number of different plaintiffs and defendants in such proceedings. The timing and resolution of these matters remains uncertain. It is possible that any liabilities that may arise as a result could be significant. In any event, we consider that we have good defenses to these claims and will continue to defend them vigorously.

Benchmark Rate Litigation

USD LIBOR: HSBC, HSBC Bank plc, HSBC USA and/or HSBC Bank USA are among several defendants in lawsuits filed by the following plaintiffs seeking unspecified damages arising from the alleged artificial suppression of U.S. dollar LIBOR rates: (1) the Federal Home Loan Mortgage Corporation; (2) the FDIC, in its role as receiver for several failed banks; and (3) the National Credit Union Administration Board, in its capacity as liquidator for several failed credit unions. The other defendants in the actions are members of the U.S. dollar LIBOR panel of banks and their affiliates. These actions are part of the U.S. dollar LIBOR Multi-District Litigation proceeding pending in the U.S. District Court for the Southern District of New York (*In re LIBOR-Based Financial Instruments Antitrust Litigation*). During 2018, the U.S. District Court for the Southern District of New York granted final approval of the settlements with those who purchased USD LIBOR-indexed interest rate swaps and other instruments from certain non-defendant financial institutions and U.S. based lending institutions that made or purchased USD LIBOR indexed loans. The remaining settlements are subject to final court approval. In December 2021, the National Credit Union Administration reached an agreement with HSBC to resolve its litigation. That matter is now concluded and will no longer be reported.

Intercontinental Exchange ("ICE") LIBOR: In January 2019, a putative class action complaint was filed in the U.S. District Court for the Southern District of New York on behalf of persons who purchased over the counter instruments paying interest indexed to ICE LIBOR from a panel bank against HSBC Bank plc, HSBC Bank USA, HSBC North America, HSBC USA and HSI, as well as other panel banks, alleging a conspiracy to depress USD ICE LIBOR from February 2014 (when ICE began administration of LIBOR) to the present. The complaint alleges, among other things, misconduct related to the suppression of the benchmark rate in violation of U.S. antitrust and state law. In March 2020 the court granted the defendants' joint motion to dismiss in its entirety. In February 2022, the Second Circuit dismissed the plaintiff's appeal. (*In Re: ICE LIBOR Antitrust Litigation*. (Case No. 19-cv-00439)).

Mortgage Securitization Matters

In addition to the repurchase risk described in Note 28, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," HSBC Bank USA has also been involved as a sponsor/seller of loans used to facilitate whole loan securitizations underwritten by HSI. During 2005-2007, HSBC Bank USA purchased and sold \$24 billion of whole loans to HSI which were subsequently securitized and sold by HSI to third parties. The outstanding principal balance on these loans was approximately \$2.7 billion and \$3.1 billion at December 31, 2021 and 2020, respectively.

Participants in the U.S. mortgage securitization market that purchased and repackaged whole loans have been the subject of lawsuits and governmental and regulatory investigations and inquiries, which have been directed at groups within the U.S. mortgage market, such as servicers, originators, underwriters, trustees or sponsors of securitizations, and at particular participants within these groups. We expect activity in this area to continue. As the industry's residential mortgage foreclosure issues continue, HSBC Bank USA has taken title to a number of foreclosed homes as trustee on behalf of various securitization trusts. As nominal record owner of these properties, HSBC Bank USA has been sued by municipalities and tenants alleging various violations of law, including laws regarding property upkeep and tenants' rights. While we believe and continue to maintain that the obligations at issue and any related liability are properly those of the servicer of each trust, we continue to receive significant and adverse publicity in connection with these and similar matters, including foreclosures that are serviced by others in the name of "HSBC, as trustee."

In 2013, Deutsche Bank National Trust Company ("DBNTC"), as trustee of HASCO 2007-NC1, filed a complaint in New York County Supreme Court, State of New York, naming HSBC Bank USA as the sole defendant. The complaint alleges that DBNTC brought the action at the direction of certificateholders of the trust, seeking specific performance and/or damages of at least \$508 million arising out of the alleged breach of various representations and warranties made by HSBC Bank USA in the applicable pooling and servicing agreement regarding certain characteristics of the mortgage loans contained in the trust. HSBC Bank USA moved to dismiss the amended complaint, and that motion was denied in November 2015. HSBC Bank USA appealed and in December 2017, the appeals court issued a decision dismissing the complaint. In November 2019, an agreement was reached to resolve the dispute, and the settlement amount was fully reserved at that time. In March 2021, the parties finalized the settlement of the matter and the matter will no longer be reported.

Mortgage Securitization Trust Litigation Since 2014, Plaintiff-Investors in 280 RMBS trusts (the "Trusts") have sued HSBC Bank USA, as mortgage securitization trustee, in a number of cases: BlackRock et al., Royal Park Investments SA/NV ("RPI"), Phoenix Light SF Limited, the National Credit Union Administration Board, as Liquidating Agent ("NCUA"), Commerzbank AG, Triaxx, IKB Bank AG ("IKB"), RMBS Recovery Holdings I, LLC, et al. ("Fir Tree"), VRS Holdings 2 LLC ("VRS"), Reliance Standard Life Insurance Company ("Reliance") and Park Royal LLC ("Park Royal"). A number of the cases have been deemed related and are assigned to the same judge in the U.S. District Court for the Southern District of New York. The IKB, VRS, Reliance and Park Royal cases are pending in New York State court and Fir Tree filed cases in both New York and Virginia state courts. The lawsuits were brought derivatively on behalf of the Trusts, but some also seek class relief. The complaints allege generally that the Trusts have collectively sustained losses in collateral value of approximately \$38 billion

and seek to recover unspecified damages as a result of alleged breach of contract; breach of the federal Trust Indenture Act and New York's Streitt Act; tort claims such as negligence, negligent misrepresentation, conflict of interest and breach of fiduciary duty. The cases brought by BlackRock, RPI, Triaxx and Commerzbank have been settled on a confidential basis and dismissed. HSBC Bank USA reached an agreement in principle with NCUA to resolve NCUA's action, and the case was dismissed in January 2022. The impact of the settlement was not material to our results of operations. HSBC Bank USA's motions to dismiss the other outstanding cases have largely been denied, although motions to dismiss remain pending in the actions brought by Park Royal and by VRS and Reliance in New York state court, and those motions remain pending. Discovery is underway in a number of matters. In the Fir Tree matter, a trial is currently scheduled for September 2022.

Two new lawsuits have been recently filed in New York State Supreme Court: (i) Freedom Trust 2011-2 and ARI Investments, which alleges a single cause of action, breach of contract, for the trustee's failure to accept a reasonable indemnity and enforce putback rights concerning one trust (ACE 2006-FM1) before the expiration of the statute of limitations; and (ii) Mark Zittman, who alleges that the trustee for three trusts knew about and failed to cure material document defects, which have adversely impacted the servicer's ability to foreclose on defaulting borrowers. Both cases are in the early stages.

Similar lawsuits have been filed against other non-HSBC financial institutions that similarly served as mortgage securitization trustees.

Anti-Terrorism Act Cases

Charlotte Freeman, et al. v. HSBC Holdings plc, et al. In 2014, a complaint was filed in the U.S. District Court for the Eastern District of New York on behalf of representatives of U.S. persons killed and/or injured in Iraq between April 2004 and November 2011. The complaint was filed against HSBC, HSBC Bank USA, HSBC Bank plc and HSBC Bank Middle East Limited, as well as other non-HSBC banks, and alleges that the defendants conspired to violate the federal Anti-Terrorism Act., (18 U.S.C. §2331 et seq.) ("ATA"), by altering or falsifying payment messages involving Iran, Iranian parties and Iranian banks for transactions processed through the U.S. Defendants filed a motion to dismiss in March 2015. Plaintiffs filed amended complaints thereafter, which defendants moved to dismiss in September 2016. In September 2019, the district court granted defendants' motion to dismiss. Plaintiffs have appealed the decision, which remains pending.

In December 2018, a new action captioned *Charlotte Freeman, et al. v. HSBC Holdings plc, et al.* was filed in the U.S. District Court for the Eastern District of New York on behalf of representatives of U.S. persons killed and/or injured in Iraq between 2004 and 2011 ("*Freeman II*"). *Freeman II* is substantially similar to the original *Freeman* action and has been designated as related to that action but includes additional plaintiffs and claims not asserted in the original *Freeman* action. The defendants filed a motion to dismiss, which the court granted in June 2020. Plaintiffs may appeal the decision.

Mary Zapata, et al. v. HSBC Holdings plc, et al. In February 2016, a group of plaintiffs claiming to be survivors and heirs of American nationals alleged to have been killed or injured in Mexico by Mexican drug cartels, filed a complaint in the U.S. District Court for the Southern District of Texas, Brownsville Division naming HSBC, HSBC Bank USA, HSBC México S.A., Institución de Banca Múltiple, Grupo Financiero HSBC and Grupo Financiero HSBC, S.A. de C.V. as defendants. Plaintiffs allege that the HSBC defendants violated the ATA by providing financial services to individuals and entities associated with the drug cartels. Plaintiffs seek unspecified, treble damages. In September and October 2017, the court dismissed claims against HSBC, HSBC Mexico S.A., Institucion de Banca Multiple, Grupo Financiero HSBC and Grupo Financiero HSBC, S.A. de C.V. for lack of personal jurisdiction while denying HSBC Bank USA's motion to transfer the case to the U.S. District Court for the Southern District of New York. Plaintiffs thereafter voluntarily dismissed the Texas action.

In November 2017, the plaintiffs filed an action in the U.S. District Court for the Eastern District of New York naming HSBC, HSBC Bank USA, HSBC México S.A., Institución de Banca Múltiple, Grupo Financiero HSBC and Grupo Financiero HSBC, S.A. de C.V. as defendants with allegations substantially similar to the prior pending action. In October 2019, the court granted the defendants' motion to dismiss and plaintiffs appealed the decision. In October 2020 the US Court of Appeals for the Second Circuit affirmed the lower court's decision granting the defendants' motion to dismiss, and plaintiffs did not seek further review of the decision. The matter will no longer be reported.

Timothy O'Sullivan, et al. v. Deutsche Bank AG, et al. In November 2017, a complaint was filed in the U.S. District Court for the Southern District of New York on behalf of representatives of U.S. persons killed and/or injured in Iraq between 2003 and 2011. The complaint was filed against HSBC, HSBC Bank plc, HSBC Bank USA, HSBC North America and HSBC Bank Middle East Limited, as well as other non-HSBC defendants, and alleges that the defendants conspired to violate the ATA by altering or falsifying payment messages involving Iran, Iranian parties and Iranian banks for transactions processed through the U.S. Defendants' motion to dismiss was granted in March 2019. The case remains pending as to one defendant that did not move to dismiss or otherwise respond to the complaint.

In December 2018, a new action captioned *Timothy O'Sullivan, et al. v. Deutsche Bank AG, et al.* was filed in the U.S. District Court for the Southern District of New York on behalf of representatives of U.S. persons killed and/or injured in Iraq between 2003 and 2011 ("*O'Sullivan II*"). *O'Sullivan II* is substantially similar to the original *O'Sullivan* action and has been designated

as related to that action but includes additional plaintiffs and claims not asserted in the original *O'Sullivan* action. This action has been stayed upon the parties' agreement.

Joel Tavera, et al. v. Deutsche Bank AG, et al. In December 2018, a complaint was filed in the U.S. District Court for the Eastern District of New York on behalf of representatives of U.S. persons killed and/or injured in Iraq between 2003 and 2011. The complaint was filed against HSBC, HSBC Bank plc, HSBC Bank USA, HSBC North America and HSBC Bank Middle East Limited, as well as other non-HSBC bank defendants, and alleges that the defendants conspired to violate the ATA by altering or falsifying payment messages involving Iran, Iranian parties and Iranian banks for transactions processed through the U.S. and that they aided and abetted primary violators of the ATA. This action has been stayed based upon the parties' agreement.

James Donaldson v. HSBC Holdings plc, et al. In December 2018, a complaint was filed in the U.S. District Court for the Eastern District of New York on behalf of representatives of U.S. persons killed and/or injured in Iraq between 2005 and 2009. The complaint was filed against HSBC, HSBC Bank plc, HSBC Bank USA, and HSBC Bank Middle East Limited, as well as other non-HSBC bank defendants, and alleges that the defendants conspired to violate the ATA by altering or falsifying payment messages involving Iran, Iranian parties and Iranian banks for transactions processed through the U.S. and that they aided and abetted primary violators of the ATA. This action has been filed as related to the original *Freeman* action. This action has been stayed based upon the parties' agreement.

Kathleen Stephens v. HSBC Holdings plc, et al. In December 2018, a complaint was filed in the U.S. District Court for the Eastern District of New York on behalf of representatives of U.S. persons killed and/or injured in Iraq in 2007. The complaint was filed against HSBC, HSBC Bank plc, HSBC Bank USA, and HSBC Bank Middle East Limited, as well as other non-HSBC bank defendants, and alleges that the defendants conspired to violate the ATA by altering or falsifying payment messages involving Iran, Iranian parties and Iranian banks for transactions processed through the U.S. and that they aided and abetted primary violators of the ATA. This action has been filed as related to the newly filed *Freeman* action. This action has been stayed based upon the parties' agreement.

Ryan Bowman et al. v. HSBC Holdings plc, et al. In April 2019, a new action in the U.S. District Court for the Eastern District of New York was filed against HSBC Holdings plc, HSBC Bank plc, HSBC Bank Middle East Limited, and HSBC Bank USA, among other defendants. Designating the case as related to *Charlotte Freeman, et al. v. HSBC Holdings plc, et al.* the claims are based on allegations that Iranian payments were purportedly provided to terrorist organizations operating in Iraq. Plaintiffs allege violations of the Anti-Terrorism Act (18 U.S.C. §2331 et seq.). The defendants filed a motion to dismiss in January 2020. In June 2020, the court granted defendants' motion to dismiss. Plaintiffs may appeal the decision.

Dana Bernhardt et al. v. HSBC Holdings plc, et al. In November 2019, families of two deceased former US military personnel commenced an action against HSBC Holdings plc, HSBC Bank plc, HSBC North America and HSBC Bank USA, among other defendants, in the U.S. District of Columbia. The complaint references a single attack in Afghanistan in 2009 and alleges that HSBC defendants conspired with, among others, Bank Melli, Bank Saderat and Al Rajhi Bank, to violate the ATA. In November 2020, the court granted the HSBC defendants' motion to dismiss. In February 2021, plaintiffs filed an appeal.

Rigoberto Vasquez and Eva Garcia et al v. Hong Kong and Shanghai Banking Corporation Ltd., HSBC Bank USA, N.A., et al. This putative class action was filed in the U.S. District Court for the Southern District of New York in March 2018 against HSBC Bank USA and the Hong Kong and Shanghai Bank Corporation. Plaintiffs purport to represent those that invested in a Ponzi scheme allegedly orchestrated by Phil Ming Xu and certain companies he allegedly controlled, such as WCM777. Hong Kong and Shanghai Banking Corporation is alleged to have accepted wire transfers from plaintiffs to WCM777 from investors in furtherance of the Ponzi scheme. HSBC Bank USA is alleged to have acted as Hong Kong and Shanghai Banking Corporation's correspondent bank for certain wire transfers to WCM777. The purported class period is from June 2013 to May 2014. Plaintiffs allege claims for Racketeer Influenced and Corrupt Organizations Act violations, aiding and abetting fraud, aiding and abetting breach of fiduciary duty, and aiding and abetting conversion. Plaintiffs seek compensatory damages in the amount of \$37 million plus punitive damages, interest and attorneys' fees and costs.

In May 2019, the U.S. District Court for the Southern District of New York granted HSBC Bank USA's motion and dismissed it from the case, as to which plaintiffs filed an appeal. By agreement among the parties, plaintiffs dismissed the appeal. The matter will no longer be reported.

Other Regulatory and Law Enforcement Investigations

In 2014, the Argentine tax authority filed a complaint against several individuals, including some current and former HSBC employees, alleging tax evasion and an unlawful tax association between HSBC Private Bank Suisse SA, HSBC Bank Argentina and HSBC Bank USA and certain HSBC officers, which allegedly enabled HSBC customers to evade Argentine tax obligations.

Based on the facts currently known, in respect of each of the above investigations, it is not practicable at this time for us to determine the terms on which these ongoing investigations will be resolved or the timing of such resolution or for us to estimate

reliably the amounts, or range of possible amounts, of any fines and/or penalties. As matters progress, it is possible that any fines and/or penalties could be significant.

31. Financial Statements of HSBC USA Inc. (Parent)

Condensed parent company financial statements follow:

Balance Sheet At December 31,	2021	2020
	(in millions)	
Assets:		
Securities held-to-maturity, net of allowance for credit losses of less than \$1 million at both December 31, 2021 and 2020 (fair value of \$1 million and \$2 million at December 31, 2021 and 2020, respectively)	\$ 1	\$ 2
Receivables and balances due from subsidiaries	12,944	14,585
Receivables from other HSBC affiliates	2,623	1,276
Investment in subsidiaries:		
Banking	20,672	21,897
Other	75	12
Other assets	153	182
Total assets	<u>\$ 36,468</u>	<u>\$ 37,954</u>
Liabilities:		
Interest, taxes and other liabilities	\$ 48	\$ 85
Payables due to subsidiaries	72	4
Payables due to other HSBC affiliates	65	32
Short-term borrowings	3,683	2,998
Short-term borrowings due to subsidiaries ⁽¹⁾	1,500	3,000
Long-term debt ⁽²⁾	8,561	10,695
Long-term debt due to other HSBC affiliates ⁽²⁾	5,499	2,849
Total liabilities	<u>19,428</u>	<u>19,663</u>
Total equity	<u>17,040</u>	<u>18,291</u>
Total liabilities and equity	<u>\$ 36,468</u>	<u>\$ 37,954</u>

⁽¹⁾ Reflects borrowings from HSBC Bank USA. The outstanding balance matures in July 2023.

⁽²⁾ Contractual scheduled maturities for the debt over the next five years are as follows: 2022 – \$2.9 billion; 2023 – \$1.6 billion; 2024 – \$2.0 billion; 2025 – \$4.5 billion; 2026 – \$0.6 billion; and thereafter – \$2.5 billion.

Statements of Income (Loss) and Comprehensive Income (Loss)
Year Ended December 31,

	2021	2020	2019
	(in millions)		
Income:			
Dividends from banking subsidiaries	\$ 102	\$ 121	\$ 138
Interest from subsidiaries	28	101	350
Interest from other HSBC affiliates	23	43	91
Other income from subsidiaries	—	—	2
Other income from other HSBC Affiliates	1,027	552	1,645
Other income (loss)	(1,023)	(544)	(1,690)
Total income	157	273	536
Expenses:			
Interest to subsidiaries	16	6	—
Interest to other HSBC Affiliates	128	115	140
Other interest expense	40	228	549
Provision for credit losses	—	(1)	—
Other expenses with subsidiaries	19	15	12
Other expenses	1	3	5
Total expenses	204	366	706
Loss before taxes and equity in undistributed income (loss) of subsidiaries	(47)	(93)	(170)
Income tax benefit	(33)	(50)	(78)
Loss before equity in undistributed income (loss) of subsidiaries	(14)	(43)	(92)
Equity in undistributed income (loss) of subsidiaries	702	(897)	205
Net income (loss)	\$ 688	\$ (940)	\$ 113
Other comprehensive income (loss)	(858)	956	87
Comprehensive income (loss)	\$ (170)	\$ 16	\$ 200

Statement of Cash Flows
Year Ended December 31,

	2021	2020	2019
	(in millions)		
<i>Cash flows from operating activities:</i>			
Net income (loss)	\$ 688	\$ (940)	\$ 113
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	1	2	5
Net change in other assets and liabilities	(313)	256	1,463
Undistributed (income) loss of subsidiaries	(702)	897	(205)
Other, net	(4)	(2)	4
Cash provided by (used in) operating activities	(330)	213	1,380
<i>Cash flows from investing activities:</i>			
Sales and maturities of securities	1	—	—
Net change in investments in and receivables due from subsidiaries	2,713	(552)	3,929
Net change in receivables from other HSBC affiliates	(1,345)	1,056	183
Other, net	—	—	1
Cash provided by investing activities	1,369	504	4,113
<i>Cash flows from financing activities:</i>			
Net change in payables to other HSBC affiliates	13	(1)	4
Net change in short-term borrowings	(815)	3,522	(56)
Issuance of long-term debt	6,844	3,394	2,931
Repayment of long-term debt	(6,000)	(7,565)	(5,897)
Return of capital to parent	(1,000)	—	(2,400)
Other increases (decreases) in capital surplus	(4)	10	—
Dividends paid	(77)	(77)	(77)
Cash used in financing activities	(1,039)	(717)	(5,495)
Net change in cash and due from banks and interest bearing deposits with banks	—	—	(2)
Cash and due from banks and interest bearing deposits with banks at beginning of year	—	—	2
<i>Cash and due from banks and interest bearing deposits with banks at end of year</i>	\$ —	\$ —	\$ —
Cash paid for:			
Interest	\$ 167	\$ 379	\$ 662

HSBC Bank USA is subject to legal restrictions on certain transactions with its non-bank affiliates in addition to the restrictions on the payment of dividends to us. See Note 26, "Retained Earnings and Regulatory Capital Requirements," for further discussion.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

During the years ended December 31, 2021, 2020 and 2019, there were no disagreements on accounting and financial disclosure matters between us and PricewaterhouseCoopers LLP ("PwC") on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which, if not resolved to the satisfaction of PwC, would have caused PwC to make reference to the matter in its reports on our financial statements.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures We maintain a system of disclosure controls and procedures designed to ensure that information required to be disclosed by HSBC USA in the reports we file or submit under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported on a timely basis. Our Board of Directors, operating through its Audit Committee, which is composed entirely of independent non-executive directors, provides oversight to our financial reporting process.

We conducted an evaluation, with the participation of the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the period covered by this report. Based upon that evaluation, the CEO and CFO concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report so as to alert them in a timely fashion to material information required to be disclosed in reports we file under the Exchange Act.

Changes in Internal Control over Financial Reporting There has been no change in our internal control over financial reporting that occurred during the quarter ended December 31, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Assessment of Internal Control over Financial Reporting Management is responsible for establishing and maintaining an adequate internal control structure and procedures over financial reporting as defined in Rule 13a-15(f) of the Exchange Act, and has completed an assessment of the effectiveness of HSBC USA's internal control over financial reporting as of December 31, 2021. In making this assessment, management used the criteria related to internal control over financial reporting established by the Committee of Sponsoring Organizations of the Treadway Commission in "Internal Control-Integrated Framework (2013)."

Based on the assessment performed, management concluded that as of December 31, 2021, HSBC USA's internal control over financial reporting was effective.

Item 9B. Other Information

Disclosures pursuant to Section 13(r) of the Securities Exchange Act Section 13(r) of the Securities Exchange Act requires each issuer registered with the SEC to disclose in its annual or quarterly reports whether it or any of its affiliates have knowingly engaged in specified activities or transactions with persons or entities targeted by U.S. sanctions programs relating to Iran, terrorism, or the proliferation of weapons of mass destruction, even if those activities are not prohibited by U.S. law and are conducted outside the U.S. by non-U.S. affiliates in compliance with local laws and regulations.

To comply with this requirement, HSBC has requested relevant information from its affiliates globally. During the period covered by this Form 10-K, HUSI did not engage in activities or transactions requiring disclosure pursuant to Section 13(r) other than those activities related to frozen accounts and transactions permitted under relevant U.S. sanctions programs described under "Frozen Accounts and Transactions" below. The following activities conducted by our affiliates are disclosed in response to Section 13(r):

Legacy contractual obligations related to guarantees Between 1996 and 2007, the HSBC Group provided guarantees to a number of its non-Iranian customers in Europe and the Middle East for various business activities in Iran. In a number of cases, the HSBC Group issued counter indemnities involving Iranian banks as the Iranian beneficiaries of the guarantees required that they be backed directly by Iranian banks. The Iranian banks to which the HSBC Group provided counter indemnities included Bank Tejarat, Bank Melli, and the Bank of Industry and Mine.

There was no measurable gross revenue in 2021 under those guarantees and counter indemnities. The HSBC Group does not allocate direct costs to fees and commissions and, therefore, has not disclosed a separate net profit measure. The HSBC Group is seeking to cancel all relevant guarantees and counter indemnities, and does not currently intend to provide any new guarantees or counter indemnities involving Iran. Three guarantees were cancelled in 2021 and approximately 14 remain outstanding.

Other relationships with Iranian banks Activity related to U.S.-sanctioned Iranian banks not covered elsewhere in this disclosure includes the matter described below.

The HSBC Group acts as the trustee and administrator for a pension scheme involving eight employees of a U.S.-sanctioned Iranian bank in Hong Kong. Under the rules of this scheme, the HSBC Group accepts contributions from the Iranian bank each month and allocates the funds into the pension accounts of the Iranian bank's employees. The HSBC Group runs and operates this pension scheme in accordance with Hong Kong laws and regulations. Estimated gross revenue, which includes fees and/or commissions, generated by this pension scheme during 2021, was approximately \$3,011.

For the Iranian bank related-activity discussed above, the HSBC Group does not allocate direct costs to fees and commissions and, therefore, has not disclosed a separate net profit measure.

The HSBC Group has been holding a safe custody box for the Central Bank of Iran. For a number of years, the box has not been accessed by the Central Bank of Iran, and no fees have been charged to the Central Bank of Iran.

The HSBC Group currently intends to continue to wind down the above activities, to the extent legally permissible, and not enter into any new such activity.

Activity related to U.S. Executive Order 13224 During 2021, the HSBC Group processed a small number of low-value domestic local currency payments on behalf of U.K. customers to a U.K.-registered charity that is designated under Executive Order 13224, but that is not sanctioned by the U.K., European Union, or the United Nations Security Council.

The HSBC Group maintained accounts for two individual customers in the Middle East who were designated under Executive Order 13224 in 2021. The accounts were closed and exited during 2021. The HSBC Group engaged in three local currency domestic transactions as part of the exit processes for the two customers.

There was no measurable gross revenue or net profit to the HSBC Group during 2021 relating to these transactions.

Other activity The HSBC Group has an insurance company customer in the United Arab Emirates that, during 2021, made local currency payments for the reimbursement of medical treatment to a hospital located in the United Arab Emirates and owned by the Government of Iran. The HSBC Group processed these payments from its customer to the hospital.

The HSBC Group has four individual customers in the United Arab Emirates that, during 2021, made local currency payments for medical treatment to a hospital located in the United Arab Emirates and owned by the Government of Iran. The HSBC Group processed these payments from its customers to the hospital.

The HSBC Group has customers in the United Arab Emirates that, during 2021, received local currency checks from an insurance company owned by the Government of Iran. The HSBC Group processed these checks from the insurance company to its customers.

The HSBC Group has three customers in France that, during 2021, received local currency payments from a bank owned by the Government of Iran in relation to management charges and office supplies for property owned by the bank. The HSBC Group processed these payments to its customers.

The HSBC Group has an individual customer in Hong Kong that, during 2021, received local currency salary payments from a bank owned by the Government of Iran. The HSBC Group processed these payments to its customer.

The HSBC Group has a customer in Hong Kong that, during 2021, received local currency payments, for rental income and management fees, from a bank owned by the Government of Iran. The HSBC Group processed these payments to its customer.

The HSBC Group has an individual customer in Malta that, during 2021, made a Euro-denominated payment to the Iranian Consulate in Rome for passport renewal fees. The HSBC Group processed this payment.

The HSBC Group has an individual customer in the UK that, during 2021, was identified as a director of a bank owned by the Government of Iran. The HSBC Group processed a number of local currency domestic payments for its customer.

The HSBC Group has an international organization as a customer in France that, during 2021, received a local currency payment from the Iranian Embassy in Austria for membership fees. The HSBC Group processed this payment.

The HSBC Group has individual customers in the Middle East that, during 2021, made local currency credit card payments to an Iranian Consulate for visa, birth certificate, passport, dual citizenship, and marriage license application fees. The HSBC Group processed these payments.

For these activities, there was no measurable gross revenue or net profit to the HSBC Group during 2021.

Frozen accounts and transactions The HSBC Group and HSBC Bank USA (a subsidiary of HUSI) maintain several accounts that are frozen as a result of relevant sanctions programs, and safekeeping boxes and other similar custodial relationships, for which no activity, except as licensed or otherwise authorized, took place during 2021. There was no measurable gross revenue or net profit to the HSBC Group during 2021 relating to these frozen accounts.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Omitted.

Item 11. Executive Compensation

Omitted.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Omitted.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Omitted.

Item 14. Principal Accounting Fees and Services

Audit Fees The aggregate amount billed by our principal accountant, PricewaterhouseCoopers LLP ("PwC"), for audit services performed during the fiscal years ended December 31, 2021 and 2020 was \$8,703,500 and \$10,277,425, respectively. Audit services include the auditing of financial statements, quarterly reviews, statutory audits, and the preparation of comfort letters, consents and review of registration statements.

Audit Related Fees The aggregate amount billed by PwC in connection with audit related services performed during the fiscal years ended December 31, 2021 and 2020 was \$1,751,000 and \$2,598,012, respectively. Audit related services include employee benefit plan audits, and audit or attestation services not required by statute or regulation.

Tax Fees The aggregate amount billed by PwC for tax related services performed during the fiscal years ended December 31, 2021 and 2020 was nil and nil, respectively.

All Other Fees The aggregate amount billed by PwC for other services performed during the fiscal years ended December 31, 2021 and 2020 was nil and nil, respectively.

All of the fees described above were approved by HSBC USA's Audit Committee.

The Audit Committee follows a written policy that requires pre-approval of all audit and audit related services to be provided by PwC. Pursuant to the policy, the Audit Committee annually pre-approves the audit fee and terms of the audit services engagement. The Audit Committee also approves specific audit and audit-related services. PwC does not perform any tax, compliance or other services which are not audit or audit-related. Any service not included in the annual pre-approval must be submitted on a case-by-case basis to the Audit Committee for pre-approval. On an interim basis, any proposed engagement that does not fit within the definition of a pre-approved service may be presented to the Chair of the Audit Committee and to the full Audit Committee at its next regular meeting for approval.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) Financial Statements

The consolidated financial statements listed below, together with an opinion of PWC dated February 22, 2022 with respect thereto, are included in this Form 10-K pursuant to Item 8. Financial Statements and Supplementary Data of this Form 10-K.

HSBC USA Inc. and Subsidiaries:

Report of Independent Registered Public Accounting Firm

Consolidated Statement of Income (Loss)

Consolidated Statement of Comprehensive Income (Loss)

Consolidated Balance Sheet

Consolidated Statement of Changes in Equity

Consolidated Statement of Cash Flows

Notes to Financial Statements

(a)(2) Not applicable.

(a)(3) Exhibits

- 3(i) Articles of Incorporation and amendments and supplements thereto (incorporated by reference to [Exhibit 3\(a\) to HSBC USA Inc.'s Annual Report on Form 10-K for the year ended December 31, 1999](#), [Exhibit 3 to HSBC USA Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2000](#), [Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed April 4, 2005](#), [Exhibit 3.3 to HSBC USA Inc.'s Current Report on Form 8-K filed April 4, 2005](#), [Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed October 14, 2005](#), [Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed May 22, 2006](#) and [Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed on May 31, 2016](#)).
- 3(ii) Bylaws of HSBC USA Inc., as Amended and Restated effective April 13, 2021 (incorporated by reference to [Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed April 14, 2021](#)).
- 4.1 Senior Indenture, dated as of March 31, 2009, by and between HSBC USA Inc. and Wells Fargo Bank, National Association, as trustee, as amended and supplemented (incorporated by reference to [Exhibit 4.1 to HSBC USA Inc.'s Registration Statement on Form S-3, Registration No. 333-158385](#), [Exhibit 4.2 to HSBC USA Inc.'s Registration Statement on Form S-3, Registration No. 333-180289](#) and [Exhibit 4.3 to HSBC USA Inc.'s Registration Statement on Form S-3, Registration No. 333-202524](#)).
- 4.2 Subordinated Indenture, dated as of October 24, 1996, by and between HSBC USA Inc. and Deutsche Bank Trust Companies Americas (as successor in interest to Bankers Trust Company), as trustee, as amended and supplemented (incorporated by reference to [Exhibits 4.3, 4.4, 4.5 and 4.6 to Post-Effective Amendment No. 1 to HSBC USA Inc.'s Registration Statement on Form S-3, Registration No. 333-42421](#) and [Exhibit 4.1 to HSBC USA Inc.'s Current Report on Form 8-K filed September 27, 2010](#)).
- 4.3 Warrant Indenture, dated as of May 16, 2016, by and between HSBC USA Inc. and Wells Fargo Bank, National Association, as trustee (incorporated by reference to [Exhibit 4.31 to Post-Effective Amendment No. 1 to HSBC USA Inc.'s Registration Statement on Form S-3, Registration No. 333-202524](#)).
- 4.4 Other instruments defining the rights of holders of long-term debt of HSBC USA Inc. and its consolidated subsidiaries are not being filed herewith since the total amount of securities authorized under each such instrument does not exceed 10 percent of the total assets of HSBC USA Inc. and its subsidiaries on a consolidated basis. HSBC USA Inc. agrees that it will furnish a copy of any such instrument to the Securities and Exchange Commission upon request.
- 4.5 Description of HSBC USA Inc.'s zero coupon callable accreting notes due January 15, 2043 and zero coupon callable accreting notes due January 29, 2043 (incorporated by reference to [Exhibit 4.5 to HSBC USA Inc.'s Annual Report on Form 10-K for the year ended December 31, 2019](#)).
- 23 [Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.](#)
- 24 [Power of Attorney \(included on the signature page of this Form 10-K\).](#)
- 31 [Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.](#)
- 32 [Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.](#)

- 101.INS The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document⁽¹⁾
- 101.SCH Inline XBRL Taxonomy Extension Schema Document⁽¹⁾
- 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document⁽¹⁾
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document⁽¹⁾
- 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document⁽¹⁾
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document⁽¹⁾
- 104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

⁽¹⁾ Pursuant to Rule 405 of Regulation S-T, includes the following financial information included in our Annual Report on Form 10-K for the year ended December 31, 2021, formatted in Inline eXtensible Business Reporting Language ("Inline XBRL"): (i) the Consolidated Statement of Income (Loss) for the years ended December 31, 2021, 2020 and 2019, (ii) the Consolidated Statement of Comprehensive Income (Loss) for the years ended December 31, 2021, 2020 and 2019, (iii) the Consolidated Balance Sheet at December 31, 2021 and 2020, (iv) the Consolidated Statement of Changes in Equity for the years ended December 31, 2021, 2020 and 2019, (v) the Consolidated Statement of Cash Flows for the years ended December 31, 2021, 2020 and 2019, and (vi) the Notes to Consolidated Financial Statements.

Item 16. Form 10-K Summary

Omitted.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, HSBC USA Inc. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on this day the 22nd of February 2022.

HSBC USA INC.

By: /s/ MICHAEL ROBERTS

Michael Roberts

President and Chief Executive Officer

Each person whose signature appears below constitutes and appoints L. P. Zielinski as his/her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him/her in his/her name, place and stead, in any and all capacities, to sign and file, with the Securities and Exchange Commission, this Form 10-K and any and all amendments and exhibits thereto, and all documents in connection therewith, granting unto each such attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he/she might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents or their substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of HSBC USA Inc. and in the capacities indicated on this the 22nd day of February 2022.

Signature	Title
<u>/s/ M. ROBERTS</u> (M. Roberts)	President, Chief Executive Officer, Chairman and Director (as Principal Executive Officer)
<u>/s/ D. P. BAILEY</u> (D. P. Bailey)	Director
<u>/s/ M. L. FLOWERS</u> (M. L. Flowers)	Director
<u>/s/ B. F. KROEGER</u> (B. F. Kroeger)	Director
<u>/s/ G. W. MADISON</u> (G. W. Madison)	Director
<u>/s/ N. G. MISTRETTA</u> (N. G. Mistretta)	Director
<u>/s/ B. ROBERTSON</u> (B. Robertson)	Director
<u>/s/ A. D. SCHROEDER</u> (A. D. Schroeder)	Director
<u>/s/ J. C. SHERBURNE</u> (J. C. Sherburne)	Director
<u>/s/ T. K. WHITFORD</u> (T. K. Whitford)	Director
<u>/s/ K. MAHTANI</u> (K. Mahtani)	Senior Executive Vice President and Chief Financial Officer (as Principal Financial Officer)
<u>/s/ W. TABAKA</u> (W. Tabaka)	Executive Vice President and Chief Accounting Officer (as Principal Accounting Officer)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (No. 333-253385) of HSBC USA Inc. of our report dated February 22, 2022 relating to the financial statements, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
New York, New York
February 22, 2022

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

Certification of Chief Executive Officer

I, Michael Roberts, certify that:

1. I have reviewed this report on Form 10-K of HSBC USA Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2022

/s/ MICHAEL ROBERTS

Michael Roberts

Chairman of the Board, President
and Chief Executive Officer

Certification of Chief Financial Officer

I, Kavita Mahtani, certify that:

1. I have reviewed this report on Form 10-K of HSBC USA Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2022

/s/ KAVITA MAHTANI

Kavita Mahtani
Senior Executive Vice President and
Chief Financial Officer

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

**Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

The certification set forth below is being submitted in connection with the HSBC USA Inc. (the “Company”) Annual Report on Form 10-K for the period ending December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the “Report”) for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code.

I, Michael Roberts, certify that:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of HSBC USA Inc.

Date: February 22, 2022

/s/ MICHAEL ROBERTS

Michael Roberts

Chairman of the Board, President
and Chief Executive Officer

This certification accompanies each Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by HSBC USA Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

The signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to HSBC USA Inc. and will be retained by HSBC USA Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

**Certification pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

The certification set forth below is being submitted in connection with the HSBC USA Inc. (the “Company”) Annual Report on Form 10-K for the period ending December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the “Report”) for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code.

I, Kavita Mahtani, certify that:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of HSBC USA Inc.

Date: February 22, 2022

/s/ KAVITA MAHTANI

Kavita Mahtani

Senior Executive Vice President and
Chief Financial Officer

This certification accompanies each Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by HSBC USA Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

The signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to HSBC USA Inc. and will be retained by HSBC USA Inc. and furnished to the Securities and Exchange Commission or its staff upon request.