
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549
FORM 10-Q

(Mark One)

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

For the quarterly period ended **March 31, 2020**
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

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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of April 24, 2020, there were 714 shares of the registrant's common stock outstanding, all of which are owned by HSBC North America Holdings Inc.

TABLE OF CONTENTS

Part/Item No.		Page
Part I		
Item 1.	Financial Statements (Unaudited):	
	Consolidated Statement of Income (Loss)	3
	Consolidated Statement of Comprehensive Income (Loss)	4
	Consolidated Balance Sheet	5
	Consolidated Statement of Changes in Equity	7
	Consolidated Statement of Cash Flows	8
	Notes to the Consolidated Financial Statements	9
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations:	
	Forward-Looking Statements	72
	Executive Overview	74
	Basis of Reporting	78
	Critical Accounting Policies and Estimates	79
	Balance Sheet Review	80
	Results of Operations	85
	Segment Results - Group Reporting Basis	90
	Credit Quality	96
	Liquidity and Capital Resources	103
	Off-Balance Sheet Arrangements, Credit Derivatives and Other Contractual Obligations	108
	Fair Value	109
	Risk Management	110
	Consolidated Average Balances and Interest Rates	116
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	117
Item 4.	Controls and Procedures	117
Part II		
Item 1.	Legal Proceedings	117
Item 1A.	Risk Factors	117
Item 5.	Other Information	118
Item 6.	Exhibits	120
	Signatures	121

PART I

Item 1. Financial Statements

CONSOLIDATED STATEMENT OF INCOME (LOSS) (UNAUDITED)

Three Months Ended March 31,	2020	2019
	(in millions)	
Interest income:		
Loans	\$ 638	\$ 716
Securities	243	304
Trading securities	80	63
Short-term investments	87	176
Other	19	18
Total interest income	1,067	1,277
Interest expense:		
Deposits	321	333
Short-term borrowings	40	62
Long-term debt	198	312
Other	4	8
Total interest expense	563	715
Net interest income	504	562
Provision for credit losses	726	58
Net interest income (expense) after provision for credit losses	(222)	504
Other revenues:		
Credit card fees, net	11	12
Trust and investment management fees	31	30
Other fees and commissions	151	147
Trading revenue	14	133
Other securities gains, net	28	7
Servicing and other fees from HSBC affiliates	88	81
Loss on instruments designated at fair value and related derivatives	(22)	(9)
Other income (loss)	86	(11)
Total other revenues	387	390
Operating expenses:		
Salaries and employee benefits	207	210
Support services from HSBC affiliates	382	380
Occupancy expense, net	140	45
Goodwill impairment (Note 8)	784	—
Other expenses	92	115
Total operating expenses	1,605	750
Income (loss) before income tax	(1,440)	144
Income tax expense (benefit)	(157)	35
Net income (loss)	\$ (1,283)	\$ 109

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS) (UNAUDITED)

Three Months Ended March 31,	2020	2019
	(in millions)	
<i>Net income (loss)</i>	\$ (1,283)	\$ 109
Net change in unrealized gains (losses), net of tax:		
Investment securities	758	179
Fair value option liabilities attributable to our own credit spread	407	(111)
Derivatives designated as cash flow hedges	90	14
Pension and post-retirement benefit plans	—	(3)
<i>Total other comprehensive income</i>	1,255	79
<i>Comprehensive income (loss)</i>	\$ (28)	\$ 188

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED BALANCE SHEET (UNAUDITED)

	March 31, 2020	December 31, 2019
	(in millions, except share data)	
Assets⁽¹⁾		
Cash and due from banks.....	\$ 983	\$ 1,744
Interest bearing deposits with banks.....	26,496	2,038
Federal funds sold and securities purchased under agreements to resell	4,643	17,838
Trading assets (includes \$6.6 billion and \$336 million pledged to creditors at March 31, 2020 and December 31, 2019, respectively)	29,217	28,452
Securities available-for-sale (includes \$7.8 billion and nil pledged to creditors at March 31, 2020 and December 31, 2019, respectively, and an allowance for credit losses of \$2 million at March 31, 2020)	40,792	35,663
Securities held-to-maturity, net of allowance for credit losses of \$2 million at March 31, 2020 (fair value of \$13.4 billion at both March 31, 2020 and December 31, 2019)	12,981	13,293
Loans (includes \$37 million designated under fair value option at March 31, 2020)	81,728	68,553
Less – allowance for credit losses	931	637
Loans, net	80,797	67,916
Loans held for sale (includes \$206 million and \$178 million designated under fair value option at March 31, 2020 and December 31, 2019, respectively)	285	289
Properties and equipment, net	153	177
Goodwill	458	1,242
Other assets, net of allowance for credit losses of \$5 million at March 31, 2020	8,272	6,723
Total assets	\$ 205,077	\$ 175,375
Liabilities⁽¹⁾		
Debt:		
Domestic deposits:		
Noninterest bearing	\$ 28,265	\$ 24,132
Interest bearing (includes \$6.4 billion and \$7.2 billion designated under fair value option at March 31, 2020 and December 31, 2019, respectively)	99,724	90,766
Foreign deposits:		
Noninterest bearing	189	137
Interest bearing	8,545	4,658
Total deposits	136,723	119,693
Short-term borrowings (includes nil and \$373 million designated under fair value option at March 31, 2020 and December 31, 2019, respectively)	17,579	3,659
Long-term debt (includes \$8.4 billion and \$10.3 billion designated under fair value option at March 31, 2020 and December 31, 2019, respectively)	24,777	26,697
Total debt	179,079	150,049
Trading liabilities	3,923	3,235
Interest, taxes and other liabilities	3,756	3,835
Total liabilities	186,758	157,119
Equity		
Preferred stock (no par value; 40,999,000 shares authorized; 1,265 shares issued and outstanding at both March 31, 2020 and December 31, 2019)	1,265	1,265
Common equity:		
Common stock (\$5 par; 150,000,000 shares authorized; 714 shares issued and outstanding at both March 31, 2020 and December 31, 2019)	—	—
Additional paid-in capital	15,741	15,736
Retained earnings	335	1,534
Accumulated other comprehensive income (loss)	978	(279)
Total common equity	17,054	16,991
Total equity	18,319	18,256
Total liabilities and equity	\$ 205,077	\$ 175,375

⁽¹⁾ The following table summarizes assets and liabilities related to our consolidated variable interest entities ("VIEs") at March 31, 2020 and December 31, 2019. Assets and liabilities exclude intercompany balances that eliminate in consolidation. See Note 17, "Variable Interest Entities," for additional information.

	March 31, 2020	December 31, 2019
	(in millions)	
Assets		
Loans	\$ 39	\$ —
Other assets.....	92	98
Total assets.....	<u>\$ 131</u>	<u>\$ 98</u>
Liabilities		
Interest, taxes and other liabilities	\$ 32	\$ 38
Total liabilities.....	<u>\$ 32</u>	<u>\$ 38</u>

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (UNAUDITED)

Three Months Ended March 31,	2020	2019
	(in millions)	
<i>Preferred stock</i>		
Balance at beginning and end of period	\$ 1,265	\$ 1,265
<i>Common stock</i>		
Balance at beginning and end of period	—	—
<i>Additional paid-in capital</i>		
Balance at beginning of period	15,736	18,136
Return of capital to parent	—	(2,400)
Employee benefit plans	5	—
Balance at end of period	15,741	15,736
<i>Retained earnings</i>		
Balance at beginning of period	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	1,618	1,498
Net income (loss)	(1,283)	109
Balance at end of period	335	1,607
<i>Accumulated other comprehensive income (loss)</i>		
Balance at beginning of period	(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	(277)	(366)
Other comprehensive income, net of tax	1,255	79
Balance at end of period	978	(287)
<i>Total common equity</i>	17,054	17,056
<i>Total equity</i>	\$ 18,319	\$ 18,321

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS (UNAUDITED)

Three Months Ended March 31,	2020	2019
	(in millions)	
<i>Cash flows from operating activities</i>		
Net income (loss).....	\$ (1,283)	\$ 109
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation and amortization	77	11
Goodwill impairment	784	—
Provision for credit losses	726	58
Net realized gains on securities available-for-sale.....	(28)	(7)
Net change in other assets and liabilities	(4,613)	1,326
Net change in loans held for sale:		
Originations and purchases of loans held for sale	(1,239)	(593)
Sales and collections of loans held for sale	1,184	621
Net change in trading assets and liabilities	(77)	(3,858)
Lower of amortized cost or fair value adjustments on loans held for sale.....	(1)	—
Loss on instruments designated at fair value and related derivatives	22	9
Net cash used in operating activities	(4,448)	(2,324)
<i>Cash flows from investing activities</i>		
Net change in federal funds sold and securities purchased under agreements to resell	13,195	3,244
Securities available-for-sale:		
Purchases of securities available-for-sale	(9,918)	(4,408)
Proceeds from sales of securities available-for-sale	4,630	2,145
Proceeds from maturities of securities available-for-sale	2,295	2,123
Securities held-to-maturity:		
Purchases of securities held-to-maturity	(515)	(229)
Proceeds from maturities of securities held-to-maturity	817	509
Change in loans:		
Originations, net of collections	(13,510)	(2,413)
Loans sold to third parties.....	299	381
Net cash provided by disposal (used for acquisitions) of properties and equipment	7	(8)
Outflow related to the sale of a portion of our Private Banking business	—	(2)
Other, net	(213)	(1)
Net cash provided by (used in) investing activities	(2,913)	1,341
<i>Cash flows from financing activities</i>		
Net change in deposits.....	14,153	2,479
Debt:		
Net change in short-term borrowings.....	13,920	5,387
Issuance of long-term debt	5,844	1,829
Repayment of long-term debt.....	(2,864)	(2,091)
Return of capital to parent	—	(2,400)
Other increases in capital surplus	5	—
Net cash provided by financing activities	31,058	5,204
Net change in cash and due from banks and interest bearing deposits with banks	23,697	4,221
Cash and due from banks and interest bearing deposits with banks at beginning of period	3,782	17,214
<i>Cash and due from banks and interest bearing deposits with banks at end of period</i>	\$ 27,479	\$ 21,435

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

Note	Page	Note	Page
1 Organization and Presentation	9	12 Pension and Other Postretirement Benefits	43
2 Strategic Initiatives	10	13 Fee Income from Contracts with Customers	43
3 Trading Assets and Liabilities.....	11	14 Related Party Transactions	44
4 Securities.....	12	15 Business Segments.....	46
5 Loans.....	17	16 Retained Earnings and Regulatory Capital Requirements	48
6 Allowance for Credit Losses	26	17 Variable Interest Entities.....	49
7 Loans Held for Sale	31	18 Guarantee Arrangements, Pledged Assets and Repurchase Agreements	51
8 Goodwill	32	19 Fair Value Measurements	56
9 Derivative Financial Instruments.....	33	20 Litigation and Regulatory Matters.....	70
10 Fair Value Option.....	39	21 New Accounting Pronouncements.....	71
11 Accumulated Other Comprehensive Income (Loss)	42		

1. Organization and Presentation

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"). The accompanying unaudited interim consolidated financial statements of HSBC USA and its subsidiaries (collectively "HUSI") have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X, as well as in accordance with predominant practices within the banking industry. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all normal and recurring adjustments considered necessary for a fair presentation of financial position, results of operations and cash flows for the interim periods have been made. HUSI may also be referred to in these notes to the consolidated financial statements as "we," "us" or "our." These unaudited interim consolidated financial statements should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2019 (the "2019 Form 10-K"). Certain reclassifications have been made to prior period amounts to conform to the current period presentation.

The preparation of financial statements in conformity with U.S. GAAP requires the use of estimates and assumptions that affect reported amounts and disclosures. Actual results could differ from those estimates. Interim results should not be considered indicative of results in future periods.

2. Strategic Initiatives

As discussed in our 2019 Form 10-K, 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. We will also streamline our functional and operations support model by removing duplication and reduce the size of our balance sheet to better align with the scope and scale of the U.S. opportunity. We expect to incur pre-tax charges in connection with this Restructuring Plan over a two year period of approximately \$350-\$400 million (\$265-\$305 million after-tax).

During the first quarter of 2020, we decided to pause the vast majority of head count reductions due to the extraordinary impact of the coronavirus ("COVID-19") pandemic. However, many elements of our Restructuring Plan are moving forward as planned, including consolidation of our retail branch network and wholesale and retail middle and back office functions, and the creation of our Wealth and Personal Banking business. While we remain committed to our multi-year strategic plan to re-profile our business, the timing of the strategic actions as outlined in our 2019 Form 10-K may be re-sequenced or delayed beyond 24 months as the situation continues to develop. In light of COVID-19, we continue to reassess our strategic plan and may take additional actions in future periods.

The following table summarizes the changes in the liability associated with our Restructuring Plan during the three months ended March 31, 2020:

	Severance and Other Employee Costs ⁽¹⁾	Lease Termination and Associated Costs ⁽²⁾	Total
	(in millions)		
Three Months Ended March 31, 2020			
Restructuring liability at beginning of period	\$ —	\$ —	\$ —
Restructuring costs recorded during the period.....	9	24	33
Restructuring costs paid during the period	—	—	—
Restructuring liability at end of period.....	<u>\$ 9</u>	<u>\$ 24</u>	<u>\$ 33</u>

⁽¹⁾ Severance and other employee costs are included in salaries and employee benefits in the consolidated statement of income (loss), substantially all of which were reported in the Retail Banking & Wealth Management business segment for segment reporting purposes.

⁽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 Corporate Center business segment for segment reporting purposes.

In connection with the restructuring costs reflected above, 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 the fourth quarter of 2019). As a result, we recorded impairment charges during the first quarter of 2020 to write down the lease ROU assets, net of estimated sublease income, by \$52 million and to write down the leasehold improvement assets associated with these branches by \$16 million 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 Corporate Center business segment for segment reporting purposes.

Our Restructuring Plan also resulted in costs being allocated to us from HSBC Technology & Services ("HTSU") which are reflected in support services from HSBC affiliates in the consolidated statement of income (loss). During the three months ended March 31, 2020, we recorded \$8 million of allocated costs from HTSU, primarily including contract cancellation and equipment removal charges associated with the branch exits discussed above.

3. Trading Assets and Liabilities

Trading assets and liabilities consisted of the following:

	March 31, 2020	December 31, 2019
	(in millions)	
Trading assets:		
U.S. Treasury	\$ 8,207	\$ 6,763
U.S. Government agency issued or guaranteed	39	18
U.S. Government sponsored enterprises	21	20
Asset-backed securities	156	168
Corporate and foreign bonds	9,365	10,826
Equity securities	1,432	5,693
Precious metals	4,604	1,909
Derivatives, net	5,393	3,055
Total trading assets	<u>\$ 29,217</u>	<u>\$ 28,452</u>
Trading liabilities:		
Securities sold, not yet purchased	\$ 434	\$ 1,182
Payables for precious metals	—	124
Derivatives, net	3,489	1,929
Total trading liabilities	<u>\$ 3,923</u>	<u>\$ 3,235</u>

At March 31, 2020 and December 31, 2019, the fair value of derivatives included in trading assets is net of \$6,137 million and \$2,538 million, respectively, relating to amounts recognized for the obligation to return cash collateral received under master netting agreements with derivative counterparties.

At March 31, 2020 and December 31, 2019, the fair value of derivatives included in trading liabilities is net of \$8,575 million and \$4,351 million, respectively, relating to amounts recognized for the right to reclaim cash collateral paid under master netting agreements with derivative counterparties.

See Note 9, "Derivative Financial Instruments," for further information on our trading derivatives and related collateral.

4. Securities

Our securities available-for-sale and securities held-to-maturity portfolios consisted of the following:

March 31, 2020	Amortized Cost	Allowance for Credit Losses ⁽¹⁾	Unrealized Gains	Unrealized Losses	Fair Value
	(in millions)				
Securities available-for-sale:					
U.S. Treasury	\$ 16,893	\$ —	\$ 607	\$ (209)	\$ 17,291
U.S. Government sponsored enterprises:					
Mortgage-backed securities	4,697	—	219	(1)	4,915
Collateralized mortgage obligations	262	—	16	(1)	277
Direct agency obligations	1,849	—	9	(14)	1,844
U.S. Government agency issued or guaranteed:					
Mortgage-backed securities	10,214	—	276	(2)	10,488
Collateralized mortgage obligations	1,282	—	42	(1)	1,323
Direct agency obligations	290	—	—	(11)	279
Asset-backed securities collateralized by:					
Home equity	32	(2)	—	(2)	28
Other	116	—	3	(3)	116
Foreign debt securities ⁽²⁾	4,232	—	6	(7)	4,231
Total available-for-sale securities	<u>\$ 39,867</u>	<u>\$ (2)</u>	<u>\$ 1,178</u>	<u>\$ (251)</u>	<u>\$ 40,792</u>
Securities held-to-maturity:					
U.S. Government sponsored enterprises:					
Mortgage-backed securities	\$ 1,561	\$ —	\$ 53	\$ —	\$ 1,614
Collateralized mortgage obligations	1,289	—	69	—	1,358
U.S. Government agency issued or guaranteed:					
Mortgage-backed securities	2,805	—	90	—	2,895
Collateralized mortgage obligations	7,316	—	255	(4)	7,567
Obligations of U.S. states and political subdivisions	10	(1)	1	—	10
Asset-backed securities collateralized by residential mortgages	2	(1)	1	—	2
Total held-to-maturity securities	<u>\$ 12,983</u>	<u>\$ (2)</u>	<u>\$ 469</u>	<u>\$ (4)</u>	<u>\$ 13,446</u>

December 31, 2019	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
	(in millions)			
Securities available-for-sale:				
U.S. Treasury	\$ 16,219	\$ 128	\$ (269)	\$ 16,078
U.S. Government sponsored enterprises:				
Mortgage-backed securities	3,358	57	(13)	3,402
Collateralized mortgage obligations	345	3	(1)	347
Direct agency obligations	1,382	21	—	1,403
U.S. Government agency issued or guaranteed:				
Mortgage-backed securities	10,009	29	(41)	9,997
Collateralized mortgage obligations	741	10	(4)	747
Direct agency obligations	254	6	—	260
Asset-backed securities collateralized by:				
Home equity	34	—	(2)	32
Other	108	3	—	111
Foreign debt securities ⁽²⁾	3,282	4	—	3,286
Total available-for-sale securities	<u>\$ 35,732</u>	<u>\$ 261</u>	<u>\$ (330)</u>	<u>\$ 35,663</u>
Securities held-to-maturity:				
U.S. Government sponsored enterprises:				
Mortgage-backed securities	\$ 1,632	\$ 22	\$ (1)	\$ 1,653
Collateralized mortgage obligations	1,418	40	(4)	1,454
U.S. Government agency issued or guaranteed:				
Mortgage-backed securities	3,004	17	—	3,021
Collateralized mortgage obligations	7,227	85	(22)	7,290
Obligations of U.S. states and political subdivisions	10	1	—	11
Asset-backed securities collateralized by residential mortgages	2	—	—	2
Total held-to-maturity securities	<u>\$ 13,293</u>	<u>\$ 165</u>	<u>\$ (27)</u>	<u>\$ 13,431</u>

⁽¹⁾ As discussed in Note 21, "New Accounting Pronouncements," beginning January 1, 2020, an allowance for credit losses is recognized for debt securities while, prior to January 1, 2020, debt securities were assessed for other-than-temporary impairment. At December 31, 2019, we did not consider any of our debt securities to be other-than-temporarily impaired

⁽²⁾ 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. 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 March 31, 2020 and January 1, 2020, the allowance for credit losses on securities available-for-sale was \$2 million and \$3 million, respectively.

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 March 31, 2020 classified as to the length of time the losses have existed:

March 31, 2020	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)						
Securities available-for-sale:						
U.S. Treasury	23	\$ (86)	\$ 3,827	16	\$ (123)	\$ 1,640
U.S. Government sponsored enterprises	10	(15)	910	10	(1)	95
U.S. Government agency issued or guaranteed	5	(12)	375	7	(2)	251
Asset-backed securities	1	(3)	59	4	(2)	28
Foreign debt securities	24	(7)	2,427	5	—	241
Securities available-for-sale	63	\$ (123)	\$ 7,598	42	\$ (128)	\$ 2,255

Gross unrealized losses improved as compared with December 31, 2019 due primarily to decreasing yields on U.S. Treasury and U.S. Government agency mortgage-backed 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 March 31, 2020, 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.

For the comparative period prior to the adoption of the new accounting guidance on January 1, 2020, we have retained the following disclosure as previously reported, which included both securities available-for-sale and securities held-to-maturity. The following table summarizes gross unrealized losses and related fair values at December 31, 2019 classified as to the length of time the losses have existed:

December 31, 2019	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)						
Securities available-for-sale:						
U.S. Treasury.....	22	\$ (61)	\$ 4,034	28	\$ (208)	\$ 4,962
U.S. Government sponsored enterprises	18	(8)	772	83	(6)	672
U.S. Government agency issued or guaranteed.....	27	(4)	1,961	50	(41)	2,508
Asset-backed securities	—	—	—	5	(2)	33
Foreign debt securities	11	—	1,238	5	—	292
Securities available-for-sale.....	<u>78</u>	<u>\$ (73)</u>	<u>\$ 8,005</u>	<u>171</u>	<u>\$ (257)</u>	<u>\$ 8,467</u>
Securities held-to-maturity:						
U.S. Government sponsored enterprises	15	\$ —	\$ 63	76	\$ (5)	\$ 522
U.S. Government agency issued or guaranteed.....	46	(3)	887	274	(19)	1,705
Obligations of U.S. states and political subdivisions	1	—	—	1	—	—
Securities held-to-maturity.....	<u>62</u>	<u>\$ (3)</u>	<u>\$ 950</u>	<u>351</u>	<u>\$ (24)</u>	<u>\$ 2,227</u>

Securities Held-to-Maturity The following provides additional information about our portfolio of securities held-to-maturity:

Allowance for credit losses As discussed further in Note 6, "Allowance for Credit Losses," beginning January 1, 2020, we exclude from our calculation of lifetime expected credit losses ("lifetime ECL") securities for which we expect that non-payment of the amortized cost basis will be zero ("Zero Expected Credit Loss Exception"). 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. See Note 6, "Allowance for Credit Losses," for further discussion of this calculation 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.

At both March 31, 2020 and January 1, 2020, the allowance for credit losses on securities held-to-maturity was \$2 million.

At March 31, 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 Standard and Poor's ("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. The following table shows the credit risk profile of our securities held-to-maturity portfolio:

At March 31, 2020	Investment Grade	Non-Investment Grade	Total
(in millions)			
U.S. Government sponsored enterprises	\$ 2,850	\$ —	\$ 2,850
U.S. Government agency issued or guaranteed	10,121	—	10,121
Obligations of U.S. states and political subdivisions	10	—	10
Asset-backed securities collateralized by residential mortgages	2	—	2
Total securities held-to-maturity	<u>\$ 12,983</u>	<u>\$ —</u>	<u>\$ 12,983</u>

Other securities gains, net The following table summarizes realized gains and losses on investment securities transactions attributable to available-for-sale securities:

Three Months Ended March 31,	2020	2019
	(in millions)	
Gross realized gains	\$ 51	\$ 16
Gross realized losses	(23)	(9)
Net realized gains	<u>\$ 28</u>	<u>\$ 7</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 March 31, 2020 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 March 31, 2020, 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 March 31, 2020.

	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	\$ 55	2.93%	\$ 5,308	1.27%	\$ 6,201	1.61%	\$ 5,329	2.10%
U.S. Government sponsored enterprises	730	2.82	516	1.90	2,426	2.66	3,136	2.55
U.S. Government agency issued or guaranteed	—	—	80	2.12	1	7.88	11,705	2.03
Asset-backed securities	—	—	—	—	62	4.85	86	3.19
Foreign debt securities	2,242	.56	1,990	1.52	—	—	—	—
Total amortized cost	<u>\$ 3,027</u>	1.15%	<u>\$ 7,894</u>	1.39%	<u>\$ 8,690</u>	1.93%	<u>\$ 20,256</u>	2.14%
Total fair value	<u>\$ 3,031</u>		<u>\$ 7,997</u>		<u>\$ 9,176</u>		<u>\$ 20,588</u>	
Held-to-maturity:								
U.S. Government sponsored enterprises	\$ —	—%	\$ 480	2.66%	\$ 568	2.26%	\$ 1,802	3.19%
U.S. Government agency issued or guaranteed	—	—	12	3.92	20	4.18	10,089	2.57
Obligations of U.S. states and political subdivisions	—	—	6	3.58	4	4.16	—	—
Asset-backed securities	—	—	—	—	—	—	2	6.02
Total amortized cost	<u>\$ —</u>	—%	<u>\$ 498</u>	2.70%	<u>\$ 592</u>	2.34%	<u>\$ 11,893</u>	2.67%
Total fair value	<u>\$ —</u>		<u>\$ 512</u>		<u>\$ 607</u>		<u>\$ 12,327</u>	

Equity Securities Equity securities that are not classified as trading and are included in other assets consisted of the following:

	March 31, 2020	December 31, 2019
	(in millions)	
Equity securities carried at fair value	\$ 278	\$ 283
Equity securities without readily determinable fair values	12	12

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. At March 31, 2020 and December 31, 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 \$324 million and \$559 million, respectively, at March 31, 2020 and \$110 million and \$559 million, respectively, at December 31, 2019.

5. Loans

Loans consisted of the following:

	March 31, 2020	December 31, 2019
	(in millions)	
Commercial loans:		
Real estate, including construction.....	\$ 11,369	\$ 11,501
Business and corporate banking.....	19,620	13,479
Global banking ⁽¹⁾	24,141	17,915
Other commercial:		
Affiliates ⁽²⁾	3,087	2,343
Other.....	3,029	2,973
Total other commercial.....	6,116	5,316
Total commercial.....	61,246	48,211
Consumer loans:		
Residential mortgages.....	18,034	17,801
Home equity mortgages.....	814	853
Credit cards.....	1,300	1,405
Other consumer ⁽³⁾	334	283
Total consumer.....	20,482	20,342
Total loans.....	\$ 81,728	\$ 68,553

⁽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⁾ See Note 14, "Related Party Transactions," for additional information regarding loans to HSBC affiliates.

⁽³⁾ Includes certain student loans that we have elected to designate under the fair value option and are therefore carried at fair value, which totaled \$37 million at March 31, 2020. See Note 10, "Fair Value Option," for further details.

Net deferred origination costs totaled \$76 million and \$79 million at March 31, 2020 and December 31, 2019, respectively. At March 31, 2020 and December 31, 2019, we had a net unamortized premium on our loans of \$9 million and \$3 million, respectively.

Aging Analysis of Past Due Loans The following table summarizes the past due status of our loans at March 31, 2020 and December 31, 2019. 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.

At March 31, 2020	Past Due		Total Past Due 30 Days or More	Current ⁽¹⁾	Total Loans
	30 - 89 Days	90+ Days			
(in millions)					
Commercial loans:					
Real estate, including construction	\$ 4	\$ 2	\$ 6	\$ 11,363	\$ 11,369
Business and corporate banking	104	8	112	19,508	19,620
Global banking.....	—	—	—	24,141	24,141
Other commercial	32	—	32	6,084	6,116
Total commercial	140	10	150	61,096	61,246
Consumer loans:					
Residential mortgages.....	366	259	625	17,409	18,034
Home equity mortgages.....	10	23	33	781	814
Credit cards.....	25	28	53	1,247	1,300
Other consumer.....	7	5	12	322	334
Total consumer.....	408	315	723	19,759	20,482
Total loans	\$ 548	\$ 325	\$ 873	\$ 80,855	\$ 81,728

At December 31, 2019	Past Due		Total Past Due 30 Days or More	Current ⁽¹⁾	Total Loans
	30 - 89 Days	90+ Days			
(in millions)					
Commercial loans:					
Real estate, including construction	\$ 7	\$ 1	\$ 8	\$ 11,493	\$ 11,501
Business and corporate banking	60	35	95	13,384	13,479
Global banking.....	—	—	—	17,915	17,915
Other commercial	22	—	22	5,294	5,316
Total commercial	89	36	125	48,086	48,211
Consumer loans:					
Residential mortgages.....	342	272	614	17,187	17,801
Home equity mortgages.....	10	24	34	819	853
Credit cards.....	24	24	48	1,357	1,405
Other consumer.....	5	5	10	273	283
Total consumer.....	381	325	706	19,636	20,342
Total loans	\$ 470	\$ 361	\$ 831	\$ 67,722	\$ 68,553

⁽¹⁾ Loans less than 30 days past due are presented as current.

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 March 31, 2020			
Commercial:			
Real estate, including construction	\$ 5	\$ —	\$ 3
Business and corporate banking	112	2	2
Global banking.....	138	—	127
Total commercial	255	2	132
Consumer:			
Residential mortgages ⁽¹⁾⁽²⁾⁽³⁾	370	—	171
Home equity mortgages ⁽¹⁾⁽²⁾	38	—	31
Credit cards	—	28	—
Other consumer	—	2	—
Total consumer.....	408	30	202
Total nonperforming loans.....	\$ 663	\$ 32	\$ 334
At December 31, 2019			
Commercial:			
Real estate, including construction	\$ 6	\$ —	\$ 3
Business and corporate banking	82	1	19
Global banking.....	149	—	117
Total commercial	237	1	139
Consumer:			
Residential mortgages ⁽¹⁾⁽²⁾⁽³⁾	381	—	257
Home equity mortgages ⁽¹⁾⁽²⁾	46	—	32
Credit cards	—	24	—
Other consumer	—	5	—
Total consumer.....	427	29	289
Total nonperforming loans.....	\$ 664	\$ 30	\$ 428

⁽¹⁾ At March 31, 2020 and December 31, 2019, nonaccrual consumer mortgage loans include \$286 million and \$289 million, respectively, of loans that are carried at the lower of amortized cost or fair value of the collateral less cost to sell. The decrease in nonaccrual consumer mortgage loans with no allowance for credit losses at March 31, 2020 reflects the impact of adopting new accounting guidance which requires expected recoveries related to subsequent increases in the fair value of collateral for collateral-dependent loans to be recognized in the allowance for credit losses beginning January 1, 2020. See Note 21, "New Accounting Pronouncements," for additional discussion.

⁽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.

⁽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.

The following table provides additional information on our nonaccrual loans:

Three Months Ended March 31,	2020	2019
	(in millions)	
Interest income that would have been recorded if the nonaccrual loans had been current in accordance with contractual terms during the period.....	\$ 8	\$ 9
Interest income that was recorded on nonaccrual loans and included in interest income during the period.....	7	3

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 and, where there is sufficient collateral, an allowance for expected credit losses is not recognized or is minimal.

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 March 31, 2020 and December 31, 2019, we had collateral-dependent residential mortgage loans totaling \$802 million and \$803 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 March 31, 2020 and December 31, 2019, we had collateral-dependent commercial loans totaling \$252 million and \$227 million, respectively.

Troubled debt restructurings TDR Loans, including beginning in 2020 loans which we reasonably expect to become TDR Loans ("anticipatory TDRs"), 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. There were no anticipatory TDRs at March 31, 2020.

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 restructure had been anticipated. During the three months ended March 31, 2020 and 2019 there were no commercial loans that met this criteria and were removed from TDR Loan classification.

The following table summarizes our TDR Loans at March 31, 2020 and December 31, 2019:

	March 31, 2020	December 31, 2019
	(in millions)	
Commercial loans:		
Business and corporate banking.....	\$ 32	\$ 36
Global banking.....	69	68
Total commercial ⁽¹⁾	<u>101</u>	<u>104</u>
Consumer loans:		
Residential mortgages ⁽²⁾	561	580
Home equity mortgages ⁽²⁾	32	32
Credit cards	4	4
Total consumer	<u>597</u>	<u>616</u>
Total TDR Loans ⁽³⁾	<u>\$ 698</u>	<u>\$ 720</u>

⁽¹⁾ Additional commitments to lend to commercial borrowers whose loans have been modified in TDR Loans totaled \$143 million and \$222 million at March 31, 2020 and December 31, 2019, respectively.

- (2) At March 31, 2020 and December 31, 2019, the carrying value of consumer mortgage TDR Loans includes \$508 million and \$557 million, respectively, of loans that are recorded at the lower of amortized cost or fair value of the collateral less cost to sell.
- (3) At March 31, 2020 and December 31, 2019, the carrying value of TDR Loans includes \$318 million and \$230 million, respectively, of loans which are classified as nonaccrual.

The following table presents information about loans which were modified during the three months ended March 31, 2020 and 2019 and as a result of this action became classified as TDR Loans:

Three Months Ended March 31,	2020	2019
	(in millions)	
Commercial loans:		
Global banking	\$ 12	\$ —
Total commercial	12	—
Consumer loans:		
Residential mortgages	4	1
Home equity mortgages	1	—
Credit cards	1	1
Total consumer	6	2
Total	\$ 18	\$ 2

The weighted-average contractual rate reduction for consumer loans which became classified as TDR Loans during the three months ended March 31, 2020 and 2019 was 3.04 percent and 1.24 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 three months ended March 31, 2020 and 2019:

Three Months Ended March 31,	2020	2019
	(in millions)	
Consumer loans:		
Residential mortgages	\$ 1	\$ 2
Total consumer	\$ 1	\$ 2

During the three months ended March 31, 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 March 31, 2020:

	2020	2019	2018	2017	2016	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Mar. 31, 2020	Total at Dec. 31, 2019
	(in millions)									
Real estate, including construction:										
Special mention.....	\$ —	\$ 402	\$ 150	\$ 122	\$ —	\$ 234	\$ —	\$ —	\$ 908	\$ 516
Substandard.....	—	130	7	—	—	45	—	—	182	203
Doubtful.....	—	—	—	—	—	—	—	—	—	—
Total real estate, including construction	—	532	157	122	—	279	—	—	1,090	719
Business and corporate banking:										
Special mention.....	—	25	21	50	13	164	555	24	852	467
Substandard.....	—	29	24	24	2	121	367	2	569	386
Doubtful.....	—	16	13	—	—	18	64	2	113	23
Total business and corporate banking	—	70	58	74	15	303	986	28	1,534	876
Global banking:										
Special mention.....	—	38	—	—	—	102	334	—	474	184
Substandard.....	—	—	—	—	—	86	270	—	356	196
Doubtful.....	—	—	—	—	—	13	—	—	13	15
Total global banking	—	38	—	—	—	201	604	—	843	395
Other commercial:										
Special mention.....	—	24	11	—	3	20	—	—	58	11
Substandard.....	—	—	—	—	—	—	61	—	61	—
Doubtful.....	—	—	—	—	—	—	—	—	—	—
Total other commercial	—	24	11	—	3	20	61	—	119	11
Total commercial:										
Special mention.....	—	489	182	172	16	520	889	24	2,292	1,178
Substandard.....	—	159	31	24	2	252	698	2	1,168	785
Doubtful.....	—	16	13	—	—	31	64	2	126	38
Total commercial	<u>\$ —</u>	<u>\$ 664</u>	<u>\$ 226</u>	<u>\$ 196</u>	<u>\$ 18</u>	<u>\$ 803</u>	<u>\$ 1,651</u>	<u>\$ 28</u>	<u>\$ 3,586</u>	<u>\$ 2,001</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 March 31, 2020:

	2020	2019	2018	2017	2016	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Mar. 31, 2020	Total at Dec. 31, 2019
	(in millions)									
Real estate, including construction:										
Performing loans	\$ 405	\$ 3,800	\$ 3,095	\$ 1,389	\$ 335	\$ 2,169	\$ 147	\$ 24	\$ 11,364	\$ 11,495
Nonaccrual loans	—	—	—	—	1	2	—	2	5	6
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	—	—	—	—
Total real estate, including construction	405	3,800	3,095	1,389	336	2,171	147	26	11,369	11,501
Business and corporate banking:										
Performing loans	619	1,509	840	415	540	3,428	11,808	347	19,506	13,396
Nonaccrual loans	—	16	13	—	—	16	66	1	112	82
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	2	—	2	1
Total business and corporate banking	619	1,525	853	415	540	3,444	11,876	348	19,620	13,479
Global banking:										
Performing loans	378	1,832	1,501	842	564	4,386	14,500	—	24,003	17,766
Nonaccrual loans	—	—	—	—	19	51	68	—	138	149
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	—	—	—	—
Total global banking	378	1,832	1,501	842	583	4,437	14,568	—	24,141	17,915
Other commercial:										
Performing loans	137	477	335	185	148	384	4,450	—	6,116	5,316
Nonaccrual loans	—	—	—	—	—	—	—	—	—	—
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	—	—	—	—
Total other commercial	137	477	335	185	148	384	4,450	—	6,116	5,316
Total commercial:										
Performing loans	1,539	7,618	5,771	2,831	1,587	10,367	30,905	371	60,989	47,973
Nonaccrual loans	—	16	13	—	20	69	134	3	255	237
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	2	—	2	1
Total commercial	<u>\$ 1,539</u>	<u>\$ 7,634</u>	<u>\$ 5,784</u>	<u>\$ 2,831</u>	<u>\$ 1,607</u>	<u>\$ 10,436</u>	<u>\$ 31,041</u>	<u>\$ 374</u>	<u>\$ 61,246</u>	<u>\$ 48,211</u>

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 shows the credit risk profile of our commercial loan portfolio, including a disaggregation of the loans by year of origination as of March 31, 2020:

	2020	2019	2018	2017	2016	Prior	Revolving Loans	Revolving Loans Converted to Term Loans	Total at Mar. 31, 2020	Total at Dec. 31, 2019
(in millions)										
Real estate, including construction:										
Investment grade.....	\$ 287	\$ 1,392	\$ 1,500	\$ 515	\$ 202	\$ 1,205	\$ 6	\$ 4	\$ 5,111	\$ 6,332
Non-investment grade.....	118	2,408	1,595	874	134	966	141	22	6,258	5,169
Total real estate, including construction	405	3,800	3,095	1,389	336	2,171	147	26	11,369	11,501
Business and corporate banking:										
Investment grade.....	459	611	202	104	389	1,744	5,219	87	8,815	6,029
Non-investment grade.....	160	914	651	311	151	1,700	6,657	261	10,805	7,450
Total business and corporate banking	619	1,525	853	415	540	3,444	11,876	348	19,620	13,479
Global banking:										
Investment grade.....	319	1,363	1,013	802	141	3,299	10,386	—	17,323	12,981
Non-investment grade.....	59	469	488	40	442	1,138	4,182	—	6,818	4,934
Total global banking	378	1,832	1,501	842	583	4,437	14,568	—	24,141	17,915
Other commercial:										
Investment grade.....	76	431	247	163	96	300	4,217	—	5,530	4,649
Non-investment grade.....	61	46	88	22	52	84	233	—	586	667
Total other commercial	137	477	335	185	148	384	4,450	—	6,116	5,316
Total commercial:										
Investment grade.....	1,141	3,797	2,962	1,584	828	6,548	19,828	91	36,779	29,991
Non-investment grade.....	398	3,837	2,822	1,247	779	3,888	11,213	283	24,467	18,220
Total commercial	\$ 1,539	\$ 7,634	\$ 5,784	\$ 2,831	\$ 1,607	\$ 10,436	\$ 31,041	\$ 374	\$ 61,246	\$ 48,211

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 March 31, 2020:

	2020	2019	2018	2017	2016	Prior	Revolving Loans	Total at Mar. 31, 2020	Total at Dec. 31, 2019
(in millions)									
Residential mortgages ⁽¹⁾⁽²⁾	\$ —	\$ 11	\$ 10	\$ 15	\$ 13	\$ 315	\$ —	\$ 364	\$ 350
Home equity mortgages ⁽¹⁾⁽²⁾	—	—	—	—	—	26	—	26	25
Credit cards	—	—	—	—	—	—	39	39	34
Other consumer	—	1	—	—	—	4	2	7	7
Total consumer	\$ —	\$ 12	\$ 10	\$ 15	\$ 13	\$ 345	\$ 41	\$ 436	\$ 416

⁽¹⁾ At March 31, 2020 and December 31, 2019, consumer mortgage loan delinquency includes \$249 million and \$256 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 March 31, 2020 and December 31, 2019, consumer mortgage loans include \$135 million and \$142 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 March 31, 2020:

	2020	2019	2018	2017	2016	Prior	Revolving Loans	Total at Mar. 31, 2020	Total at Dec. 31, 2019
(in millions)									
Residential mortgages:									
Performing loans	\$ 1,032	\$ 2,968	\$ 1,799	\$ 2,049	\$ 2,359	\$ 7,457	\$ —	\$ 17,664	\$ 17,420
Nonaccrual loans	—	8	6	13	12	331	—	370	381
Total residential mortgages	1,032	2,976	1,805	2,062	2,371	7,788	—	18,034	17,801
Home equity mortgages:									
Performing loans	14	54	44	41	53	570	—	776	807
Nonaccrual loans	—	—	—	—	—	38	—	38	46
Total home equity mortgages	14	54	44	41	53	608	—	814	853
Credit cards:									
Performing loans	—	—	—	—	—	—	1,272	1,272	1,381
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	28	28	24
Total credit cards	—	—	—	—	—	—	1,300	1,300	1,405
Other consumer:									
Performing loans	41	63	1	2	4	125	96	332	278
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	2	2	5
Total other consumer	41	63	1	2	4	125	98	334	283
Total consumer:									
Performing loans	1,087	3,085	1,844	2,092	2,416	8,152	1,368	20,044	19,886
Nonaccrual loans	—	8	6	13	12	369	—	408	427
Accruing loans contractually past due 90 days or more	—	—	—	—	—	—	30	30	29
Total consumer	<u>\$ 1,087</u>	<u>\$ 3,093</u>	<u>\$ 1,850</u>	<u>\$ 2,105</u>	<u>\$ 2,428</u>	<u>\$ 8,521</u>	<u>\$ 1,398</u>	<u>\$ 20,482</u>	<u>\$ 20,342</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 March 31, 2020:

	2020	2019	2018	2017	2016	Prior	Revolving Loans	Total at Mar. 31, 2020	Total at Dec. 31, 2019
(in millions)									
Residential mortgages	\$ —	\$ —	\$ —	\$ —	\$ 1	\$ 560	\$ —	\$ 561	\$ 580
Home equity mortgages	—	—	—	—	—	32	—	32	32
Credit cards	—	—	—	—	—	—	4	4	4
Total consumer	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1</u>	<u>\$ 592</u>	<u>\$ 4</u>	<u>\$ 597</u>	<u>\$ 616</u>

Concentration of Credit Risk At March 31, 2020 and December 31, 2019, our loan portfolios included interest-only residential mortgage and home equity mortgage loans totaling \$3,366 million and \$3,362 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.

6. Allowance for Credit Losses

As discussed further in Note 21, "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.

Comparative information at January 1, 2020, reflecting the adoption of the new accounting guidance has been included in the tables below where applicable. Comparative information at December 31, 2019, which is not comparable as it does not reflect the adoption of the new accounting guidance, has been retained as previously reported.

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 the heading "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 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, unless determined otherwise. See *Updates to Economic Scenarios and Other Changes During the Three Months Ended March 31, 2020* below for further discussion. Key Central scenario assumptions 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 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 in the Central scenario for all variables. The reversion path for variables in the Upside and Downside scenarios is generally non-linear.

For the Central scenario, we set key assumptions such as Gross Domestic Product ("GDP") growth, inflation, unemployment, housing 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 independent model review 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 Central scenario and the Upper and Downside scenarios in the quarter is consistent with that observed at the last full scenario generation. For consumer loans, the three scenarios are run annually to establish the effect of multiple scenarios on the ECL estimates for each portfolio. This effect is then applied in each quarter with the understanding that the non-linearity of response to economic conditions should not change, unless a significant change in economic conditions occurs.

We recognize that the Consensus Economic Scenario approach using three scenarios may be insufficient in certain economic environments. Additional analysis may be requested at management's discretion. This may result in a change to the weighting assigned to the three scenarios or the inclusion of extra scenarios.

We exclude from our lifetime ECL calculation financial assets which qualify for the 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; and
- Interest bearing deposits held with the Federal Reserve Bank.

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.

Description of Consensus Economic Scenarios Adopted on January 1, 2020 The following discussion summarizes the key macroeconomic variable forecasts in the Central, Upside and Downside scenarios at January 1, 2020. The economic assumptions described in this section have been formed specifically for the purpose of calculating ECL. While macroeconomic assumptions have changed significantly during the first quarter, the following scenarios are being provided to explain the impact of adopting the Consensus Economic Scenarios on January 1, 2020.

The Central scenario at January 1, 2020 - In the Central scenario, growth was expected to slow down in the United States as the benefits from tax reform waned in 2020. Inflation was forecast to remain around the target of 2 percent, while the unemployment rate was expected to stay at a low level in 2020 before gradually rising towards its long-term trend. The expected paths for Federal Reserve Board ("FRB") policy rates implied three rate cuts in 2020.

The Upside scenario at January 1, 2020 - In the Upside scenario, the economic forecast distribution of risks (as captured by consensus probability distribution of GDP growth) showed a marginal increase in upside risk for the United States in the reasonable and supportable period. Increased confidence, positive resolution of trade disputes and expansionary fiscal policy supported the Upside scenario. In this scenario, GDP growth rose to 4.0 percent in 2020, which drove inflation higher and unemployment to fall further than in the Central scenario. Stronger GDP growth and domestic demand supported stronger equity and housing prices in this scenario.

The Downside scenario at January 1, 2020 - In the Downside scenario, the economic forecast distribution of risks (as captured by consensus probability distribution of GDP growth) showed a marginal increase in the downside risks for the United States in the reasonable and supportable period. In this scenario, the U.S. economy was expected to contract in 2020 before slowly reverting back to the long-run trend. The slowdown in growth was consistent with an escalation of trade tensions with China and other trading partners in this scenario. Additional tariffs and non-tariff barriers on trade were expected to lead to the benefits from corporate tax cuts being offset by a sharp rise in costs for businesses and consumers and a loss of confidence in this scenario, while lower business investment and confidence were expected to affect hiring, with an impact on the unemployment rate and earnings expectations. In the downside scenario, policy interest rates were expected to be cut back below 0.5 percent in order to support growth and inflation.

In conjunction with adopting the new accounting guidance, we performed a review of the methodology used to estimate lifetime ECL and determined that risk associated with the non-homogeneous nature of our current commercial loan portfolio and the potential impact of large loan defaults was not fully captured in the models. As a result, we recorded a management judgment allowance of \$125 million for risk factors associated with large loan exposure in our commercial loan portfolio at January 1, 2020.

Updates to Economic Scenarios and Other Changes During the Three Months Ended March 31, 2020 As a result of the deterioration in economic conditions caused by the spread of the COVID-19 pandemic during the first quarter of 2020 and the related increase in economic uncertainty given the rapidly changing economic impact, we determined that the Consensus Economic Scenarios described above were no longer representative of management's current view of forecasted economic conditions and, as a result, three new COVID-19 forward-looking economic scenarios were developed and utilized for estimating lifetime ECL at March 31, 2020. The three new COVID-19 scenarios, referred to as mild, moderate and severe, were assigned weightings with the majority of the weighting placed on the mild scenario and progressively lower weights placed on the moderate and severe scenarios. This weighting was deemed appropriate for the estimation of lifetime ECL under current conditions. The following

discussion summarizes the COVID-19 macroeconomic variable forecasts in the mild, moderate and severe scenarios at March 31, 2020.

In the mild scenario, widespread and large-scale movement restrictions and social distancing measures are lifted by the end of 2020. In this scenario, GDP growth contracts for one quarter, before rebounding towards its historical average, while unemployment and housing prices both worsen modestly for a period of one to two years. In the financial markets, equity prices experience a correction, reflecting the COVID-19 impact on corporate earnings, and the 10-year U.S. Treasury yield falls into negative territory due to supportive monetary policy.

In the moderate scenario, widespread and large-scale movement restrictions and social distancing measures are sustained, lifting by the second quarter of 2021. In this scenario, the economic downturn lasts longer than in the mild scenario. As a result, the unemployment rate increases significantly in 2020 and the first half of 2021, before gradually returning to its historical average in 2022. Weakness in the housing market lingers, with the price level not returning to the pre-pandemic level until 2027, while equity prices decline by over 20 percent by the end of 2020.

In the severe scenario, widespread and large-scale movement restrictions and social distancing measures are sustained further, lifting at different paces over the course of 2021. In this scenario, GDP growth contracts substantially in 2020 and stays flat in 2021. The housing downturn lasts longer than in the moderate and mild scenarios, with the decline in housing prices exceeding 20 percent. The unemployment rate spikes to the peak level from the 2007-2009 recession, and remains elevated above the long-term average in 2022 and 2023. The decline in equity prices exceeds 40 percent by the end of 2020, while the 10-year U.S. Treasury yield falls below (1) percent beginning in the second quarter of 2020.

In addition to the updates to the economic scenarios, we recorded a management judgment allowance which increased our consumer allowance for credit losses by \$41 million to consider the extent of recent economic events and deteriorating conditions that were not fully captured in the economic scenarios applied at March 31, 2020. The circumstances around this pandemic are evolving rapidly 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 highly uncertain. We will continue to monitor the COVID-19 situation closely and anticipate returning to utilizing our Consensus Economic Scenarios approach as described above if and when the economic environment in the United States improves and returns to more normal conditions.

We also increased our management judgment allowance for risk factors associated with large loan exposure in our commercial loan portfolio by \$95 million to \$220 million at March 31, 2020, reflecting an increase in projected large loan defaults given the deterioration in economic conditions during the quarter.

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 and loss given default ("LGD") are assigned 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 the allowance for credit losses methodology. 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 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 may reflect consideration of management judgment of risk factors that are considered likely to cause estimated credit losses associated with the existing portfolio to differ from historical loss experience as well as where the models used to generate the reserves do not produce an estimate that is sufficient to encompass the current view of lifetime ECL. 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 TDR 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 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 which do not qualify as TDR 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 monthly based on a rolling average of several months' data using the most recently available information.

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 are considered likely to cause estimated credit losses associated with the existing portfolio to differ from historical loss experience as well as where the models used to generate the reserves do not produce an estimate that is sufficient to encompass the current view of lifetime ECL. 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 and changes in loan concentrations affecting either the frequency or severity of losses.

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.

Collateral-dependent loans As discussed above, beginning January 1, 2020, expected recoveries related to subsequent increases in the fair value of collateral for collateral-dependent loans that were previously written down below current recovery value estimates are recognized in the allowance for credit losses. The amount recognized is limited to the cumulative amount of prior write-offs. See Note 5, "Loans," for additional information regarding collateral-dependent loans.

Off-balance sheet credit exposures A separate estimate of lifetime ECL 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 lifetime ECL arising from off-balance sheet exposures such as letters of credit, guarantees 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 of credit.

Securities See Note 4, "Securities," for discussion of the methodologies utilized for calculating the allowance for credit losses on our securities available-for-sale and securities held-to-maturity portfolios.

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

	March 31, 2020	January 1, 2020	December 31, 2019
	(in millions)		
Allowance for credit losses:			
Loans.....	\$ 931	\$ 467	\$ 637
Securities held-to-maturity ⁽¹⁾	2	2	—
Other financial assets measured at amortized cost ⁽²⁾	5	3	—
Securities available-for-sale ⁽¹⁾	2	3	—
Total allowance for credit losses	<u>\$ 940</u>	<u>\$ 475</u>	<u>\$ 637</u>
Liability for off-balance sheet credit exposures	\$ 371	\$ 158	\$ 104

⁽¹⁾ See Note 4, "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 three months ended March 31, 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)								
Three Months Ended March 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	(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.....	51	213	110	1	30	3	95	9	512
Charge-offs	—	(12)	(19)	—	1	(2)	(22)	(2)	(56)
Recoveries	—	2	—	—	2	2	2	—	8
Net (charge-offs) recoveries	—	(10)	(19)	—	3	—	(20)	(2)	(48)
Allowance for credit losses – end of period	<u>\$ 92</u>	<u>\$ 382</u>	<u>\$ 248</u>	<u>\$ 5</u>	<u>\$ (41)</u>	<u>\$ 16</u>	<u>\$ 212</u>	<u>\$ 17</u>	<u>\$ 931</u>
Three Months Ended March 31, 2019									
Allowance for credit losses – beginning of period.....	\$ 116	\$ 219	\$ 108	\$ 15	\$ 13	\$ 7	\$ 58	\$ 5	\$ 541
Provision charged (credited) to income.....	3	22	14	—	(1)	1	16	3	58
Charge-offs	—	(2)	—	—	(4)	(1)	(13)	(1)	(21)
Recoveries	—	—	—	—	2	1	2	—	5
Net (charge-offs) recoveries	—	(2)	—	—	(2)	—	(11)	(1)	(16)
Allowance for credit losses – end of period	<u>\$ 119</u>	<u>\$ 239</u>	<u>\$ 122</u>	<u>\$ 15</u>	<u>\$ 10</u>	<u>\$ 8</u>	<u>\$ 63</u>	<u>\$ 7</u>	<u>\$ 583</u>

The following table summarizes the changes in the liability for off-balance sheet credit exposures during the three months ended March 31, 2020 and 2019:

Three Months Ended March 31,	2020	2019
	(in millions)	
Balance at beginning of period	\$ 104	\$ 96
Cumulative effect adjustment to initially apply new accounting guidance for measuring credit losses	54	—
Balance at beginning of period, adjusted	158	96
Provision charged (credited) to income	213	(7)
Balance at end of period.....	\$ 371	\$ 89

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 4, "Securities," and Note 5, "Loans."

	March 31, 2020
	(in millions)
Accrued interest receivables:	
Loans.....	\$ 177
Securities held-to-maturity.....	32
Other financial assets measured at amortized cost	3
Securities available-for-sale	109
Total accrued interest receivables.....	321
Allowance for credit losses.....	3
Accrued interest receivables, net	\$ 318

During the three months ended March 31, 2020, we charged-off accrued interest receivables by reversing interest income for loans of \$1 million.

7. Loans Held for Sale

Loans held for sale consisted of the following:

	March 31, 2020	December 31, 2019
	(in millions)	
Commercial loans:		
Real estate, including construction.....	\$ —	\$ 83
Business and corporate banking	—	35
Global banking	234	94
Total commercial.....	234	212
Consumer loans:		
Residential mortgages	51	77
Total consumer	51	77
Total loans held for sale	\$ 285	\$ 289

Commercial Loans Included in commercial loans held for sale are 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 \$206 million and \$178 million at March 31, 2020 and December 31, 2019, respectively. See Note 10, "Fair Value Option," for additional information.

Commercial loans held for sale also includes certain loans that we no longer intend to hold for investment and were transferred to held for sale which totaled \$28 million and \$34 million at March 31, 2020 and December 31, 2019, respectively. During both the three months ended March 31, 2020 and 2019, we recorded no lower of amortized cost or fair value adjustments on commercial loans held for sale.

Consumer Loans Included in residential mortgage loans held for sale are agency-eligible 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. Beginning with 2018 applications, interest rate risk for agency-eligible residential mortgage loans 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 \$3 million and \$1 million during the three months ended March 31, 2020 and 2019, respectively.

Valuation Allowances Excluding the commercial 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 \$1 million and \$2 million at March 31, 2020 and December 31, 2019, respectively. The valuation allowance on commercial loans held for sale was nil at both March 31, 2020 and December 31, 2019.

8. Goodwill

Goodwill was \$458 million and \$1,242 million at March 31, 2020 and December 31, 2019, respectively. Goodwill for these periods reflects accumulated impairment losses of \$1,819 million and \$1,035 million, respectively.

During the first quarter of 2020, as a result of the deterioration in economic conditions caused by the spread of the COVID-19 pandemic across the globe, including into the United States, and its impact on our businesses including changes to the interest rate environment as a result of recent FRB actions to combat the economic effects of the virus and the amount of headroom calculated in our previous annual impairment test for certain reporting units, we determined that it was more likely than not that the fair value of one or more of our reporting units was lower than their carrying amounts, including goodwill. Based on this analysis, we determined that an interim goodwill impairment test should be performed for all of our reporting units as of March 31, 2020 and prepared updated cash flow projections for each reporting unit, resulting in a reduction in the long-term forecasts of profitability for both our Retail Banking and Wealth Management and our Private Banking reporting units as compared to the prior year forecasts. These projections were reviewed by senior management in early April in connection with the preparation of our first quarter financial statements and it was determined that these forecasts represent our current best estimate of future profitability and would be used to conduct our interim impairment test. We completed our interim impairment test of goodwill utilizing cash flow projections based on these forecasts under a present value approach and, in conjunction with valuation estimates determined under a market approach, concluded that the fair value of our Commercial Banking reporting unit exceeded its carrying value, including goodwill. However, the cash flow projections for our Retail Banking and Wealth Management and our Private Banking reporting units were significantly lower 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 the first quarter of 2020, representing the entire amount of goodwill previously allocated to these reporting units. As discussed in our 2019 Form 10-K, our goodwill impairment testing is highly sensitive to certain assumptions and estimates used.

9. *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.

	March 31, 2020		December 31, 2019	
	Derivative Assets	Derivative Liabilities	Derivative Assets	Derivative Liabilities
	(in millions)			
Derivatives accounted for as fair value hedges⁽¹⁾				
OTC-cleared ⁽²⁾	\$ —	\$ 2	\$ —	\$ 1
Bilateral OTC ⁽²⁾	—	291	—	164
Interest rate contracts	—	293	—	165
Derivatives accounted for as cash flow hedges⁽¹⁾				
Foreign exchange contracts - bilateral OTC ⁽²⁾	12	8	16	20
Interest rate contracts - bilateral OTC ⁽²⁾	—	2	—	1
Total derivatives accounted for as hedges	12	303	16	186
Trading derivatives not accounted for as hedges⁽³⁾				
Exchange-traded ⁽²⁾	11	11	110	3
OTC-cleared ⁽²⁾	126	17	167	29
Bilateral OTC ⁽²⁾	19,494	22,164	11,990	13,324
Interest rate contracts	19,631	22,192	12,267	13,356
Exchange-traded ⁽²⁾	—	7	80	—
OTC-cleared ⁽²⁾	41	—	—	—
Bilateral OTC ⁽²⁾	31,072	29,727	16,440	15,786
Foreign exchange contracts	31,113	29,734	16,520	15,786
Exchange-traded ⁽²⁾	1	—	—	—
Bilateral OTC ⁽²⁾	4,182	3,201	3,753	3,993
Equity contracts	4,183	3,201	3,753	3,993
Exchange-traded ⁽²⁾	—	147	71	80
Bilateral OTC ⁽²⁾	2,211	2,040	1,087	1,309
Precious metals contracts	2,211	2,187	1,158	1,389
OTC-cleared ⁽²⁾	85	—	1	—
Bilateral OTC ⁽²⁾	1,876	2,307	1,138	1,024
Credit contracts	1,961	2,307	1,139	1,024
Other non-qualifying derivatives not accounted for as hedges⁽¹⁾				
Interest rate contracts - bilateral OTC ⁽²⁾	211	5	128	51
Foreign exchange contracts - bilateral OTC ⁽²⁾	—	2	—	—
Equity contracts - bilateral OTC ⁽²⁾	423	929	1,354	75
Credit contracts - bilateral OTC ⁽²⁾	30	21	—	44
Other contracts - bilateral OTC ⁽²⁾⁽⁴⁾	9	67	10	85
Total derivatives	59,784	60,948	36,345	35,989
Less: Gross amounts of receivable / payable subject to enforceable master netting agreements⁽⁵⁾⁽⁷⁾	48,099	48,099	29,510	29,510
Less: Gross amounts of cash collateral received / posted subject to enforceable master netting agreements⁽⁶⁾⁽⁷⁾	6,178	9,131	3,683	4,390
Net amounts of derivative assets / liabilities presented in the balance sheet	5,507	3,718	3,152	2,089
Less: Gross amounts of financial instrument collateral received / posted subject to enforceable master netting agreements but not offset in the consolidated balance sheet	1,443	552	891	553
Net amounts of derivative assets / liabilities	\$ 4,064	\$ 3,166	\$ 2,261	\$ 1,536

⁽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⁾ Consists of swap agreements entered into in conjunction with the sales of Visa Inc. ("Visa") Class B common shares ("Class B Shares").

- (5) Represents the netting of derivative receivable and payable balances for the same counterparty under enforceable netting agreements.
- (6) Represents the netting of cash collateral posted and received by counterparty under enforceable netting agreements.
- (7) 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 18, "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 March 31, 2020 and December 31, 2019, 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 March 31, 2020				
Securities available-for-sale ("AFS").....	\$ 10,928	\$ 1,630	\$ 356	\$ 1,986
Deposits ⁽²⁾	3,229	229	—	229
Long-term debt.....	5,927	326	(22)	304
At December 31, 2019				
Securities available-for-sale ("AFS").....	7,277	554	428	982
Long-term debt.....	10,975	285	(32)	253

⁽¹⁾ The carrying amount of securities AFS represents the amortized cost basis.

⁽²⁾ During the first quarter of 2020, \$3.0 billion of fixed-rate senior debt obligations issued to HSBC North America were recharacterized as time deposits. The cumulative amount of fair value hedging adjustments associated with this debt was reclassified to deposits. See Note 14, "Related Party Transactions," for additional information.

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)				
Three Months Ended March 31, 2020				
Interest rate contracts / Securities AFS.....	Net interest income		\$ (1,156)	\$ 1,178
Interest rate contracts / Deposits.....	Net interest income		120	(146)
Interest rate contracts / Long-term debt.....	Net interest income		177	(229)
Total.....			<u>\$ (859)</u>	<u>\$ 803</u>
Three Months Ended March 31, 2019				
Interest rate contracts / Securities AFS.....	Net interest income		\$ (257)	\$ 350
Interest rate contracts / Long-term debt.....	Net interest income		84	(199)
Total.....			<u>\$ (173)</u>	<u>\$ 151</u>

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. 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 March 31, 2020, active cash flow hedge relationships extend or mature through June 2031. During the three months ended March 31, 2020, \$6 million of losses related to discontinued cash flow hedge relationships were amortized to earnings from AOCI compared with losses of \$10 million during the three months ended March 31, 2019. During the next twelve months, we expect to amortize \$11 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	
		2020	2019		2020	2019
(in millions)						
Three Months Ended March 31,						
Foreign exchange contracts.....	\$	—	\$ 1	Net interest income	\$	—
Interest rate contracts		113	7	Net interest income	(6)	(10)
Total.....	\$	113	\$ 8		\$ (6)	\$ (10)

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 18, "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 agency-eligible residential mortgage loans 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 7, "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 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):

Location of Gain (Loss) Recognized in Income on Derivatives		Gain (Loss) Recognized in Income on Derivatives	
		Three Months Ended March 31,	
		2020	2019
		(in millions)	
Interest rate contracts.....	Trading revenue	\$ 17	\$ 56
Foreign exchange contracts ⁽¹⁾	Trading revenue	(665)	(14)
Equity contracts.....	Trading revenue	1,257	(89)
Precious metals contracts ⁽¹⁾	Trading revenue	160	17
Credit contracts.....	Trading revenue	(657)	(122)
Total		<u>\$ 112</u>	<u>\$ (152)</u>

⁽¹⁾ During the third quarter of 2019, we changed our presentation for certain derivatives that were previously reported in foreign exchange contracts and began reporting these derivatives in precious metals contracts. As a result, we have reclassified \$151 million of gains from foreign exchange contracts to precious metals contracts during the three months ended March 31, 2019 to conform with the current year presentation.

The significant gains and losses recognized in trading revenue on derivatives during the three months ended March 31, 2020, primarily in foreign exchange, equity and credit contracts, reflect the impact of market volatility caused by the spread of the COVID-19 pandemic.

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):

Location of Gain (Loss) Recognized in Income on Derivatives		Gain (Loss) Recognized in Income on Derivatives	
		Three Months Ended March 31,	
		2020	2019
		(in millions)	
Interest rate contracts.....	Loss on instruments designated at fair value and related derivatives	\$ 250	\$ 156
Interest rate contracts.....	Other income (loss)	(3)	(1)
Foreign exchange contracts	Loss on instruments designated at fair value and related derivatives	(2)	(1)
Equity contracts	Loss on instruments designated at fair value and related derivatives	(1,698)	914
Credit contracts.....	Loss on instruments designated at fair value and related derivatives	37	—
Credit contracts.....	Other income (loss)	51	(10)
Other contracts ⁽¹⁾	Other income (loss)	11	(6)
Total		\$ (1,354)	\$ 1,052

⁽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 March 31, 2020 was \$1,220 million, for which we had posted collateral of \$753 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, 2019 was \$611 million, for which we had posted collateral of \$316 million. Substantially all of the collateral posted is in the form of cash or securities available-for-sale. See Note 18, "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	\$ 51	\$ 100

Notional Value of Derivative Contracts The following table summarizes the notional values of derivative contracts:

	March 31, 2020	December 31, 2019
	(in millions)	
Interest rate:		
Futures and forwards	\$ 765,243	\$ 597,980
Swaps	1,938,082	2,130,442
Options written	116,380	158,861
Options purchased	121,867	164,265
	<u>2,941,572</u>	<u>3,051,548</u>
Foreign exchange:		
Swaps, futures and forwards	1,304,885	1,362,959
Options written	35,269	44,876
Options purchased	36,088	46,085
Spot.....	44,391	67,060
	<u>1,420,633</u>	<u>1,520,980</u>
Commodities, equities and precious metals:		
Swaps, futures and forwards	73,740	55,678
Options written	35,418	39,035
Options purchased	45,636	49,517
	<u>154,794</u>	<u>144,230</u>
Credit derivatives	95,364	90,049
Other contracts ⁽¹⁾	895	1,044
Total.....	<u>\$ 4,613,258</u>	<u>\$ 4,807,851</u>

⁽¹⁾ Consists of swap agreements entered into in conjunction with the sales of Visa Class B Shares.

10. 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") and endorsed by the European Union ("EU"). 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 securities purchased and sold under resale and repurchase agreements, certain fixed-rate long-term debt issuances, all of our hybrid instruments, including structured notes and deposits, and, beginning January 1, 2020, certain student loans held for investment. Excluding the fair value movement on fair value option liabilities attributable to our own credit spread, which is recorded in other comprehensive income, 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 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. Beginning January 1, 2020, we also elected to apply FVO accounting to certain student loans held for investment. 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 March 31,

2020 and December 31, 2019, no loans for which the fair value option has been elected were 90 days or more past due or in nonaccrual status.

Resale and Repurchase Agreements We elected to apply FVO accounting to certain securities purchased and sold under resale and repurchase agreements which are trading in nature. The election allows us to account for these resale and repurchase agreements at fair value which is consistent with the manner in which the instruments are managed. The fair value of the resale and repurchase agreements is determined using market rates currently offered on comparable transactions with similar underlying collateral and maturities. Interest on these resale and repurchase agreements is recorded as interest income or expense in the consolidated statement of income (loss). The components of gain (loss) related to these resale and repurchase agreements designated at fair value are summarized in the table below.

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 March 31, 2020			
Student loans held for investment.....	\$ 37	\$ 39	\$ (2)
Commercial loans held for sale.....	206	263	(57)
Fixed rate long-term debt.....	898	741	157
Hybrid instruments:			
Structured deposits.....	6,371	7,278	(907)
Structured notes.....	7,477	8,176	(699)
At December 31, 2019			
Commercial loans held for sale.....	\$ 178	\$ 189	\$ (11)
Securities sold under repurchase agreements	373	373	—
Fixed rate long-term debt.....	959	741	218
Hybrid instruments:			
Structured deposits.....	7,209	7,491	(282)
Structured notes.....	9,388	8,187	1,201

Components of Loss on Instruments Designated at Fair Value and Related Derivatives The following table summarizes the components of loss on instruments designated at fair value and related derivatives reflected in the consolidated statement of income (loss) for the three months ended March 31, 2020 and 2019:

	Loans and Loans Held for Sale	Long-Term Debt	Hybrid Instruments	Total
(in millions)				
Three Months Ended March 31, 2020				
Interest rate and other components ⁽¹⁾	\$ —	\$ (134)	\$ 1,579	\$ 1,445
Credit risk component ⁽²⁾⁽³⁾	(54)	—	—	(54)
Total mark-to-market on financial instruments designated at fair value	(54)	(134)	1,579	1,391
Mark-to-market on related derivatives	37	150	(1,606)	(1,419)
Net realized gain on related long-term debt derivatives	—	6	—	6
Gain (loss) on instruments designated at fair value and related derivatives.	<u>\$ (17)</u>	<u>\$ 22</u>	<u>\$ (27)</u>	<u>\$ (22)</u>
Three Months Ended March 31, 2019				
Interest rate and other components ⁽¹⁾	\$ —	\$ (69)	\$ (1,012)	\$ (1,081)
Credit risk component ⁽²⁾	3	—	—	3
Total mark-to-market on financial instruments designated at fair value	3	(69)	(1,012)	(1,078)
Mark-to-market on related derivatives	—	53	1,006	1,059
Net realized gain on related long-term debt derivatives	—	10	—	10
Gain (loss) on instruments designated at fair value and related derivatives.	<u>\$ 3</u>	<u>\$ (6)</u>	<u>\$ (6)</u>	<u>\$ (9)</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.

⁽³⁾ During the three months ended March 31, 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 spread of the COVID-19 pandemic.

11. 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:

Three Months Ended March 31,	2020	2019
	(in millions)	
Unrealized gains (losses) on investment securities:		
Balance at beginning of period.....	\$ (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	(114)	(519)
Other comprehensive income (loss) for period:		
Net unrealized gains arising during period, net of tax of \$245 million and \$55 million, respectively	775	180
Reclassification adjustment for gains realized in net income (loss), net of tax of \$(7) million and \$(2) million, respectively ⁽²⁾ ..	(21)	(5)
Reversal of provision for credit losses realized in net income (loss), net of tax of less than \$1 million ⁽³⁾	1	—
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 \$1 million and \$1 million, respectively ⁽⁴⁾	3	4
Total other comprehensive income for period	758	179
Balance at end of period	644	(340)
Unrealized gains (losses) on fair value option liabilities attributable to our own credit spread:		
Balance at beginning of period	(9)	301
Other comprehensive income (loss) for period:		
Net unrealized gains (losses) arising during period, net of tax of \$128 million and \$(35) million, respectively	407	(111)
Total other comprehensive income (loss) for period	407	(111)
Balance at end of period	398	190
Unrealized gains (losses) on derivatives designated as cash flow hedges:		
Balance at beginning of period	(151)	(159)
Other comprehensive income (loss) for period:		
Net unrealized gains arising during period, net of tax of \$28 million and \$2 million, respectively	85	6
Reclassification adjustment for losses realized in net income (loss), net of tax of \$1 million and \$2 million, respectively ⁽⁵⁾	5	8
Total other comprehensive income for period	90	14
Balance at end of period	(61)	(145)
Pension and postretirement benefit liability:		
Balance at beginning of period	(3)	11
Other comprehensive income (loss) for period:		
Change in unfunded pension and postretirement liability, net of tax of nil and \$(1) million, respectively	—	(3)
Total other comprehensive loss for period	—	(3)
Balance at end of period	(3)	8
Total accumulated other comprehensive income (loss) at end of period	\$ 978	\$ (287)

⁽¹⁾ See Note 21, "New Accounting Pronouncements," for additional discussion.

⁽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⁾ Amount reclassified to net income (loss) is included in net interest income in our consolidated statement of income (loss).

12. Pension and Other Postretirement Benefits

Defined Benefit Pension Plan The table below reflects the portion of pension expense and its related components of the combined HSBC North America Pension Plan (either the "HSBC North America Pension Plan" or the "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 liability.

Three Months Ended March 31,	2020	2019
	(in millions)	
Interest cost on projected benefit obligation	\$ 12	\$ 15
Expected return on plan assets	(19)	(18)
Amortization of net actuarial loss	2	7
Administrative costs	1	1
Pension (income) expense	<u>\$ (4)</u>	<u>\$ 5</u>

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 less than \$1 million during both the three months ended March 31, 2020 and 2019.

13. 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 three months ended March 31, 2020 and 2019. See Note 22, "Fee Income from Contracts with Customers," in our 2019 Form 10-K for a description of the various types of fee-based activities and how revenue associated with these activities is recognized. There have been no significant changes in these activities since December 31, 2019.

Three Months Ended March 31,	2020	2019
	(in millions)	
Credit card fees, net	\$ 11	\$ 12
Trust and investment management fees	31	30
Other fees and commissions:		
Account services	61	65
Credit facilities	73	69
Other fees	17	13
Total other fees and commissions	<u>151</u>	<u>147</u>
Servicing and other fees from HSBC affiliates	88	81
Insurance ⁽¹⁾	2	2
Total fee income from contracts with customers	<u>283</u>	<u>272</u>
Other non-fee revenues	104	118
Total other revenues ⁽²⁾	<u>\$ 387</u>	<u>\$ 390</u>

⁽¹⁾ Included within other income (loss) in the consolidated statement of income (loss).

⁽²⁾ See Note 15, "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 We recognized interchange fees of \$22 million during both the three months ended March 31, 2020 and 2019, respectively. Credit card rewards program costs totaled \$13 million and \$12 million during the three months ended March 31, 2020 and 2019, respectively.

Deferred Fee Income

Information related to deferred fee income on loan commitments, revolving credit facilities and standby letters of credit is included in Note 18, "Guarantee Arrangements, Pledged Assets and Repurchase Agreements," and Note 19, "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 \$3 million and \$2 million at March 31, 2020 and December 31, 2019, respectively. We expect to recognize this revenue over a remaining period of one year or less.

Other than trust and investment management fees as discussed in our 2019 Form 10-K, 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.

14. 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, National Association (together with its subsidiaries, "HSBC Bank USA") to other HSBC affiliates (other than Federal Deposit Insurance Corporation insured banks) are legally required to be secured by eligible collateral. The following tables present related party balances and the income (expense) generated by related party transactions:

	March 31, 2020	December 31, 2019
	(in millions)	
Assets:		
Cash and due from banks	\$ 199	\$ 850
Interest bearing deposits with banks.....	97	40
Securities purchased under agreements to resell ⁽¹⁾	673	4,600
Trading assets	159	79
Loans	3,087	2,343
Other ⁽²⁾	728	456
Total assets	<u>\$ 4,943</u>	<u>\$ 8,368</u>
Liabilities:		
Deposits	\$ 17,360	\$ 9,000
Trading liabilities.....	402	293
Short-term borrowings.....	5,418	1,166
Long-term debt	4,849	7,848
Other ⁽²⁾	212	931
Total liabilities	<u>\$ 28,241</u>	<u>\$ 19,238</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.

Three Months Ended March 31,	2020	2019
	(in millions)	
Income (Expense):		
Interest income	\$ 26	\$ 43
Interest expense	(120)	(124)
Net interest expense	(94)	(81)
Trading revenue (expense)	(261)	(1,514)
Servicing and other fees from HSBC affiliates:		
HSBC Bank plc	47	35
HSBC Markets (USA) Inc. ("HMUS")	24	30
Other HSBC affiliates	17	16
Total servicing and other fees from HSBC affiliates	88	81
Gain (loss) on instruments designated at fair value and related derivatives	(1,606)	1,008
Support services from HSBC affiliates:		
HTSU	(263)	(277)
HMUS	(27)	(27)
Other HSBC affiliates	(92)	(76)
Total support services from HSBC affiliates	(382)	(380)
Rental income from HSBC affiliates, net ⁽¹⁾	12	12
Stock based compensation expense ⁽²⁾	(6)	(6)

⁽¹⁾ We receive rental income from our affiliates, and in some cases pay rental expense to our affiliates, for rent on 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 12, "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 March 31, 2020 and December 31, 2019, long-term debt with affiliates reflected \$4.8 billion and \$7.8 billion, respectively, of borrowings from HSBC North America. During the first quarter of 2020, \$3.0 billion of these borrowings were recharacterized as time deposits, including \$1.5 billion of fixed-rate senior debt which matures in March 2021 and \$1.5 billion of fixed-rate senior debt which matures in March 2026. The remaining outstanding balances include:

- \$2.0 billion of fixed-rate senior debt which matures in May 2021;
- \$0.8 billion of floating-rate subordinated debt which matures in May 2025; and
- \$2.0 billion of fixed-rate senior debt which matures in September 2025.

We have a \$150 million uncommitted line of credit with HSBC North America. There was no outstanding balance under this credit facility at either March 31, 2020 or December 31, 2019.

We have also incurred short-term borrowings with certain affiliates, largely securities sold under repurchase agreements with HSBC Securities (USA) Inc. ("HSI"). In addition, certain affiliates have also placed deposits with us.

Lending and Derivative Related Arrangements Extended to HSBC Affiliates:

At March 31, 2020 and December 31, 2019, we had the following loan balances outstanding with HSBC affiliates:

	March 31, 2020	December 31, 2019
	(in millions)	
HMUS and subsidiaries	\$ 3,032	\$ 2,296
Other short-term affiliate lending	55	47
Total loans	<u>\$ 3,087</u>	<u>\$ 2,343</u>

HMUS and subsidiaries We have extended loans and lines, some of them uncommitted, to HMUS and its subsidiaries in the amount of \$12.0 billion at both March 31, 2020 and December 31, 2019 of which \$3.0 billion and \$2.3 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.

We have extended lines of credit to various other HSBC affiliates totaling \$4.7 billion which did not have any outstanding balances at either March 31, 2020 or December 31, 2019.

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 March 31, 2020 and December 31, 2019, there were \$55 million and \$47 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 \$1,005.3 billion and \$1,111.5 billion at March 31, 2020 and December 31, 2019, 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 \$116 million and \$90 million at March 31, 2020 and December 31, 2019, respectively. Our Global Banking and Markets business accounts 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.

Services Provided Between HSBC Affiliates:

Under multiple service level agreements, we provide services to and receive services from various HSBC affiliates. These activities are summarized in Note 23, "Related Party Transactions," in our 2019 Form 10-K. There have been no significant changes in these activities since December 31, 2019.

Other Transactions with HSBC Affiliates:

At both March 31, 2020 and December 31, 2019, we had \$1,265 million of non-cumulative preferred stock issued and outstanding to HSBC North America. See Note 18, "Preferred Stock," in our 2019 Form 10-K for additional details.

15. Business Segments

We have five distinct business segments that we utilize for management reporting and analysis purposes, which are aligned with HSBC's global business strategy: Retail Banking and Wealth Management ("RBWM"), Commercial Banking ("CMB"), Global Banking and Markets ("GB&M"), Private Banking ("PB") and a Corporate Center ("CC"). There have been no changes in the basis of our segmentation as compared with the presentation in our 2019 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 from the segments to one centralized unit in Balance Sheet Management, recognize term funding costs/benefits and more appropriately reflect the profitability of the segments.

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 and endorsed by the EU, and, 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 2019 Form 10-K.

A summary of significant differences between U.S. GAAP and the Group Reporting Basis as they impact our results are summarized in Note 24, "Business Segments," in our 2019 Form 10-K. Other than the changes discussed below, there have been no other significant changes since December 31, 2019 in the differences between U.S. GAAP and the Group Reporting Basis impacting our results.

Expected credit losses - As discussed further in Note 21, "New Accounting Pronouncements," on January 1, 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 for the requirements of IFRS 9, "Financial Instruments" ("IFRS 9"), only financial assets which are considered to have experienced a significant increase in credit risk or for which there is objective evidence of impairment require an allowance based on lifetime ECL. Under the Group Reporting Basis, financial assets which have not experienced a significant increase in credit risk since initial recognition only require an allowance based on expected credit losses resulting from default events that are possible within the next 12 months. Principally as a result of this difference, the allowance for credit losses remains higher under U.S. GAAP than under the Group Reporting Basis. In addition, the new guidance 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) under U.S. GAAP, which results in an impact to earnings substantially consistent with the Group Reporting Basis. Prior to January 1, 2020, these expected recoveries were not recognized under U.S. GAAP.

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								
	RBWM	CMB	GB&M	PB	CC	Total	Group Reporting Basis Adjustments ⁽¹⁾	Group Reporting Basis Reclassifications ⁽²⁾	U.S. GAAP Consolidated Totals
	(in millions)								
Three Months Ended March 31, 2020									
Net interest income.....	\$ 195	\$ 208	\$ 81	\$ 31	\$ 4	\$ 519	\$ 3	\$ (18)	\$ 504
Other operating income	59	58	264	16	(26)	371	(4)	20	387
Total operating income.....	254	266	345	47	(22)	890	(1)	2	891
Expected credit losses / provision for credit losses.....	140	123	115	—	1	379	347	—	726
	114	143	230	47	(23)	511	(348)	2	165
Operating expenses.....	660	146	187	370	146	1,509	94	2	1,605
Profit (loss) before income tax	\$ (546)	\$ (3)	\$ 43	\$ (323)	\$ (169)	\$ (998)	\$ (442)	\$ —	\$ (1,440)
Balances at end of period:									
Total assets.....	\$ 18,954	\$ 31,540	\$ 114,802	\$ 7,159	\$ 97,154	\$ 269,609	\$ (64,532)	\$ —	\$ 205,077
Total loans, net.....	17,701	30,370	22,461	6,084	2,039	78,655	(4,596)	6,738	80,797
Goodwill.....	—	358	—	—	—	358	100	—	458
Total deposits.....	39,083	32,309	40,417	8,201	4,305	124,315	(7,066)	19,474	136,723
Three Months Ended March 31, 2019									
Net interest income.....	\$ 221	\$ 201	\$ 151	\$ 37	\$ 14	\$ 624	\$ 6	\$ (68)	\$ 562
Other operating income	65	58	175	16	24	338	(17)	69	390
Total operating income.....	286	259	326	53	38	962	(11)	1	952
Expected credit losses / provision for credit losses.....	21	6	(17)	(1)	1	10	41	7	58
	265	253	343	54	37	952	(52)	(6)	894
Operating expenses.....	311	138	206	53	40	748	8	(6)	750
Profit (loss) before income tax	\$ (46)	\$ 115	\$ 137	\$ 1	\$ (3)	\$ 204	\$ (60)	\$ —	\$ 144
Balances at end of period:									
Total assets.....	\$ 18,733	\$ 25,612	\$ 78,899	\$ 6,686	\$ 79,715	\$ 209,645	\$ (28,724)	\$ —	\$ 180,921
Total loans, net.....	16,885	24,447	20,068	5,584	2,230	69,214	(1,797)	3,034	70,451
Goodwill.....	581	358	—	321	—	1,260	347	—	1,607
Total deposits.....	33,459	22,323	28,274	7,540	6,629	98,225	(2,827)	18,241	113,639

⁽¹⁾ Represents adjustments associated with differences between U.S. GAAP and the Group Reporting Basis.

⁽²⁾ Represents differences in financial statement presentation between U.S. GAAP and the Group Reporting Basis.

16. 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.

In March 2020, the FRB announced it had reduced its reserve requirement to zero percent. Prior to the announcement, HSBC Bank USA was required to maintain reserve balances either in the form of vault cash or on deposit with the Federal Reserve Bank, based on a percentage of deposits. At December 31, 2019, HSBC Bank USA was required to maintain \$2,475 million of reserve balances with the Federal Reserve Bank which were reported within interest bearing deposits with banks on the consolidated balance sheet.

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 March 31, 2020 and December 31, 2019:

	March 31, 2020			December 31, 2019		
	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:						
HSBC USA.....	\$ 15,622	4.5% ⁽²⁾	11.9%	\$ 15,876	4.5% ⁽²⁾	13.1%
HSBC Bank USA.....	17,814	6.5	14.0	18,043	6.5	15.2
Tier 1 capital ratio:						
HSBC USA.....	16,887	6.0	12.9	17,141	6.0	14.1
HSBC Bank USA.....	20,314	8.0	15.9	20,543	8.0	17.3
Total capital ratio:						
HSBC USA.....	20,932	10.0	16.0	19,743	10.0	16.3
HSBC Bank USA.....	23,063	10.0	18.1	22,724	10.0	19.2
Tier 1 leverage ratio:						
HSBC USA.....	16,887	4.0 ⁽²⁾	9.0	17,141	4.0 ⁽²⁾	9.9
HSBC Bank USA.....	20,314	5.0	11.0	20,543	5.0	12.0
Supplementary leverage ratio ("SLR"):						
HSBC USA.....	16,887	3.0 ⁽³⁾	6.5	17,141	3.0 ⁽³⁾	6.9
HSBC Bank USA.....	20,314	3.0 ⁽³⁾	8.0	20,543	3.0 ⁽³⁾	8.4
Risk-weighted assets: ⁽⁴⁾						
HSBC USA.....	130,901			121,407		
HSBC Bank USA.....	127,499			118,618		
Adjusted quarterly average assets: ⁽⁵⁾						
HSBC USA.....	187,962			173,270		
HSBC Bank USA.....	184,851			170,722		
Total leverage exposure: ⁽⁶⁾						
HSBC USA.....	258,783			247,590		
HSBC Bank USA.....	254,907			244,008		

⁽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 have 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 minimum ratios.
- (4) Calculated using the generally-applicable Standardized Approach.
- (5) Represents the Tier 1 leverage ratio denominator which reflects quarterly average assets adjusted for amounts permitted to be deducted from Tier 1 capital.
- (6) Represents the SLR denominator which includes adjusted quarterly average assets plus certain off-balance sheet exposures.

In response to the COVID-19 pandemic, on March 31, 2020, the federal banking agencies issued an interim 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. This option comes in addition to the separate three-year transition option already available. HSBC North America and HSBC Bank USA elected the five-year transition option and, as a result, beginning in 2020, capital ratios are reported in accordance with the transition rules in the interim final rule.

17. 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 March 31, 2020 and December 31, 2019 which are consolidated on our balance sheet. Assets and liabilities exclude intercompany balances that eliminate in consolidation.

	March 31, 2020		December 31, 2019	
	Consolidated Assets	Consolidated Liabilities	Consolidated Assets	Consolidated Liabilities
(in millions)				
Low income housing limited liability partnership:				
Other assets	\$ 92	\$ —	\$ 98	\$ —
Interest, taxes and other liabilities	—	31	—	38
Subtotal	92	31	98	38
Venture debt financing entity:				
Loans	39	—	—	—
Interest, taxes and other liabilities	—	1	—	—
Subtotal	39	1	—	—
Total	\$ 131	\$ 32	\$ 98	\$ 38

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.

As a practical expedient, 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 During 2019, HSBC USA 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 typically early stage and development of the companies, the loans are usually 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 involvements in these VIEs, at March 31, 2020 and December 31, 2019:

	Total Assets Held by Unconsolidated VIEs	Carrying Value of Variable Interests Held Reported as		Maximum Exposure to Loss
		Assets	Liabilities	
(in millions)				
At March 31, 2020				
Structured note vehicles.....	\$ 1,657	\$ 510	\$ 142	\$ 1,515
Limited partnership investments.....	2,149	591	307	591
Total.....	<u>\$ 3,806</u>	<u>\$ 1,101</u>	<u>\$ 449</u>	<u>\$ 2,106</u>
At December 31, 2019				
Structured note vehicles.....	\$ 1,524	\$ 510	\$ 9	\$ 1,515
Limited partnership investments.....	2,160	561	300	562
Total.....	<u>\$ 3,684</u>	<u>\$ 1,071</u>	<u>\$ 309</u>	<u>\$ 2,077</u>

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.

Structured note vehicles We provide derivatives, such as interest rate and currency swaps, to structured note vehicles and, in certain instances, invest in the vehicles' debt instruments. We hold variable interests in these structured note vehicles in the form of total return swaps under which we take on the risks and benefits of the structured notes they issue. The same risks and benefits are passed on to third party entities through back-end total return swaps. We earn a spread for facilitating the transaction. Since we do not have the power to direct the activities of the VIE and are not the primary beneficiary, we do not consolidate them. Our maximum exposure to loss is the notional amount of the derivatives wrapping the structured notes. The maximum exposure to loss of \$1,515 million at March 31, 2020 would occur in the unlikely scenario where the value of the structured notes is reduced to zero and, at the same time, the counterparty of the back-end swap defaults with zero recovery. In certain instances, we hold credit default swaps with the structured note vehicles under which we receive credit protection on specified reference assets in exchange for the payment of a premium. Through these derivatives, the vehicles assume the credit risk associated with the reference assets which are then passed on to the holders of the debt instruments they issue. Because they create rather than absorb variability, the credit default swaps we hold are not considered variable interests. We record all investments in, and derivative contracts with, unconsolidated structured note vehicles at fair value on our consolidated balance sheet.

During the first quarter of 2019, one of the structured note vehicles was unwound and our investment in the structured note vehicle along with the related derivatives were terminated. As a result, we recognized a loss of approximately \$39 million, reflecting a payment made to the derivative counterparty as a result of the termination. At the time of unwind, our investment in the structured note vehicle had a total carrying value of \$1,293 million, which was recorded in trading assets on the consolidated balance sheet.

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.

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 3, "Trading Assets and Liabilities," Note 4, "Securities," and Note 19, "Fair Value Measurements," and, therefore, are not disclosed in this note to avoid redundancy.

18. 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 March 31, 2020 and December 31, 2019. Following the table is a description of the various arrangements.

	March 31, 2020		December 31, 2019	
	Carrying Value	Notional / Maximum Exposure to Loss	Carrying Value	Notional / Maximum Exposure to Loss
	(in millions)			
Credit derivatives ⁽¹⁾⁽²⁾	\$ (2,064)	\$ 41,036	\$ (63)	\$ 38,739
Financial standby letters of credit, net of participations ⁽³⁾⁽⁴⁾	—	5,805	—	5,657
Performance standby letters of credit, net of participations ⁽³⁾⁽⁴⁾	—	3,687	—	3,779
Total	<u>\$ (2,064)</u>	<u>\$ 50,528</u>	<u>\$ (63)</u>	<u>\$ 48,175</u>

⁽¹⁾ Includes \$19,399 million and \$18,391 million of notional issued for the benefit of HSBC affiliates at March 31, 2020 and December 31, 2019, 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 \$1,649 million and \$1,623 million of both financial and performance standby letters of credit issued for the benefit of HSBC affiliates at March 31, 2020 and December 31, 2019, 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 March 31, 2020 and December 31, 2019:

	March 31, 2020		December 31, 2019	
	Carrying / Fair Value	Notional	Carrying / Fair Value	Notional
(in millions)				
Sell-protection credit derivative positions	\$ (2,064)	\$ 41,036	\$ (63)	\$ 38,739
Buy-protection credit derivative positions	1,783	54,328	77	51,310
Net position ⁽¹⁾	<u>\$ (281)</u>	<u>\$ 13,292</u>	<u>\$ 14</u>	<u>\$ 12,571</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 \$52 million at both March 31, 2020 and December 31, 2019. Also included in other liabilities is an allowance for credit losses on unfunded standby letters of credit of \$44 million and \$26 million at March 31, 2020 and December 31, 2019, 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 March 31, 2020 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").....	3.2	\$ 20,231	\$ 9,090	\$ 29,321
Index credit derivatives	4.3	6,159	4,300	10,459
Total return swaps.....	2.3	1,062	194	1,256
Subtotal.....		27,452	13,584	41,036
Standby Letters of Credit ⁽²⁾	1.2	7,598	1,894	9,492
Total.....		\$ 35,050	\$ 15,478	\$ 50,528

⁽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 29, "Litigation and Regulatory Matters" in our 2019 Form 10-K. 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 \$67 million and \$85 million at March 31, 2020 and December 31, 2019, 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). See Note 9, "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 10, "Leases" in our 2019 Form 10-K, for a full discussion of our leases, including a maturity analysis of our operating lease liabilities.

Mortgage Loan Repurchase Obligations We have provided various representations and warranties related to the origination and sale of mortgage loans including, 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. From 2013 to 2017, we sold agency-eligible mortgage loan originations directly to PHH Mortgage Corporation and they are responsible for origination representations and warranties for all such loans. With the insourcing of our mortgage fulfillment operations, beginning with 2018 applications, we are now responsible for origination representations and warranties for all agency-eligible mortgage loan originations sold to third parties.

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 both March 31, 2020 and December 31, 2019.

There were no changes in our estimated repurchase liability during both the three months ended March 31, 2020 and 2019 for obligations arising from the breach of representations and warranties associated with mortgage loans sold.

Our repurchase liability of \$4 million at March 31, 2020 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 March 31, 2020. 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 29, "Litigation and Regulatory Matters," in our 2019 Form 10-K for additional discussion of related exposure. The outstanding principal balance on these loans was approximately \$3.4 billion at both March 31, 2020 and December 31, 2019.

Pledged Assets

Pledged assets included in the consolidated balance sheet consisted of the following:

	March 31, 2020	December 31, 2019
	(in millions)	
Interest bearing deposits with banks	\$ 4,816	\$ 2,682
Trading assets ⁽¹⁾	6,633	525
Securities available-for-sale ⁽²⁾	14,986	6,814
Securities held-to-maturity ⁽²⁾	1,573	1,688
Loans ⁽³⁾	13,316	14,342
Other assets ⁽⁴⁾	6,634	3,517
Total	<u>\$ 47,958</u>	<u>\$ 29,568</u>

⁽¹⁾ Trading assets are primarily pledged against liabilities associated with repurchase agreements.

⁽²⁾ 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.

⁽³⁾ Loans are primarily residential mortgage loans pledged against current and potential borrowings from the FHLB and the Federal Reserve Bank of New York.

⁽⁴⁾ Other assets represent cash on deposit with non-banks related to derivative collateral support agreements.

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 \$7,760 million and nil at March 31, 2020 and December 31, 2019, respectively. The fair value of trading assets that could be sold or repledged was \$6,633 million and \$336 million at March 31, 2020 and December 31, 2019, respectively.

The fair value of collateral we accepted under security resale agreements but was not reported on the consolidated balance sheet was \$8,324 million and \$19,174 million at March 31, 2020 and December 31, 2019, respectively. Of this collateral, \$7,199 million and \$18,199 million could be sold or repledged at March 31, 2020 and December 31, 2019, respectively, of which \$1,853 million and \$2,062 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 March 31, 2020 and December 31, 2019:

				Gross Amounts Not Offset in the Balance Sheet		
	Gross Amounts Recognized	Gross Amounts Offset in the Balance Sheet ⁽¹⁾	Net Amounts Presented in the Balance Sheet	Financial Instruments ⁽²⁾	Cash Collateral Received / Pledged	Net Amount ⁽³⁾
(in millions)						
At March 31, 2020						
Assets:						
Securities purchased under resale agreements	\$ 8,241	\$ 3,598	\$ 4,643	\$ 4,641	\$ —	\$ 2
Liabilities:						
Securities sold under repurchase agreements	\$ 16,096	\$ 3,598	\$ 12,498	\$ 12,453	\$ —	\$ 45
At December 31, 2019						
Assets:						
Securities purchased under resale agreements	\$ 19,167	\$ 1,329	\$ 17,838	\$ 17,832	\$ —	\$ 6
Liabilities:						
Securities sold under repurchase agreements	\$ 2,401	\$ 1,329	\$ 1,072	\$ 1,068	\$ —	\$ 4

⁽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 March 31, 2020 and December 31, 2019:

	Overnight and Continuous	Up to 30 Days	31 to 90 Days	91 Days to One Year	Greater Than One Year	Total
(in millions)						
At March 31, 2020						
U.S. Treasury, U.S. Government sponsored and U.S. Government agency securities	\$ 6,719	\$ 6,148	\$ 3,229	\$ —	\$ —	\$ 16,096
At December 31, 2019						
U.S. Treasury, U.S. Government sponsored and U.S. Government agency securities	\$ 2,401	\$ —	\$ —	\$ —	\$ —	\$ 2,401

19. 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 literature 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 rates other than the Overnight Indexed Swap ("OIS") rate. 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 March 31, 2020 and December 31, 2019, 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).

March 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.....	\$ 8,207	\$ 60	\$ —	\$ 8,267	\$ —	\$ 8,267
Asset-backed securities:						
Collateralized debt obligations.....	—	67	—	67	—	67
Residential mortgages.....	—	—	16	16	—	16
Student loans.....	—	73	—	73	—	73
Corporate and other domestic debt securities.....	—	—	465	465	—	465
Debt securities issued by foreign entities.....	8,803	97	—	8,900	—	8,900
Equity securities.....	1,432	—	—	1,432	—	1,432
Precious metals trading.....	—	4,604	—	4,604	—	4,604
Derivatives: ⁽¹⁾						
Interest rate contracts.....	11	19,790	41	19,842	—	19,842
Foreign exchange contracts.....	—	31,123	2	31,125	—	31,125
Equity contracts.....	1	4,380	225	4,606	—	4,606
Precious metals contracts.....	1	2,210	—	2,211	—	2,211
Credit contracts.....	—	1,640	351	1,991	—	1,991
Other contracts ⁽²⁾	—	—	9	9	—	9
Derivatives netting.....	—	—	—	—	(54,277)	(54,277)
Total derivatives.....	13	59,143	628	59,784	(54,277)	5,507
Securities available-for-sale: ⁽³⁾						
U.S. Treasury, U.S. Government agencies and sponsored enterprises.....	21,844	14,573	—	36,417	—	36,417
Asset-backed securities:						
Home equity.....	—	28	—	28	—	28
Other.....	—	—	116	116	—	116
Debt securities issued by foreign entities.....	4,193	38	—	4,231	—	4,231
Loans ⁽⁴⁾	—	37	—	37	—	37
Loans held for sale ⁽⁴⁾	—	206	—	206	—	206
Other assets:						
Equity securities.....	—	147	—	147	—	147
Equity securities measured at net asset value ⁽⁵⁾	—	—	—	131	—	131
Total assets.....	\$ 44,492	\$ 79,073	\$ 1,225	\$ 124,921	\$ (54,277)	\$ 70,644
Liabilities:						
Domestic deposits ⁽⁴⁾	\$ —	\$ 5,718	\$ 653	\$ 6,371	\$ —	\$ 6,371
Trading liabilities, excluding derivatives.....	429	5	—	434	—	434
Derivatives: ⁽¹⁾						
Interest rate contracts.....	11	22,481	—	22,492	—	22,492
Foreign exchange contracts.....	7	29,732	5	29,744	—	29,744
Equity contracts.....	—	3,909	221	4,130	—	4,130
Precious metals contracts.....	147	2,040	—	2,187	—	2,187
Credit contracts.....	—	2,075	253	2,328	—	2,328
Other contracts ⁽²⁾	—	—	67	67	—	67
Derivatives netting.....	—	—	—	—	(57,230)	(57,230)
Total derivatives.....	165	60,237	546	60,948	(57,230)	3,718
Long-term debt ⁽⁴⁾	—	8,004	371	8,375	—	8,375
Total liabilities.....	\$ 594	\$ 73,964	\$ 1,570	\$ 76,128	\$ (57,230)	\$ 18,898

December 31, 2019	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.....	\$ 6,763	\$ 38	\$ —	\$ 6,801	\$ —	\$ 6,801
Asset-backed securities:						
Collateralized debt obligations	—	71	—	71	—	71
Residential mortgages	—	—	17	17	—	17
Student loans	—	80	—	80	—	80
Corporate and other domestic debt securities.....	—	—	510	510	—	510
Debt securities issued by foreign entities	10,095	221	—	10,316	—	10,316
Equity securities	5,693	—	—	5,693	—	5,693
Precious metals trading	—	1,909	—	1,909	—	1,909
Derivatives: ⁽¹⁾						
Interest rate contracts.....	110	12,275	10	12,395	—	12,395
Foreign exchange contracts	80	16,456	—	16,536	—	16,536
Equity contracts	—	4,922	185	5,107	—	5,107
Precious metals contracts	70	1,085	3	1,158	—	1,158
Credit contracts.....	—	1,060	79	1,139	—	1,139
Other contracts ⁽²⁾	—	—	10	10	—	10
Derivatives netting	—	—	—	—	(33,193)	(33,193)
Total derivatives	260	35,798	287	36,345	(33,193)	3,152
Securities available-for-sale: ⁽³⁾						
U.S. Treasury, U.S. Government agencies and sponsored enterprises.....	17,532	14,702	—	32,234	—	32,234
Asset-backed securities:						
Home equity	—	32	—	32	—	32
Other	—	—	111	111	—	111
Debt securities issued by foreign entities	3,158	128	—	3,286	—	3,286
Loans held for sale ⁽⁴⁾	—	178	—	178	—	178
Other assets:						
Equity securities	—	147	—	147	—	147
Equity securities measured at net asset value ⁽⁵⁾	—	—	—	136	—	136
Total assets.....	<u>\$ 43,501</u>	<u>\$ 53,304</u>	<u>\$ 925</u>	<u>\$ 97,866</u>	<u>\$ (33,193)</u>	<u>\$ 64,673</u>
Liabilities:						
Domestic deposits ⁽⁴⁾	\$ —	\$ 6,435	\$ 774	\$ 7,209	\$ —	\$ 7,209
Trading liabilities, excluding derivatives	1,182	124	—	1,306	—	1,306
Derivatives: ⁽¹⁾						
Interest rate contracts.....	3	13,570	—	13,573	—	13,573
Foreign exchange contracts	—	15,805	1	15,806	—	15,806
Equity contracts	—	3,955	113	4,068	—	4,068
Precious metals contracts	80	1,306	3	1,389	—	1,389
Credit contracts.....	—	1,048	20	1,068	—	1,068
Other contracts ⁽²⁾	—	—	85	85	—	85
Derivatives netting	—	—	—	—	(33,900)	(33,900)
Total derivatives	83	35,684	222	35,989	(33,900)	2,089
Short-term borrowings ⁽⁴⁾	—	373	—	373	—	373
Long-term debt ⁽⁴⁾	—	9,993	354	10,347	—	10,347
Total liabilities.....	<u>\$ 1,265</u>	<u>\$ 52,609</u>	<u>\$ 1,350</u>	<u>\$ 55,224</u>	<u>\$ (33,900)</u>	<u>\$ 21,324</u>

⁽¹⁾ Includes trading derivative assets of \$5,393 million and \$3,055 million and trading derivative liabilities of \$3,489 million and \$1,929 million at March 31, 2020 and December 31, 2019, respectively, as well as derivatives held for hedging and commitments accounted for as derivatives. See Note 9, "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, 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. Changes in the allowance for credit losses on securities available-for-sale are recorded through net income (loss).

- (4) See Note 10, "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, 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 the three months ended March 31, 2020 and 2019. 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, 2020	Earnings	Other Compre- hensive Income	Purch- ases	Issu- ances	Settle- ments	Transfers Into Level 3	Transfers Out of Level 3	Mar. 31, 2020	Earnings	Other Compre- hensive Income		
(in millions)												
Assets:												
Trading assets, excluding derivatives: ⁽¹⁾												
Residential mortgage asset-backed securities	\$ 17	\$ (1)	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 16	\$ (1)	\$ —		
Corporate and other domestic debt securities.	510	(45)	—	—	—	—	—	465	(45)	—		
Derivatives, net: ⁽²⁾												
Interest rate contracts	10	31	—	—	—	—	—	41	31	—		
Foreign exchange contracts	(1)	(2)	—	—	—	—	—	(3)	(2)	—		
Equity contracts..	72	(74)	—	—	—	6	—	4	12	—		
Credit contracts...	59	35	—	—	—	4	—	98	35	—		
Other contracts ⁽³⁾	(75)	11	—	—	—	6	—	(58)	—	—		
Other asset-backed securities available-for- sale ⁽⁴⁾	111	—	5	—	—	—	—	116	—	5		
Total assets.....	<u>\$ 703</u>	<u>\$ (45)</u>	<u>\$ 5</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 16</u>	<u>\$ —</u>	<u>\$ 679</u>	<u>\$ 30</u>	<u>\$ 5</u>		
Liabilities:												
Domestic deposits ⁽⁵⁾	\$ (774)	\$ 1	\$ 18	\$ —	\$ (36)	\$ 105	\$ —	\$ 33	\$ (653)	\$ —	\$ 18	
Long-term debt ⁽⁵⁾ ...	(354)	5	10	—	(101)	65	—	4	(371)	4	10	
Total liabilities	<u>\$ (1,128)</u>	<u>\$ 6</u>	<u>\$ 28</u>	<u>\$ —</u>	<u>\$ (137)</u>	<u>\$ 170</u>	<u>\$ —</u>	<u>\$ 37</u>	<u>\$ (1,024)</u>	<u>\$ 4</u>	<u>\$ 28</u>	

	Total Realized / Unrealized Gains (Losses) Included in									Current Period Unrealized Gains (Losses) Still Held Included in		
	Jan. 1, 2019	Earnings	Other Compre- hensive Income	Purch- ases	Issu- ances	Settle- ments	Transfers Into Level 3	Transfers Out of Level 3	Mar. 31, 2019	Earnings	Other Compre- hensive Income	
	(in millions)											
Assets:												
Trading assets, excluding derivatives: ⁽¹⁾												
Collateralized debt obligations.....	\$ 100	\$ 1	\$ —	\$ —	\$ —	\$ (11)	\$ —	\$ —	\$ 90	\$ (6)	\$ —	
Residential mortgage asset-backed securities	16	—	—	—	—	—	—	—	16	—	—	
Student loan asset-backed securities	92	5	—	—	—	(2)	—	—	95	3	—	
Corporate and other domestic debt securities.	1,803	—	—	—	—	(1,293)	—	—	510	—	—	
Derivatives, net: ⁽²⁾												
Interest rate contracts.....	2	5	—	—	—	—	—	—	7	5	—	
Foreign exchange contracts	(1)	—	—	—	—	—	—	—	(1)	—	—	
Equity contracts..	(52)	71	—	—	—	4	—	1	24	75	—	
Credit contracts...	52	(37)	—	—	—	38	—	—	53	—	—	
Other contracts ⁽³⁾	(35)	(6)	—	—	—	4	—	—	(37)	—	—	
Other asset-backed securities available-for- sale ⁽⁴⁾	107	—	2	—	—	—	—	—	109	—	2	
Other assets ⁽⁶⁾	4	—	—	—	—	—	—	—	4	—	—	
Total assets.....	<u>\$ 2,088</u>	<u>\$ 39</u>	<u>\$ 2</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (1,260)</u>	<u>\$ —</u>	<u>\$ 1</u>	<u>\$ 870</u>	<u>\$ 77</u>	<u>\$ 2</u>	
Liabilities:												
Domestic deposits ⁽⁵⁾	\$ (925)	\$ (29)	\$ (5)	\$ —	\$ (96)	\$ 45	\$ —	\$ 61	\$ (949)	\$ (100)	\$ (5)	
Long-term debt ⁽⁵⁾ ...	(412)	(28)	(3)	—	(31)	13	—	8	(453)	(49)	(3)	
Total liabilities	<u>\$ (1,337)</u>	<u>\$ (57)</u>	<u>\$ (8)</u>	<u>\$ —</u>	<u>\$ (127)</u>	<u>\$ 58</u>	<u>\$ —</u>	<u>\$ 69</u>	<u>\$ (1,402)</u>	<u>\$ (149)</u>	<u>\$ (8)</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 \$628 million and derivative liabilities of \$546 million at March 31, 2020 and derivative assets of \$288 million and derivative liabilities of \$242 million at March 31, 2019. Gains (losses) on derivatives, net are predominantly included in trading revenue and 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.

⁽⁵⁾ Excluding unrealized gains (losses) on fair value option liabilities attributable to our own credit spread, which are recorded in other comprehensive income, gains (losses) on fair value option liabilities are included in loss on instruments designated at fair value and related derivatives in the consolidated statement of income (loss).

⁽⁶⁾ Represented contingent consideration receivable associated with the sale of a portion of our PB business, which concluded in 2019. Gains (losses) associated with this transaction were included in other income (loss) 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 March 31, 2020 and December 31, 2019:

March 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.....	\$ 16	Broker quotes or consensus pricing and, where applicable, discounted cash flows	Prepayment rates	3%	N/A
			Conditional default rates	8%	N/A
			Loss severity rates	70%	N/A
			Discount margin	879bps	N/A
Corporate and other domestic debt securities....	\$ 465	Discounted cash flows	Spread volatility on collateral assets	4%	N/A
			Correlation between insurance claim shortfall and collateral value	80%	N/A
Interest rate derivative contracts.....	\$ 41	Market comparable adjusted for probability to fund and, where applicable, discounted cash flows	Probability to fund for rate lock commitments	41% - 100%	72%
			Likelihood of transaction being executed	90%	N/A
Foreign exchange derivative contracts ⁽²⁾	\$ (3)	Option pricing model	Implied volatility of currency pairs	10% - 17%	13%
Equity derivative contracts ⁽²⁾	\$ 4	Option pricing model	Equity / Equity Index volatility	6% - 81%	35%
			Equity / Equity and Equity / Index correlation	43% - 78%	50%
			Equity dividend yields and forward price	(7)% - 3%	0%
Credit derivative contracts	\$ 98	Option pricing model and, where applicable, discounted cash flows	Credit default swap spreads	200bps	N/A
Other derivative contracts	\$ (58)	Discounted cash flows	Conversion rate	1.6 times	N/A
			Expected duration	3 years	N/A
Other asset-backed securities available-for-sale	\$ 116	Discounted cash flows	Market assumptions related to yields for comparable instruments	4% - 5%	5%
Domestic deposits (structured deposits) ⁽²⁾⁽³⁾ ...	\$ (653)	Option adjusted discounted cash flows	Implied volatility of currency pairs	10% - 17%	13%
			Equity / Equity Index volatility	7% - 60%	29%
			Equity / Equity and Equity / Index correlation	43% - 60%	46%
Long-term debt (structured notes) ⁽²⁾⁽³⁾	\$ (371)	Option adjusted discounted cash flows	Implied volatility of currency pairs	10% - 17%	13%
			Equity / Equity Index volatility	8% - 71%	33%
			Equity / Equity and Equity / Index correlation	55% - 78%	66%

December 31, 2019

Financial Instrument Type	Fair Value (in millions)	Valuation Technique(s)	Significant Unobservable Inputs	Range of Inputs	Weighted Average ⁽¹⁾
Residential mortgage asset-backed securities.....	\$ 17	Broker quotes or consensus pricing and, where applicable, discounted cash flows	Prepayment rates	1%	N/A
			Conditional default rates	8%	N/A
			Loss severity rates	70%	N/A
			Discount margin	600bps	N/A
Corporate and other domestic debt securities....	\$ 510	Discounted cash flows	Spread volatility on collateral assets	4%	N/A
			Correlation between insurance claim shortfall and collateral value	80%	N/A
Interest rate derivative contracts	\$ 10	Market comparable adjusted for probability to fund and, where applicable, discounted cash flows	Probability to fund for rate lock commitments	42% - 100%	80%
			Likelihood of transaction being executed	90%	N/A
Foreign exchange derivative contracts ⁽²⁾	\$ (1)	Option pricing model	Implied volatility of currency pairs	6% - 11%	8%
Equity derivative contracts ⁽²⁾	\$ 72	Option pricing model	Equity / Equity Index volatility	7% - 36%	22%
			Equity / Equity and Equity / Index correlation	43% - 79%	49%
			Equity dividend yields	0% - 4%	2%
Credit derivative contracts	\$ 59	Option pricing model and, where applicable, discounted cash flows	Credit default swap spreads	41bps	N/A
Other derivative contracts	\$ (75)	Discounted cash flows	Conversion rate	1.6 times	N/A
			Expected duration	3 years	N/A
Other asset-backed securities available-for-sale	\$ 111	Discounted cash flows	Market assumptions related to yields for comparable instruments	0% - 3%	2%
Domestic deposits (structured deposits) ⁽²⁾⁽³⁾ ...	\$ (774)	Option adjusted discounted cash flows	Implied volatility of currency pairs	6% - 11%	8%
			Equity / Equity Index volatility	7% - 28%	13%
			Equity / Equity and Equity / Index correlation	43% - 49%	46%
Long-term debt (structured notes) ⁽²⁾⁽³⁾	\$ (354)	Option adjusted discounted cash flows	Implied volatility of currency pairs	6% - 11%	8%
			Equity / Equity Index volatility	7% - 29%	16%
			Equity / Equity and Equity / Index correlation	54% - 79%	64%

⁽¹⁾ For other asset-backed securities available-for-sale, the value shown is the arithmetic average. For foreign exchange derivatives, equity 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 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 neutral. 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 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

Residential mortgage asset-backed securities - Prepayment rate, probability of default, loss severity rate and discount margin are significant unobservable inputs.

- Prepayment rate - The rate at which borrowers pay off the loans early. The prepayment rate is affected by a number of factors including location of the collateral, interest rate type of the loan, borrowers' credit and sensitivity to interest rate movement.
- Probability of default - Annualized percentage of default rate over a group of collateral such as residential mortgage loans.
- Loss severity rate - The loss severity rate is the percentage of total lifetime losses (both interest and principal) as a percentage of principal balance measured at default date.

- Discount margin - An expected return earned in addition to the index underlying (in this case the London Interbank Offered Rate ("LIBOR")) is another input into valuation of securities.

A significant increase (decrease) in one or more of these inputs would have resulted in a lower (higher) fair value measurement of the securities. Generally, a change in assumption for default probability would have been accompanied by a directionally similar change in loss severity, and a directionally opposite change in prepayment speed.

Corporate and domestic debt securities - The fair value measurement of certain corporate debt securities is affected by the fair value of the underlying portfolios of investments used as collateral and the make-whole guarantee provided by third party guarantors. The probability that the collateral fair value declines below the collateral call threshold concurrent with the guarantors' failure to perform its make whole obligation is unobservable. Generally, an increase (decrease) in the probability the collateral value falls below the collateral call threshold would have been accompanied by a directionally similar change in default probability of the guarantor and would have resulted in a lower (higher) fair value measurement of the securities.

Interest rate derivatives - The fair value measurement of certain forward starting interest rate derivatives is affected by the underlying project contingency risk for which probability of execution is not certain (i.e., the interest rate derivative can be canceled if the project fails to execute). 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 project or mortgage being executed would have resulted in a lower (higher) fair value measurement of the interest rate derivative.

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.

Credit derivatives - The fair value measurement of certain credit derivatives is primarily affected by the credit spreads of credit default swap contracts insuring asset-backed securities. 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.

Other 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 decrease (increase) in the fair value measurement of the securities.

Significant Transfers Into and Out of Level 3 Measurements During the three months ended March 31, 2020, we transferred \$33 million of domestic deposits and \$4 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 the three months ended March 31, 2019, we transferred \$61 million of domestic deposits and \$8 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 in maturity and there is more observability in short term volatility.

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 March 31, 2020 and December 31, 2019. The gains (losses) during the three months ended March 31, 2020 and 2019 are also included.

	Non-Recurring Fair Value Measurements at March 31, 2020				Total Gains (Losses) For the Three Months Ended March 31, 2020
	Level 1	Level 2	Level 3	Total	
	(in millions)				
Residential mortgage loans held for sale ⁽¹⁾	\$ —	\$ 7	\$ —	\$ 7	\$ —
Consumer loans ⁽²⁾	—	330	—	330	3
Commercial loans ⁽³⁾	—	—	58	58	(53)
Real estate owned ⁽⁴⁾	—	3	—	3	—
Goodwill ⁽⁵⁾	—	—	—	—	(784)
Leases ⁽⁶⁾	—	—	25	25	(68)
Total assets at fair value on a non-recurring basis	\$ —	\$ 340	\$ 83	\$ 423	\$ (902)

	Non-Recurring Fair Value Measurements at December 31, 2019				Total Gains (Losses) For the Three Months Ended March 31, 2019
	Level 1	Level 2	Level 3	Total	
	(in millions)				
Residential mortgage loans held for sale ⁽¹⁾	\$ —	\$ 12	\$ —	\$ 12	\$ —
Consumer loans ⁽²⁾	—	14	—	14	(2)
Commercial loans ⁽³⁾	—	—	50	50	(1)
Real estate owned ⁽⁴⁾	—	6	—	6	(1)
Goodwill ⁽⁵⁾	—	—	372	372	—
Leases ⁽⁶⁾	—	—	2	2	—
Total assets at fair value on a non-recurring basis	\$ —	\$ 32	\$ 424	\$ 456	\$ (4)

⁽¹⁾ At March 31, 2020 and December 31, 2019, the fair value of the loans held for sale was below cost.

⁽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. The increase at March 31, 2020 reflects the impact of adopting new accounting guidance which requires expected recoveries related to subsequent increases in the fair value of collateral for collateral-dependent loans to be recognized in the allowance for credit losses beginning January 1, 2020. See Note 21, "New Accounting Pronouncements," for additional discussion.

⁽³⁾ 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.

⁽⁴⁾ 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.

⁽⁵⁾ During the first quarter of 2020, the goodwill allocated to our RBWM and PB businesses were both written down to \$0 million. During the third quarter of 2019, the goodwill allocated to our RBWM business was written down to \$372 million. See Note 8, "Goodwill," in this Form 10-Q and Note 9, "Goodwill" in our 2019 Form 10-K for further discussion of the results of our goodwill impairment testing, including the events and circumstances leading to the impairments.

⁽⁶⁾ Beginning in the fourth quarter of 2019 and into the first quarter of 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. See Note 2, "Strategic Initiatives," in this Form 10-Q and Note 10, "Leases" in our 2019 Form 10-K for further discussion.

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 March 31, 2020 and December 31, 2019:

At March 31, 2020

Financial Instrument Type	Fair Value (in millions)	Valuation Technique(s)	Significant Unobservable Inputs	Range of Inputs	Weighted Average ⁽¹⁾
Commercial loans	\$ 58	Valuation of third party appraisal on underlying collateral	Loss severity rates	9% - 93%	53%

At December 31, 2019

Financial Instrument Type	Fair Value (in millions)	Valuation Technique(s)	Significant Unobservable Inputs	Range of Inputs	Weighted Average ⁽¹⁾
Commercial loans	\$ 50	Valuation of third party appraisal on underlying collateral	Loss severity rates	9% - 100%	45%

⁽¹⁾ Weighted average is calculated based on the carrying value of the loans.

Valuation Techniques

Following is a description of valuation methodologies used for assets and liabilities recorded at fair value.

Securities purchased and sold under resale and repurchase agreements designated under FVO - We elected to apply FVO accounting to certain securities purchased and sold under resale and repurchase agreements at fair value. The fair value of these resale and repurchase agreements is determined using market rates currently offered on comparable transactions with similar underlying collateral and maturities.

Consumer loans designated under FVO - Beginning January 1, 2020, we elected to apply FVO accounting to certain student loans held for investment. 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 estimates of consumer loans held for sale are determined primarily 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 determined 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.

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 estimates of commercial loans held for sale are determined primarily 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.

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, including collateralized debt obligations ("CDOs") – 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.
- Other domestic debt and foreign debt securities (corporate and government) - 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 new 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 \$37 million and \$41 million at March 31, 2020 and December 31, 2019, respectively.

The following tables provide additional information relating to our asset-backed securities, including CDOs, at March 31, 2020:

Trading asset-backed securities:

Rating of Securities: ⁽¹⁾	Collateral Type:	Level 2	Level 3	Total
		(in millions)		
AAA - A.....	Collateralized debt obligations	\$ 39	\$ —	\$ 39
	Student loans.....	73	—	73
	Total AAA -A.....	112	—	112
BBB - B.....	Collateralized debt obligations	28	—	28
CCC - Unrated.....	Residential mortgages - Subprime	—	16	16
		<u>\$ 140</u>	<u>\$ 16</u>	<u>\$ 156</u>

Available-for-sale asset-backed securities:

Rating of Securities: ⁽¹⁾	Collateral Type:	Level 2	Level 3	Total
		(in millions)		
AAA - A.....	Home equity - Alt A.....	\$ 28	\$ —	\$ 28
BBB -B.....	Other	—	116	116
		<u>\$ 28</u>	<u>\$ 116</u>	<u>\$ 144</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. Ratings for CDOs represent the ratings associated with the underlying collateral.

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 default correlations of the referenced credit and volatilities of embedded options. These estimates are susceptible to significant change in future periods as market conditions change.

We use the OIS 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 rates other than the OIS 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.

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 March 31, 2020 and December 31, 2019, and their classification within the fair value hierarchy:

March 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	\$ 27,490	\$ 27,490	\$ 983	\$ 26,496	\$ 11
Federal funds sold and securities purchased under agreements to resell.....	4,643	4,643	—	4,643	—
Securities held-to-maturity, net of allowance for credit losses	12,981	13,446	—	13,446	—
Commercial loans, net of allowance for credit losses.....	60,519	60,987	—	—	60,987
Commercial loans held for sale.....	28	28	—	28	—
Consumer loans, net of allowance for credit losses	20,278	19,953	—	—	19,953
Residential mortgage loans held for sale.....	51	51	—	51	—
Financial liabilities:					
Short-term financial liabilities.....	\$ 17,592	\$ 17,592	\$ —	\$ 17,579	\$ 13
Deposits:					
Without fixed maturities	115,371	115,371	—	115,371	—
Fixed maturities	14,981	14,917	—	14,917	—
Long-term debt.....	16,402	16,485	—	16,485	—
December 31, 2019	Carrying Value	Fair Value	Level 1	Level 2	Level 3
(in millions)					
Financial assets:					
Short-term financial assets	\$ 3,800	\$ 3,800	\$ 1,744	\$ 2,038	\$ 18
Federal funds sold and securities purchased under agreements to resell	17,838	17,838	—	17,838	—
Securities held-to-maturity	13,293	13,431	—	13,431	—
Commercial loans, net of allowance for credit losses.....	47,704	49,252	—	—	49,252
Commercial loans held for sale.....	34	34	—	34	—
Consumer loans, net of allowance for credit losses	20,212	19,889	—	—	19,889
Residential mortgage loans held for sale	77	78	—	77	1
Financial liabilities:					
Short-term financial liabilities	\$ 3,304	\$ 3,304	\$ —	\$ 3,286	\$ 18
Deposits:					
Without fixed maturities.....	96,161	96,161	—	96,161	—
Fixed maturities.....	16,323	16,264	—	16,264	—
Long-term debt.....	16,350	16,696	—	16,696	—

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 \$157 million and \$162 million at March 31, 2020 and December 31, 2019, respectively.

20. *Litigation and Regulatory Matters*

The following supplements, and should be read together with, the disclosure in Note 29, "Litigation and Regulatory Matters," in our 2019 Form 10-K. Only those matters with significant updates and new matters since our disclosure in our 2019 Form 10-K are reported herein.

In addition to the matters described below and in our 2019 Form 10-K, 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.

For the legal matters disclosed below, including litigation and governmental and regulatory matters, as well as for the legal matters disclosed in Note 29, "Litigation and Regulatory Matters," in our 2019 Form 10-K, 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 \$225 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 disclosed in Note 29, "Litigation and Regulatory Matters," in our 2019 Form 10-K, 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.

Foreign Exchange ("FX") Matters

The *Contant v. Bank of America Corporation, et al* case has settled. The settlement is subject to court approval.

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 March 2019, the Competition Appeal Court of South Africa issued a ruling requiring the Competition Commission to refile its complaint and re-opening the question as to whether HSBC Bank USA and certain other financial institutions can be subject to financial penalties.

Precious Metals Fix Matters

Platinum and Palladium Fix Litigation In March 2020 the court granted the defendants' joint motion to dismiss the third amended complaint but granted plaintiffs leave to replead their Sherman Act and Commodity Exchange Act claims. Plaintiffs may appeal.

Benchmark Rate Litigation

USD LIBOR:

Intercontinental Exchange ("ICE") LIBOR: In March 2020 the court granted the defendants' joint motion to dismiss in its entirety. Plaintiffs may appeal.

Mortgage Securitization Trust Litigation The claim brought by Triaxx has settled on a confidential basis.

Anti-Terrorism Act Cases

Timothy O'Sullivan, et al. v. Deutsche Bank AG, et al. In February 2020, the court denied plaintiffs' motion to amend the complaint following dismissal of the action in March 2019. Plaintiffs may appeal.

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.

21. New Accounting Pronouncements

The following new accounting pronouncements were adopted effective January 1, 2020:

- **Financial Instruments - Credit Losses** In June 2016, the Financial Accounting Standards Board ("FASB") issued an Accounting Standards Update ("ASU") that significantly changes measurement of credit losses. The ASU requires recognition of lifetime ECL for loans, securities held-to-maturity, off-balance sheet credit exposures and certain other financial assets reported at amortized cost. In addition, the new guidance 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). For available-for-sale debt securities where fair value is less than cost, the ASU requires that credit-related impairment, if any, be recognized through an allowance for credit losses and adjusted each period for changes in credit risk. Modeling and economic forecasting requirements of the ASU are new and extensive, and the ASU's requirements differ significantly from the IFRS credit loss reporting that we implemented in 2018 for reporting to HSBC. The ASU also requires expanded disclosures. See Note 4, "Securities," Note 5, "Loans," and Note 6, "Allowance for Credit Losses," for the new disclosures required by this standard, including further discussion of our accounting policies and methodologies used to estimate ECL beginning in 2020. The adoption of this guidance required a cumulative effect adjustment to retained earnings as of January 1, 2020, which resulted in the following impacts:
 - a decrease in our allowance for credit losses on funded loans of \$170 million;
 - an increase in our liability for off-balance sheet credit exposures of \$54 million; and
 - including but not limited to the items above, an increase in retained earnings of \$82 million, net of tax.

The decrease in our allowance for credit losses on loans was driven by a decrease of approximately \$126 million for commercial loans reflecting the impact of their short contractual maturities and the benign credit environment at the time as well as a decrease of approximately \$44 million for consumer loans as the impact of their lifetime losses was more than offset by expected recoveries of previous charge-offs of collateral-dependent residential mortgages. The liability for off-balance sheet credit exposures increased reflecting the inclusion of lifetime losses for expected funding over the remaining life of the exposures. The allowance for credit losses established on other financial assets was not material. In accordance with the new guidance, we elected the practical expedients to present accrued interest receivables, net of the allowance for credit losses, in other assets on the consolidated balance sheet and to exclude accrued interest balances from the amortized cost basis for disclosure purposes.

In conjunction with our adoption of this guidance, we also elected fair value option on certain student loans held for investment and recorded a separate cumulative effect adjustment to write-up these loans to fair value which resulted in an increase in retained earnings of \$2 million, after tax, as of January 1, 2020.

The following are accounting pronouncements which will be adopted in future periods:

- **Reference Rate Reform** In March 2020, the FASB issued an ASU that provides temporary optional expedients and exceptions to the U.S. GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens associated with transitioning away from LIBOR and other interbank offered rates to acceptable alternative rates. Under the new guidance, an entity can elect by accounting topic or industry subtopic to account for the modification of a contract affected by reference rate reform as a continuation of the existing contract, if certain conditions are met. In addition, the new guidance allows an entity to elect on a hedge-by-hedge basis to continue to apply hedge accounting for hedging relationships in which the critical terms change due to reference rate reform, if certain conditions are met. A one-time election to sell and/or transfer held-to-maturity debt securities that reference a rate affected by reference rate reform is also allowed under the ASU. While the ASU is effective upon issuance, we are currently evaluating which optional expedients and exceptions we will elect to apply. These optional elections generally will cease to apply to contract modifications or existing hedging relationships after December 31, 2022.

There have been no additional accounting pronouncements issued that are expected to have or could have a material impact on our consolidated financial statements.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements

Certain matters discussed throughout this Form 10-Q 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-Q 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;
- our ability to effectively implement and deliver on our business strategies, and the effect implementation of our business strategy may have on our 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 and the decision by the United Kingdom ("U.K.") to exit the European Union ("EU");
- 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 current Administration in the U.S.;
- 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 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, climate change, outbreaks of contagious disease, acts of war, terrorist attacks, or essential utility outages;
- 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;
- our ability to cross-sell our products to existing customers;
- changes in Financial Accounting Standards Board ("FASB") 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;
- the potential for additional financial contribution requirements to the HSBC North America Holdings Inc. ("HSBC North America") pension plan;
- 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 our Annual Report on Form 10-K for the year ended December 31, 2019 (the "2019 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. You should, however, consider any additional disclosures of a forward-looking nature that arise after the date hereof as may be discussed in any of our subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q or Current Reports on Form 8-K.

Executive Overview

HSBC USA is a wholly-owned subsidiary of 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."

Economic Environment The U.S. economy began to deteriorate rapidly in March as the COVID-19 pandemic spread across the globe, including into the United States, causing severe disruption to the capital markets as well as business and economic activity. Over the course of the month of March, individual municipalities and entire states adopted travel and work location restrictions, social distancing requirements, and in some cases shelter in place protocols in order to slow the spread of the virus. These measures have shut down normal life in much of the United States resulting in a collapse of spending as well as shutdowns of many schools, stores, offices, restaurants and manufacturing plants creating a surge in layoffs. U.S. Gross Domestic Product ("GDP") is now expected to contract for at least the first two quarters of 2020 and in total for the year, while the total unemployment rate increased to 4.4 percent at March 2020 and is expected to significantly increase in future months. In March 2020, with the U.S. economy in decline as a result of increased economic uncertainty driven by the COVID-19 pandemic, the FRB decided to cut short-term interest rates by 150 basis points (to near zero) and also announced various other initiatives to enhance liquidity and support the flow of credit to households and businesses.

The impact of the COVID-19 pandemic on economic conditions both in the United States and abroad during the first quarter of 2020 has created global uncertainty about the future economic environment including the length and depth of any global recession which most believe will occur. Concerns over interest rate levels, domestic and global policy issues, U.S. trade policy and geopolitical events as well as the implications of those events on the markets in general further add to this global uncertainty. Interest rate levels, 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 2020 and beyond.

Performance, Developments and Trends As mentioned above, the COVID-19 pandemic continues to spread throughout the United States and has caused disruption to our customers, vendors and employees. The outbreak of this virus has disrupted global financial markets and negatively affected supply and demand across a broad range of industries. This pandemic has had a significant impact on our business, financial condition and results of operations during the first quarter, including the impairment of goodwill associated with our Retail Banking and Wealth Management and Private Banking reporting units, an increase to the provision for credit losses on our loan portfolio and valuation losses associated with certain financial instruments due to market volatility. Additionally, in April 2020, Fitch changed the rating outlook for both HSBC USA and HSBC Bank USA to negative from stable following a similar change in outlook to negative from stable for HSBC. The circumstances around this pandemic are evolving rapidly and will continue to impact our business in future periods. Should the COVID-19 pandemic continue to cause disruption to economic activity through 2020, there could be further impacts on our income due to lower interest rates, lower lending and transaction volumes and lower wealth management revenue due to equity markets volatility and weakness. Other potential risks include credit rating migration which could negatively impact our risk-weighted assets and capital position, and potential liquidity stress due, among other factors, to increased customer drawdowns, notwithstanding the significant initiatives that the U.S. Government and the FRB have put in place to support funding and liquidity. This matter could have a material adverse effect on our business, prospects, liquidity, financial condition, results of operations and credit ratings in future periods. The extent of such impact will depend on the outcome of certain developments, including but not limited to, the duration and spread of the outbreak as well as its continuing impact on our customers, vendors and employees, all of which are uncertain. See Part II, Item 1A, "Risk Factors - Risks related to the impact of COVID-19" for further discussion.

During the first quarter of 2020, we decided to pause the vast majority of head count reductions relating to our restructuring plan due to the extraordinary impact of the COVID-19 pandemic. However, many elements of our restructuring plan are moving forward as planned, including consolidation of our retail branch network and wholesale back office functions, and the creation of our Wealth and Personal Banking business. While we remain committed to our multi-year strategic plan to re-profile our business, the timing of the strategic actions as outlined in our 2019 Form 10-K may be re-sequenced or delayed beyond 24 months as the situation continues to develop. In light of COVID-19, we continue to re-assess our strategic plan and may take additional actions in future periods. See Note 2, "Strategic Initiatives," in the accompanying consolidated financial statements.

The following table sets forth selected financial highlights for HUSI on a U.S. GAAP basis for the three months ended March 31, 2020 and 2019 and at March 31, 2020 and December 31, 2019:

Three Months Ended March 31,	2020	2019
	(dollars are in millions)	
Net income (loss)	\$ (1,283)	\$ 109
Rate of return on average:		
Total assets	(2.7)%	.3%
Risk-weighted assets	(4.1)	.3
Common equity	(29.9)	2.4
Tangible common equity	(32.2)	2.7
Total equity	(27.9)	2.3
Net interest margin	1.15	1.42
Efficiency ratio	180.1	78.8
Commercial net charge-off ratio ⁽¹⁾	.23	.02
Consumer net charge-off ratio ⁽¹⁾	.37	.29

⁽¹⁾ Excludes loans held for sale.

	March 31, 2020	December 31, 2019
	(dollars are in millions)	
Additional Select Ratios:		
Allowance as a percent of loans ⁽¹⁾	1.14%	.93%
Commercial allowance as a percent of loans ⁽¹⁾	1.19	1.05
Consumer allowance as a percent of loans ⁽¹⁾	1.00	.64
Consumer two-months-and-over contractual delinquency	2.13	2.04
Loans to deposits ratio ⁽²⁾	76.06	71.60
Common equity Tier 1 capital to risk-weighted assets	11.9	13.1
Tier 1 capital to risk-weighted assets	12.9	14.1
Total capital to risk-weighted assets	16.0	16.3
Tier 1 leverage ratio	9.0	9.9
Supplementary leverage ratio	6.5	6.9
Total equity to total assets	8.9	10.4

Select Balance Sheet Data:

Cash and interest bearing deposits with banks	\$ 27,479	\$ 3,782
Trading assets	29,217	28,452
Securities available-for-sale	40,792	35,663
Loans:		
Commercial loans	61,246	48,211
Consumer loans	20,482	20,342
Total loans	81,728	68,553
Deposits	136,723	119,693

⁽¹⁾ Excludes loans held for sale.

⁽²⁾ Represents period end loans, net of allowance for credit losses, as a percentage of core deposits as calculated in accordance with Federal Financial Institutions Examination Council guidelines which generally include all domestic demand, money market and other savings accounts, as well as time deposits with balances not exceeding \$250,000.

Net income (loss) was a loss of \$1,283 million during the three months ended March 31, 2020 compared with income of \$109 million during the three months ended March 31, 2019. Income (loss) before income tax was a loss of \$1,440 million during the three months ended March 31, 2020 compared with income of \$144 million during the three months ended March 31, 2019. The decrease in income (loss) before income tax during the three months ended March 31, 2020 was due primarily to higher operating expenses driven by a goodwill impairment charge recorded during the first quarter of 2020 as discussed below and a higher provision for credit losses driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic. Also contributing to the decrease was lower net interest income.

During the first quarter of 2020, as a result of the deterioration in economic conditions caused by the spread of the COVID-19 pandemic across the globe, including into the United States, and its impact on our businesses including changes to the interest rate environment as a result of recent FRB actions to combat the economic effects of the virus and the amount of headroom calculated in our previous annual impairment test for certain reporting units, we determined that it was more likely than not that the fair value of one or more of our reporting units was lower than their carrying amounts, including goodwill. Based on this analysis, we determined that an interim goodwill impairment test should be performed for all of our reporting units as of March 31, 2020 and prepared updated cash flow projections for each reporting unit, resulting in a reduction in the long-term forecasts of profitability for both our Retail Banking and Wealth Management and our Private Banking reporting units as compared to the prior year forecasts. These projections were reviewed by senior management in early April in connection with the preparation of our first quarter financial statements and it was determined that these forecasts represent our current best estimate of future profitability and would be used to conduct our interim impairment test. We completed our interim impairment test of goodwill utilizing cash flow projections based on these forecasts under a present value approach and, in conjunction with valuation estimates determined under a market approach, concluded that the fair value of our Commercial Banking reporting unit exceeded its carrying value, including goodwill. However, the cash flow projections for our Retail Banking and Wealth Management and our Private Banking reporting units were significantly lower 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 the first quarter of 2020, representing the entire amount of goodwill previously allocated to these reporting units. As discussed in our 2019 Form 10-K, our goodwill impairment testing is highly sensitive to certain assumptions and estimates used. 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 further 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 again be required, which may result in an impairment charge.

Our reported results in certain 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:

Three Months Ended March 31,	2020	2019
	(in millions)	
Income (loss) before income tax, as reported	\$ (1,440)	\$ 144
Goodwill impairment	784	—
Costs to achieve ⁽¹⁾	100	—
Adjusted performance ⁽²⁾	<u>\$ (556)</u>	<u>\$ 144</u>

⁽¹⁾ Reflects costs related to the delivery of the strategic plan we announced in February 2020 to restructure our operations ("Restructuring Plan") as discussed further in "Executive Overview" in MD&A in our 2019 Form 10-K. Costs to achieve during the three months ended March 31, 2020 primarily related to the consolidation of our retail branch network and included lease impairment and other related costs of \$92 million, severance costs of \$9 million and allocated costs from HSBC Technology & Services ("HTSU") of \$8 million. See Note 2, "Strategic Initiatives," in the accompanying consolidated financial statements for additional information. The expense during the three months ended March 31, 2020 also includes a \$9 million gain on the sale of one of our owned retail branch properties.

⁽²⁾ Represents a non-U.S. GAAP financial measure.

Excluding the impact of the items in the table above, our adjusted performance during the three months ended March 31, 2020 decreased \$700 million compared with prior year period due primarily to a higher provision for credit losses driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic and, to a lesser extent, lower net interest income. These increases were partially offset by lower operating expenses.

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. In March 2020, the FASB issued changes to the U.S. GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens associated with this transition. Under the new guidance, an entity can elect by accounting topic or industry subtopic to account for the modification of a contract affected by reference rate reform as a continuation of the existing contract, if certain conditions are met. In addition, the new guidance allows an entity to elect on a hedge-by-hedge basis to continue to apply hedge accounting for hedging relationships in which the critical terms change due to reference rate reform, if certain conditions are met.

We have a considerable number of contracts referencing IBORs, primarily LIBOR, such as loans, derivatives and long-term debt, extending past 2021 when the U.K. Financial Conduct Authority has announced it will no longer require banks to submit rates for LIBOR. We continue to actively participate in HSBC's global transition program with the objective of facilitating an orderly transition of all products, processes, models and curves, as well as all legacy LIBOR contracts, onto replacement rates. In particular, during the first quarter of 2020, we implemented risk disclosures for new sales of LIBOR-based products across all of our business lines and incorporated the new fallback language recommended by the ARRC into new LIBOR-based contracts for adjustable rate mortgage loans.

While we continued to progress in developing plans for transitioning legacy contracts onto replacement rates, given the focus on the COVID-19 pandemic and resulting market volatility that began in March, we are currently targeting to have pricing and data/workflow requirements finalized in the second quarter of 2020. For further discussion of our LIBOR transition program and the associated risks, see "Executive Overview" in MD&A in our 2019 Form 10-K.

Other 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 13, 2020. On March 27, 2020, the Coronavirus Aid, Relief and Economic Security Act ("CARES Act"), which provides financial assistance for businesses and individuals and targeted regulatory relief for financial institutions, was signed into law.

Paycheck Protection Program The CARES Act creates a new loan guarantee program called 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. HSBC Bank USA is a PPP participating lender.

Loan Forbearance Initiatives The CARES Act also creates a forbearance program for federally-backed mortgage loans and provides financial institutions with the option to temporarily suspend certain requirements under U.S. GAAP related to troubled debt restructurings. We are currently evaluating whether to elect this option. The CARES Act also prohibits 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, beginning on March 18, 2020. In addition to these federal measures, some state governments have taken action to require forbearance with respect to certain loans and fees. For example, New York's Governor issued an executive order on March 21, 2020 that requires the Superintendent of the New York Department of Financial Services ("NYDFS") to ensure that regulated entities provide forbearance of mortgage payments for New York State persons or entities facing financial hardship due to COVID-19, and empowers the NYDFS to restrict or modify fees for ATM use, overdraft fees and credit card late fees. The NYDFS issued emergency regulations on March 24, 2020 clarifying that the executive order, as implemented through the emergency regulations, applies only to banking organizations regulated by the NYDFS and therefore does not apply to us. However, we are continuing to monitor federal, state and international regulatory developments in relation to COVID-19 and their potential impact on our 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 and endorsed by the EU and, 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 before tax:

Three Months Ended March 31,	2020	2019
	(in millions)	
Profit (loss) before tax – U.S. GAAP basis.....	\$ (1,440)	\$ 144
Adjustments:		
Expected credit losses.....	347	42
Goodwill impairment.....	91	—
Deposit incentives.....	2	5
Leases.....	2	(5)
Precious metal loans.....	—	14
Other.....	—	4
Profit (loss) before tax – Group Reporting Basis.....	<u>\$ (998)</u>	<u>\$ 204</u>

The significant differences between U.S. GAAP and the Group Reporting Basis as they impact our results are summarized in Note 24, "Business Segments," in our 2019 Form 10-K. In addition, see Note 15, "Business Segments," in the accompanying consolidated financial statements for a discussion of significant changes since December 31, 2019 in the differences between U.S. GAAP and the Group Reporting Basis impacting our results. Differences in reported profit before tax in the table above that were individually significant for the periods presented are explained below.

During the first quarter of 2020, expected credit losses were higher under U.S. GAAP than under the Group Reporting Basis. Under the Group Reporting Basis, a majority of our commercial 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 estimate. As a result of the different approaches, the impact of the deterioration of economic conditions caused by the spread of the COVID-19 pandemic, which resulted in a worsening of economic forecasts used to calculate ECL and provisions for downgrades reflecting weakness in the financial condition of certain clients and loan growth as clients drew on their available lines of credit, was more pronounced under U.S. GAAP.

During the first quarter of 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.

During the first quarter of 2019, credit loss estimates were higher under U.S. GAAP than under the Group Reporting Basis due primarily to the impact of downgrades in the commercial loan portfolio, which was more pronounced under U.S. GAAP. In addition, expected credit losses under the Group Reporting Basis reflect a release in credit loss reserves due to the upgrade of a single oil and gas industry client which resulted in reclassification from 'stage 2' (which requires a lifetime expected credit losses estimate) to 'stage 1' (which requires a 12-month expected credit losses estimate).

Critical Accounting Policies and Estimates

Of the significant accounting policies used in the preparation of our consolidated financial statements, we have identified certain items as critical accounting estimates based on the associated degree of judgment and complexity. See "Critical Accounting Policies and Estimates" in MD&A in our 2019 Form 10-K for further discussion.

Determining the allowance for credit losses on loans has historically been identified as a critical accounting estimate. On January 1, 2020, we adopted new accounting guidance which requires entities to estimate and recognize an allowance for lifetime expected credit losses ("lifetime ECL") for loans and other financial assets measured at amortized cost. Previously, an allowance for credit losses on loans was recognized based on probable incurred losses. See Note 6, "Allowance for Credit Losses" 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 beginning in 2020.

The accounting estimates relating to the allowance for credit losses remains a "critical accounting estimate" for the following reasons:

- Changes in the provision for credit losses can materially affect our financial results;
- Estimates relating 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; and
- The allowance for credit losses is 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 our control, there is uncertainty inherent in these estimates. Our estimate of lifetime ECL is inherently uncertain because it is highly sensitive to changes in economic conditions and other factors outside of our control. Changes in such estimates could significantly impact our allowance and provision for credit losses.

As discussed further in Note 6, "Allowance for Credit Losses," in the accompanying consolidated financial statements, as a result of the deterioration in economic conditions caused by the spread of the COVID-19 pandemic during the first quarter of 2020 and the related increase in economic uncertainty, three new COVID-19 forward-looking economic scenarios were developed and utilized for estimating lifetime ECL at March 31, 2020. The three new COVID-19 scenarios, referred to as mild, moderate and severe, were assigned weightings with the majority of the weighting placed on the mild scenario and progressively lower weights placed on the moderate and severe scenarios. This weighting was deemed appropriate for the estimation of lifetime ECL under current conditions.

As an illustration of the effect of changes in estimates relating to the allowance for credit losses, using a 100 percent weighting for the severe COVID-19 scenario instead of using the three weighted COVID-19 scenarios as described above at March 31, 2020 would have resulted in a combined increase to our allowance for credit losses and liability for off-balance sheet credit exposures of approximately \$420 million. This illustration only represents the effect of changes in the weighting of these scenarios on our existing portfolios and does not consider changes in the allowance related to management judgment that might occur.

Balance Sheet Review

The following table provides balance sheet totals at March 31, 2020 and increases (decreases) since December 31, 2019:

		Increase (Decrease) From	
		December 31, 2019	
	March 31, 2020	Amount	%
	(dollars are in millions)		
Period end assets:			
Short-term investments	\$ 32,122	\$ 10,502	48.6%
Loans, net	80,797	12,881	19.0
Loans held for sale	285	(4)	(1.4)
Trading assets	29,217	765	2.7
Securities	53,773	4,817	9.8
All other assets	8,883	741	9.1
	<u>\$ 205,077</u>	<u>\$ 29,702</u>	<u>16.9%</u>
Period end liabilities and equity:			
Total deposits	\$ 136,723	\$ 17,030	14.2%
Trading liabilities	3,923	688	21.3
Short-term borrowings	17,579	13,920	*
Long-term debt.....	24,777	(1,920)	(7.2)
Interest, taxes and other liabilities.....	3,756	(79)	(2.1)
Total equity.....	18,319	63	.3
	<u>\$ 205,077</u>	<u>\$ 29,702</u>	<u>16.9%</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, 2019 due to an increase in overall liquidity as we actively raised funds in advance of their usage to support anticipated elevated client demand. The increase in funds was driven by higher deposits and short-term borrowings.

Loans, Net The following table summarizes our loan balances at March 31, 2020 and increases (decreases) since December 31, 2019:

		Increase (Decrease) From	
		December 31, 2019	
	March 31, 2020	Amount	%
	(dollars are in millions)		
Commercial loans:			
Real estate, including construction	\$ 11,369	\$ (132)	(1.1)%
Business and corporate banking	19,620	6,141	45.6
Global banking ⁽¹⁾	24,141	6,226	34.8
Other commercial ⁽²⁾	6,116	800	15.0
Total commercial	61,246	13,035	27.0
Consumer loans:			
Residential mortgages	18,034	233	1.3
Home equity mortgages	814	(39)	(4.6)
Credit cards	1,300	(105)	(7.5)
Other consumer	334	51	18.0
Total consumer	20,482	140	.7
Total loans	81,728	13,175	19.2
Allowance for credit losses ⁽³⁾	931	294	46.2
Loans, net	\$ 80,797	\$ 12,881	19.0 %

⁽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 GB&M relationship managers.

⁽²⁾ Includes loans to HSBC affiliates which totaled \$3,087 million and \$2,343 million at March 31, 2020 and December 31, 2019, respectively.

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

Commercial loans increased compared with December 31, 2019 due primarily to elevated demand as clients drew on their available lines of credit during the current deterioration in economic conditions and, to a lesser extent, higher loans to affiliates. The increase in commercial non-affiliate loans was primarily in the consumer services, consumer durables and apparel, commercial and professional services, retailing, and capital goods industries.

Consumer loans increased modestly compared with December 31, 2019 as higher residential mortgage loans were largely offset by seasonal paydowns in credit card receivables and a continued decline in home equity mortgages. The increase in other consumer loans reflects higher personal loans driven by new product promotions.

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⁾			
	March 31, 2020		December 31, 2019	
	First Lien	Second Lien	First Lien	Second Lien
LTV < 80%	97.9%	96.7%	98.1%	96.4%
80% ≤ LTV < 90%	1.8	2.5	1.6	2.8
90% ≤ LTV < 100%	.2	.7	.2	.7
LTV ≥ 100%	.1	.1	.1	.1
Average LTV for portfolio	50.6	46.5	50.1	46.4

⁽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 pricing 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 December 31, 2020 and September 30, 2019, respectively.

Loans Held for Sale The following table summarizes loans held for sale at March 31, 2020 and increases (decreases) since December 31, 2019:

		Increase (Decrease) From December 31, 2019	
	March 31, 2020	Amount	%
	(dollars are in millions)		
Commercial loans:			
Real estate, including construction	\$ —	\$ (83)	(100.0)%
Business and corporate banking.....	—	(35)	(100.0)
Global banking	234	140	*
Total commercial.....	234	22	10.4
Consumer loans:			
Residential mortgages	51	(26)	(33.8)
Total consumer	51	(26)	(33.8)
Total loans held for sale.....	\$ 285	\$ (4)	(1.4)%

* Percentage change is greater than 100 percent.

Commercial loans held for sale increased compared with December 31, 2019. Included in commercial loans held for sale are 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 \$206 million and \$178 million at March 31, 2020 and December 31, 2019, respectively. Balances will fluctuate from period to period depending on the volume and level of activity.

Commercial loans held for sale also includes certain loans that we no longer intend to hold for investment and were transferred to held for sale which totaled \$28 million and \$34 million at March 31, 2020 and December 31, 2019, respectively.

Consumer loans held for sale decreased compared with December 31, 2019. Included in residential mortgage loans held for sale are agency-eligible 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 commercial 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 \$1 million and \$2 million at March 31, 2020 and December 31, 2019, respectively. The valuation allowance on commercial loans held for sale was nil at both March 31, 2020 and December 31, 2019.

Trading Assets and Liabilities The following table summarizes trading assets and liabilities at March 31, 2020 and increases (decreases) since December 31, 2019:

		Increase (Decrease) From December 31, 2019	
	March 31, 2020	Amount	%
(dollars are in millions)			
Trading assets:			
Securities ⁽¹⁾	\$ 19,220	\$ (4,268)	(18.2)%
Precious metals	4,604	2,695	*
Derivatives, net	5,393	2,338	76.5
	<u>\$ 29,217</u>	<u>\$ 765</u>	<u>2.7 %</u>
Trading liabilities:			
Securities sold, not yet purchased	\$ 434	\$ (748)	(63.3)%
Payables for precious metals	—	(124)	(100.0)
Derivatives, net	3,489	1,560	80.9
	<u>\$ 3,923</u>	<u>\$ 688</u>	<u>21.3 %</u>

* Percentage change is greater than 100 percent.

⁽¹⁾ See Note 3, "Trading Assets and Liabilities," in the accompanying consolidated financial statements for a breakout of trading securities by category.

Trading securities balances decreased compared with December 31, 2019 due to decreases in equity and foreign sovereign positions, partially offset by an increase in U.S. Treasury 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 lower compared with December 31, 2019 driven by a decrease in short U.S. Treasury positions related to economic hedges of derivatives in the interest rate trading portfolio.

Precious metals trading assets increased compared with December 31, 2019 due primarily to an increase in our own gold inventory position held as economic hedges for client derivative activity. Payables for precious metals were lower compared with December 31, 2019 reflecting a decline 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 increased compared with December 31, 2019 mainly from market movements which resulted in higher valuations of foreign exchange, interest rate, commodity and credit derivatives. Market movements on equity derivatives were mixed resulting in higher derivative asset valuations, but lower derivative liability valuations.

Securities Securities include securities available-for-sale and securities held-to-maturity, net. Securities balances were higher compared with December 31, 2019 driven by net purchases of securities available-for-sale as part of our continuing strategy to maximize returns while balancing the securities portfolio for risk management purposes and, to a lesser extent, favorable market valuations due to decreasing yields. The increase in securities balances was primarily in U.S. Government sponsored mortgage-backed, U.S. Treasury and U.S. Government agency mortgage-backed securities.

All Other Assets All other assets includes, among other items, properties and equipment, net and goodwill. All other assets increased compared with December 31, 2019 due primarily to higher outstanding settlement balances related to security sales, higher cash collateral posted and increased investments in Federal Home Loan Bank ("FHLB") stock. These increases were partially offset by a goodwill impairment charge of \$784 million recorded during the first quarter of 2020, representing the entire amount of goodwill previously allocated to our Retail Banking and Wealth Management and our Private Banking reporting units, and lower deferred tax assets. For additional discussion of the results of our interim goodwill impairment testing, see Note 8, "Goodwill," in the accompanying consolidated financial statements.

Deposits The following table summarizes deposit balances by major depositor categories at March 31, 2020 and increases (decreases) since December 31, 2019:

		Increase (Decrease) From December 31, 2019	
	March 31, 2020	Amount	%
(dollars are in millions)			
Individuals, partnerships and corporations.....	\$ 118,665	\$ 10,640	9.8%
Domestic and foreign banks	15,376	6,672	76.7
U.S. government and states and political subdivisions	330	(31)	(8.6)
Foreign governments and official institutions	2,352	(251)	(9.6)
Total deposits.....	<u>\$ 136,723</u>	<u>\$ 17,030</u>	<u>14.2%</u>
Total core deposits ⁽¹⁾	<u>\$ 106,601</u>	<u>\$ 11,348</u>	<u>11.9%</u>

⁽¹⁾ Core deposits, as calculated in accordance with Federal Financial Institutions Examination Council ("FFIEC") guidelines, generally include all domestic demand, money market and other savings accounts, as well as time deposits with balances not exceeding \$250,000.

Total deposits increased compared with December 31, 2019 as we actively raised funds to support elevated client demand for loans driven by deteriorating economic conditions in March while maintaining adequate liquidity, which resulted in higher deposits from affiliates and increased commercial demand deposits with a continued focus on high quality balances. The higher deposits from affiliates also reflects \$3.0 billion of long-term debt obligations issued to HSBC North America that were recharacterized as time deposits during the first quarter of 2020 as discussed below. Also contributing to the increase in deposits was higher retail deposits driven by promotional rates offered on savings accounts as well as higher deposits in Private Banking. These increases in deposits were partially offset by a decline in commercial time deposits reflecting early client withdrawals.

Short-Term Borrowings Short-term borrowings increased compared with December 31, 2019 as we actively raised funds to support elevated client demand for loans driven by deteriorating economic conditions in March while maintaining adequate liquidity, which resulted in higher securities sold under repurchase agreements and, to a lesser extent, higher federal funds purchased.

Long-Term Debt Long-term debt decreased compared with December 31, 2019 as the impact of debt issuances, including increased borrowings from the FHLB, was more than offset by debt retirements, fair value movements on fair value option debt and \$3.0 billion of long-term debt obligations issued to HSBC North America that were recharacterized as time deposits during the first quarter of 2020. See Note 14, "Related Party Transactions," for additional information. Debt issuances during the three months ended March 31, 2020 totaled \$5,844 million, of which \$4,885 million was issued by HSBC Bank USA.

Incremental issuances from our shelf registration statement with the SEC totaled \$959 million of senior structured notes during the three months ended March 31, 2020. Total long-term debt outstanding under this shelf was \$11,421 million and \$13,295 million at March 31, 2020 and December 31, 2019, respectively.

Incremental issuances from the HSBC Bank USA Global Bank Note Program totaled \$135 million during the three months ended March 31, 2020. Total debt outstanding under this program was \$3,021 million and \$2,908 million at March 31, 2020 and December 31, 2019, respectively.

Borrowings from the FHLB totaled \$5,750 million and \$1,000 million at March 31, 2020 and December 31, 2019, respectively.

Interest, Taxes and Other Liabilities Interest, taxes and other liabilities were lower compared with December 31, 2019 due primarily to lower margin requirements related to futures trading and a decline in accrued interest payable, partially offset by a higher liability for off-balance sheet credit exposures.

Results of Operations

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:

Three Months Ended March 31,	2020	2020 Compared with 2019 Increase (Decrease)		2019
		Volume	Rate	
(dollars are in millions)				
Interest income:				
Short-term investments	\$ 87	\$ (2)	\$ (87)	\$ 176
Trading securities	80	20	(3)	63
Securities	243	34	(95)	304
Commercial loans	448	5	(79)	522
Consumer loans	190	7	(11)	194
Other	19	12	(11)	18
Total interest income	1,067	76	(286)	1,277
Interest expense:				
Deposits	321	54	(66)	333
Short-term borrowings	40	19	(41)	62
Long-term debt	198	(56)	(58)	312
Tax liabilities and other	4	(2)	(2)	8
Total interest expense	563	15	(167)	715
Net interest income	\$ 504	\$ 61	\$ (119)	\$ 562
Yield on total interest earning assets	2.43%			3.22%
Cost of total interest bearing liabilities	1.66			2.31
Interest rate spread	.77			.91
Benefit from net non-interest paying funds ⁽¹⁾	.38			.51
Net interest margin on average earning assets	1.15%			1.42%

⁽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 the three months ended March 31, 2020 due primarily to the unfavorable net impact of lower market rates, which resulted in lower interest income from short-term investments, loans and securities, partially offset by lower interest expense from long-term debt, short-term borrowings and deposits. The unfavorable net impact of lower market rates was partially offset by the favorable impact of higher average securities and trading securities balances.

Short-term investments Interest income decreased during the three months ended March 31, 2020 due primarily to lower yields earned on these balances reflecting the impact of lower market rates.

Trading securities Interest income increased during the three months ended March 31, 2020 driven by higher average balances due primarily to increases in equity and U.S. Treasury positions, partially offset by a decrease in corporate bond 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 the three months ended March 31, 2020 due to lower yields reflecting the impact of lower market rates, partially offset by higher average balances. Higher average balances were due primarily to increases in U.S. Government agency mortgage-backed and U.S. Treasury securities, partially offset by a decline in U.S. Government sponsored mortgage-backed securities.

Commercial loans Interest income was lower during the three months ended March 31, 2020 driven by lower yields reflecting the impact of lower market rates on variable rate loans, partially offset by higher average balances.

Consumer loans Interest income decreased slightly during the three months ended March 31, 2020 as the impact of higher average balances due to growth in residential mortgage loans and credit card receivables was more than offset by lower yields reflecting the impact of lower market rates.

Other Interest income was relatively flat during the three months ended March 31, 2020 as the impact of higher average cash collateral balances was largely offset by lower yields reflecting the impact of lower market rates on these balances.

Deposits Interest expense decreased slightly during the three months ended March 31, 2020 as the impact of higher average balances was more than offset by lower rates paid reflecting the impact of lower market rates. Higher average balances were due to growth in commercial time deposits and demand deposits as well as higher retail deposits driven by promotional rates offered on savings accounts.

Short-term borrowings Lower interest expense during the three months ended March 31, 2020 was due to lower rates paid reflecting the impact of lower market rates, partially offset by higher average borrowings in securities sold under repurchase agreements.

Long-term debt Interest expense decreased during the three months ended March 31, 2020 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 the three months ended March 31, 2020 due to lower average borrowings in securities sold, not yet repurchased and lower rates paid on these borrowings.

Provision for Credit Losses As discussed further in Note 21, "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, current period amounts in the table below are not directly comparable to the prior year period. The following table summarizes the components of the provision for credit losses:

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Loans:				
Commercial loans:				
Real estate, including construction	\$ 51	\$ 3	\$ 48	*
Business and corporate banking	213	22	191	*
Global banking.....	110	14	96	*
Other commercial	1	—	1	*
Total commercial loans.....	375	39	336	*
Consumer loans:				
Residential mortgages.....	30	(1)	31	*
Home equity mortgages.....	3	1	2	*
Credit cards.....	95	16	79	*
Other consumer.....	9	3	6	*
Total consumer loans	137	19	118	*
Total loans	512	58	454	*
Other financial assets measured at amortized cost.....	2	—	2	*
Securities available-for-sale	(1)	—	(1)	*
Off-balance sheet credit exposures ⁽¹⁾	213	—	213	*
Total provision for credit losses.....	\$ 726	\$ 58	\$ 668	*

* Percentage change is greater than 100 percent.

⁽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 increased \$668 million during the three months ended March 31, 2020 due primarily to a higher provision for credit losses on both our commercial and consumer loan portfolios as well as the provision for credit losses on off-balance sheet credit exposures recorded in the first quarter of 2020.

The provision for credit losses on our commercial loan portfolio increased \$336 million during the three months ended March 31, 2020. The loss provision in the current year period was driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic which resulted in a worsening of the economic forecasts we use for calculating lifetime ECL in 2020 and provisions for risk factors associated with large loan exposures, downgrades reflecting weakness in the financial condition of certain clients and loan growth as clients drew on their available lines of credit. In the prior year period, the loss provision was driven by downgrades reflecting weakness in the financial condition of certain client relationships and loan growth, partially offset by releases in credit loss reserves due to paydowns.

The provision for credit losses on our consumer loan portfolio was higher by \$118 million during the three months ended March 31, 2020. The loss provision in the current year period was driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic which resulted in a worsening of the economic forecasts we use for calculating lifetime ECL in 2020. Also contributing to the loss provision in the current year period was higher dollars of delinquency in credit cards and, to a lesser extent, growth in personal loan balances due to new product promotions. In the prior year period, the loss provision was due primarily to a provision for credit losses on credit cards reflecting growth in balances due to increased customer activity and new product promotions, including higher dollars of delinquency.

The provision for credit losses on off-balance sheet credit exposures reflects a loss provision during the three months ended March 31, 2020 resulting from the deterioration of economic conditions caused by the spread of the COVID-19 pandemic consistent with commercial loans as discussed above.

See "Credit Quality" in this MD&A for additional discussion on the allowance for credit losses and the liability for off-balance sheet credit exposures.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
			(in millions)	
Credit card fees, net	\$ 11	\$ 12	\$ (1)	(8.3)%
Trust and investment management fees	31	30	1	3.3
Other fees and commissions	151	147	4	2.7
Trading revenue	14	133	(119)	(89.5)
Other securities gains, net	28	7	21	*
Servicing and other fees from HSBC affiliates	88	81	7	8.6
Loss on instruments designated at fair value and related derivatives	(22)	(9)	(13)	*
Other income (loss):				
Valuation of loans held for sale	1	—	1	*
Residential mortgage banking revenue (expense)	(2)	(2)	—	—
Insurance	2	2	—	—
Miscellaneous income (loss)	85	(11)	96	*
Total other income (loss)	86	(11)	97	*
Total other revenues	<u>\$ 387</u>	<u>\$ 390</u>	<u>\$ (3)</u>	<u>(.8)%</u>

* Percentage change is greater than 100 percent.

Credit card fees, net Credit card fees, net were relatively flat during the three months ended March 31, 2020.

Trust and investment management fees Trust and investment management fees were relatively flat during the three months ended March 31, 2020.

Other fees and commissions Other fees and commissions increased slightly during the three months ended March 31, 2020 due primarily to higher fees from loan syndication, partially offset by a decline in wire transfer fees. See Note 13, "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, rates, credit, equities and precious metals 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. 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 are included as a component of other income (loss).

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(in millions)				
Business Activities:				
Derivatives ⁽¹⁾⁽²⁾	\$ (40)	\$ 28	\$ (68)	*
Foreign Exchange	106	44	62	*
Metals	(1)	38	(39)	*
Balance Sheet Management	(14)	11	(25)	*
Global Banking	(9)	—	(9)	*
Other trading	(28)	12	(40)	*
Total trading revenue	\$ 14	\$ 133	\$ (119)	(89.5)%

⁽¹⁾ Includes derivative contracts related to the Credit, Rates and Equities business activities within Global Markets as well as our legacy structured credit products. Derivative contracts related to the Foreign Exchange and Metals business activities within Global Markets as well as derivative products related to Balance Sheet Management, Global Banking and other trading are reported separately within those respective business activities.

⁽²⁾ Derivatives trading revenue in all periods does not reflect associated net interest income as certain derivatives, such as total return swaps, were economically hedged by holding the underlying interest bearing referenced assets.

Trading revenue decreased during the three months ended March 31, 2020 due primarily to the deterioration of economic conditions and market volatility caused by the spread of the COVID-19 pandemic, which resulted in valuation losses, primarily in the form of bid-offer and funding spread adjustments, of approximately \$70 million in March 2020. These valuation losses drove trading revenue lower in Derivatives, Other trading, Metals, Balance Sheet Management and Global Banking, which was partially offset by higher revenue in Foreign Exchange.

Derivatives revenue decreased due to unfavorable valuation adjustments, primarily related to funding spread adjustments, on legacy structured credit products as well as lower revenue from emerging markets rate products and interest rate swaps. These decreases were partially offset by the non-recurrence of a loss of approximately \$39 million recorded during the first quarter of 2019 related to the unwind of one of our unconsolidated variable interest entities ("VIEs").

Foreign Exchange revenue was higher as market volatility driven by the COVID-19 pandemic resulted in increased trading activity in both emerging market and G10 currencies.

Metals revenue decreased from market volatility and unfavorable valuation adjustments on exchange for physical transactions.

Balance Sheet Management revenue was lower due to unfavorable valuation adjustments related to economic hedge positions used to manage interest rate risk.

Global Banking revenue was lower due to unfavorable valuation adjustments on credit default swap economic hedge positions.

The decrease in other trading revenue reflects the impact of unfavorable funding spread adjustments and a loss of \$7 million recorded during the first quarter of 2020 related to extending the maturity of the total return swap position used to economically hedge the periodic payments made under the swap agreements entered into in conjunction with the sales of Visa Inc. Class B common shares.

Other securities gains, net We maintain securities portfolios as part of our balance sheet diversification and risk management strategies. During the three months ended March 31, 2020 and 2019, we sold \$4,630 million and \$2,145 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 increased during the three months ended March 31, 2020 reflecting the impact of higher sales activity compared with 2019. 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 4, "Securities," in the accompanying consolidated financial statements.

Servicing and other fees from HSBC affiliates Servicing and other fees from HSBC affiliates were higher during the three months ended March 31, 2020 due primarily to higher cost reimbursements associated with trading activities performed on behalf of HSBC Bank plc and higher sales commissions paid by HSBC Bank plc.

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 securities purchased and sold under resale and repurchase agreements, certain of our own fixed-rate debt issuances, all of our hybrid instruments issued, including structured notes and deposits, and, beginning January 1, 2020, certain student loans held for investment. 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. Loss on instruments designated at fair value and related derivatives reflected higher losses during the three months ended March 31, 2020 attributable to unfavorable movements related to the economic hedging of interest rate and other risks within our structured notes and unfavorable fair value adjustments on certain commercial loans held for sale which were impacted by the spread of the COVID-19 pandemic. These losses were partially offset by favorable movements related to the economic hedging of interest rate risk within our own debt. See Note 10, "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 higher in the three months ended March 31, 2020 due primarily to a gain of \$51 million in the current year period associated with credit default swap protection which largely reflects the hedging of a few client relationships compared with a loss of \$10 million in the prior year period. Also contributing to the increase were miscellaneous gains recorded during the first quarter of 2020, including a \$12 million gain on extinguishment of time deposits reflecting early client withdrawals and a \$9 million gain on the sale of one of our owned retail branch properties, as well as higher income associated with bank owned life insurance.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Salaries and employee benefits.....	\$ 207	\$ 210	\$ (3)	(1.4)%
Support services from HSBC affiliates:				
Fees paid to HSBC Technology & Services (USA) ("HTSU")	263	277	(14)	(5.1)
Fees paid to HSBC Markets (USA) Inc. ("HMUS").....	27	27	—	—
Fees paid to other HSBC affiliates.....	92	76	16	21.1
Total support services from HSBC affiliates.....	382	380	2	.5
Occupancy expense, net.....	140	45	95	*
Goodwill impairment.....	784	—	784	*
Other expenses:				
Equipment and software.....	21	19	2	10.5
Marketing.....	17	36	(19)	(52.8)
Outside services	14	16	(2)	(12.5)
Professional fees	17	11	6	54.5
Off-balance sheet credit reserves ⁽¹⁾	—	(7)	7	100.0
Federal Deposit Insurance Corporation ("FDIC") assessment fees	7	8	(1)	(12.5)
Miscellaneous.....	16	32	(16)	(50.0)
Total other expenses.....	92	115	(23)	(20.0)
Total operating expenses.....	\$ 1,605	\$ 750	\$ 855	*
Personnel - average number.....	4,576	4,730		
Efficiency ratio.....	180.1%	78.8%		

* Percentage change is greater than 100 percent.

⁽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 slightly during the three months ended March 31, 2020 as lower incentive compensation expense was largely offset by higher severance costs. While continued cost management efforts, including targeted staff reductions to optimize staffing and improve efficiency throughout 2019 as well as reductions in staff related to the consolidation of our retail branch network, resulted in a decline in the average number of personnel, the impact of these reductions on salaries expense was offset by the addition of higher cost personnel associated with growth initiatives in certain businesses.

Support services from HSBC affiliates Servicing and other fees from HSBC affiliates was relatively flat during the three months ended March 31, 2020 as increased costs associated with our business systems and \$8 million of allocated costs from HTSU recorded in the first quarter of 2020 related to the consolidation of our retail branch network were largely offset by lower cost allocations from our technology, risk and compliance support service functions. A summary of the services received from various HSBC affiliates is included in Note 14, "Related Party Transactions," in the accompanying consolidated financial statements.

Occupancy expense, net Occupancy expense, net was higher during the three months ended March 31, 2020 due primarily to lease impairment and other related costs of \$92 million recorded in the first quarter of 2020 related to the consolidation of our retail branch network and higher rent expense. See Note 2, "Strategic Initiatives," in the accompanying consolidated financial statements for additional information.

Goodwill impairment Reflects a goodwill impairment charge of \$784 million recorded during the first quarter of 2020, representing the entire amount of goodwill previously allocated to our Retail Banking and Wealth Management and our Private Banking reporting units. For additional discussion of the results of our interim goodwill impairment testing, see Note 8, "Goodwill," in the accompanying consolidated financial statements.

Other expenses Excluding the impact of off-balance sheet credit reserves recorded in the prior year period, other expenses remained lower during the three months ended March 31, 2020 due primarily to lower marketing expense and lower losses associated with card fraud.

Efficiency ratio Our efficiency ratio increased during the three months ended March 31, 2020 due primarily to higher operating expenses driven by a goodwill impairment charge recorded during the first quarter of 2020 as discussed in detail above.

Income tax expense (benefit) The following table provides an analysis of the difference between effective rates based on the provision for income taxes attributable to pretax income (loss) and the statutory U.S. Federal income tax rate:

Three Months Ended March 31,	2020		2019	
	(dollars are in millions)			
Tax expense (benefit) at the U.S. Federal statutory income tax rate	\$	(302)	(21.0)%	\$ 30 21.0%
Increase (decrease) in rate resulting from:				
State and local taxes, net of Federal benefit		(19)	(1.3)	5 3.5
Non-deductible FDIC assessment fees		2	.1	2 1.4
Non-deductible goodwill impairment ⁽¹⁾		165	11.5	— —
Low income housing and other tax credit investments		(2)	(.1)	(3) (2.1)
Other		(1)	(.1)	1 .5
Provision for income taxes	\$	(157)	(10.9)%	\$ 35 24.3%

⁽¹⁾ Represents non-deductible goodwill impairment related to our Retail Banking and Wealth Management and our Private Banking reporting units during the first quarter of 2020.

The provision for income taxes for the three months ended March 31, 2020 has been computed as a discrete period actual tax calculation with disclosure of the material tax rate adjustment items listed in the reconciliation table above. We do not expect that this approach has resulted in any material overstatement or understatement of the current period tax expense (benefit).

Segment Results – Group Reporting Basis

We have five distinct business segments that we utilize for management reporting and analysis purposes, which are aligned with HSBC's global business strategy: Retail Banking and Wealth Management ("RBWM"), Commercial Banking ("CMB"), Global Banking and Markets ("GB&M"), Private Banking ("PB") and a Corporate Center ("CC"). See Item 1, "Business," in our 2019 Form 10-K for a description of our segments, which are based upon our global businesses, including a discussion of the main business activities of the segments and a summary of their products and services. There have been no changes in the basis of our segmentation as compared with the presentation in our 2019 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 from the segments to one centralized unit in Balance Sheet Management, recognize term funding costs/benefits and more appropriately reflect the profitability of the segments.

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 IFRS issued by the IASB and endorsed by the EU, and, 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 2019 Form 10-K. We are currently reviewing the financial information used to manage our business, including the scope and content of the financial data being reported to our management and our Board of Directors within the Corporate Center, any changes to which would impact our other business segments. In February 2020 as part of a business update, we also announced certain changes involving our global businesses including RBWM and PB. To the extent we make changes to the financial information being reported to our management and our Board of Directors in the future, we will evaluate any impact such changes may have on our segment reporting.

The significant differences between U.S. GAAP and the Group Reporting Basis as they impact our results are summarized in Note 24, "Business Segments," in our 2019 Form 10-K. In addition, see Note 15, "Business Segments," in the accompanying consolidated financial statements for a discussion of significant changes since December 31, 2019 in the differences between U.S. GAAP and the Group Reporting Basis impacting our results.

Retail Banking and Wealth Management The following table summarizes the Group Reporting Basis results for our RBWM segment:

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Net interest income	\$ 195	\$ 221	\$ (26)	(11.8)%
Other operating income.....	59	65	(6)	(9.2)
Total operating income ⁽¹⁾	254	286	(32)	(11.2)
Expected credit losses	140	21	119	*
Net operating income	114	265	(151)	(57.0)
Operating expenses	660	311	349	*
Loss before tax	\$ (546)	\$ (46)	\$ (500)	*

* Percentage change is greater than 100 percent.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Current accounts, savings and deposits	\$ 148	\$ 173	\$ (25)	(14.5)%
Mortgages, credit cards and other personal lending	67	52	15	28.8
Wealth and asset management products	23	23	—	—
Retail business banking and other ⁽²⁾	16	38	(22)	(57.9)
Total operating income	\$ 254	\$ 286	\$ (32)	(11.2)%

⁽²⁾ Includes cost reimbursements associated with activities performed on behalf of other HSBC affiliates.

Our RBWM segment reported a higher loss before tax during the three months ended March 31, 2020 due primarily to higher operating expenses driven by a goodwill impairment charge of \$372 million recorded during the first quarter of 2020, representing the entire amount of remaining goodwill previously allocated to this segment, as well as higher expected credit losses and lower net interest income. See Note 8, "Goodwill," in the accompanying consolidated financial statements for additional discussion regarding the factors which led to the impairment.

Net interest income decreased during the three months ended March 31, 2020 due primarily to lower deposit spreads, partially offset by improved loan spreads and higher loan balances in residential mortgages and credit cards.

Other operating income decreased during the three months ended March 31, 2020 due to a loss of \$7 million recorded during the first quarter of 2020 related to extending the maturity of the total return swap position used to economically hedge the periodic payments made under the swap agreements entered into in conjunction with the sales of Visa Inc. Class B common shares.

Expected credit losses were higher during the three months ended March 31, 2020 driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating ECL. Also contributing to the increase was higher ECL in credit cards reflecting higher balances due to increased customer activity and new product promotions, including higher dollars of delinquency.

Excluding the goodwill impairment as discussed above, operating expenses decreased during the three months ended March 31, 2020 due to lower marketing expense, lower losses associated with card fraud, lower incentive compensation expense and lower cost allocations from our technology and risk support service functions. These decreases were partially offset by higher severance costs.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Net interest income	\$ 208	\$ 201	\$ 7	3.5%
Other operating income.....	58	58	—	—
Total operating income ⁽¹⁾	266	259	7	2.7
Expected credit losses	123	6	117	*
Net operating income.....	143	253	(110)	(43.5)
Operating expenses	146	138	8	5.8
Profit (loss) before tax	\$ (3)	\$ 115	\$ (118)	*

* Percentage change is greater than 100 percent.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Lending and Transaction Management	\$ 118	\$ 110	\$ 8	7.3%
Global Liquidity and Cash Management, current accounts and savings deposits	110	116	(6)	(5.2)
Global Trade and Receivables Finance	14	12	2	16.7
Investment banking products and other.....	24	21	3	14.3
Total operating income	\$ 266	\$ 259	\$ 7	2.7%

Our CMB segment reported a loss before tax during the three months ended March 31, 2020 compared with a profit before tax in the prior year period due primarily to higher expected credit losses and, to a lesser extent, higher operating expenses, partially offset by higher net interest income.

Net interest income increased during the three months ended March 31, 2020 due to the favorable impact of higher loan and deposit balances, partially offset by lower deposit spreads reflecting the impact of lower market rates.

Other operating income was flat during the three months ended March 31, 2020.

Expected credit losses were higher during the three months ended March 31, 2020 driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating ECL and higher loss estimates for downgrades reflecting weakness in the financial condition of certain clients and loan growth as clients drew on their available lines of credit.

Operating expenses increased during the three months ended March 31, 2020 due to higher cost allocations from our technology and compliance support service functions, partially offset by lower marketing expense.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Net interest income	\$ 81	\$ 151	\$ (70)	(46.4)%
Other operating income.....	264	175	89	50.9
Total operating income ⁽¹⁾	345	326	19	5.8
Expected credit losses	115	(17)	132	*
Net operating income	230	343	(113)	(32.9)
Operating expenses	187	206	(19)	(9.2)
Profit before tax	\$ 43	\$ 137	\$ (94)	(68.6)%

* Percentage change is greater than 100 percent.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Credit	\$ —	\$ 9	\$ (9)	(100.0)%
Rates	14	20	(6)	(30.0)
Foreign Exchange and Metals	117	65	52	80.0
Equities	14	3	11	*
Total Global Markets	145	97	48	49.5
Global Banking	108	73	35	47.9
Global Liquidity and Cash Management	109	126	(17)	(13.5)
Securities Services	14	16	(2)	(12.5)
Global Trade and Receivables Finance	15	15	—	—
Credit and funding valuation adjustments	(40)	13	(53)	*
Other ⁽²⁾	(6)	(14)	8	57.1
Total operating income	\$ 345	\$ 326	\$ 19	5.8 %

⁽²⁾ Includes cost reimbursements associated with activities performed on behalf of other HSBC affiliates and certain corporate funding charges not assigned to products.

Our GB&M segment reported a lower profit before tax during the three months ended March 31, 2020 due to higher expected credit losses and lower net interest income, partially offset by higher other operating income and lower operating expenses.

Credit revenue decreased during the three months ended March 31, 2020 due to lower revenue from structuring and collateralized financing related activity.

Rates revenue decreased during the three months ended March 31, 2020 due to lower revenue from emerging markets rate products, interest rate swaps and hedging activities.

Foreign Exchange and Metals revenue increased during the three months ended March 31, 2020 due to higher revenue in Foreign Exchange as market volatility driven by the COVID-19 pandemic resulted in increased trading activity in both emerging market and G10 currencies. This increase was partially offset by lower revenue in Metals from market volatility and unfavorable valuation adjustments on exchange for physical transactions.

Equities revenue increased during the three months ended March 31, 2020 due to higher client activity in structured equity derivatives as well as increased activity in prime brokerage.

Global Banking revenue increased during the three months ended March 31, 2020 due primarily to a gain in the current year period associated with credit default swap protection which largely reflects the hedging of a few client relationships compared with a loss in the prior year period. These increases were partially offset by unfavorable fair value adjustments on loans held for sale and lower net interest income from spread compression.

Global Liquidity and Cash Management revenue decreased during the three months ended March 31, 2020 due to lower net interest income driven by lower deposit spreads reflecting the impact of lower market rates, partially offset by higher deposit balances.

Securities Services revenue was lower during the three months ended March 31, 2020 due to lower interest income reflecting the impact of lower market rates.

Global Trade and Receivables Finance revenue was flat during the three months ended March 31, 2020.

Credit and funding valuation adjustments resulted in losses during the three months ended March 31, 2020 attributable primarily to unfavorable credit valuation adjustments on derivative assets due to deteriorating credit spreads driven by market volatility caused by the COVID-19 pandemic as well as the impact of lower market rates. In the prior year period, credit and funding valuation adjustments resulted in gains attributable primarily to favorable movements in our own credit spreads within our derivative liability balances.

Other revenue improved during the three months ended March 31, 2020 due to favorable corporate revenue allocations, partially offset by higher liquidity charges.

Expected credit losses were higher during the three months ended March 31, 2020 driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic which resulted in a worsening of the economic forecasts used for calculating ECL and higher loss estimates for risk factors associated with oil and gas industry loan exposures, downgrades reflecting weakness in the financial condition of certain clients and loan growth as clients drew on their available lines of credit.

Operating expenses were lower during the three months ended March 31, 2020 due to lower incentive compensation expense, lower deposit insurance assessment fees and lower cost allocations from our technology, risk and compliance support service functions.

Private Banking The following table summarizes the Group Reporting Basis results for our PB segment:

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Net interest income	\$ 31	\$ 37	\$ (6)	(16.2)%
Other operating income.....	16	16	—	—
Total operating income	47	53	(6)	(11.3)
Expected credit losses	—	(1)	1	100.0
Net operating income.....	47	54	(7)	(13.0)
Operating expenses	370	53	317	*
Profit (loss) before tax	\$ (323)	\$ 1	\$ (324)	*

* Percentage change is greater than 100 percent.

The following table provides information regarding PB client assets during the three months ended March 31, 2020 and 2019:

Three Months Ended March 31,	2020		2019	
	(in millions)			
Client assets at beginning of period	\$	39,295	\$	36,017
Net new money (outflows)		937		1,001
Client transfers to UBS Wealth Management Americas ("UBS") ⁽¹⁾		—		(23)
Value change		(2,440)		1,413
Client assets at end of period	\$	37,792	\$	38,408

⁽¹⁾ Reflects client asset transfers associated with the sale of a portion of our PB business to UBS, which concluded in 2019

Our PB segment reported a loss before tax during the three months ended March 31, 2020 compared with a profit before tax in the prior year period due primarily to higher operating expenses driven by a goodwill impairment charge of \$321 million recorded during the first quarter of 2020, representing the entire amount of goodwill previously allocated to this segment, as well as lower net interest income. See Note 8, "Goodwill," in the accompanying consolidated financial statements for additional discussion regarding the factors which led to the impairment.

Net interest income decreased during the three months ended March 31, 2020 due primarily to the impact of spread compression reflecting the impact of lower market rates.

Other operating income was flat during the three months ended March 31, 2020.

Expected credit losses were relatively flat during the three months ended March 31, 2020.

Excluding the goodwill impairment as discussed above, operating expenses decreased during the three months ended March 31, 2020 due to lower staff costs and lower cost allocations from our operations and compliance support service functions.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Net interest income	\$ 4	\$ 14	\$ (10)	(71.4)%
Other operating income (expense)	(26)	24	(50)	*
Total operating income (expense) ⁽¹⁾	(22)	38	(60)	*
Expected credit losses	1	1	—	—
Net operating income (expense)	(23)	37	(60)	*
Operating expenses	146	40	106	*
Loss before tax	\$ (169)	\$ (3)	\$ (166)	*

* Percentage change is greater than 100 percent.

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

Three Months Ended March 31,	2020	2019	Increase (Decrease)	
			Amount	%
(dollars are in millions)				
Balance Sheet Management ⁽²⁾	\$ 15	\$ 69	\$ (54)	(78.3)%
Legacy structured credit products	(74)	(31)	(43)	*
Other	37	—	37	*
Total operating income	\$ (22)	\$ 38	\$ (60)	*

⁽²⁾ Balance Sheet Management includes gains on the sale of securities of \$28 million and \$7 million in the three months ended March 31, 2020 and 2019, respectively.

Our CC segment reported a higher loss before tax during the three months ended March 31, 2020 due to higher operating expenses, lower other operating income (expense) and lower net interest income.

Net interest income was lower during the three months ended March 31, 2020 due to lower net interest income in Balance Sheet Management reflecting the impact of lower market rates, partially offset by improved net interest income from legacy structured credit products.

Other operating income decreased during the three months ended March 31, 2020 due primarily to the deterioration of economic conditions and disruption to the capital markets caused by the spread of the COVID-19 pandemic, which resulted in unfavorable valuation adjustments, primarily related to funding spread adjustments, on legacy structured credit products and unfavorable valuation adjustments related to economic hedge positions used to manage interest rate risk in Balance Sheet Management. These decreases were partially offset by the non-recurrence of a loss of approximately \$39 million recorded during the first quarter of 2019 related to the unwind of one of our unconsolidated VIEs, favorable movements related to the economic hedging of interest rate risk within our own debt, higher gains on asset sales in Balance Sheet Management and miscellaneous gains recorded during the first quarter of 2020, including a \$12 million gain on extinguishment of time deposits reflecting early client withdrawals and a \$9 million gain on the sale of one of our owned retail branch properties.

Expected credit losses were flat during the three months ended March 31, 2020.

Operating expenses were higher during the three months ended March 31, 2020 due to costs recorded during the first quarter of 2020 related to the consolidation of our retail branch network, including lease impairment and other related costs of \$97 million and allocated costs from HTSU of \$8 million.

Reconciliation of Segment Results As previously discussed, segment results are reported on a Group Reporting Basis. See Note 24, "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.

Allowance for Credit Losses / Liability for Off-Balance Sheet Credit Exposures As discussed further in Note 21, "New Accounting Pronouncements," in the accompanying consolidated financial statements, 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. See Note 6, "Allowance for Credit Losses," in the accompanying consolidated financial statements for a full discussion of our accounting policies and methodologies used to estimate ECL beginning in 2020. There have been no additional significant changes to our policies or methodologies during the first quarter of 2020.

Our accounting policies and methodologies related to the allowance for credit losses and liability for off-balance sheet credit exposures in prior periods are presented under the caption "Critical Accounting Policies and Estimates" in MD&A and in Note 2, "Summary of Significant Accounting Policies and New Accounting Pronouncements," in our 2019 Form 10-K. Our approach toward credit risk management is summarized under the caption "Risk Management" in MD&A in our 2019 Form 10-K.

Comparative credit information at January 1, 2020, reflecting the adoption of the new accounting guidance, has been included in the tables below where available. Comparative credit information at December 31, 2019, which is not comparable as it does not reflect the adoption of the new accounting guidance, has been retained as previously reported.

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

	March 31, 2020	January 1, 2020	December 31, 2019
	(in millions)		
Allowance for credit losses:			
Loans:			
Commercial loans	\$ 727	\$ 381	\$ 507
Consumer loans	204	86	130
Total loans	931	467	637
Securities held-to-maturity	2	2	—
Other financial assets measured at amortized cost ⁽¹⁾	5	3	—
Securities available-for-sale	2	3	—
Total allowance for credit losses	\$ 940	\$ 475	\$ 637
Liability for off-balance sheet credit exposures	\$ 371	\$ 158	\$ 104

⁽¹⁾ Primarily includes accrued interest receivables and customer acceptances

See Note 21, "New Accounting Pronouncements," in the accompanying consolidated financial statements for a discussion of the changes in our allowance for credit losses and liability for off-balance sheet credit exposures at January 1, 2020 as compared with December 31, 2019.

The total allowance for credit losses at March 31, 2020 increased \$465 million or 98 percent as compared with January 1, 2020 due to higher loss estimates on both our commercial and consumer loan portfolios.

Our commercial allowance for credit losses at March 31, 2020 increased \$346 million or 91 percent as compared with January 1, 2020 driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic which resulted in a worsening of the economic forecasts we use for calculating lifetime ECL in 2020 and higher loss estimates for risk factors associated

with large loan exposures, downgrades reflecting weakness in the financial condition of certain clients and loan growth as clients drew on their available lines of credit.

Our consumer allowance for credit losses at March 31, 2020 increased \$118 million or 137 percent as compared with January 1, 2020 driven by the deterioration of economic conditions caused by the spread of the COVID-19 pandemic which resulted in a worsening of the economic forecasts we use for calculating lifetime ECL in 2020. Also contributing to the increase was a higher allowance for credit losses in credit cards reflecting higher dollars of delinquency, and, to a lesser extent, a higher allowance for credit losses in other consumer loans reflecting growth in balances due to new product promotions.

The liability for off-balance sheet credit exposures at March 31, 2020 increased \$213 million or 135 percent as compared with January 1, 2020 resulting from the deterioration of economic conditions caused by the spread of the COVID-19 pandemic consistent with commercial loans as discussed above, including an increase in expected future draws.

Summary of Credit Loss Experience for Loans

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

	Amount	% of Loans to Total Loans	Amount	% of Loans to Total Loans	Amount	% of Loans to Total Loans
	March 31, 2020		January 1, 2020		December 31, 2019	
	(dollars are in millions)					
Commercial ⁽¹⁾	\$ 727	74.9%	\$ 381	70.3%	\$ 507	70.3%
Consumer:						
Residential mortgages	(41)	22.1	(74)	26.0	12	26.0
Home equity mortgages	16	1.0	13	1.2	6	1.2
Credit cards	212	1.6	137	2.0	105	2.0
Other consumer	17	.4	10	.5	7	.5
Total consumer	204	25.1	86	29.7	130	29.7
Total	<u>\$ 931</u>	<u>100.0%</u>	<u>\$ 467</u>	<u>100.0%</u>	<u>\$ 637</u>	<u>100.0%</u>

⁽¹⁾ See Note 6, "Allowance for Credit Losses," in the accompanying consolidated financial statements for components of the commercial allowance for credit losses.

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

	March 31, 2020	January 1, 2020	December 31, 2019
Ratio of Allowance for credit losses to:			
Loans: ⁽¹⁾			
Commercial:			
Non-affiliates	1.25%	.83%	1.11%
Affiliates	—	—	—
Total commercial	1.19	.79	1.05
Consumer:			
Residential mortgages.....	(.23)	(.42)	.07
Home equity mortgages.....	1.97	1.52	.70
Credit cards.....	16.31	9.75	7.47
Other consumer.....	5.09	3.53	2.47
Total consumer.....	1.00	.42	.64
Total loans.....	1.14	.68	.93
Net charge-offs: ⁽²⁾			
Commercial ⁽³⁾	621%	847%	1,127%
Consumer	268	159	241
Total net charge-offs	482	472	643
Nonperforming loans: ⁽¹⁾⁽⁴⁾			
Commercial.....	283%	160%	213%
Consumer	47	19	29
Total nonperforming loans.....	134	67	92

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

⁽²⁾ Ratios at March 31, 2020 reflect year-to-date net charge-offs, annualized. Ratios at January 1, 2020 and December 31, 2019 reflect full year net charge-offs for 2019.

⁽³⁾ Our commercial net charge-off coverage ratio for the quarter ended March 31, 2020 and year ended December 31, 2019 was 75 months and 135 months, respectively. The net charge-off coverage ratio represents the commercial allowance for credit losses at period end divided by average monthly commercial net charge-offs during the period. Our commercial net charge-off coverage ratio for January 1, 2020, calculated by dividing the commercial allowance for credit losses at January 1, 2019 by average monthly commercial net charge-offs during 2019, was 102 months.

⁽⁴⁾ 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 6, "Allowance for Credit Losses," in the accompanying consolidated financial statements for a rollforward of credit losses by general loan categories for the three months ended March 31, 2020 and 2019.

The allowance for credit losses as a percentage of total loans held for investment at March 31, 2020 increased as compared with January 1, 2020 as the increase in our allowance for credit losses for the reasons discussed above outpaced an increase in total loans held for investment driven by higher commercial loans.

The allowance for credit losses as a percentage of net charge-offs at March 31, 2020 increased slightly as compared with January 1, 2020 as the increase in our allowance for credit losses for the reasons discussed above was largely offset by an increase in dollars of net charge-offs driven by higher charge-offs in our commercial loan portfolio and, to a lesser extent, our consumer loan portfolio.

The allowance for credit losses as a percentage of nonperforming loans held for investment at March 31, 2020 increased as compared with January 1, 2020 due to the increase in our allowance for credit losses for the reasons discussed above while total nonperforming loans was flat.

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 ("delinquency ratio"):

	March 31, 2020		December 31, 2019	
	Delinquent Loans	Delinquency Ratio	Delinquent Loans	Delinquency Ratio
(dollars are in millions)				
Commercial	\$ 27	.04%	\$ 41	.08%
Consumer:				
Residential mortgages ⁽¹⁾⁽²⁾	364	2.02	350	1.96
Home equity mortgages ⁽¹⁾⁽²⁾	26	3.19	25	2.93
Credit cards	39	3.00	34	2.42
Other consumer	7	2.10	7	2.47
Total consumer	436	2.13	416	2.04
Total	\$ 463	.57	\$ 457	.66

⁽¹⁾ At March 31, 2020 and December 31, 2019, consumer mortgage loan delinquency includes \$249 million and \$256 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 loans:

	March 31, 2020		December 31, 2019	
	Delinquent Loan	Delinquency Ratio	Delinquent Loan	Delinquency Ratio
(dollars are in millions)				
Interest-only loans	\$ 33	.99%	\$ 32	.95%
ARM loans	149	1.17	142	1.14

Our two-months-and-over contractual delinquency ratio decreased 9 basis points as compared with December 31, 2019 due to higher outstanding loan balances driven by an increase in the commercial loan portfolio. This decrease was partially offset by a modest increase in total dollars of delinquency as higher dollars of delinquency in our consumer loan portfolio was largely offset by lower dollars of delinquency in our commercial loan portfolio.

Our commercial loan two-months-and-over contractual delinquency ratio decreased 4 basis points compared with December 31, 2019 due primarily to the collection of a corporate banking loan which became 60 days delinquent in the fourth quarter of 2019 as well as higher outstanding loan balances.

Our consumer loan two-months-and-over contractual delinquency ratio increased 9 basis points compared with December 31, 2019 due to higher dollars of delinquency in residential mortgages driven primarily by a few Private Banking customers which became 60 days delinquent in the first quarter and higher dollars of delinquency in credit cards reflecting growth in balances due to increased customer activity and new product promotions.

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

	Three Months Ended March 31,			
	2020		2019	
	Net Charge-off Dollars	Net Charge-off Ratio	Net Charge-off Dollars	Net Charge-off Ratio
(dollars are in millions)				
Commercial:				
Business and corporate banking	\$ 10	.27%	\$ 2	.06%
Global banking	19	.42	—	—
Total commercial	29	.23	2	.02
Consumer:				
Residential mortgages	(3)	(.07)	2	.05
Credit cards	20	5.89	11	4.41
Other consumer	2	3.05	1	1.78
Total consumer	19	.37	14	.29
Total	\$ 48	.27	\$ 16	.09

Our net charge-off ratio as a percentage of average loans increased 18 basis points during the three months ended March 31, 2020 due primarily to a higher level of net charge-offs in our commercial loan portfolio driven by the sale of a global banking loan and deterioration of a corporate banking loan during the first quarter of 2020. Also contributing to the increase was a higher level of net charge-offs in our consumer loan portfolio due primarily to higher charge-offs in credit cards reflecting growth in balances due to increased customer activity and new product promotions.

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 ("nonperforming ratio"):

	March 31, 2020		December 31, 2019	
	Nonperforming Loans ⁽¹⁾	Nonperforming Ratio	Nonperforming Loans ⁽¹⁾	Nonperforming Ratio
(dollars are in millions)				
Commercial	\$ 257	.42%	\$ 238	.49%
Consumer:				
Residential mortgages ⁽²⁾⁽³⁾⁽⁴⁾	370	2.05	381	2.14
Home equity mortgages ⁽²⁾⁽³⁾	38	4.67	46	5.39
Credit Cards	28	2.15	24	1.71
Other consumer	2	.60	5	1.77
Total consumer	438	2.14	456	2.24
Total	\$ 695	.85	\$ 694	1.01
Other real estate owned ⁽⁵⁾	\$ 6		\$ 10	

⁽¹⁾ See Note 5, "Loans," in the accompanying consolidated financial statements for a breakout of nonaccrual loans and accruing loans contractually 90 days or more past due.

⁽²⁾ At March 31, 2020 and December 31, 2019, nonperforming consumer mortgage loans include \$286 million and \$289 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.

⁽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 March 31, 2020 and December 31, 2019.

Our nonperforming loan ratio decreased 16 basis points compared with December 31, 2019 due to higher outstanding loan balances driven by an increase in the commercial loan portfolio. Total nonperforming loans was relatively flat as higher nonperforming loans in our commercial loan portfolio was largely offset by lower nonperforming loans in our consumer loan portfolio.

Our commercial nonperforming loan ratio decreased 7 basis points compared with December 31, 2019 due to higher outstanding loan balances, partially offset by higher nonperforming loans driven by downgrades.

Our consumer nonperforming loan ratio decreased 10 basis points compared with December 31, 2019 largely due to lower nonperforming loans in residential mortgages and home equity mortgages reflecting improved collections, partially offset by higher nonperforming loans in credit cards reflecting growth in balances due to increased customer activity and new product promotions.

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 our 2019 Form 10-K.

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.

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.
- Adjustable rate mortgage ("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 at March 31, 2020 and December 31, 2019. Each category is not mutually exclusive and loans may appear in more than one category below.

	March 31, 2020	December 31, 2019
	(in millions)	
Interest-only residential mortgage and home equity mortgage loans	\$ 3,366	\$ 3,362
ARM loans ⁽¹⁾	12,685	12,487

⁽¹⁾ During the remainder of 2020 and during 2021, approximately \$369 million and \$950 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. Amounts in the table exclude residential mortgage loans held for sale of \$51 million and \$77 million at March 31, 2020 and December 31, 2019, respectively.

	March 31, 2020	December 31, 2019
	(in millions)	
Closed end:		
First lien.....	\$ 18,034	\$ 17,801
Second lien	34	35
Revolving ⁽¹⁾	780	818
Total.....	<u>\$ 18,848</u>	<u>\$ 18,654</u>

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

Geographic Concentrations The following table reflects regional exposure at March 31, 2020 and December 31, 2019 for our real estate secured loan portfolios:

	Commercial Real Estate, including Construction Loans	Residential Mortgages and Home Equity Mortgages
March 31, 2020		
New York State	28.1%	30.8%
California	23.1	45.1
North Central United States	3.7	1.7
North Eastern United States, excluding New York State	7.7	7.7
Southern United States	31.3	9.8
Western United States, excluding California	6.1	4.9
Total	100.0%	100.0%
December 31, 2019		
New York State	29.9 %	31.1 %
California	21.6	44.6
North Central United States	3.5	1.8
North Eastern United States, excluding New York State	7.4	7.7
Southern United States	32.2	10.0
Western United States, excluding California	5.4	4.8
Total	100.0 %	100.0 %

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.

	March 31, 2020	December 31, 2019
	(in millions)	
Risk associated with derivative contracts:		
Total credit risk exposure	\$ 37,811	\$ 33,076
Less: collateral held against exposure	10,905	7,704
Net credit risk exposure	<u>\$ 26,906</u>	<u>\$ 25,372</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 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.

In March 2020, the financial markets became extremely volatile as the COVID-19 pandemic accelerated causing severe disruption to business and economic activity. We continue to actively monitor and control our liquidity and funding risk in accordance with HSBC policy. 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. To date, we have not experienced any significant impact to our liquidity or funding capabilities as a result of this disruption. There was elevated commercial loan demand during the quarter as clients drew on their available lines of credit during the current deterioration in economic conditions. We actively raised deposits, short-term borrowings in the form of securities sold under repurchase agreements, and borrowed from the FHLB to support elevated client demand for loans while maintaining adequate liquidity and increasing cash. We continuously monitor the impact of market events on our liquidity positions and will continue to adapt our framework as necessary to reflect market events.

Interest Bearing Deposits with Banks totaled \$26,496 million and \$2,038 million at March 31, 2020 and December 31, 2019, respectively, of which \$26,012 million and \$1,801 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 \$4,643 million and \$17,838 million at March 31, 2020 and December 31, 2019, 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 \$19,220 million and \$23,488 million at March 31, 2020 and December 31, 2019, 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 \$53,773 million and \$48,956 million at March 31, 2020 and December 31, 2019, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on trends.

Short-Term Borrowings totaled \$17,579 million and \$3,659 million at March 31, 2020 and December 31, 2019, respectively. See "Balance Sheet Review" in this MD&A for further analysis and discussion on short-term borrowing trends.

Deposits totaled \$136,723 million and \$119,693 million at March 31, 2020 and December 31, 2019, respectively, which included \$106,601 million and \$95,253 million, respectively, of core deposits as calculated in accordance with FFIEC guidelines. See "Balance Sheet Review" in this MD&A for further analysis and discussion on deposit trends.

Long-Term Debt decreased to \$24,777 million at March 31, 2020 from \$26,697 million at December 31, 2019. The following table presents the maturities of long-term debt at March 31, 2020:

	(in millions)
2020	\$ 4,721
2021	5,691
2022	4,981
2023	1,054
2024	1,266
Thereafter.....	7,064
Total	<u>\$ 24,777</u>

The following table summarizes issuances and retirements of long-term debt during the three months ended March 31, 2020 and 2019:

Three Months Ended March 31,	2020	2019
	(in millions)	
Long-term debt issued.....	\$ 5,844	\$ 1,829
Long-term debt repaid.....	(2,864)	(2,091)
Net long-term debt repaid	<u>\$ 2,980</u>	<u>\$ (262)</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 the three months ended March 31, 2020.

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. At March 31, 2020, we were authorized to issue up to \$30,000 million, of which \$18,579 million was available. HSBC Bank USA has a \$40,000 million Global Bank Note Program that provides for the issuance of subordinated and senior notes, of which \$13,158 million was available at March 31, 2020. 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 March 31, 2020, long-term debt included \$5,750 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 \$8,128 million.

Preferred Equity See Note 18, "Preferred Stock," in our 2019 Form 10-K for information regarding all outstanding preferred share issues.

Common Equity During the first quarter of 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.

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 March 31, 2020 and December 31, 2019:

	March 31, 2020	December 31, 2019
Common equity Tier 1 capital to risk-weighted assets.....	11.9%	13.1%
Tier 1 capital to risk-weighted assets.....	12.9	14.1
Total capital to risk-weighted assets.....	16.0	16.3
Tier 1 leverage ratio ⁽¹⁾	9.0	9.9
Supplementary leverage ratio ⁽²⁾⁽³⁾	6.5	6.9

⁽¹⁾ 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.

⁽²⁾ Total leverage exposure, the SLR denominator, includes adjusted quarterly average assets plus certain off-balance sheet exposures.

⁽³⁾ As discussed further below, beginning April 1, 2020, bank holding companies are permitted to temporarily exclude U.S. Treasury securities and deposits at Federal Reserve Banks from the denominator of their SLR. As a result of this relief, HSBC USA's SLR increased to approximately 7.7 percent at April 1, 2020.

In response to the COVID-19 pandemic, on March 31, 2020, the federal banking agencies issued an interim 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. This option comes in addition to the separate three-year transition option already available. HSBC North America and HSBC Bank USA elected the five-year transition option and, as a result, beginning in 2020, capital ratios are reported in accordance with the transition rules in the interim final rule.

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"). Under the Basel III rule, there are two methods available to calculate risk-weighted assets, the generally-applicable Standardized Approach and the Advanced Approaches, which are required in addition to the Standardized Approach for large banking organizations that meet certain thresholds. In 2019, the FRB and the other federal banking agencies jointly finalized rules to implement the Economic Growth, Regulatory Relief and Consumer Protection Act ("Relief Act") that tailor the application of the enhanced prudential standards for large bank holding companies ("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 its size and four risk-based indicators. Under the Tailoring Rules, HSBC North America and HSBC Bank USA are subject to Category III standards beginning January 1, 2020 and are no longer considered "Advanced Approaches banking organizations." However, HSBC North America and HSBC Bank USA remain subject to certain other capital requirements that were previously applicable only to Advanced Approaches banking organizations, including the SLR and the countercyclical capital buffer. Prior to adoption of the Tailoring Rules, HSBC North America and HSBC Bank USA had requested and received regulatory approval to opt out of the Advanced Approaches and therefore have previously calculated and will continue to calculate their risk-based capital requirements for credit risk solely under the Standardized Approach. The Tailoring Rules also permit Category III firms and their depository institution subsidiaries to opt-out of the requirement to recognize most elements of accumulated other comprehensive income ("AOCI") in regulatory capital. As a result, HSBC North America and HSBC Bank USA, made a one-time election to opt-out of the requirement to include all components of AOCI (with the exception of accumulated net gains and losses on cash flow hedges related to items that are not carried at fair value on the consolidated balance sheet) in common equity Tier 1 capital, effective beginning with March 31, 2020 reporting.

Category III firms and their depository institution subsidiaries will also benefit from (i) simpler capital requirements for mortgage servicing assets, certain deferred tax assets, and investments in the capital of unconsolidated financial institutions, and (ii) a simplified treatment for the amount of capital issued by consolidated subsidiaries to third parties (generally known as minority interests) which can be included in regulatory capital. These simplifying amendments were adopted in a separate rulemaking

finalized by the federal banking agencies in 2019 and are effective beginning April 1, 2020 although firms may choose to apply the simplifications as early as January 1, 2020. As such, HSBC North America and HSBC Bank USA implemented both the Tailoring Rules and the simplifying amendments beginning with March 31, 2020 reporting. In 2019, the federal banking agencies also jointly amended the Basel III rule to implement a provision of the Relief Act by reducing the risk weighting applicable to high-volatility commercial real estate exposures and also finalized a rule to include a revised standardized approach for measuring counterparty credit risk ("SA-CCR") to calculate total risk-weighted asset amounts for derivative transactions in addition to the existing current exposure method ("CEM"). These changes are also effective beginning April 1, 2020. The Tailoring Rules clarify that Category III firms and their depository institution subsidiaries are not required to use SA-CCR to measure their derivative exposure. Instead, they have the option to use either SA-CCR or CEM for their risk-based capital ratios and the SLR. As such, HSBC North America and HSBC Bank USA have elected not to use SA-CCR at this time, but will continue to evaluate the impact of adopting SA-CCR in the future.

For additional discussion of the Basel III final rule requirements, including required minimum capital ratios, as well as further discussion of the Tailoring Rules and other recent regulatory developments and their expected impact see Part I, "Regulation and Competition - Regulatory Capital and Liquidity Requirements," in our 2019 Form 10-K and also below under the caption, "Other Regulatory Developments." 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 IHCs and BHCs, including HSBC North America, to comply with the FRB's capital plan rule and CCAR program, as well as the annual supervisory stress tests conducted by the FRB and annual company-run stress tests as required under Dodd-Frank (collectively, "DFAST"), as amended by the Relief Act. Under the Tailoring Rules, HSBC North America as a Category III firm, is no longer subject to a mid-cycle stress testing requirement beginning January 1, 2020 and is now required to disclose its company-run stress test results only every other year. 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 bank-holding company over a nine quarter planning horizon.

On March 4, 2020, the FRB adopted a final rule on the stress capital buffer ("SCB") which will, among other things, replace the current fixed 2.5 percent capital conservation buffer with a dynamic, institution-specific risk-based SCB. It is expected that the SCB will vary in size throughout the economic cycle depending on a firm's risk exposures and the severity of its stress scenarios. Under the final rule, the SCB would be recalibrated annually based on the sum of: (i) a firm's projected losses under the severely adverse scenario in supervisory stress tests and (ii) four quarters of a firm's planned future dividends. If HSBC North America's risk-based capital ratios were to fall to levels within the SCB, it would become subject to increasing restrictions on their capital distributions and discretionary bonus payments. The final rule also eliminates the quantitative objection component of CCAR, and instead relies on the capital rule's automatic restrictions on capital distributions that are triggered if a firm breaches its buffer requirements. The SCB will be determined initially based on 2020 supervisory stress testing results conducted as part of CCAR, and will become effective October 1, 2020. HSBC North America already utilizes an internal capital assessment approach that is analogous to the SCB and will continue 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.

For further discussion on capital planning and stress testing, including detail regarding the FRB's supervisory assessment as part of the CCAR process, as well as further discussion of the Tailoring Rules and other recent regulatory developments and their expected impact see Part I, "Regulation and Competition - Regulatory Capital and Liquidity Requirements," in our 2019 Form 10-K and also below under the caption, "Other Regulatory Developments."

HSBC North America submitted its latest CCAR capital plan and their latest annual company-run DFAST results in April 2020. HSBC North America will publicly disclose their latest annual DFAST results, as required, within 15 days of the FRB disclosing the results of its own DFAST results. The FRB will publicly disclose its own DFAST and CCAR results on or before June 30, 2020. 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 bank holding company regulatory capital compliance is generally performed at the HSBC North America level, and also separately for HSBC Bank USA, as a bank holding company 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 16, "Retained Earnings and Regulatory Capital Requirements," in the accompanying consolidated financial statements.

Other Regulatory Developments

FRB Liquidity Facilities The FRB announced the creation of several facilities aimed at stabilizing the markets, addressing immediate liquidity concerns, and facilitating lending and other assistance to businesses and individuals affected by shutdowns due to COVID-19. These programs include, among others, the Money Market Mutual Fund Liquidity Facility, the Term Asset-Backed

Securities Loan Facility, the Commercial Paper Funding Facility, the Primary Market Corporate Credit Facility and the Paycheck Protection Program Liquidity Facility. We are evaluating whether to utilize any of these programs as an additional source of funding.

Regulatory Capital Revision The federal banking agencies have also announced certain changes to the regulatory capital requirements designed to address concerns arising from COVID-19. On April 1, 2020, the FRB issued an interim final rule adopting a temporary change to the calculation of the SLR that permits bank holding companies such as HSBC North America, to exclude U.S. Treasury securities and deposits at Federal Reserve Banks from the denominator of their SLR. This change, which took effect April 1, 2020, will remain in place until March 31, 2021 and is designed to allow banking institutions to expand their balance sheets to accommodate increased customer deposits while continuing to provide credit to companies and households. We continue to assess this SLR relief and the composition of our balance sheet, particularly given that the exclusion does not apply to Tier 1 leverage ratios.

2020 Funding Strategy Our current estimate for funding needs and sources for 2020 are summarized in the following table:

	Actual January 1 through March 31, 2020	Estimated April 1 through December 31, 2020	Estimated Full Year 2020
	(in billions)		
Increase (decrease) in funding needs:			
Net change in loans	\$ 13	\$ 1	\$ 14
Net change in short-term investments and securities	15	19	34
Net change in trading and other assets	2	(29)	(27)
Total funding needs	<u>\$ 30</u>	<u>\$ (9)</u>	<u>\$ 21</u>
Increase (decrease) in funding sources:			
Net change in deposits	\$ 17	\$ (1)	\$ 16
Net change in trading and other short-term liabilities	15	(2)	13
Net change in long-term debt	(2)	(6)	(8)
Total funding sources	<u>\$ 30</u>	<u>\$ (9)</u>	<u>\$ 21</u>

Reductions to trading assets estimated during the April 1 through December 31, 2020 period are mainly related to select Fixed Income activities which will be consolidated in and operated from Europe to better utilize HSBC's global scale, which allows us to record revenue as a business introducer and hold fewer assets on our balance sheet. As previously discussed, the timing of our strategic actions may be re-sequenced or delayed. In light of COVID-19, we continue to reassess our strategic plan and may take additional actions in future periods.

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 mortgage loan originations 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 our 2019 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.

Off-Balance Sheet Arrangements, Credit Derivatives and Other Contractual Obligations

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 extensions of credit and, in certain cases, guarantees.

As a financial services provider, we routinely extend credit through loan commitments and lines and letters of credit and provide financial guarantees, including derivative transactions having characteristics of a guarantee. 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.

The following table provides maturity information related to our credit derivatives and off-balance sheet arrangements. 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 - 2020 Business Update" in our 2019 Form 10-K) will affect our contractual obligations over time, including with respect to credit derivatives. As a result, we believe that the contractual amount is not representative of the actual future credit exposure or funding requirements.

	Balance at March 31, 2020				Balance at December 31, 2019
	One Year or less	Over One through Five Years	Over Five Years	Total	
	(in millions)				
Standby letters of credit, net of participations ⁽¹⁾	\$ 6,740	\$ 2,632	\$ 120	\$ 9,492	\$ 9,436
Commercial letters of credit	101	40	—	141	126
Credit derivatives ⁽²⁾	4,906	33,024	3,106	41,036	38,739
Other commitments to extend credit:					
Commercial ⁽³⁾	15,688	54,007	1,426	71,121	88,191
Consumer	8,968	—	—	8,968	7,906
Total	<u>\$ 36,403</u>	<u>\$ 89,703</u>	<u>\$ 4,652</u>	<u>\$ 130,758</u>	<u>\$ 144,398</u>

⁽¹⁾ Includes \$1,649 million and \$1,623 million issued for the benefit of HSBC affiliates at March 31, 2020 and December 31, 2019, respectively.

⁽²⁾ Includes \$19,399 million and \$18,391 million issued for the benefit of HSBC affiliates at March 31, 2020 and December 31, 2019, respectively.

⁽³⁾ Includes \$941 million and \$1,302 million issued for the benefit of HSBC affiliates at March 31, 2020 and December 31, 2019, respectively.

Other Commitments to Extend Credit Other 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. Consumer commitments are comprised of certain 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. Commercial commitments comprise primarily those related to secured and unsecured loans and lines of credit.

In addition to the above, we have established and manage a number of constant net asset value ("CNAV") money market funds that invest in shorter-dated highly-rated money market securities to provide investors with a highly liquid and secure investment. These funds price the assets in their portfolio on an amortized cost basis, which enables them to create and liquidate shares at a constant price. The funds, however, are not permitted to price their portfolios at amortized cost if that amount varies by more than 50 basis points from the portfolio's market value. In that case, the fund would be required to price its portfolio at market value and consequently would no longer be able to create or liquidate shares at a constant price. We do not consolidate the CNAV 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.

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, residential mortgage loans whose carrying amount was reduced based on the fair value of the underlying collateral, real estate owned and, beginning January 1, 2020, certain student loans held for investment 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 March 31, 2020 and December 31, 2019, our Level 3 measurements included the following: certain structured deposits and structured notes for which the embedded credit, foreign exchange or equity derivatives that have significant unobservable inputs (e.g., volatility or default correlations), asset-backed credit default swaps with certain inputs which are unobservable, certain corporate debt securities, certain asset-backed securities, individually assessed commercial loans, derivatives

referenced to illiquid assets of less desirable credit quality and 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. See Note 19, "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 March 31, 2020 and December 31, 2019:

	March 31, 2020	December 31, 2019
	(dollars are in millions)	
Level 3 assets ⁽¹⁾⁽²⁾	\$ 1,308	\$ 1,349
Total assets measured at fair value ⁽¹⁾⁽³⁾	125,344	98,322
Level 3 liabilities ⁽¹⁾	1,570	1,350
Total liabilities measured at fair value ⁽¹⁾	76,128	55,224
Level 3 assets as a percent of total assets measured at fair value	1.0%	1.4%
Level 3 liabilities as a percent of total liabilities measured at fair value	2.1%	2.4%

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

⁽²⁾ Includes \$1,225 million of recurring Level 3 assets and \$83 million of non-recurring Level 3 assets at March 31, 2020. Includes \$925 million of recurring Level 3 assets and \$424 million of non-recurring Level 3 assets at December 31, 2019.

⁽³⁾ Includes \$124,921 million of assets measured on a recurring basis and \$423 million of assets measured on a non-recurring basis at March 31, 2020. Includes \$97,866 million of assets measured on a recurring basis and \$456 million of assets measured on a non-recurring basis at December 31, 2019.

Significant Changes in Fair Value for Level 3 Assets and Liabilities See Note 19, "Fair Value Measurements," in the accompanying consolidated financial statements for information on additions to and transfers into (out of) Level 3 measurements during the three months ended March 31, 2020 and 2019 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 \$15 million or a decrease of the overall fair value measurement of approximately \$23 million at March 31, 2020. The effect of changes in significant unobservable input parameters are primarily driven by the uncertainty in determining the fair value of credit derivatives executed against certain insurers and certain deal-contingent forward starting interest rate derivatives.

Risk Management

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

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 Board of Directors has the ultimate responsibility for effective management of risk. It is advised on risk matters by the Risk Committee of the Board of Directors and the Compliance and Conduct Committee. In particular, the Risk Committee of the Board of Directors advises the Board of Directors on 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.

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;

- *Capital and liquidity risk* is the risk of having insufficient capital, liquidity or funding resources to meet financial obligations and satisfy regulatory requirements, including pension risk;
- *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 and fraud risk* is the risk that we knowingly or unknowingly help parties to commit or to further potentially illegal activity, including both internal and external fraud;
- *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;
- *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.

In the course of our regular risk management activities, we use models to help quantify the risk we are taking. We believe that the assumptions used in these models are reasonable, but events may unfold differently than what is assumed in the models. Consequently, model results may be considered reasonable estimates, with the understanding that actual results may differ significantly from model projections.

See "Risk Management" in MD&A in our 2019 Form 10-K for a more complete discussion of the objectives of our risk management system as well as our risk management policies and practices. There have been no material changes to our approach to risk management since December 31, 2019.

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. Our credit risk management procedures are designed for all stages of economic and financial cycles, including challenging periods of market volatility and economic uncertainty. See "Risk Management" in MD&A in our 2019 Form 10-K for a more complete discussion of our approach to credit risk.

ASU 2016-13 process On January 1, 2020, we adopted the requirements of ASU 2016-13, "Financial Instruments - Credit Losses" ("ASU 2016-13"). The implementation of ASU 2016-13 represents a significant challenge to our Risk and Finance functions. The ASU introduces new concepts and measures such as lifetime ECL. Some of these new concepts and measures differ significantly from the IFRS 9, "Financial Instruments" ("IFRS 9") credit loss reporting that we implemented in 2018 for segment reporting under the Group Reporting Basis. As a result of ASU 2016-13 adoption, management has additional insight and measures not previously utilized which, over time, may influence our risk appetite and risk management processes. The ASU 2013-16 process comprises three main areas:

- **Modeling** - The Risk function had pre-existing models developed in conjunction with our IFRS 9 reporting to HSBC. These models were enhanced or supplemented to address the requirements of ASU 2016-13 such as incorporating forward economic guidance for a reasonable and supportable forecast period, reversion to historical losses, the expectation for zero losses under certain conditions, and lifetime ECL for undrawn credit exposures, with the appropriate governance and independent review. The models vary in complexity and inputs depending upon the size of the portfolio, the amount of data available and the sophistication of the market concerned.
- **Implementation** - A centralized impairment engine has been implemented to perform the lifetime ECL calculation. The impairment engine receives data, which is subject to a number of validation checks and enhancements, from a variety of client, finance and risk systems. Once the lifetime ECL calculation has been calculated, there are further data analysis checks and review and challenge of the results prior to commencing formal governance. Risk and Finance work closely together throughout the execution of this process.
- **Governance** - A Management Review Committee has been established in order to review and approve the results of the lifetime ECL calculation. The Management Review Committee has representatives from Credit Risk and Finance and is responsible for final approval of our lifetime ECL for the period. The Chief Credit Officer and the RBWM Chief Risk Officer share responsibility with the Chief Financial Officer for establishing appropriate levels of allowances for credit losses inherent in various loan and other portfolios carried at amortized cost.

Capital and Liquidity Risk Management Although our overall approach to capital and liquidity risk management has not changed, we continuously monitor our capital ratios and the impact of market events on our liquidity positions and will continue to adapt our frameworks as necessary to reflect market events and the evolving regulatory landscape and view as to best practices. See

"Risk Management" in MD&A in our 2019 Form 10-K for a more complete discussion of our approach to capital and liquidity risk.

Capital risk See "Liquidity and Capital Resources" in this MD&A for a discussion of our approach to capital risk, including our capital ratios and regulatory capital requirements.

Liquidity and funding risk 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 March 31, 2020 and December 31, 2019, HSBC USA's LCR under the European LCR rule 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 subject to the U.S. LCR rule and are required to report LCR to U.S. regulators on a daily basis. The Tailoring Rules reduced the U.S. LCR requirement for Category III firms with weighted short-term wholesale funding under \$75 billion and their depository institution subsidiaries, including HSBC North America and HSBC Bank USA, from 100 to 85 percent beginning January 1, 2020. 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 liquidity needs for a 30 calendar day liquidity stress scenario. During the three months ended March 31, 2020, HSBC Bank USA's LCR under the U.S. LCR rule remained above the 100 percent minimum requirement.

The European 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, is still pending. Therefore, our calculation of NSFR is based on our current interpretation and understanding of the Basel Committee NSFR guidance, which may differ in future periods depending on completion of the European calibration and further implementation guidance from regulators. At both March 31, 2020 and December 31, 2019, HSBC USA's estimated NSFR 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. In April 2016, U.S. regulators issued for public comment a proposal to implement the NSFR in the United States, applicable to certain large banking organizations, including HSBC North America and HSBC Bank USA. The Tailoring Rules also indicate that an 85 percent NSFR requirement will apply to Category III firms with weighted short-term wholesale funding under \$75 billion and their depository institution subsidiaries, including HSBC North America and HSBC Bank USA, once the NSFR is finalized. As a result, under the proposed 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 the required amount of funding for assets and off-balance sheet exposures. At both March 31, 2020 and December 31, 2019, HSBC Bank USA's estimated NSFR, based on our current interpretation and understanding of the proposed U.S. NSFR rule, exceeded 100 percent.

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

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, current regulatory initiatives 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 March 31, 2020:

	Moody's	S&P	Fitch
HSBC USA:			
Short-term borrowings.....	P-1	A-1	F1+
Long-term/senior debt	A2	A	A+
HSBC Bank USA:			
Short-term borrowings.....	P-1	A-1+	F1+
Long-term/senior debt	Aa3	AA-	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 April 2020, Fitch changed the rating outlook for both HSBC USA and HSBC Bank USA to negative from stable following a similar change in outlook to negative from stable for HSBC. The outlook change reflects the economic disruption driven by the COVID-19 pandemic. While the outlook changed, Fitch affirmed the long-term credit rating for HSBC USA. Concurrently, Fitch upgraded the long-term credit rating for HSBC Bank USA by one notch to AA- following a review of HSBC's resolution plan. 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 March 31, 2020, there were no pending actions in terms of changes to ratings on the debt of HSBC USA or HSBC Bank USA from any of the rating agencies.

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

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

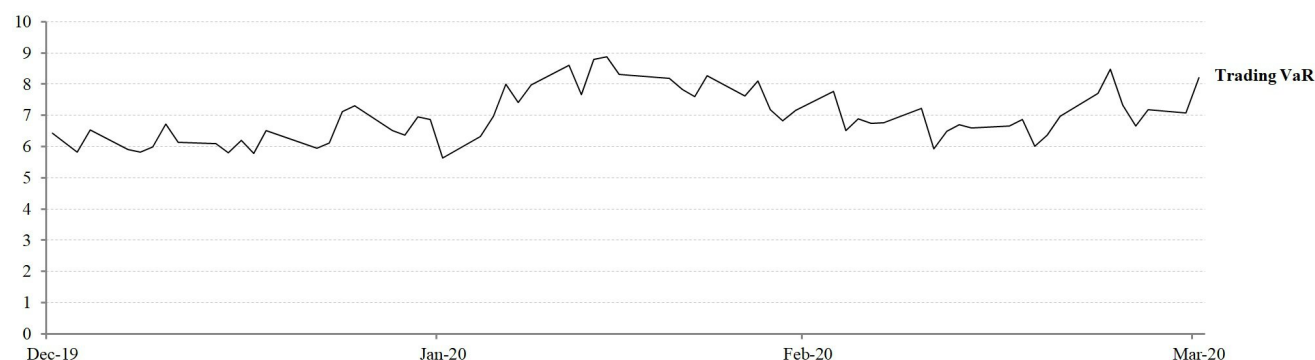
- *Trading portfolios* comprise positions arising from market-making and warehousing of client-derived positions.
- *Non-trading portfolios* comprise positions that primarily arise from the interest rate management of our retail and commercial banking assets and liabilities and financial investments 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. See "Risk Management" in MD&A in our 2019 Form 10-K for a more complete discussion of our approach to market risk.

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. VaR measures are calculated to a 99 percent confidence level and use a one-day holding period.

Trading portfolios Trading VaR generates from the Global Markets unit of the GB&M business segment. Portfolios are mainly comprised of foreign exchange products, interest rate swaps, credit default swaps and precious metals (i.e., gold, silver, platinum) in both North America and emerging markets.

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 the three months ended March 31, 2020:

	Foreign exchange and commodity	Interest rate	Credit Spread	Portfolio Diversification ⁽¹⁾	Total ⁽²⁾
	(in millions)				
At March 31, 2020	\$ 1	\$ 8	\$ 2	\$ (3)	\$ 8
Three Months Ended March 31, 2020					
Average	2	7	2	(4)	7
Maximum	3	12	4		9
Minimum	1	5	1		6
At December 31, 2019	\$ 1	\$ 6	\$ 1	\$ (2)	\$ 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, on average, to see two or three profits and two or three losses in excess of VaR at the 99 percent confidence level over a one-year period. The actual number of profits or losses in excess of VaR over this period can therefore be used to gauge how well the models are performing. To ensure a conservative approach to calculating our risk exposures, it is important to note that profits in excess of VaR are only considered when back-testing the accuracy of models and are not used for capital purposes.

During the first quarter of 2020, we experienced nine profit and six loss back-testing exceptions. Two profit exceptions and one loss exception in January were mainly driven by palladium volatility. Seven profit exceptions and five loss exceptions in March were primarily driven by intensified market volatility as a consequence of the COVID-19 pandemic shutting down the global economy, including delivery disruptions in the gold market, which became highly illiquid on news of refinery closings, dramatic volatility in credit spreads, and heightened rates volatility. This global event caused price disruptions that have not been observed in the past two years, which is the period used in the historical VaR calculation. The volatility highlighted in back-testing exceptions were greater than the 99 percent confidence level used to determine VaR quantum.

Non-trading portfolios Non-trading VaR predominantly relates to Balance Sheet Management ("BSM") 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 are mainly comprised of 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.

The following table summarizes our non-trading VaR for the three months ended March 31, 2020:

	Interest rate	Credit Spread	Portfolio Diversification ⁽¹⁾	Total ⁽¹⁾
	(in millions)			
At March 31, 2020	\$ 96	\$ 58	\$ (68)	\$ 86
Three Months Ended March 31, 2020				
Average	44	45	(31)	58
Maximum	104	58		86
Minimum	29	37		46
At December 31, 2019	\$ 37	\$ 48	\$ (18)	\$ 67

(1) Refer to the Trading VaR table above for additional information.

The increase in non-trading VaR at March 31, 2019 was due primarily to an increase in price and rate volatility driven by the spread of the COVID-19 pandemic.

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 BSM which has the mandate to centrally manage and hedge it. See below for a broader discussion on how interest rate risk is managed.

Interest rate risk Various techniques are utilized to quantify and monitor risks associated with the repricing characteristics of our assets, liabilities and derivative contracts. See "Risk Management" in MD&A in our 2019 Form 10-K for a more complete discussion of our approach to interest rate risk.

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 March 31, 2020 and December 31, 2019, our EVE remained within risk appetite for the up 200 and down 200 basis point interest rate shock scenarios.

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:

	March 31, 2020		December 31, 2019	
	Amount	%	Amount	%
(dollars are in millions)				
Estimated increase (decrease) in projected net interest income (reflects projected rate movements on April 1, 2020 and January 1, 2020, respectively):				
Resulting from a gradual 100 basis point increase in the yield curve.....	\$ 201	8%	\$ (18)	(1)%
Resulting from a gradual 100 basis point decrease in the yield curve.....	(124)	(5)	(25)	(1)
Other significant scenarios monitored (reflects projected rate movements on April 1, 2020 and January 1, 2020, respectively):				
Resulting from an immediate 100 basis point increase in the yield curve.....	300	12	(70)	(3)
Resulting from an immediate 100 basis point decrease in the yield curve.....	(151)	(6)	(57)	(2)

Changes in the sensitivities since December 31, 2019 have been primarily driven by the addition of pay-fixed positions and the acceleration of expected mortgage prepayments as a result of the significant drop in interest rates. 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. Therefore, although this provides a reasonable estimate of interest rate sensitivity, actual results will differ from these estimates, possibly by significant amounts.

Capital risk/sensitivity of accumulated other comprehensive income (loss) Large movements of interest rates could directly affect some reported capital balances and ratios. The mark-to-market valuation of available-for-sale securities is recorded on a tax effected basis to accumulated other comprehensive income (loss). This valuation mark is included in two important accounting based capital ratios: common equity Tier 1 capital to risk-weighted assets and total equity to total assets. At March 31, 2020, we had an available-for-sale securities portfolio of approximately \$40,792 million with a positive mark-to-market adjustment of \$927 million. An increase of 25 basis points in interest rates of all maturities would lower the mark-to-market by approximately \$359 million to a net gain of \$568 million with the following results on our capital ratios:

	March 31, 2020		December 31, 2019	
	Actual	Proforma ⁽¹⁾	Actual	Proforma ⁽¹⁾
Common equity Tier 1 capital to risk-weighted assets.....	11.9%	11.7%	13.1%	12.9%
Total equity to total assets.....	8.9	8.8	10.4	10.3

⁽¹⁾ Proforma percentages reflect a 25 basis point increase in interest rates.

CONSOLIDATED AVERAGE BALANCES AND INTEREST RATES

The following table summarizes the quarter-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 both the three months ended March 31, 2020 and 2019 included fees of \$17 million.

Three Months Ended March 31,	2020			2019		
	Average Balance	Interest	Rate	Average Balance	Interest	Rate
	(dollars are in millions)					
Assets:						
Interest bearing deposits with banks	\$ 17,688	\$ 54	1.23%	\$ 17,115	\$ 114	2.70%
Federal funds sold and securities purchased under resale agreements.....	5,364	33	2.47	6,250	62	4.02
Trading securities	25,206	80	1.28	18,832	63	1.36
Securities	51,534	243	1.90	45,995	304	2.68
Loans:						
Commercial	50,525	448	3.57	50,036	522	4.23
Consumer:						
Residential mortgages	18,018	155	3.46	17,448	157	3.65
Home equity mortgages.....	821	9	4.41	959	12	5.07
Credit cards.....	1,358	20	5.92	1,020	19	7.55
Other consumer	262	6	9.21	276	6	8.82
Total consumer	20,459	190	3.74	19,703	194	3.99
Total loans	70,984	638	3.61	69,739	716	4.16
Other	5,545	19	1.38	2,889	18	2.53
Total interest earning assets.....	\$ 176,321	\$ 1,067	2.43%	\$ 160,820	\$ 1,277	3.22%
Allowance for credit losses	(457)			(540)		
Cash and due from banks	1,245			1,299		
Other assets.....	11,881			13,305		
Total assets	\$ 188,990			\$ 174,884		
Liabilities and Equity:						
Domestic deposits:						
Savings deposits	\$ 51,334	\$ 108	.85%	\$ 46,504	\$ 102	.89%
Time deposits.....	29,971	164	2.20	23,626	170	2.92
Other interest bearing deposits	13,482	43	1.28	10,125	51	2.04
Foreign deposits:						
Foreign banks deposits	4,625	4	.35	4,128	7	.69
Other interest bearing deposits	761	2	1.06	763	3	1.59
Deposits held for sale	—	—	—	4	—	.59
Total interest bearing deposits	100,173	321	1.29	85,150	333	1.59
Short-term borrowings	10,558	40	1.52	7,612	62	3.30
Long-term debt.....	25,097	198	3.17	31,401	312	4.03
Total interest bearing deposits and debt	135,828	559	1.66	124,163	707	2.31
Tax liabilities and other	820	4	1.96	1,156	8	2.81
Total interest bearing liabilities	\$ 136,648	\$ 563	1.66%	\$ 125,319	\$ 715	2.31%
Net interest income/Interest rate spread		\$ 504	.77%		\$ 562	.91%
Noninterest bearing deposits	25,689			23,636		
Other liabilities	8,131			6,444		
Total equity.....	18,522			19,485		
Total liabilities and equity	\$ 188,990			\$ 174,884		
Net interest margin on average earning assets			1.15%			1.42%
Net interest income to average total assets.....			1.07%			1.30%

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Information required by this Item is included within Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations in the Risk Management section under the caption "Market Risk Management."

Item 4. 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 and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer 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 March 31, 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II

Item 1. Legal Proceedings

See Note 20, "Litigation and Regulatory Matters," in the accompanying consolidated financial statements for our legal proceedings disclosure, which is incorporated herein by reference.

Item 1A. Risk Factors

The following discussion supplements the discussion of risk factors affecting us as set forth in Part I, Item 1A. Risk Factors, on pages 15 - 29 of our 2019 Annual Report on Form 10-K. The discussion of risk factors, as so supplemented, provides a description of some of the important risk factors that could affect our actual results and could cause our results to vary materially from those expressed in public statements or documents. However, other factors besides those included in the discussion of risk factors, as so supplemented, or discussed elsewhere in other of our reports filed with or furnished to the SEC could affect our business or results. The readers should not consider any description of such factors to be a complete set of all potential risks that we may face.

Risks relating to the impact of COVID-19

The COVID-19 pandemic has had, and continues to have, a material impact on businesses around the world and the economic environments in which they operate. In March 2020, the United States declared a federal state of emergency in response to the COVID-19 pandemic, which continues to spread throughout the United States. 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 COVID-19 pandemic has caused disruption to our customers, suppliers and staff. A number of states in which we operate have implemented restrictions on the movement of their respective populations, with a resultant significant impact on economic activity in those states. The pandemic has resulted in temporary closures of many businesses and the institution of social distancing and sheltering in place requirements in many states and communities. As a result, the demand for our products and services has been and may continue to be significantly impacted. The circumstances around this pandemic are evolving rapidly and will continue to impact our business in future periods.

In the United States, the Federal Government has taken action to provide financial support to parts of the economy most impacted by the COVID-19 pandemic. The details of how these actions will impact our customers and therefore the impact on HUSI remains

uncertain at this stage. The actions taken by the U.S. 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. An immediate financial impact in early 2020 has been higher lifetime ECL driven by a worsening in the economic scenarios used to calculate ECL as well as higher provisions for risk factors associated with large loan exposures, downgrades reflecting weakness in the financial condition of certain clients and loan growth as clients drew on their available lines of credit. See Note 6, Allowance for Credit Losses," in the accompanying consolidated financial statements for further discussion. The pandemic has led to a weakening in gross domestic product and employment in the United States, and the probability of a more adverse economic scenario for at least the short term is substantially higher than at December 31, 2019. In addition, as a result of deteriorating economic conditions, we performed an interim goodwill impairment test as of March 31, 2020 which resulted in the impairment of all of the goodwill previously allocated to our RBWM and PB reporting units. This matter has also resulted in valuation losses associated with certain financial instruments due to market volatility. See "Management's Discussion and Analysis of Financial Position and Results of Operations." Additionally, in April 2020, Fitch changed the rating outlook for both HSBC USA and HSBC Bank USA to negative from stable following a similar change in outlook to negative from stable for HSBC. The outlook change reflects the economic disruption driven by the COVID-19 pandemic. See "Management's Discussion and Analysis of Financial Position and Results of Operations - Risk Management."

Should the COVID-19 pandemic continue to cause disruption to economic activity through 2020, there could be further impacts on our income due to lower lending and transaction volumes and lower wealth management revenue due to equity markets volatility and weakness. Other potential risks include credit rating migration which could negatively impact our risk-weighted assets and capital position, and potential liquidity stress due, among other factors, to increased customer drawdowns, notwithstanding the significant initiatives that the U.S. Government and the FRB have put in place to support funding and liquidity. In addition, lower interest rates will negatively impact net interest income. Further, while we have continued to progress our program for transitioning away from interbank offered rates, including LIBOR, the COVID-19 pandemic could affect our progress as well as the progress of other market participants.

Central bank and government actions and support measures taken in response to the COVID-19 pandemic may create restrictions in relation to capital. These may limit management's flexibility in managing the business and taking action in relation to capital distribution and capital allocation. In addition, federal and state legislative and regulatory developments in relation to COVID-19 have 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.

During the first quarter of 2020, we decided to pause the vast majority of head count reductions relating to our restructuring plan due to the extraordinary impact of the COVID-19 pandemic. However, many elements of our restructuring plan are moving forward as planned, including consolidation of our retail branch network and wholesale back office functions, and the creation of our Wealth and Personal Banking business. While we remain committed to our multi-year strategic plan to re-profile our business, the timing of the strategic actions as outlined in our 2019 Form 10-K may be re-sequenced or delayed beyond 24 months as the situation continues to develop. In light of COVID-19, we continue to reassess our strategic plan and may take additional actions in future periods.

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 and spread of the pandemic as well as its continuing impact on our customers, vendors and employees, all of which are uncertain.

Item 5. 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-Q, 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 in support of guarantees issued by 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 the first quarter of 2020 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. None were cancelled in the first quarter of 2020 and approximately 16 remain outstanding.

Other relationships with Iranian banks Activity related to U.S.-sanctioned Iranian banks not covered elsewhere in this disclosure includes the following:

- 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 the first quarter of 2020 was approximately \$495.

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 activity discussed in this section, to the extent legally permissible, and not enter into any new such activity.

Activity related to U.S. Executive Order 13224 During the first quarter of 2020, the HSBC Group processed a number of small 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., EU, or the United Nations Security Council.

There was no measurable gross revenue or net profit generated from these transactions.

Other activity The HSBC Group has an insurance company customer in the United Arab Emirates that, during the first quarter of 2020, made 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 to the hospital made by its customer.

The HSBC Group maintains an account for a customer in the United Arab Emirates that, during the first quarter of 2020, received a check payment from an entity owned by the Government of Iran.

For these activities, there was no measurable gross revenue or net profit to the HSBC Group during the first quarter of 2020.

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 the first quarter of 2020. There was no measurable gross revenue or net profit to the HSBC Group during the first quarter of 2020 relating to these frozen accounts.

Item 6. 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 July 24, 2018 (incorporated by reference to Exhibit 3.2 to HSBC USA Inc.'s Current Report on Form 8-K filed July 26, 2018).
- 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 XBRL Instance Document⁽¹⁾
- 101.SCH XBRL Taxonomy Extension Schema Document⁽¹⁾
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document⁽¹⁾
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document⁽¹⁾
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document⁽¹⁾
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document⁽¹⁾

⁽¹⁾ Pursuant to Rule 405 of Regulation S-T, includes the following financial information included in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, formatted in eXtensible Business Reporting Language ("XBRL") interactive data files: (i) the Consolidated Statement of Income (Loss) for the three months ended March 31, 2020 and 2019, (ii) the Consolidated Statement of Comprehensive Income (Loss) for the three months ended March 31, 2020 and 2019, (iii) the Consolidated Balance Sheet at March 31, 2020 and December 31, 2019, (iv) the Consolidated Statement of Changes in Equity for the three months ended March 31, 2020 and 2019, (v) the Consolidated Statement of Cash Flows for the three months ended March 31, 2020 and 2019, and (vi) the Notes to Consolidated Financial Statements.

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.

Date: April 28, 2020

HSBC USA INC.

By: /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 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-Q 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: April 28, 2020

/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-Q 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: April 28, 2020

/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”) Quarterly Report on Form 10-Q for the period ending March 31, 2020 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: April 28, 2020

/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”) Quarterly Report on Form 10-Q for the period ending March 31, 2020 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: April 28, 2020

/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.