JPMorgan Chase & Co.

# PILLAR 3 REGULATORY CAPITAL DISCLOSURES

For the quarterly period ended March 31, 2020

# Table of Contents

# DISCLOSURE MAP

| Pillar 3 Requirement | Description | Pillar 3 Report page reference | 1Q20 Form 10-Q page reference | 2019 Form 10-K page reference |
|---|---|---|---|---|
| Capital structure | Terms and conditions of capital instruments | 6 | | 1, 259, 261 |
| | Capital components | 5 | 82 | 148, 259, 261 |
| Capital adequacy | Capital adequacy assessment process | 7 | 42 | 86 |
| | Risk-weighted assets by risk stripe | 6 | | |
| | Regulatory capital metrics | 8 | 160 | 271 |
| Credit risk: general disclosures | Policies and practices | 9 | 50 | 100, 178, 208, 219, 217, 272 |
| | Credit risk exposures | 9 | 50, 72 | 100, 127 |
| | Retail | | | |
| | Distribution of exposure | 11 | 52, 131, 136, 162 | 103, 222, 232, 273 |
| | Allowance for Credit Losses | 10 | 133, 141 | 223, 240 |
| | Wholesale | | | |
| | Distribution of exposure | 13 | 56, 118, 138, 162 | 108, 208, 234, 273 |
| | Allowance for Credit Losses | 10 | 140, 143 | 236, 240 |
| Credit risk: IRB | Parameter estimation methods | 11, 13 | | |
| | RWA | 11, 13, 14, 16 | | |
| Counterparty credit | Parameter estimation methods | 14 | | |
| | Policies and practices | 9 | | 178, 214, 278 |
| | Counterparty credit risk exposure | 14 | 52, 56, 103, 123 | 103, 108, 180, 214 |
| | Credit derivatives purchased and sold | 10 | 63, 113 | 114, 191 |
| Credit risk mitigation | Policies and practices | 9 | | 180, 217, 278 |
| | Exposure covered by guarantees and CDS | 13, 14 | | |
| Securitization | Objectives, vehicles, accounting policies | 15 | 18, 145 | 53, 61, 154, 180, 242 |
| | Securitization RWA | 16 | | |
| | Securitization exposure | 17 | | |
| | Assets securitized | 17 | | |
| | Current year securitization activity | 18 | | |
| Market risk | Material portfolio of covered positions | 20 | | |
| | Value-at-risk | 20 | 67 | 121 |
| | Regulatory market risk capital models | 21 | | |
| | Stress testing | 24 | | 124 |
| Operational risk | Operational risk description | 25 | | 129 |
| Equity investments in the banking book | Policies and practices | 19 | 71 | 118, 151, 154, 159, 198, 208 |
| | Carrying value and fair value | 19 | 88, 118 | |
| | Realized and unrealized gains/(losses) | 19 | | |
| | Equity investments by risk weight | 19 | | |
| Interest rate risk in the banking book | Interest rate risk in the banking book | 26 | 70 | 124 |
| Supplementary leverage ratio (SLR) | Overview of SLR | 8 | 40, 42 | 90 |
| | Components of SLR | 27 | | |

JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm") a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and one of the largest banking institutions in the United States of America ("U.S."), with operations worldwide; JPMorgan Chase had $3.1 trillion in assets and $261.3 billion in stockholders' equity as of March 31, 2020. The Firm is a leader in investment banking, financial services for consumers and small businesses, commercial banking, financial transaction processing and asset management. Under the J.P. Morgan and Chase brands, the Firm serves millions of customers in the U.S. and many of the world's most prominent corporate, institutional and government clients.

JPMorgan Chase's principal bank subsidiary is JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank N.A."), a national banking association with U.S. branches in 38 states and Washington, D.C. as of March 31, 2020. JPMorgan Chase's principal non-bank subsidiary is J.P. Morgan Securities LLC ("J.P. Morgan Securities"), a U.S. broker-dealer. The bank and non-bank subsidiaries of JPMorgan Chase operate nationally as well as through overseas branches and subsidiaries, representative offices and subsidiary foreign banks. The Firm's principal operating subsidiary outside the U.S. is J.P. Morgan Securities plc, a U.K.-based subsidiary of JPMorgan Chase Bank, N.A.

➢ For additional information, refer to the Supervision and Regulation section on pages 1-3 of the JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2019 ("2019 Form 10-K ")

**Pillar 3 report overview**

This report provides information on the Firm's capital structure, capital adequacy, risk exposures, and risk-weighted assets ("RWA") under the Basel III advanced approach, except where explicitly noted. This report describes the internal models used to translate risk exposures into required capital.

This report should be read in conjunction with JPMorgan Chase's Pillar 3 Regulatory Capital Disclosures Report for the quarterly period ended December 31, 2019 ("4Q19 Pillar 3 Report"), as well as Annual Report on Form 10-K for the year ended December 31, 2019 ("2019 Form 10-K") and the Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2020 ("1Q20 Form 10-Q ") which has been filed with the U.S. Securities and Exchange Commission ("SEC").

**Basel III overview**

The Basel framework consists of a three "Pillar" approach:

- Pillar 1 establishes minimum capital requirements, defines eligible capital instruments, and prescribes rules for calculating RWA.
- Pillar 2 requires banks to have an internal capital adequacy assessment process and requires that banking supervisors evaluate each bank's overall risk profile as well as its risk management and internal control processes.
- Pillar 3 encourages market discipline through disclosure requirements which allow market participants to assess the risk and capital profiles of banks.

The capital rules under Basel III establish minimum capital ratios and overall capital adequacy standards for large and internationally active U.S. bank holding companies ("BHC") and banks, including the Firm and its insured depository institution ("IDI") subsidiaries, including JPMorgan Chase Bank, N.A. The minimum amount of regulatory capital that must be held by BHCs and banks is determined by calculating risk-weighted assets ("RWA"), which are on-balance sheet assets and off-balance sheet exposures, weighted according to risk. Two comprehensive approaches are prescribed for calculating RWA: a standardized approach ("Basel III Standardized"), and an advanced approach ("Basel III Advanced"). For each of the risk-based capital ratios, the capital adequacy of the Firm is evaluated against the lower of the Standardized or Advanced approaches.

Basel III also includes a requirement for Advanced Approach banking organizations, including the Firm, to calculate the supplementary leverage ratio ("SLR").

➢ Refer to page 39 of the 1Q20 Form 10-Q and pages 1–6 of the 2019 Form 10-K for information on Basel III Reforms.

Risk is an inherent part of JPMorgan Chase's business activities. When the Firm extends a consumer or wholesale loan, advises customers and clients on their investment decisions, makes markets in securities, or offers other products or services, the Firm takes on some degree of risk. The Firm's overall objective is to manage its businesses, and the associated risks, in a manner that balances serving the interests of its clients, customers and investors and protects the safety and soundness of the Firm.

- For further discussion of Firmwide Risk Management governance and oversight, refer to pages 79-83 of the 2019 Form 10-K , page 38 of the 1Q20 Form 10-Q and page 3 of the 4Q19 Pillar 3 Report.

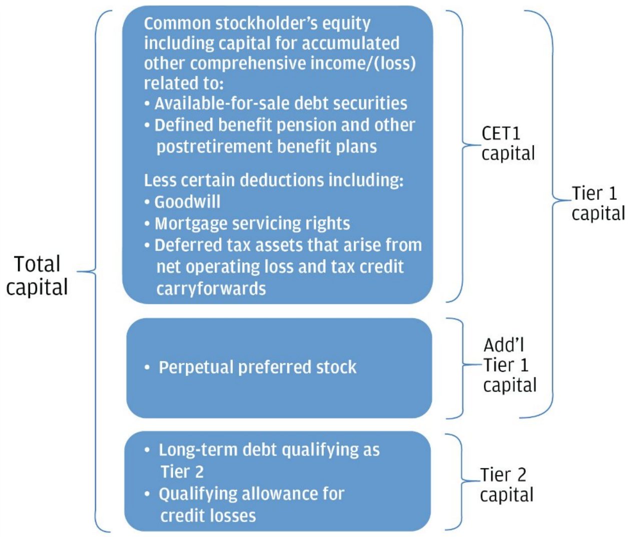
**Estimations and Model Risk Management**

As stated on page 2 under 'Pillar 3 report overview', internal models are used to translate risk exposures into required capital. A dedicated independent function, Model Risk Governance and Review ("MRGR"), reviews and approves new models, as well as material changes to existing models.

- Refer to page 135 of the 2019 Form 10-K and page 74 of the 1Q20 Form 10-Q for information on Estimations and Model Risk Management.

# REGULATORY CAPITAL

The three components of regulatory capital under the Basel III advanced rules are illustrated below:




## Capital management

For additional information on regulatory capital, capital actions and the regulatory capital outlook, refer to the Capital Risk Management section on pages 39-44 of the 1Q20 Form 10-Q  and Note 27 on pages 270–271 of the 2019 Form 10-K.

*Key Regulatory Developments*

*Current Expected Credit Losses ("CECL")*. As disclosed in the Firm's 2019 Form 10-K, the Firm initially elected to phase-in the January 1, 2020 ("day 1") CECL adoption impact to retained earnings of $2.7 billion to CET1 capital, at 25% per year in each of 2020 to 2023. As part of their response to the impact of the COVID-19 pandemic, on March 31, 2020, the federal banking agencies issued an interim final rule that provided the option to temporarily delay the effects of CECL on regulatory capital for two years, followed by a three-year transition period ("CECL capital transition provisions").

The interim final rule provides a uniform approach for estimating the effects of CECL compared to the legacy incurred loss model during the first two years of the transition period (the "day 2" transition amount), whereby the Firm may exclude from CET1 capital 25% of the change in the allowance for credit losses (excluding allowances on PCD loans). The cumulative day 2 transition amount as at December 31, 2021 that is not recognized in CET1 capital as well as the $2.7 billion day 1 impact, will be phased into CET1 capital at 25% per year beginning January 1, 2022. The Firm has elected to apply the CECL capital transition provisions, and accordingly, for the period ended March 31, 2020, the capital measures of the Firm exclude $4.3 billion, which is the $2.7 billion day 1 impact to retained earnings and 25% of the $6.8 billion increase in the allowance for credit losses (excluding allowances on PCD loans).

The impacts of the CECL capital transition provisions on Tier 2 capital, adjusted average assets, and total leverage exposure have also been incorporated into the Firm's capital measures.

*Money Market Mutual Fund Liquidity Facility ("MMLF")*. On March 18, 2020, the Federal Reserve established a facility, authorized through September 30, 2020, to enhance the liquidity and functioning of money markets. Under the MMLF, the FRBB makes nonrecourse advances to participating financial institutions to purchase certain types of assets from eligible money market mutual fund clients. These assets, which are reflected in other assets on the Firm's Consolidated balance sheets, are pledged to the FRBB as collateral. On March 23, 2020, the federal banking agencies issued an interim final rule to neutralize the effects of purchasing assets through the program on risk-based and leverage-based capital ratios. As of March 31, 2020 the Firm excluded assets purchased from money market mutual fund clients pursuant to nonrecourse advances provided under the MMLF in the amount of $12.0 billion from its RWA and $1.2 billion from adjusted average assets and total leverage exposure.

➢ Refer to pages 39-40 of the 1Q20 Form 10-Q for additional information.

*Eligible retained income definition*. On March 17, 2020, the Office of the Comptroller of the Currency ("OCC"), the Board of Governors of the Federal Reserve System ("Federal Reserve"), and the Federal Deposit Insurance Corporation ("FDIC"), collectively the "federal banking agencies," issued an interim final rule that revised the definition of "eligible retained income" in the regulatory capital rules that apply to all U.S. banking organizations. On March 23, 2020, the Federal Reserve issued an interim final rule that revised the definition of "eligible retained income" for purposes of the total loss-absorbing capacity ("TLAC") buffer requirements that apply to global systemically important banking organizations. The revised definition of eligible retained income makes any automatic limitations on payout distributions that could apply under the agencies' capital rules or TLAC rule take effect on a more graduated basis in the event that a banking organization's capital, leverage and TLAC ratios were to decline below regulatory requirements (including buffers). The March 17 interim final rule was issued, in conjunction with an interagency statement encouraging banking organizations to use their capital and liquidity buffers, to further support banking organizations' abilities to lend to households and businesses affected by the COVID-19 pandemic.

➢ For additional information on regulatory actions and significant financing programs the U.S. government and regulators have introduced to address the effects of the COVID-19 pandemic, refer to the Regulatory Developments on pages 10-11 of 1Q20 Form 10-Q .

**Components of capital**

A reconciliation of total stockholders' equity to Basel III Advanced CET1 capital, Tier 1 capital, Tier 2 capital and Total capital is presented in the table below.

➢ Refer to the Consolidated balance sheets on page 83 of the 1Q20 Form 10-Q for the components of total stockholders' equity.

| March 31, 2020 (in millions) | Basel III Advanced CECL Transitional | Basel III Advanced CECL Fully Phased-In |
|---|---|---|
| **Total stockholders' equity** | **$ 261,262** | **$ 261,262** |
| Less: Preferred stock | 30,063 | 30,063 |
| **Common stockholders' equity** | **231,199** | **231,199** |
| Less: | | |
| Goodwill | 47,800 | 47,800 |
| Other intangible assets | 800 | 800 |
| Other CET1 capital adjustments[(a)(b)] | 1,397 | 5,702 |
| Add: | | |
| Deferred tax liabilities[(c)] | 2,389 | 2,389 |
| **CET1 capital** | **183,591** | **179,286** |
| Preferred stock | 30,063 | 30,063 |
| Other Tier 1 capital adjustments | 11 | 11 |
| Less: Tier 1 capital deductions | 259 | 259 |
| **Total Tier 1 capital** | **213,406** | **209,101** |
| Long-term debt and other instruments qualifying as Tier 2 capital | 15,264 | 15,264 |
| Qualifying allowance for credit losses[(d)] | 5,641 | 5,641 |
| Other Tier 2 capital adjustments | 186 | 188 |
| Less: Tier 2 capital deductions | 63 | 63 |
| **Total Tier 2 capital** | **21,028** | **21,030** |
| **Total capital** | **$ 234,434** | **$ 230,131** |

(a) Includes adjustments for cash flow hedges and debit valuation adjustments ("DVA ") related to structured notes recorded in accumulated other comprehensive income ("AOCI").
(b) The impact of the CECL capital transition provision was an increase in CET1 capital of $4.3 billion.
(c) Represents deferred tax liabilities related to tax-deductible goodwill and to identifiable intangibles created in nontaxable transactions, which are netted against goodwill and other intangibles when calculating CET1 capital.
(d) Represents qualifying eligible credit reserves that exceed expected credit losses, up to a maximum of 0.6% of credit RWA, with any excess deducted from RWA. The amount deducted from RWA as of March 31, 2020 for Basel III Advanced CECL Transitional was $4.1bn and would have been $6.8bn under Basel III Advanced CECL fully phased in.

**Terms of capital instruments**

The terms and conditions of the Firm's capital instruments are described in the Firm's SEC filings.

- Refer to Note 21 on page 259 and Note 22 on page 261 of the 2019 Form 10-K, and Note 18 on page 155 of the 1Q20 Form 10-Q, for additional information on preferred stock and common stock.
- Refer to the Supervision and Regulation section in Part 1, Item 1 on pages 1–3 of the 2019 Form 10-K.

**Restrictions on capital and transfer of funds**

Regulations govern the amount of dividends the Firm's banking subsidiaries could pay without the prior approval of their relevant banking regulators. Certain of the Firm's cash and other assets are restricted as to withdrawal or usage. These restrictions are imposed by various regulatory authorities based on the particular activities of the Firm's subsidiaries.

- Refer to Note 21 on page 159 of the 1Q20 Form 10-Q and refer to Note 26 on page 269 of the 2019 Form 10-K for information on restrictions on cash and intercompany funds transfers.

**Risk-weighted assets**

Basel III establishes two comprehensive approaches for calculating RWA (a Standardized approach and an Advanced approach) which include capital requirements for credit risk, market risk, and in the case of Basel III Advanced, also operational risk. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches which largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings which vary primarily by counterparty type and asset class. Market risk RWA is calculated on a generally consistent basis between Basel III Standardized and Basel III Advanced.

*Covered position definition*

The covered position definition determines which positions are subject to market risk RWA treatment and, consequently, which positions are subject to credit risk RWA treatment.

- For information on the definition of a covered position, refer to Regulatory Capital on page 6 of the 4Q19 Pillar 3 Report.

Throughout this report, covered positions are also referred to as "trading book" positions. Similarly, non-covered positions are referred to as "banking book" positions. Both covered and non-covered derivative transactions are subject to counterparty credit risk RWA.

*Components of risk-weighted assets*

The following table presents the components of the Firm's total risk-weighted assets under Basel III Advanced at March 31, 2020.

| March 31, 2020 (in millions) | Basel III Advanced CECL Transitional RWA |
|---|---|
| Credit risk | $ 998,783 |
| Market risk | 99,876 |
| Operational risk | 390,475 |
| **Total RWA** | $ 1,489,134 |

- For information on the components of risk-weighted assets, refer to Regulatory Capital on page 7 of the 4Q19 Pillar 3 Report.

**RWA rollforward**

The following table presents changes in the components of RWA under Basel III Advanced for the three months ended March 31, 2020. The amounts represented in the rollforward categories are an approximation, based on the predominant driver of the change.

| | Basel III Advanced CECL Transitional RWA | | | |
|---|---|---|---|---|
| Three months ended March 31, 2020 (in millions) | Credit risk | Market risk | Operational risk | Total |
| **December 31, 2019** | $ 932,948 | $ 75,652 | $ 389,278 | $ 1,397,878 |
| Model & data changes[a] | 1,600 | (8,200) | – | (6,600) |
| Portfolio runoff[b] | (1,300) | – | – | (1,300) |
| Movement in portfolio levels[c] | 65,535 | 32,424 | 1,197 | 99,156 |
| **Changes in RWA** | 65,835 | 24,224 | 1,197 | 91,256 |
| **March 31, 2020** | $ 998,783 | $ 99,876 | $ 390,475 | $ 1,489,134 |

(a) Model & data changes refer to material movements in levels of RWA as a result of revised methodologies and/or treatment per regulatory guidance (exclusive of rule changes).

(b) Portfolio runoff for credit risk RWA primarily reflects reduced risk from position rolloffs in legacy portfolios in Home Lending business.

(c) Movement in portfolio levels (inclusive of rule changes) refers to: changes in book size, composition, credit quality, and market movements for credit risk RWA; changes in position and market movements for market risk RWA; updates to cumulative losses for operational risk RWA; and deductions to credit risk RWA for excess eligible credit reserves not eligible for inclusion in Tier 2 capital.

**Capital requirements**

A strong capital position is essential to the Firm's business strategy and competitive position. Maintaining a strong balance sheet to manage through economic volatility is considered a strategic imperative of the Firm's Board of Directors, CEO and Operating Committee. The Firm's fortress balance sheet philosophy focuses on risk-adjusted returns, strong capital and robust liquidity. The Firm's capital risk management strategy focuses on maintaining long-term stability to enable the Firm to build and invest in market-leading businesses, including in highly stressed environments.

➢ Refer to the Capital Risk Management section on pages 39-44 of the 1Q20 Form 10-Q and pages 85–92 of the 2019 Form 10-K for information on the Firm's strategy and governance.

The Basel III framework applies to the consolidated results of JPMorgan Chase & Co. The basis of consolidation used for regulatory reporting is the same as that used under U.S. GAAP. There are no material entities within JPMorgan Chase that are deconsolidated for regulatory capital purposes and whose capital is deducted.

Under the risk-based capital and leverage-based guidelines of the Federal Reserve, JPMorgan Chase is required to maintain minimum ratios for CET1 capital, Tier 1 capital, Total capital, Tier 1 leverage and the SLR.

Failure to meet these minimum requirements could cause the Federal Reserve to take action. IDI subsidiaries are also subject to these capital requirements by their respective primary regulators.

The following table presents the minimum and well-capitalized ratios to which the Firm and its IDI subsidiaries were subject as of March 31, 2020.

| | Minimum capital ratios | | Well-capitalized ratios | |
|---|---|---|---|---|
| | BHC[(a)(e)] | IDI[(b)(e)] | BHC[(c)] | IDI[(d)] |
| **Capital ratios** | | | | |
| CET1 capital | 10.5% | 7.0% | N/A | 6.5% |
| Tier 1 capital | 12.0 | 8.5 | 6.0 | 8.0 |
| Total capital | 14.0 | 10.5 | 10.0 | 10.0 |
| Tier 1 leverage | 4.0 | 4.0 | N/A | 5.0 |
| SLR | 5.0 | 6.0 | N/A | 6.0 |

Note: The table above is as defined by the regulations issued by the Federal Reserve, OCC and FDIC and to which the Firm and its IDI subsidiaries are subject.

(a) Represents the minimum capital ratios applicable to the Firm under Basel III. The CET1, Tier 1 and Total Capital minimum capital ratios include a capital conservation buffer requirement of 2.5% and GSIB surcharge of 3.5% as calculated under Method 2.

(b) Represents requirements for JPMorgan Chase's IDI subsidiaries. The CET1, Tier 1 and Total Capital minimum capital ratios include a capital conservation buffer requirement of 2.5% that is applicable to the IDI subsidiaries. The IDI subsidiaries are not subject to the GSIB surcharge.

(c) Represents requirements for bank holding companies pursuant to regulations issued by the Federal Reserve.

(d) Represents requirements for IDI subsidiaries pursuant to regulations issued under the FDIC Improvement Act.

(e) Represents minimum SLR requirement of 3.0%, as well as supplementary leverage buffer requirements of 2.0% and 3.0% for BHC and IDI, respectively.

**Capital adequacy**

As of March 31, 2020, JPMorgan Chase and all of its IDI subsidiaries were well-capitalized and met all capital requirements to which each was subject. Capital ratios for the Firm's primary IDI subsidiary, JPMorgan Chase Bank, N.A., are presented on this page.

In addition to its IDI subsidiaries, JPMorgan Chase also has other regulated subsidiaries, all of which meet applicable capital requirements.

The capital adequacy of the Firm and JPMorgan Chase Bank N.A. are evaluated against the Basel III approaches (Standardized or Advanced) which, for each quarter, results in the lower ratio as well as the supplementary leverage ratio. The Firm's Basel III Standardized-risk-based ratios are currently more binding than the Basel III Advanced-risk-based ratios.

➢ For information on the Firm's Internal Capital Adequacy Assessment Process ("ICAAP") and Comprehensive Capital Analysis and Review ("CCAR") processes, refer to Regulatory Capital on page 8 of the 4Q19 Pillar 3 Report and page 42 of the 1Q20 Form 10-Q .

## Regulatory capital metrics for JPMorgan Chase and JPMorgan Chase Bank, N.A.

The following tables present the risk-based and leverage-based capital metrics for JPMorgan Chase and JPMorgan Chase Bank, N.A. under both the Basel III Advanced CECL Transitional and Fully Phased-In Approaches as of March 31, 2020.

| | JPMorgan Chase & Co.[e] | |
|---|---|---|
| March 31, 2020 (in millions, except ratios) | **Basel III Advanced CECL Transitional** | **Basel III Advanced CECL Fully Phased-In** |
| **Risk-based capital metrics:[a]** | | |
| CET1 capital | **$ 183,591** | **$ 179,286** |
| Tier 1 capital | **213,406** | **209,101** |
| Total capital[b] | **234,434** | **230,131** |
| Risk-weighted assets | **1,489,134** | **1,486,423** |
| CET1 capital ratio[c] | **12.3%** | **12.1%** |
| Tier 1 capital ratio | **14.3** | **14.1** |
| Total capital ratio | **15.7** | **15.5** |
| **Leverage-based capital metrics:** | | |
| Adjusted average assets[d] | **$ 2,842,244** | **$ 2,837,939** |
| Tier 1 leverage ratio | **7.5%** | **7.4%** |
| Total leverage exposure | **$ 3,535,822** | **$ 3,531,517** |
| SLR | **6.0%** | **5.9%** |

| | JPMorgan Chase Bank, N.A. | |
|---|---|---|
| March 31, 2020 (in millions, except ratios) | **Basel III Advanced CECL Transitional** | **Basel III Advanced CECL Fully Phased-In** |
| **Risk-based capital metrics:[a]** | | |
| CET1 capital | **$ 204,679** | **$ 200,331** |
| Tier 1 capital | **204,691** | **200,343** |
| Total capital | **210,271** | **205,923** |
| Risk-weighted assets | **1,361,789** | **1,359,068** |
| CET1 capital ratio[c] | **15.0%** | **14.7%** |
| Tier 1 capital ratio | **15.0** | **14.7** |
| Total capital ratio | **15.4** | **15.2** |
| **Leverage-based capital metrics:** | | |
| Adjusted average assets[d] | **$ 2,439,720** | **$ 2,435,372** |
| Tier 1 leverage ratio | **8.4%** | **8.2%** |
| Total leverage exposure | **$ 3,118,192** | **$ 3,113,844** |
| SLR | **6.6%** | **6.4%** |

(a) The capital adequacy of the Firm and JPMorgan Chase Bank, N.A. is evaluated against the lower of the two ratios as calculated under Basel III approaches (Standardized or Advanced)
(b) Total regulatory capital for JPMorgan Chase & Co. includes $462 million of surplus regulatory capital in insurance subsidiaries.
(c) At March 31, 2020, the Firm and its U.S bank subsidiaries are required to maintain a capital conservation buffer in addition to the 4.5% minimum CET1 requirement or be subject to limitations on the amount of capital that may be distributed, including dividends and common equity repurchases. The capital conservation buffer is calculated as the lowest of the: (i) CET1 ratio less the CET1 minimum requirement, (ii) Tier 1 ratio less the Tier1 minimum requirement and (iii) Total capital ratio less the Total capital minimum requirement. As of March 31, 2020, the capital conservation buffer of the Firm and JPMorgan Chase Bank, N.A. was 7.0% and 6.6%, respectively, which exceeded the required capital conservation buffer of 6.0% (inclusive of the GSIB surcharge) for the Firm and 2.5% for JPMorgan Chase Bank, N.A.
(d) Adjusted average assets, for purposes of calculating the leverage ratio, includes total quarterly average assets adjusted for on-balance sheet assets that are subject to deduction from Tier 1 capital, predominantly goodwill and other intangible assets.
(e) Capital measures reflect the exclusion of assets purchased from money market mutual fund clients pursuant to nonrecourse advances provided under the MMLF.

➢ For information on Basel III Standardized CECL Transitional capital metrics, refer to the Capital Risk Management section on pages 39-44 and Note 22 on pages 159-160 of the 1Q20 Form 10-Q

## Supplementary leverage ratio ("SLR")

The following table presents the components of the Firm's Advanced SLR as of March 31, 2020.

| March 31, 2020 (in millions, except ratio) | Basel III Advanced CECL Transitional |
|---|---|
| **Basel III Advanced Tier 1 capital** | **$ 213,406** |
| **Total spot assets** | **3,139,431** |
| Add: Adjustments for frequency of calculations[a] | (249,199) |
| **Total average assets** | **2,890,232** |
| Less: Adjustments for deductions from tier 1 capital[b] | 46,889 |
| Add adjustments for: | |
| Adjustment for derivative transactions | 339,151 |
| Adjustment for repo-style transactions | 42,741 |
| Off-balance sheet exposures[c] | 307,502 |
| Other[d] | 3,085 |
| **Total leverage exposure** | **$ 3,535,822** |
| **Basel III Advanced SLR** | **6.0%** |

(a) The adjustment for frequency of calculations represents the difference between total spot assets at March 31, 2020 and total average assets for the three months ended March 31, 2020.
(b) Adjustments that are subject to deduction from Tier 1 capital are predominantly goodwill and other intangible assets.
(c) Off-balance sheet exposures are calculated as the average of the three month-end spot balances during the reporting quarter.
(d) Includes adjustments for the CECL capital transition provisions and the exclusion of assets purchased from money market mutual fund clients pursuant to nonrecourse advances provided under the MMLF.

## Total Loss-Absorbing Capacity ("TLAC")

The Federal Reserve's TLAC rule requires the U.S. global systemically important bank ("GSIB") top-tier holding companies, including the Firm, to maintain minimum levels of external TLAC and eligible long-term debt ("eligible LTD").

➢ For additional information on TLAC, refer to the Capital Risk Management section on page 43 of the 1Q20 Form 10-Q . For information on the financial consequences to holders of the Firm's debt and equity securities in a resolution scenario, refer to Part I, Item 1A: Risk Factors on pages 7-28 of the Firm's 2019 Form 10-K.

## Eligible Retained Income

The eligible retained income for the Firm and JPMorgan Chase Bank, N.A was $9.1 billion and $7.8 billion respectively.

Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer. The Firm provides credit to a variety of customers, ranging from large corporate and institutional clients to individual consumers and small businesses. The consumer credit portfolio consists of scored mortgage and home equity loans held in the Consumer & Community Banking ("CCB") and Asset & Wealth Management ("AWM") business segments; scored mortgage loans held in the Corporate segment; scored credit card, auto and business banking loans, and overdrafts in CCB; and the associated lending-related commitments in each of those business segments. The wholesale credit portfolio refers primarily to exposures held by the Corporate & Investment Bank ("CIB"), Commercial Banking ("CB"), AWM and Corporate business segments, as well as risk-rated business banking and auto dealer loans held in CCB. In addition to providing credit to clients, the Firm engages in client-related activities that give rise to counterparty credit risk such as securities financing, margin lending and market-making activities in derivatives. Finally, credit risk is also inherent in the Firm's investment securities portfolio held by Treasury and Chief Investment Office ("CIO") in connection with its asset-liability management objectives. Investment securities, as well as deposits with banks and cash due from banks, are classified as wholesale exposures for RWA reporting.

- For information on counterparty default risk and credit valuation adjustments ("CVA"), refer page 10 of the 4Q19 Pillar 3 Report.
- For information on IMM and CEM EAD Methodologies, refer to the Counterparty Credit Risk section on pages 18-19 of the 4Q19 Pillar 3 Report.

For information on risk management policies and practices, governance and oversight and accounting policies related to these exposures:

- Refer to Credit and Investment Risk Management on pages 100–118 of the 2019 Form 10-K and pages 50-66 of the 1Q20 Form 10-Q .
- Refer to the Notes to the Consolidated Financial Statements beginning on page 151 of the 2019 Form 10-K, and page 85 of the 1Q20 Form 10-Q . Specific page references are contained in the Appendix of this report.

**Summary of credit risk RWA**

Credit risk RWA includes retail, wholesale and counterparty credit exposures described in this section as well as securitization and equity exposures in the banking book. Other exposures such as non-material portfolios, unsettled transactions and other assets that are not classified elsewhere are also included. The following table presents the Firm's total credit risk RWA including a 1.06 scaling factor excluding CVA at March 31, 2020.

| March 31, 2020 (in millions) | | Basel III Advanced CECL Transitional RWA |
|---|---|---|
| Retail exposures | $ | 201,785 |
| Wholesale exposures | | 447,799 |
| Counterparty exposures | | 124,315 |
| Securitization exposures[(a)] | | 36,406 |
| Equity exposures | | 43,477 |
| Other exposures[(b)] | | 86,284 |
| CVA | | 62,777 |
| Less: Excess eligible credit reserves not included in Tier 2 capital | | 4,060 |
| **Total credit risk RWA** | $ | 998,783 |

(a) Represents banking book securitization RWA only.
(b) Includes other assets, non-material portfolios, and unsettled transactions.

## Credit risk exposures

Credit risk exposures for the three months ended March 31, 2020 are contained in the 1Q20 Form 10-Q . Specific references to the 1Q20 Form 10-Q are listed below.

*Traditional credit products*

- Refer to Credit Risk Management beginning on page 50 for credit-related information on the consumer and wholesale portfolios.
- Refer to Note 12 on pages 126-140 for the distribution of loans by geographic region and industry.
- Refer to Note 23 on pages 161-164 for the contractual amount and geographic distribution of lending-related commitments.

*Counterparty credit risk*

- Refer to the Consumer Credit Portfolio section on pages 52-55, and to the Wholesale Credit Portfolio section on pages 56-63 for eligible margin loans balances.
- Refer to Wholesale Credit Portfolio footnote (d) on page 57, Country Risk on page 72.
- Refer to Note 3 on pages 99-100 for the gross positive fair value, netting benefits and net exposure of derivative receivables.
- Refer to Derivative contracts on page 62 for credit derivatives used in credit portfolio management activities.
- Refer to Credit and Investment Risk Management, Risk management and monitoring on page 101, Note 4, Credit risk concentration, on page 178, Note 5, Derivative instruments, on pages 180-194 and Note 11, Securities financing activities, on pages 214–216 of the 2019 Form 10-K for a discussion of credit limits for counterparty credit exposures, policies for securing collateral, valuing and managing collateral.
- Refer to Note 5, Derivative instruments, on pages 180-194, Note 11, Securities financing activities, on pages 214–216 and Wholesale Credit Portfolio, Receivables from customers, on page 113 of the 2019 Form 10-K for a discussion of primary types of collateral taken for counterparty credit exposures.
- Refer to Note 10 on pages 118-122 for information on gross and net securities purchased under resale agreements and securities borrowed transactions, and for information regarding the credit risk inherent in the securities financing portfolio.

*Investment securities*

- Refer to Credit and Investment Risk Management on pages 50-66 and Note 10 on pages 118-122 for the investment securities portfolio by issuer type.

*Country risk*

- Refer to page 72 for the top 20 country exposures (excluding the U.S.).

## Allowance for credit losses

- Refer to Allowance for Credit Losses on pages 64-65 for a summary of changes in the allowance for loan losses and allowance for lending-related commitments.
- Refer to Note 23 on page 161-164 for the allowance for credit losses and loans and lending-related commitments by impairment methodology.
- Refer to Note 10 on page 118-122 for the allowance for credit losses on held-to-maturity securities.

## Average balances

- Refer to page 170 for the Consolidated average balance sheet.

## Credit Risk Mitigation

- Refer to Credit and Investment Risk Management, Risk management and monitoring, on page 101, Note 1, Basis of presentation, Offsetting assets and liabilities, on page 152, Note 4, Credit risk concentrations, on page 178, Note 5, Derivative instruments, on pages 180-194, and Note 11, Securities financing activities on pages 214–216 of the 2019 Form 10-K for a discussion of processes for managing and recognizing credit risk mitigation and policies for on netting benefit.
- Refer to Market Risk Management, Risk monitoring and control, on page 119, Note 4, Credit risk concentrations, on page 178, Note 5, Derivative instruments, on pages 180-194, and Note 11, Securities financing activities, on pages 214–216 of the 2019 Form 10-K for a discussion of market and credit risk concentrations and credit derivative counterparties and their creditworthiness.

## Credit risk concentrations

- Refer to page 12 in the 4Q19 Pillar 3 Report for additional information on credit risk concentrations.

The retail portfolio is comprised of exposures that are scored and managed on a pool basis rather than on an individual-exposure basis. For the retail portfolio, credit loss estimates are based on statistical analysis of credit losses over discrete periods of time. The statistical analysis uses portfolio modeling, credit scoring, and decision-support tools, which consider loan-level factors such as delinquency status, credit scores, collateral values, and other risk factors.

The population of exposures subject to retail capital treatment for regulatory reporting substantially overlaps with the consumer credit portfolio reflected in the Firm's SEC disclosures. The retail population consists of all scored exposures (mainly in CCB business segment), certain residential mortgages booked as trading assets (that do not meet the definition of a covered position) and certain wholesale loans under $1 million as required by the Basel III capital rules.

**Risk-weighted assets**

The following table presents the Firm's retail RWA at March 31, 2020.

| March 31, 2020<br>(in millions) | | Basel III<br>Advanced RWA |
|---|---|---|
| Residential mortgages | $ | 60,608 |
| Qualifying revolving | | 118,336 |
| Other retail | | 22,841 |
| **Total retail credit RWA** | $ | 201,785 |

- For information on risk-weighted assets and risk parameter estimation methods for the retail credit portfolio, refer to Retail Credit Risk on page 13–15 of the 4Q19 Pillar 3 Report.

**Residential mortgage exposures**

The following table includes first lien and junior lien mortgages and revolving home equity lines of credit. First lien mortgages were 88.0% of the exposure amount, revolving exposures were 11.0%, and the remaining exposures related to junior lien mortgages. Revolving exposures were largely originated prior to 2010 and drive approximately 25.0% of the total risk weighted assets of this portfolio, with nearly 19.0% of the exposures in the equal to or greater than 0.75% PD ranges. Recent originations are primarily first lien mortgages and are predominantly reflected in the less than 0.75% PD ranges.

March 31, 2020
(in millions, except ratios)

| | | | | | Exposure-weighted average | | |
|---|---|---|---|---|---|---|---|
| PD range (%) | Balance sheet amount | Off balance sheet commitments | EAD | RWA | PD | LGD | Risk weight |
| 0.00 to < 0.10 | $ 120,358 | $ 26,970 | $ 131,459 | $ 6,922 | 0.05% | 36.25% | 5.27% |
| 0.10 to < 0.20 | 64,174 | 4,560 | 67,896 | 8,921 | 0.16 | 37.37 | 13.14 |
| 0.20 to < 0.75 | 49,526 | 1,257 | 50,488 | 13,408 | 0.35 | 41.44 | 26.56 |
| 0.75 to < 5.50 | 19,229 | 141 | 18,683 | 15,672 | 1.98 | 43.59 | 83.88 |
| 5.50 to < 10.00 | 2,340 | 4 | 2,201 | 4,112 | 6.74 | 46.11 | 18.68 |
| 10.00 to < 100 | 3,088 | – | 2,917 | 6,084 | 28.60 | 39.94 | 208.58 |
| 100 (default) | 5,954 | 29 | 5,728 | 5,489 | 100.00 | N/A (a) | 95.82 (b) |
| **Total** | $ 264,669 | $ 32,961 | $ 279,372 | $ 60,608 | 2.66% | 37.32% | 21.69% |

(a) The LGD rate is reported as N/A for residential mortgage exposures in default because at the point they are classified as defaulted per the Basel III capital rules definition they have been charged off to the fair value of any underlying collateral less cost to sell. Any balance remaining after the charge-off is risk weighted at 100%.

(b) The exposure-weighted average risk weight for defaulted loans is less than 100% due to certain loans being insured and/or guaranteed by U.S. government agencies which attract lower than 100% risk weight.

## Qualifying revolving exposures

The following table includes exposures to individuals that are revolving, unsecured and unconditionally cancelable by JPMorgan Chase; and they have a maximum exposure amount of up to $100,000 (i.e. credit card and overdraft lines on individual checking accounts).

March 31, 2020
(in millions, except ratios)

| PD range (%) | Balance sheet amount | Off balance sheet commitments | EAD | RWA | Exposure-weighted average PD | Exposure-weighted average LGD | Exposure-weighted average Risk weight |
|---|---|---|---|---|---|---|---|
| 0.00 to < 0.50 | $ 51,148 | $ 594,837 | $ 229,425 | $ 12,274 | 0.10% | 91.64% | 5.35% |
| 0.50 to < 2.00 | 37,369 | 55,301 | 48,002 | 19,046 | 1.07 | 94.05 | 39.68 |
| 2.00 to < 3.50 | 18,180 | 11,000 | 19,704 | 15,351 | 2.62 | 94.18 | 77.91 |
| 3.50 to < 5.00 | 15,648 | 2,845 | 15,857 | 15,876 | 3.74 | 94.10 | 100.12 |
| 5.00 to < 8.00 | 8,927 | 2,112 | 9,034 | 13,498 | 6.91 | 94.40 | 149.41 |
| 8.00 to < 100 | 22,080 | 1,536 | 22,111 | 42,291 | 21.48 | 93.16 | 191.27 |
| 100 (default) (a) | – | – | – | – | – | – | – |
| **Total** | $ 153,352 | $ 667,631 | $ 344,133 | $ 118,336 | 2.10% | 92.4% | 34.39% |

(a) Defaulted exposures in the qualifying revolving portfolio are charged off prior to reaching default as defined in the Basel III capital rules. Accordingly, no defaulted exposures are reported in the 100 (default) PD range.

## Other retail exposures

The following table includes other retail exposures to individuals that are not classified as residential mortgage or qualifying revolving exposures (e.g. includes scored auto loans, credit card accounts above $100,000, business card exposures without a personal guarantee, scored business banking loans and certain wholesale loans under $1 million).

March 31, 2020
(in millions, except ratios)

| PD range (%) | Balance sheet amount | Off balance sheet commitments | EAD | RWA | Exposure-weighted average PD | Exposure-weighted average LGD | Exposure-weighted average Risk weight |
|---|---|---|---|---|---|---|---|
| 0.00 to < 0.50 | $ 33,010 | $ 9,902 | $ 36,175 | $ 6,849 | 0.19% | 45.84% | 18.93% |
| 0.50 to < 2.00 | 21,104 | 854 | 21,414 | 9,950 | 0.96 | 44.81 | 46.47 |
| 2.00 to < 3.50 | 3,059 | 450 | 3,142 | 2,282 | 2.95 | 49.47 | 72.63 |
| 3.50 to < 5.00 | 536 | 32 | 557 | 669 | 3.83 | 78.94 | 120.08 |
| 5.00 to < 8.00 | 1,368 | 72 | 1,381 | 1,017 | 6.74 | 45.46 | 73.61 |
| 8.00 to < 100 | 1,531 | 6 | 1,542 | 1,721 | 25.49 | 52.62 | 111.64 |
| 100 (default) | 317 | 110 | 427 | 353 | 100.00 | N/A (a) | 82.67 |
| **Total** | $ 60,925 | $ 11,426 | $ 64,638 | $ 22,841 | 2.01% | 45.81% | 35.34% |

(a) The LGD rate is reported as N/A for retail exposures in default because at the point they are classified as defaulted per the Basel III capital rules definition they have been charged off to the fair value of any underlying collateral less cost to sell. Any balance remaining after the charge off is risk weighted at 100%.

The wholesale portfolio is a risk-rated portfolio. Risk-rated portfolios are generally held in CIB, CB and AWM business segments and in Corporate but also include certain business banking and auto dealer loans held in the CCB business segment that are risk-rated because they have characteristics similar to commercial loans.

The population of risk-rated loans and lending-related commitments receiving wholesale treatment for regulatory capital purposes predominantly overlaps with the wholesale credit portfolio reflected in the Firm's SEC disclosures. In accordance with the Basel III capital rules, the wholesale population for regulatory capital consists of:

- All risk-rated loans and commitments (excluding certain wholesale loans under $1 million which receive retail regulatory capital treatment);
- Deposits with banks, and cash and due from banks;
- Exposures to issuer risk for debt securities in the banking book;
- Certain exposures recorded as trading assets that do not meet the definition of a covered position;

Certain off-balance sheet items, such as standby letters of credit and letters of credit, are reported net of risk participations for U.S. GAAP reporting, but are included gross of risk participations for regulatory reporting.

**Risk-weighted assets**

The following table presents risk-weighted assets by Basel reporting classification. The Corporate, Bank and Sovereign classifications include credit or issuer exposure to these entities. High volatility commercial real estate ("HVCRE") refers to acquisition, development and construction lending. HVCRE is a separate Basel classification because these loans represent higher risk than loans financing income-producing real estate ("IPRE").

| March 31, 2020 (in millions) | | Basel III Advanced RWA |
|---|---|---|
| Corporate | $ | 367,139 |
| Bank | | 11,272 |
| Sovereign | | 18,402 |
| Income-producing real estate | | 50,598 |
| High volatility commercial real estate | | 388 |
| **Total wholesale credit RWA** | $ | 447,799 |

➢ For information on risk parameter estimation methods for the wholesale credit portfolio, refer to Wholesale Credit Risk on page 16-17 of the 4Q19 Pillar 3 Report.

**Wholesale exposures**

The following table presents exposures to wholesale clients and issuers by PD range. Exposures are comprised primarily of traditional credit products (i.e. loans and lending-related commitments), issuer risk for debt securities, and cash placed with various central banks, predominantly Federal Reserve Banks. Total EAD is $1.6 trillion, with 78% of this exposure in the first two PD ranges, which are predominantly investment-grade. Exposures meeting the Basel definition of default represent 0.3% of total EAD. The exposure-weighted average LGD for the wholesale portfolio is 28%.

March 31, 2020 (in millions, except ratios)

| PD range (%) | | Balance sheet amount | | Off balance sheet commitments | | EAD | | RWA | Exposure-weighted average PD | Exposure-weighted average LGD | Exposure-weighted average Risk weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 to < 0.15 | $ | 841,436 | $ | 109,340 | $ | 922,259 | $ | 87,921 | 0.03% | 26.16% | 9.53% |
| 0.15 to < 0.50 | | 198,306 | | 152,539 | | 299,424 | | 131,798 | 0.17 | 32.20 | 44.02 |
| 0.50 to < 1.35 | | 177,907 | | 76,347 | | 219,622 | | 110,587 | 0.87 | 27.31 | 50.35 |
| 1.35 to < 10.00 | | 68,814 | | 52,752 | | 98,588 | | 85,544 | 3.45 | 29.17 | 86.77 |
| 10.00 to < 100 | | 14,751 | | 11,282 | | 20,319 | | 27,672 | 21.23 | 28.02 | 136.19 |
| 100 (default) | | 2,874 | | 2,854 | | 4,057 | | 4,277 | 100.00 | N/A (a) | 105.43 |
| **Total** | $ | 1,304,088 | $ | 405,114 | $ | 1,564,269 | $ | 447,799 | 0.92% | 27.71% | 28.63% |

(a) The LGD rate is reported as N/A for defaulted wholesale exposures because the RWA is calculated based on supervisor provided risk weights and does not depend on LGD estimates.

**Credit risk mitigation**

The risk mitigating benefit of eligible guarantees and credit derivative hedges are reflected in the RWA calculation as permitted by the Basel III capital rules. At March 31, 2020, $81.6 billion of EAD for wholesale exposures is covered by eligible guarantees or credit derivatives.

Counterparty credit risk exposures arise from OTC derivatives, repo-style transactions, eligible margin loans and cleared transactions.

**Risk-weighted assets**

The following table presents risk-weighted assets by transaction type.

| March 31, 2020 (in millions) | | Basel III Advanced RWA |
|---|---|---|
| OTC derivatives | $ | 62,084 |
| Repo-style transactions | | 36,919 |
| Eligible margin loans | | 14,370 |
| Cleared transactions | | 10,942 |
| **Total counterparty credit RWA** | $ | 124,315 |

> For information on risk-weighted assets, risk parameter estimation methods and wrong-way risk for counterparty credit risk, refer to Counterparty Credit Risk on page 18–19 of the 4Q19 Pillar 3 Report.

**Counterparty credit exposures**

The following table presents counterparty credit risk exposures for OTC derivatives, repo-style transactions and eligible margin loans by PD range. The table does not include cleared transactions. Total EAD is $300.6 billion, with 77% of this exposure in the first two PD ranges, which are predominantly investment-grade. Exposures meeting the Basel definition of default represent 0.1% of total EAD. The exposure-weighted average LGD for this portfolio is 39%. The collateral benefit is reflected primarily in the EAD.

March 31, 2020
(in millions, except ratios)

| | | | | | Exposure-weighted average | | |
|---|---|---|---|---|---|---|---|
| PD range (%) | | EAD | | RWA | PD | LGD | Risk weight |
| 0.00 to < 0.15 | $ | 160,814 | $ | 27,002 | 0.07% | 38.17% | 16.79% |
| 0.15 to < 0.50 | | 69,392 | | 33,984 | 0.27 | 41.18 | 48.97 |
| 0.50 to < 1.35 | | 54,492 | | 34,160 | 0.72 | 40.18 | 62.69 |
| 1.35 to < 10.00 | | 14,242 | | 15,407 | 3.33 | 38.62 | 108.18 |
| 10.00 to < 100 | | 1,420 | | 2,616 | 21.18 | 34.21 | 184.23 |
| 100 (default) | | 206 | | 204 | 100.00 | N/A [(a)] | 98.80 |
| **Total** | $ | 300,566 | $ | 113,373 | 0.56% | 39.24% | 37.72% |

(a) The LGD rate is reported as N/A for defaulted counterpart credit exposures because the RWA is calculated based on supervisor provided risk weights and does not depend on LGD estimates.

**Credit risk mitigation**

The risk mitigating benefit of eligible guarantees and credit derivative hedges are reflected in the RWA calculation as permitted by the Basel III capital rules. At March 31, 2020, $4.3 billion of EAD for OTC derivatives is covered by eligible guarantees.

## SECURITIZATION

Securitizations are transactions in which:

- The credit risk of the underlying exposure is transferred to third parties and has been separated into two or more tranches;
- The performance of the securitization depends upon the performance of the underlying exposures or reference assets; and
- All or substantially all of the underlying exposures or reference assets are financial exposures.

Securitizations are classified as either traditional or synthetic. In a traditional securitization, the originator establishes a special purpose entity ("SPE") and sells assets (either originated or purchased) off its balance sheet into the SPE, which issues securities to investors. In a synthetic securitization, credit risk is transferred to investors through the use of credit derivatives or guarantees. In a synthetic securitization, there is no change in accounting treatment for the assets securitized.

Securitizations include on- or off-balance sheet exposures (including credit enhancements) that arise from a securitization or re-securitization transaction; or an exposure that directly or indirectly references a securitization (e.g. credit derivative). A re-securitization is a securitization transaction in which one or more of the underlying exposures that have been securitized is itself a securitization.

This section includes both banking book and trading book securitizations with the exception of modeled correlation trading positions which are included in the Market Risk section.

➢ Refer to pages 20-21 of the 4Q19 Pillar 3 Report for additional information on securitization exposures, due diligence, risk management and hierarchy of approaches.

➢ Refer to Note 1 & Note 14 on pages 151–153 and 242–249, respectively, of the 2019 Form 10-K for a discussion of the accounting policies related to securitization activities and affiliated entities (i.e., voting interest entities and variable interest entities (including SPEs)).

➢ Refer to Note 2 on pages 154–174 of the 2019 Form 10-K for a discussion on the valuation of retained or purchased securitization interests.

➢ Refer to Note 12, Loans held-for-sale, on page 218, Note 1, the valuation methodology table on page 155, and Note 14, Loan securitizations on page 247, of the 2019 Form 10-K for a discussion of the valuation of loans that are intended to be securitized and accounted for as securitization exposures.

➢ Refer to Note 28, Loan sales- and securitization-related indemnifications on pages 275-276 of the 2019 Form 10-K for a discussion of the accounting policies for recognizing a liability associated with loan sales-and securitization-related indemnifications.

**Risk-weighted assets**

The following table presents banking book and trading book exposures receiving securitization capital treatment (with the exception of modeled correlation trading positions which are presented in the Market Risk section). The amounts include traditional and synthetic securitization exposures with re-securitizations shown separately based on Supervisory Formula Approach ("SFA") and Simplified Supervisory Formula Approach ("SSFA").

| | Securitization | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SFA | | SSFA | | 1250% | | Total | |
| March 31, 2020 (in millions) | Exposure | RWA | Exposure | RWA | Exposure | RWA | Exposure | RWA |
| **Risk weight** | | | | | | | | |
| = 0% ≤ 20% | $ 60,983 | $ 12,916 | $ 83,383 | $ 17,606 | $ – | $ – | $ 144,366 | $ 30,522 |
| > 20% ≤ 50% | 2,065 | 539 | 5,725 | 1,907 | – | – | 7,790 | 2,446 |
| > 50% ≤ 100% | 74 | 49 | 3,266 | 1,995 | – | – | 3,340 | 2,044 |
| > 100% < 1250% | 190 | 491 | 1,174 | 3,497 | – | – | 1,364 | 3,988 |
| = 1250% | – | – | 72 | 903 | 75 | 991 | 147 | 1,894 |
| **Securitization, excluding re-securitization** | $ 63,312 | $ 13,995 | $ 93,620 | $ 25,908 | $ 75 | $ 991 | $ 157,007 | $ 40,894 |

| | Re-securitization | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SFA | | SSFA | | 1250% | | Total | |
| March 31, 2020 (in millions) | Exposure | RWA | Exposure | RWA | Exposure | RWA | Exposure | RWA |
| **Risk weight** | | | | | | | | |
| = 0% ≤ 20% | $ 312 | $ 66 | $ 866 | $ 184 | $ – | $ – | $ 1,178 | $ 250 |
| > 20% ≤ 50% | – | – | – | – | – | – | – | – |
| > 50% ≤ 100% | – | – | – | – | – | – | – | – |
| > 100% < 1250% | – | – | 21 | 78 | – | – | 21 | 78 |
| = 1250% | – | – | 1 | 12 | – | 6 | 1 | 18 |
| **Re-securitization**[(a)] | $ 312 | $ 66 | $ 888 | $ 274 | $ – | $ 6 | $ 1,200 | $ 346 |
| | | | | | | | | |
| **Total securitization** [(b)] | $ 63,624 | $ 14,061 | $ 94,508 | $ 26,182 | $ 75 | $ 997 | $ 158,207 | $ 41,240 |

(a) As of March 31, 2020, there were no re-securitizations to which credit risk mitigation has been applied.
(b) Total securitization RWA includes $4.8 billion of RWA on trading book exposure of $7.7 billion. The trading book RWA represents non-modeled securitization charges in the Market Risk section of this report.

Any gain-on-sale in connection with a securitization exposure must be deducted from CET1 capital. The amount deducted as of March 31, 2020 was immaterial.

## Exposure by collateral type

The following table presents banking book and trading book exposures receiving securitization capital treatment (with the exception of modeled correlation trading positions which are presented in the Market Risk section). The amounts below include traditional and synthetic securitization exposures.

| March 31, 2020 (in millions) | Exposure | | | |
|---|---|---|---|---|
| | On-balance sheet | Off-balance sheet[a] | Total | RWA |
| **Collateral type:** | | | | |
| Residential mortgages | $ 33,562 | $ 435 | $ 33,997 | $ 10,255 |
| Commercial mortgages | 18,774 | 301 | 19,075 | 5,917 |
| Commercial and industrial loans | 48,186 | 3,597 | 51,783 | 11,034 |
| Consumer auto loans | 20,663 | 2,877 | 23,540 | 5,305 |
| Student loans | 9,351 | 1,028 | 10,379 | 2,812 |
| Municipal bonds | 947 | 3,865 | 4,812 | 1,138 |
| Other | 11,265 | 3,356 | 14,621 | 4,779 |
| **Total securitization exposure** | $ 142,748 | $ 15,459 | $ 158,207 | $ 41,240 |

(a) Includes the counterparty credit risk EAD associated with derivative transactions for which the counterparty credit risk is a securitization exposure.

## Assets securitized

The following table presents the total outstanding principal balance of JPMorgan Chase-sponsored securitizations in which the Firm has retained exposure in either the banking book or the trading book. Third-party assets in deals sponsored by JPMorgan Chase are shown separately. During the three months ended March 31, 2020, losses recognized on securitized assets were zero.

| March 31, 2020 (in millions) | Principal amount outstanding | | | |
|---|---|---|---|---|
| | JPMorgan Chase assets held in traditional securitizations[a] | Third-party assets held in traditional securitizations[a] | JPMorgan Chase assets in synthetic securitizations | Assets 90 days past due or on nonaccrual status [b] |
| **Collateral type:** | | | | |
| Residential mortgages | $ 67,789 | $ 7 | $ 689 | $ 4,551 |
| Commercial mortgages | 45,040 | 51,614 | – | 261 |
| Commercial and industrial loans | – | – | – | – |
| Consumer auto loans | – | – | – | – |
| Student loans | – | – | – | – |
| Municipal bonds | – | – | – | – |
| Other | – | – | – | – |
| **Total** | $ 112,829 | $ 51,621 | $ 689 | $ 4,812 |

(a) Represents assets held in nonconsolidated securitization VIEs.
(b) Represents assets 90 days or more past due or on nonaccrual status.

### Securitization activity

The following table presents assets pending securitization (i.e., assets held with the intent to securitize) at March 31, 2020, and the Firm's securitization activities for the three months ended March 31, 2020, related to assets either held in Firm-sponsored securitization entities that were not consolidated by the Firm or held on the Firm's consolidated balance sheet and synthetically securitized. The carrying value of the loans accounted for at fair value under U.S. GAAP approximated the proceeds upon loan sale as changes in fair value were recorded in noninterest revenue. Accordingly, there were no significant gains or losses associated with traditional securitization activities.

| | Carrying value | Original principal amount | | |
|---|---|---|---|---|
| | | Traditional securitization | | Synthetic securitIzation |
| | Assets pending securitization | Assets securitized with retained exposure | Assets securitized without retained exposure | Assets securitized with retained exposure |
| (in millions) | March 31, 2020 | three months ended March 31, 2020 | | |
| **Collateral type:** | | | | |
| Residential mortgages | $ 13,331 | $ 3,064 | $ – | $ – |
| Commercial mortgages | 2,841 | 3,055 | 133 | – |
| Commercial and industrial loans | – | – | – | – |
| Consumer auto loans | – | – | – | – |
| Student loans | – | – | – | – |
| Municipal bonds | – | – | – | – |
| Other | – | – | – | – |
| **Total** | $ 16,172 | $ 6,119 | $ 133 | $ – |

Equity investments in the banking book include principal investments, investments in unconsolidated subsidiaries, other equity investments classified within other assets and certain equity investments classified within trading assets that do not meet the definition of a covered position. These investments are held primarily for reasons other than capital gains, including client relationships, strategic initiatives and employee benefits.

Principal investments are typically private non-traded financial instruments representing ownership or other forms of junior capital. Principal investments span multiple asset classes and are made either in stand-alone investing businesses or as part of a broader business platform. Asset classes include tax-oriented investments (e.g., affordable housing and alternative energy investments), private equity, various debt and equity instruments, and real assets and investment funds (including separate accounts). In general, new principal investments include tax-oriented investments, as well as investments made to enhance or accelerate LOB and Corporate strategic business initiatives.

Investments in separate accounts are held in connection with corporate- and bank-owned life insurance ("COLI/ BOLI") and certain asset management activities.

- Refer to Note 8 on pages 199–205 of the 2019 Form 10-K for a discussion of COLI and the related investment strategy and asset allocation.

*Accounting and valuation policies for equity investments*

- Refer to Principal risk, on page 118 of the 2019 Form 10-K for a discussion of investment risk management related to principal investments.
- Refer to Note 1 on pages 151–153 of 2019 Form 10-K for a discussion of the accounting for investments in unconsolidated subsidiaries and other non-trading (i.e., banking book) equity investments.
- Refer to Note 2 on pages 154–174 of the 2019 Form 10-K for more information on the Firm's methodologies regarding the valuation of private equity direct investments and fund investments (i.e., mutual/collective investment funds, private equity funds, hedge funds and real estate funds).

**Risk-weighted assets**

The table below presents the exposure and RWA by risk-weight.

| March 31, 2020<br>(in millions) | | |
|---|---|---|
| Risk-weight category | Exposure[a] | RWA |
| 0% | $ 5,546 [b] | $ – |
| 20% | 1,810 | 384 |
| 100% | 26,465 | 28,053 |
| 250% | 497 | 1,318 |
| 300% | 37 | 118 |
| 600% | 75 | 476 |
| Look-through | 21,285 | 13,128 |
| Total | 55,715 | 43,477 |

(a) Includes off-balance sheet unfunded commitments for equity investments of $1.8 billion.
(b) Consists of Federal Reserve Bank stock.

**Carrying value and fair value**

The following table presents the carrying value and fair value of equity investments in the banking book.

| March 31, 2020<br>(in millions) | Carrying value | Fair value |
|---|---|---|
| Publicly traded | $ 23,904 | $ 23,948 |
| Non-publicly traded | 28,847 | 36,729 |
| **Total** | $ 52,751 | $ 60,677 |

**Realized gains/(losses)**

Cumulative realized gains/(losses) from sales and liquidations during the three months ended March 31, 2020 were $89 million. This includes previously recognized unrealized gains/(losses) that have been reversed and booked as realized gains/(losses).

**Unrealized gains/(losses)**

Total net gains that have not been recognized on the Consolidated balance sheet or through earnings on equity investments in the banking book that are accounted for under the cost, measurement alternative and equity method were $7.9 billion as of March 31, 2020.

Market risk is the risk associated with the effect of changes in market factors such as interest and foreign exchange rates, equity and commodity prices, credit spreads or implied volatilities, on the value of assets and liabilities held for both the short and long term.

- For a discussion of the Firm's Market Risk Management organization, various metrics, both statistical and nonstatistical, used to assess risk and risk monitoring and control, see Market Risk Management on pages 119–126 of the 2019 Form 10-K and 1Q20 Form 10-Q pages 67-71.
- Refer to page 67 of 1Q20 Form 10-Q for a discussion of Managing Market Risks in response to the COVID-19 pandemic.

*Measures included in market risk RWA*

The following table presents the Firm's market risk-based capital and risk-weighted assets at March 31, 2020. The components of market risk RWA are discussed in detail in the Regulatory market risk capital models section on pages 20–23 of this report. RWA is calculated as risk-based capital ("RBC") multiplied by 12.5; any calculation differences are due to rounding.

| Three months ended March 31, 2020 (in millions) | Risk-based capital | RWA |
|---|---|---|
| Internal models: | | |
| Value-at-Risk based measure ("VBM") | $ 1,069 | $ 13,360 |
| Stressed Value-at-Risk based measure ("SVBM") | 2,003 | 25,040 |
| Incremental risk charge ("IRC") | 360 | 4,499 |
| Comprehensive risk measure ("CRM") | 114 | 1,423 |
| Total internal models | 3,546 | 44,322 |
| Non-modeled specific risk | 4,350 | 54,369 |
| Other charges | 94 | 1,185 |
| **Total Market risk** | $ 7,990 | $ 99,876 |

**Material portfolio of covered positions**

The Firm's portfolio of covered positions under the Basel III capital rules arise predominantly from activities in CIB, which makes markets in products across fixed income, foreign exchange, equities, commodities and credit markets.

- Refer to pages 60-61 and 66-70 of the 2019 Form 10-K for a discussion of CIB's Business Segment Results.

**Value-at-Risk ("VaR")**

VaR is a statistical risk measure used to estimate the potential loss from adverse market moves in the current market environment. The Firm has a single VaR framework used as a basis for calculating Risk Management VaR and Regulatory VaR.

- Refer to pages 119–126 of the 2019 Form 10-K Market Risk Management for information on the Firm's VaR framework.

*Risk management VaR comparison to Regulatory VaR*

Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. The Firm calculates Regulatory VaR assuming a 10-day holding period and an expected tail loss methodology, which approximates a 99% confidence level.

- Refer to pages 26–27 of the 4Q19 Pillar 3 Report for additional information on Risk Management VaR comparison to Regulatory VaR.

Regulatory VaR is applied to "covered positions" as defined by the Basel III capital rules, which may be different from the positions included in the Firm's Risk Management VaR. For example, credit derivative hedges of accrual loans are included in the Firm's Risk Management VaR, while Regulatory VaR excludes these credit derivative hedges.

**Regulatory market risk capital models**

*VaR-Based Measure ("VBM")*

The VBM is an aggregate loss measure that combines Regulatory VaR and modeled specific risk ("SR") assuming a 10-day holding period and a 99% confidence level. While Regulatory VaR measures the risk of loss from broad market movements, modeled SR captures risk factors such as event risk, idiosyncratic risk and default risk for a subset of covered positions for which the model is approved by the Firm's banking supervisors.

*CIB VaR-Based Measure ("VBM")*

For the three months ended March 31, 2020, average CIB VBM was $328 million, compared with CIB average Risk Management VaR of $58 million. The CIB VBM was higher due to the longer holding period (10 days), the higher confidence level (99%), differences in population, and the exclusion of the diversification benefit for certain VaR models.

The following table presents the average, minimum, maximum and period-end VBM by risk type for the CIB and total VBM for the Firm. In addition, the table presents the reduction of total risk resulting from the diversification of the portfolio, which is the sum of the CIB VBMs for each risk type less the total CIB VBM.

| | Three months ended March 31, 2020 | | | |
|---|---|---|---|---|
| (in millions) | Avg | Min | Max | March 31, 2020 |
| **CIB VBM by risk type** | | | | |
| Interest rate[(a)] | $181 | $ 92 | $ 440 | $ 418 |
| Credit spread[(a)] | 242 | 96 | 726 | 690 |
| Foreign exchange | 34 | 20 | 51 | 38 |
| Equities | 89 | 52 | 208 | 169 |
| Commodities and other | 58 | 31 | 221 | 207 |
| Diversification benefit | (276) (b) | NM (c) | NM (c) | (452) (b) |
| **Total CIB VBM** | 328 | 135 | 1,070 | 1,070 |
| **Total Firm VBM** | $323 | $126 | $1,069 | $ 1,069 |

(a) For certain products and portfolios, a full revaluation model is used to calculate VBM, which considers both interest rate and credit spread risks together. As such, the Firm allocates the results of the full revaluation model between interest rate and credit spread risk based on the predominant characteristics of the product or portfolio.
(b) Average portfolio VBM and period-end portfolio VBM were less than the sum of the components described above due to portfolio diversification.
(c) Designated as not meaningful ("NM"), because the minimum and maximum may occur on different days for different risk components, and hence it is not meaningful to compute a portfolio-diversification effect.

The following table presents the results of the Firm's VBM capital requirement, which is calculated as the higher of (1) the 60-day average measure scaled by the Firm's regulatory multiplier and (2) the quarter-end spot measure. As of March 31, 2020, the Firm's regulatory multiplier was 3, based on regulatory guidance issued in response to the market volatility that occurred in the first quarter of 2020.

| Three months ended March 31, 2020 (in millions) | Risk-based capital | RWA |
|---|---|---|
| **Firm modeled VBM** | $ 1,069 | $ 13,360 |

➢ Refer to pages 121–123 of the 2019 Form 10-K for additional information on Value-at-risk and Risk Management VaR in the Market Risk Management section.

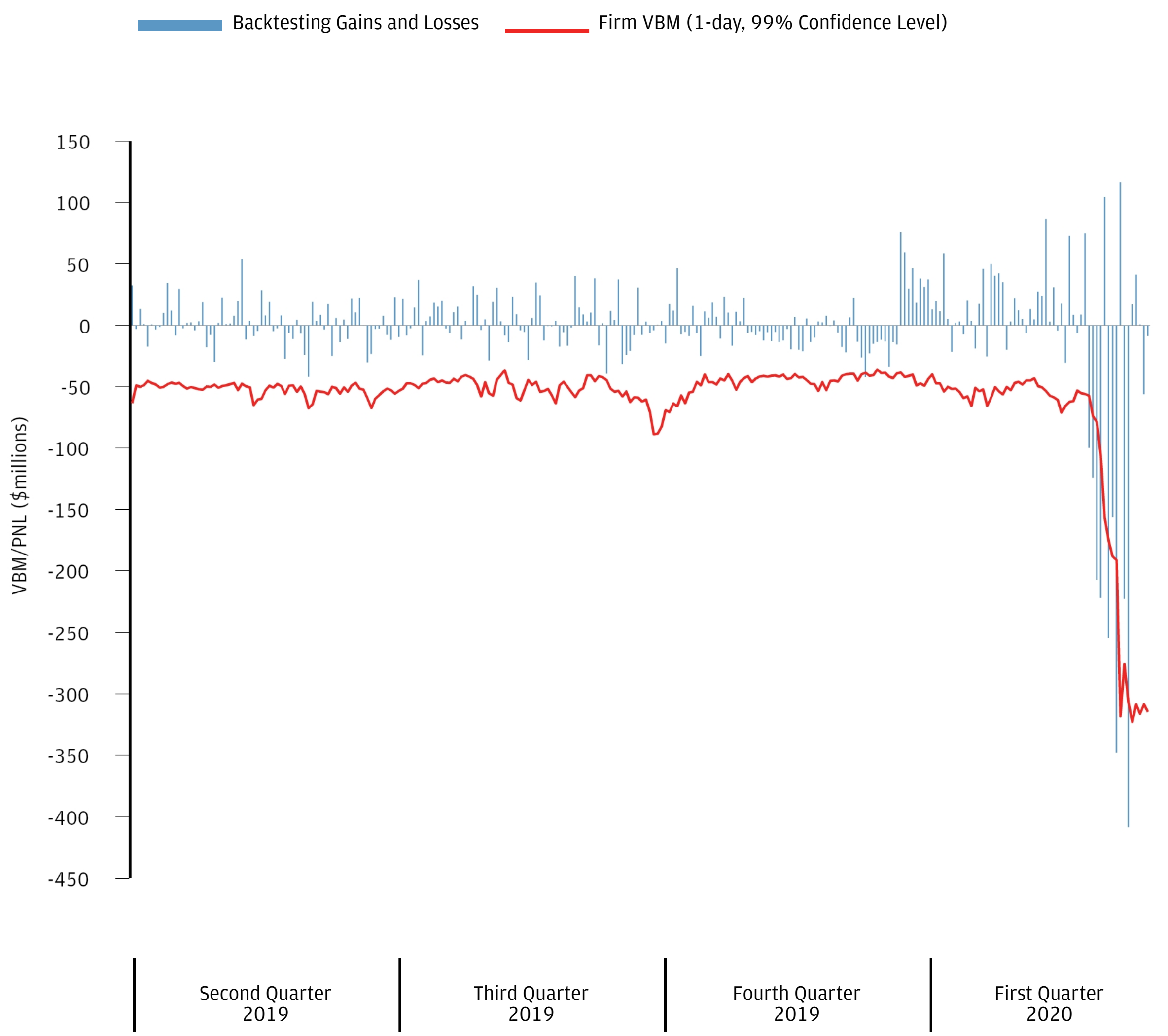
*VBM backtesting*

As required by Basel III capital rules, the Firm performs daily VBM model backtesting on covered positions, which compares the daily VBM results (for a one-day holding period and a 99% confidence level) with the daily gains and losses that are utilized for VBM backtesting purposes. The gains and losses in the chart below do not reflect the Firm's revenue results as they exclude select components of total net revenue, such as those associated with the execution of new transactions (i.e., intraday client-driven trading and intraday risk management activities), fees, commissions, certain valuation adjustments and net interest income. These excluded components of total net revenue may more than offset backtesting gains and losses on a particular day. The following chart compares Firmwide daily backtesting gains and losses with the Firm's VBM for the 12 months ended March 31, 2020.

The results in the chart below differ from the results of backtesting disclosed in the Market Risk section of the Firm's Form 10-Q, which are based on the Firm's Risk Management VaR. For the 12 months ended March 31, 2020, the Firm observed eight backtesting exceptions, seven of which were in the first quarter of 2020 due to volatility resulting from the COVID-19 pandemic, and posted backtesting gains on 138 of the 260 trading days. The number of VaR backtesting exceptions observed can differ from the statistically expected number of backtesting exceptions if the current level of market volatility is materially different from the level of market volatility during the historical period used to calibrate the VaR model.

**Daily Firmwide VBM Backtesting Results**

12 months ended March 31, 2020



*Stressed VaR-Based Measure ("SVBM")*

The SVBM is an aggregate loss measure based on Regulatory VaR and SR models whose inputs are calibrated using historical data from a continuous 12-month period that reflects a period of significant financial stress relevant to the Firm's current portfolio. SVBM is calculated weekly assuming a 10-day holding period and a 99% confidence level. The Firm's selection of the one-year period of significant financial stress is evaluated on an ongoing basis.

The following table presents the average, minimum, maximum and final week of the quarter SVBM for the CIB and the Firm.

| | Three months ended March 31, 2020 | | | |
|---|---|---|---|---|
| (in millions) | Avg. | Min | Max | March 31, 2020[(a)] |
| **Total CIB SVBM** | $ 631 | $ 437 | $ 869 | $ 811 |
| **Total Firm SVBM** | $ 668 | $ 439 | $ 1,069 | $ 1,069 |

(a) Represents the SVBM for the final week of the quarter, in line with Basel III rules. The measurement date need not coincide with the quarter-end date.

The following table presents the results of the Firm's SVBM capital requirement, which is calculated as the higher of (1) the 60-day average measure scaled by the Firm's regulatory multiplier and (2) the quarter-end spot measure. As of March 31, 2020, the Firm's regulatory multiplier was 3, based on regulatory guidance issued in response to the market volatility that occurred in the first quarter of 2020.

| Three months ended March 31, 2020 (in millions) | Risk-based capital | RWA |
|---|---|---|
| **Firm modeled SVBM** | 2,003 | $ 25,040 |

*Incremental Risk Charge ("IRC")*

The IRC measure captures the risks of issuer default and credit migration that are incremental to the risks already captured in the VBM. The model is intended to measure the potential loss over a one-year holding period at a 99.9% confidence level and is applicable to debt positions that are not correlation trading or securitization positions. The IRC is calculated on a weekly basis.

➢ For information on the Firm's IRC model, refer to Market risk on page 29 of the 4Q19 Pillar 3 Report.

The following table presents the average, minimum, maximum and period-end IRC for the CIB.

| | Three months ended March 31, 2020 | | | |
|---|---|---|---|---|
| (in millions) | Avg. | Min | Max | March 31, 2020 |
| **CIB IRC on trading positions** | $ 360 | $ 242 | $ 475 | $ 242 |

The following table presents the IRC risk-based capital requirement for the CIB, which is the same as the risk measure itself.

| Three months ended March 31, 2020 (in millions) | Risk-based capital | RWA |
|---|---|---|
| **Total CIB IRC**[(a)] | $ 360 | $ 4,499 |

(a) IRC reflects the higher of the quarterly average and period-end spot measure under the Basel III capital rules.

*Comprehensive Risk Measure ("CRM")*

The CRM captures the material price risks of portfolios of correlation trading positions. Correlation trading positions refer to client-driven, market-making activities in credit index and bespoke tranche swaps that are hedged with single-name and index credit default swap positions. The CRM risk-based capital requirement is the greater of modeled CRM and a floor, which is equal to 8% of the total specific risk add-on for such positions using a non-modeled approach.

Similar to the IRC, the CRM model measures potential losses over a one-year holding period at a 99.9% confidence level. The CRM is calculated on a weekly basis.

➢ For information on the Firm's CRM model, refer to Market risk on page 29–30 of the 4Q19 Pillar 3 Report.

The following table presents the average, minimum, maximum and period-end CRM for the CIB

| | Three months ended March 31, 2020 | | | |
|---|---|---|---|---|
| (in millions) | Avg. | Min | Max | March 31, 2020 |
| **CIB CRM** | $ 114 | $ 69 | $ 218 | $ 109 |

The following table presents the CRM risk-based capital requirement for the CIB, which is the same as the risk measure itself.

| Three months ended March 31, 2020 (in millions) | Risk-based capital | RWA |
|---|---|---|
| **Total CIB CRM** [(a)] | $ 114 | $ 1,423 |

(a) CRM reflects the higher of the quarterly average and period-end spot measure under the Basel III capital rules.

*Aggregate securitization positions*

- For information on the aggregate amount of on-balance sheet and off-balance sheet securitization positions with the exception of modelled correlation trading positions, which are included in this section by exposure type, refer to Securitization on page 16 of this report.

*Aggregate correlation trading positions*

The following table presents the net notional amount and fair value of the Firm's aggregate correlation trading positions and the associated credit hedges. Credit hedges of the correlation trading positions are included as they are considered to be part of the aggregate correlation trading positions.

| March 31, 2020 (in millions) | | Notional amount[(a)] | | Fair value[(b)] |
|---|---|---|---|---|
| Positions modeled in CRM | $ | (2,206) | $ | (40) |
| Positions not modeled in CRM | | 120 | | 1 |
| **Total correlation trading positions** | $ | (2,086) | $ | (39) |

(a) Reflects the net of the notional amount of the correlation trading portfolio, including credit hedges. Negative balances, if any, reflect aggregate net short correlation trading positions.
(b) Reflects the fair value of securities and derivatives, including credit hedges.

*Non-modeled specific risk*

Non-modeled specific risk is calculated using supervisory-prescribed risk weights and methodologies for covered debt, equity and securitization positions that are not included in modeled SR. The market risk-based capital and risk-weighted assets for non-modeled specific risk are shown in the table below.

| March 31, 2020 (in millions) | | Risk-based capital | | RWA |
|---|---|---|---|---|
| Securitization positions[(a)] | $ | 387 | $ | 4,834 |
| Non-securitization positions | | 3,963 | | 49,535 |
| **Total Non-modeled specific risk** | $ | 4,350 | $ | 54,369 |

(a) Represents trading book securitization RWA only.

*Other charges*

Other charges reflect exposures receiving alternative capital treatments.

| March 31, 2020 (in millions) | | Risk-based capital | | RWA |
|---|---|---|---|---|
| **Total Firm other charges** | $ | 94 | $ | 1,185 |

**Independent review of market risk regulatory capital models**

- For information on the independent review of the market risk regulatory capital models, refer to Market risk on page 31 of the 4Q19 Pillar 3 Report and to Estimations and Model Risk Management on pages 135 of the 2019 Form 10-K .

**Stress testing**

Along with VaR, stress testing is an important tool used to assess risk. While VaR reflects the risk of loss due to adverse changes in markets using recent historical market behavior, stress testing reflects the risk of loss from hypothetical changes in the value of market risk sensitive positions applied simultaneously. Stress testing measures the Firm's vulnerability to losses under a range of stressed but possible economic and market scenarios. The results are used to understand the exposures responsible for those potential losses and are measured against limits.

- For information on the stress testing scenarios and framework, refer to Stress testing on page 124 of the 2019 Form 10-K.
- Refer to page 67 of 1Q20 Form 10-Q for a discussion of Managing Market Risks in response to the COVID-19 pandemic.

Operational risk is the risk associated with an adverse outcome resulting from inadequate or failed internal processes or systems; human factors; or external events impacting the Firm's processes or systems; it includes compliance, conduct, legal, and estimations and model risk. Operational risk is inherent in the Firm's activities and can manifest itself in various ways, including fraudulent acts, business interruptions, cybersecurity attacks, inappropriate employee behavior, failure to comply with applicable laws and regulations or failure of vendors to perform in accordance with their agreements. Operational Risk Management attempts to manage operational risk at appropriate levels in light of the Firm's financial position, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

- Refer to pages 129–131 of the 2019 Form 10-K and pages 73 of the 1Q20 Form 10-Q, for a discussion of Operational Risk Management and page 42 of Capital Risk Management for operational risk RWA.

**Operational Risk Measurement**

- Refer to Operational Risk Management on page 134–136 of the 2019 Form 10-K for information related to operational risk measurement.
- Refer to Capital Risk Management on page 85–94 of the 2019 Form 10-K and page 42 of the 1Q20 Form 10-Q for operational risk RWA.

**Other operational risks**

- Refer to Operational Risk Management on page 134–136 of the 2019 Form 10-K for information related to other operational risks that can lead to losses which are captured through the Firm's operational risk measurement processes.

**Earnings-at-risk**

The effect of interest rate exposure on the Firm's reported net income is important as interest rate risk represents one of the Firm's significant market risks. Interest rate risk arises not only from trading activities but also from the Firm's traditional banking activities, which include extension of loans and credit facilities, taking deposits and issuing debt as well as from the investment securities portfolio.

- Refer to page 70-71 of the 1Q20 Form 10-Q and pages 124-126 of the 2019 Form 10-K for a detailed discussion of Earnings-at-risk.
- Refer to the table on page 120 of the 2019 Form 10-K for a summary of positions included in earnings-at-risk.

The SLR is defined as Tier 1 capital under the Basel III capital rules divided by the Firm's total leverage exposure. The tables below present the components of the Firm's SLR as of March 31, 2020 with on-balance sheet amounts calculated as the quarterly average and off-balance sheet amounts calculated as the average of each of the three month's period-end balances.

### Summary comparison of accounting assets and total leverage exposure

| March 31, 2020 (in millions, except ratio) | Basel III Advanced CECL Transitional |
|---|---|
| **Basel III Advanced Tier 1 capital** | **$ 213,406** |
| **Total spot assets** | **3,139,431** |
| Add: Adjustments for frequency of calculations[a] | (249,199) |
| **Total average assets** | **2,890,232** |
| Less: Adjustments for deductions from Tier 1 capital[b] | 46,889 |
| Add adjustments for: | |
| Adjustment for derivative transactions | 339,151 |
| Adjustment for repo-style transactions | 42,741 |
| Adjustment for off-balance sheet exposures[c] | 307,502 |
| Other[d] | 3,085 |
| **Total leverage exposure** | **$ 3,535,822** |
| **Basel III Advanced SLR** | **6.0%** |

(a) The adjustment for frequency of calculations represents the difference between total spot assets at March 31, 2020, and average assets for the three months ended March 31, 2020.
(b) Adjustments that are subject to deduction from Tier 1 capital are predominantly goodwill and other intangible assets.
(c) Off-balance sheet exposures are calculated as the average of the three month-end spot balances during the reporting quarter.
(d) Includes adjustments for the CECL capital transition provisions and the exclusion of assets purchased from money market mutual fund clients pursuant to nonrecourse advances provided under the MMLF.

### Derivative transactions

The following table presents the components of total derivative exposure.

| (in millions) | March 31, 2020 |
|---|---|
| Replacement cost for all derivative transactions[a] | $ 62,954 |
| Add-on amounts for potential future exposure ("PFE") for all derivative transactions | 387,951 |
| Gross-up for collateral posted in derivative transactions if collateral is deducted from on-balance sheet assets | 542 |
| Less: Exempted exposures to central counterparties ("CCPs") in cleared transactions | 81,522 |
| Adjusted effective notional principal amount of sold credit protection | 699,856 |
| Less: Effective notional principal amount offsets and PFE deductions for sold credit protection | 664,790 |
| **Total derivative exposure[b]** | **404,991** |
| Less: On-balance-sheet average derivative receivables | 65,840 |
| **Adjustment for derivative transactions** | **$ 339,151** |

(a) Includes cash collateral received of $1.3 billion.
(b) Receivables for cash variation margin that are posted under a qualifying derivative contract where the Firm has obtained an appropriate legal opinion with respect to master netting agreements with the same counterparty, and where other relevant criteria under U.S. GAAP are met, are netted against derivative liabilities and are not included in on-balance sheet assets.

### Repo-style transactions

The following table presents the components of total exposures for repo-style transactions.

| (in millions) | March 31, 2020 |
|---|---|
| Gross assets for repo-style transactions[a] | $ 809,811 |
| Less: amounts netted[b] | 421,497 |
| Counterparty credit risk for all repo-style transactions | 43,932 |
| Exposure amount for repo-style transactions where the Firm acts as an agent[c] | 8 |
| **Total exposures for repo-style exposures** | **432,254** |
| Less: on-balance sheet amounts | |
| Securities purchased under resale agreements | 253,386 |
| Securities borrowed | 136,127 |
| **Adjustment for repo-style transactions** | **$ 42,741** |

(a) Excludes the value of securities received as collateral where the Firm as securities lender has not sold or rehypothecated the collateral securities received.
(b) Reflects netting of transactions where the Firm has obtained an appropriate legal opinion with respect to master netting agreements with the same counterparty, and where other relevant criteria under U.S. GAAP are met.
(c) Includes exposures where the Firm's guarantee is greater than the difference between the fair value of the security or cash the Firm's customer has lent and the value of the collateral provided.

### Other off-balance sheet exposures

The following table presents wholesale and retail commitments after applying the relevant credit conversion factors.

| (in millions) | March 31, 2020 |
|---|---|
| Off-balance sheet exposures - gross notional amounts | $ 1,165,408 |
| Less: Adjustments for conversion to credit equivalent amounts | 857,906 |
| **Adjustment for other off-balance sheet exposures** | **$ 307,502** |

**Valuation process**

For a discussion of the Firm's valuation methodologies for assets, liabilities and lending-related commitments measured at fair value and the fair value hierarchy, refer to Valuation Process on pages 154–174 in the Note 2 of the 2019 Form 10-K.

- Refer to Note 2 on page 87-98 of the 1Q20 Form 10-Q , for information on credit and funding valuation adjustments.

**References to JPMorgan Chase's 2019 Form 10-K and 1Q20 Form 10-Q**

JPMorgan Chase's 1Q20 Form 10-Q contains important information on the Firm's risk management policies and practices, capital management processes, and accounting policies relevant to this report. Specific references are listed below.

**Management's discussion and analysis**



**Notes to consolidated financial statements**