UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

Quarterly report pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

For the quarterly period ended	Commission file
September 30, 2021	number 1-5805

JPMorgan Chase & Co.

(Exact name of registrant as specified in its charter)

Delaware	13-2624428
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification no.)
383 Madison Avenue, New York, New York	10179
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (212) 270-6000
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock	JPM	The New York Stock Exchange
Depositary Shares, each representing a one-four hundredth interest in a share of 5.75% Non-Cumulative Preferred Stock, Series DD	JPM PR D	The New York Stock Exchange
Depositary Shares, each representing a one-four hundredth interest in a share of 6.00% Non-Cumulative Preferred Stock, Series EE	JPM PR C	The New York Stock Exchange
Depositary Shares, each representing a one-four hundredth interest in a share of 4.75% Non-Cumulative Preferred Stock, Series GG	JPM PR J	The New York Stock Exchange
Depositary Shares, each representing a one-four hundredth interest in a share of 4.55% Non-Cumulative Preferred Stock, Series JJ	JPM PR K	The New York Stock Exchange
Depositary Shares, each representing a one-four hundredth interest in a share of 4.625% Non-Cumulative Preferred Stock, Series LL	JPM PR L	The New York Stock Exchange
Depositary Shares, each representing a one-four hundredth interest in a share of 4.20% Non-Cumulative Preferred Stock, Series MM	JPM PR M	The New York Stock Exchange
Alerian MLP Index ETNs due May 24, 2024	AMJ	NYSE Arca, Inc.
Guarantee of Callable Fixed Rate Notes due June 10, 2032 of JPMorgan Chase Financial Company LLC	JPM/32	The 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 (§232.405 of this chapter) 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, a 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.

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

Number of shares of common stock outstanding as of September 30, 2021: 2,955,266,061

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JPMorgan Chase & Co.
Consolidated financial highlights (unaudited)

As of or for the period ended, (in millions, except per share, ratio, headcount data and where otherwise noted)						Nine months ended Sept 30,	
	3Q21	2Q21	1Q21	4Q20	3Q20	**2021**	2020
Selected income statement data							
Total net revenue[(a)]	**$ 29,647**	$ 30,479	$ 32,266	$ 29,335	$ 29,255	**$ 92,392**	$ 90,616
Total noninterest expense	**17,063**	17,667	18,725	16,048	16,875	**53,455**	50,608
Pre-provision profit[(b)]	**12,584**	12,812	13,541	13,287	12,380	**38,937**	40,008
Provision for credit losses	**(1,527)**	(2,285)	(4,156)	(1,889)	611	**(7,968)**	19,369
Income before income tax expense	**14,111**	15,097	17,697	15,176	11,769	**46,905**	20,639
Income tax expense[(a)]	**2,424**	3,149	3,397	3,040	2,326	**8,970**	3,644
Net income	**$ 11,687**	$ 11,948	$ 14,300	$ 12,136	$ 9,443	**$ 37,935**	$ 16,995
Earnings per share data							
Net income: Basic	**$ 3.74**	$ 3.79	$ 4.51	$ 3.80	$ 2.93	**$ 12.05**	$ 5.10
Diluted	**3.74**	3.78	4.50	3.79	2.92	**12.02**	5.09
Average shares: Basic	**2,999.9**	3,036.6	3,073.5	3,079.7	3,077.8	**3,036.4**	3,083.3
Diluted	**3,005.1**	3,041.9	3,078.9	3,085.1	3,082.8	**3,041.7**	3,088.1
Market and per common share data							
Market capitalization	**483,748**	464,778	460,820	387,492	293,451	**483,748**	293,451
Common shares at period-end	**2,955.3**	2,988.2	3,027.1	3,049.4	3,048.2	**2,955.3**	3,048.2
Book value per share	**86.36**	84.85	82.31	81.75	79.08	**86.36**	79.08
Tangible book value per share ("TBVPS")[(b)]	**69.87**	68.91	66.56	66.11	63.93	**69.87**	63.93
Cash dividends declared per share	**1.00**	0.90	0.90	0.90	0.90	**2.80**	2.70
Selected ratios and metrics							
Return on common equity ("ROE")[(c)]	**18 %**	18 %	23 %	19 %	15 %	**20 %**	9 %
Return on tangible common equity ("ROTCE")[(b)(c)]	**22**	23	29	24	19	**24**	11
Return on assets[(c)]	**1.24**	1.29	1.61	1.42	1.14	**1.37**	0.72
Overhead ratio	**58**	58	58	55	58	**58**	56
Loans-to-deposits ratio	**43**	45	44	47	49	**43**	49
Firm Liquidity coverage ratio ("LCR") (average)[(d)]	**112**	111	110	110	114	**112**	114
JPMorgan Chase Bank, N.A. LCR (average)[(d)]	**174**	171	166	160	157	**174**	157
Common equity Tier 1 ("CET1") capital ratio[(e)]	**12.9**	13.0	13.1	13.1	13.1	**12.9**	13.1
Tier 1 capital ratio[(e)]	**15.0**	15.1	15.0	15.0	15.0	**15.0**	15.0
Total capital ratio[(e)]	**16.9**	17.1	17.2	17.3	17.3	**16.9**	17.3
Tier 1 leverage ratio[(e)]	**6.6**	6.6	6.7	7.0	7.0	**6.6**	7.0
Supplementary leverage ratio ("SLR")[(e)]	**5.5**	5.4	6.7	6.9	7.0	**5.5**	7.0
Selected balance sheet data (period-end)							
Trading assets	**$ 515,901**	$ 520,588	$ 544,052	$ 503,126	$ 505,822	**$ 515,901**	$ 505,822
Investment securities, net of allowance for credit losses	**595,132**	573,637	597,394	589,999	531,136	**595,132**	531,136
Loans	**1,044,615**	1,040,954	1,011,307	1,012,853	989,740	**1,044,615**	989,740
Total assets[(a)]	**3,757,576**	3,684,256	3,689,336	3,384,757	3,245,061	**3,757,576**	3,245,061
Deposits	**2,402,353**	2,305,217	2,278,112	2,144,257	2,001,416	**2,402,353**	2,001,416
Long-term debt	**298,465**	299,926	279,427	281,685	279,175	**298,465**	279,175
Common stockholders' equity	**255,203**	253,548	249,151	249,291	241,050	**255,203**	241,050
Total stockholders' equity	**290,041**	286,386	280,714	279,354	271,113	**290,041**	271,113
Headcount	**265,790**	260,110	259,350	255,351	256,358	**265,790**	256,358
Credit quality metrics							
Allowances for loan losses and lending-related commitments	**$ 20,455**	$ 22,498	$ 25,517	$ 30,737	$ 33,637	**$ 20,455**	$ 33,637
Allowance for loan losses to total retained loans	**1.86 %**	2.02 %	2.42 %	2.95 %	3.26 %	**1.86 %**	3.26 %
Nonperforming assets	**$ 8,882**	$ 9,802	$ 10,257	$ 10,906	$ 11,462	**$ 8,882**	$ 11,462
Net charge-offs	**524**	734	1,057	1,050	1,180	**2,315**	4,209
Net charge-off rate	**0.21 %**	0.31 %	0.45 %	0.44 %	0.49 %	**0.32 %**	0.58 %

(a) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.
(b) Pre-provision profit, TBVPS and ROTCE are each non-GAAP financial measures. Tangible common equity ("TCE") is also a non-GAAP financial measure. Refer to Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 20-21 for a further discussion of these measures.
(c) Quarterly ratios are based upon annualized amounts.
(d) For the nine months ended September 30, 2021 and 2020, the percentage represents average LCR for the three months ended September 30, 2021 and 2020. Refer to Liquidity Risk Management on pages 54-58 for additional information on the LCR results.
(e) The capital metrics reflect the relief provided by the Federal Reserve Board in response to the COVID-19 pandemic, including the Current Expected Credit Losses ("CECL") capital transition provisions that became effective in the first quarter of 2020. The SLR prior to the periods ended June 30, 2021 reflects the temporary exclusions of U.S. Treasury securities and deposits at Federal Reserve Banks, which became effective April 1, 2020 and remained in effect through March 31, 2021. Refer to Capital Risk Management on pages 48-53 of this Form 10-Q and pages 91-101 of JPMorgan Chase's 2020 Form 10-K for additional information.

The following is Management's discussion and analysis of the financial condition and results of operations ("MD&A") of JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm") for the third quarter of 2021.

This Quarterly Report on Form 10-Q for the third quarter of 2021 ("Form 10-Q") should be read together with JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2020 ("2020 Form 10-K"). Refer to the Glossary of terms and acronyms and line of business ("LOB") metrics on pages 185-193 for definitions of terms and acronyms used throughout this Form 10-Q.

This Form 10-Q contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on the current beliefs and expectations of JPMorgan Chase's management, speak only as of the date of this Form 10-Q and are subject to significant risks and uncertainties. Refer to Forward-looking Statements on page 90 of this Form 10-Q, Part II, Item 1A, Risk Factors on pages 194-195 of this Form 10-Q and Part I, Item 1A, Risk factors, on pages 8-32 of the 2020 Form 10-K for a discussion of certain of those risks and uncertainties and the factors that could cause JPMorgan Chase's actual results to differ materially because of those risks and uncertainties. There is no assurance that actual results will be in line with any outlook information set forth herein, and the Firm does not undertake to update any forward-looking statements.

JPMorgan Chase & Co. (NYSE: JPM), a financial holding company incorporated under Delaware law in 1968, is a leading financial services firm based in the United States of America ("U.S."), with operations worldwide. JPMorgan Chase had $3.8 trillion in assets and $290.0 billion in stockholders' equity as of September 30, 2021. 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 globally.

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 48 states and Washington, D.C. as of September 30, 2021. 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 management reporting purposes, the Firm's activities are organized into four major reportable business segments, as well as a Corporate segment. The Firm's consumer business segment is Consumer & Community Banking ("CCB"). The Firm's wholesale business segments are the Corporate & Investment Bank ("CIB"), Commercial Banking ("CB"), and Asset & Wealth Management ("AWM"). Refer to Note 25 of this Form 10-Q and Note 32 of JPMorgan Chase's 2020 Form 10-K for a description of the Firm's business segments and the products and services they provide to their respective client bases.

The Firm's website is www.jpmorganchase.com. JPMorgan Chase makes available on its website, free of charge, annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as soon as reasonably practicable after it electronically files or furnishes such material to the U.S. Securities and Exchange Commission (the "SEC") at www.sec.gov. JPMorgan Chase makes important information about the Firm available on its website at https://www.jpmorganchase.com, including on the Investor Relations section of its website at https://www.jpmorganchase.com/ir.

EXECUTIVE OVERVIEW

This executive overview of the MD&A highlights selected information and does not contain all of the information that is important to readers of this Form 10-Q. For a complete description of the trends and uncertainties, as well as the risks and critical accounting estimates affecting the Firm, this Form 10-Q and the 2020 Form 10-K should be read together and in their entirety.

Financial performance of JPMorgan Chase

(unaudited) As of or for the period ended, (in millions, except per share data and ratios)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Selected income statement data						
Total net revenue(a)	**$ 29,647**	$ 29,255	1 %	**$ 92,392**	$ 90,616	2 %
Total noninterest expense	**17,063**	16,875	1	**53,455**	50,608	6
Pre-provision profit	**12,584**	12,380	2	**38,937**	40,008	(3)
Provision for credit losses	**(1,527)**	611	NM	**(7,968)**	19,369	NM
Net income	**11,687**	9,443	24	**37,935**	16,995	123
Diluted earnings per share	**$ 3.74**	$ 2.92	28	**$ 12.02**	$ 5.09	136
Selected ratios and metrics						
Return on common equity	**18%**	15%		**20%**	9%	
Return on tangible common equity	**22**	19		**24**	11	
Book value per share	**$ 86.36**	$ 79.08	9	**$ 86.36**	$ 79.08	9
Tangible book value per share	**69.87**	63.93	9	**69.87**	63.93	9
Capital ratios(b)						
CET1 capital	**12.9%**	13.1%		**12.9%**	13.1%	
Tier 1 capital	**15.0**	15.0		**15.0**	15.0	
Total capital	**16.9**	17.3		**16.9**	17.3	

(a) Prior-period amount has been revised to conform with the current presentation. Refer to Note 1 for further information.
(b) The capital metrics reflect the relief provided by the Federal Reserve Board in response to the COVID-19 pandemic, including the CECL capital transition provisions that became effective in the first quarter of 2020. Refer to Capital Risk Management on pages 48-53 of this Form 10-Q and pages 91-101 of JPMorgan Chase's 2020 Form 10-K for additional information.

Comparisons noted in the sections below are for the third quarter of 2021 versus the third quarter of 2020, unless otherwise specified.

Firmwide overview

JPMorgan Chase reported net income of $11.7 billion for the third quarter of 2021, or $3.74 per share, on net revenue of $29.6 billion. The Firm reported ROE of 18% and ROTCE of 22%. The Firm's results for the third quarter of 2021 included a reduction in the allowance for credit losses of $2.1 billion and an income tax benefit of $566 million related to finalizing the Firm's 2020 U.S. federal tax return. The tax benefit included state and local impacts of federal tax method changes and a reduction in the valuation allowance for U.S. foreign tax credits.

- Net income was $11.7 billion, up $2.2 billion.
- Total net revenue was up 1%.
  - Noninterest revenue was $16.6 billion, up 2%, driven by higher Investment Banking fees in CIB and asset management fees in AWM, predominantly offset by net investment securities losses in Corporate compared to net gains in the prior year, and lower revenue in Home Lending.
  - Net interest income was $13.1 billion, up 1%, driven by balance sheet growth and higher market rates, predominantly offset by change in balance sheet mix and lower net interest income in CIB Markets.
- Noninterest expense was $17.1 billion, up 1%, driven by continued investments in the business, including marketing and technology, and higher volume- and revenue-related expense, predominantly offset by lower legal expense and structural expense. Noninterest expense for the prior year included an impairment on a legacy investment.
- The provision for credit losses was a net benefit of $1.5 billion, reflecting a net reduction in the allowance for credit losses of $2.1 billion, driven by improvements in the Firm's macroeconomic outlook, and $524 million of net charge-offs.
  - The net reserve release in the current period consisted of $1.2 billion in Wholesale and $874 million in Consumer, driven by $850 million in Card.
  - Net charge-offs of $524 million declined $656 million, predominantly driven by Card.

  The prior year provision was an expense of $611 million, reflecting $1.2 billion of net charge-offs and a net reduction in the allowance for credit losses of $569 million.

- The total allowance for credit losses was $20.5 billion at September 30, 2021. The Firm had an allowance for loan losses to retained loans coverage ratio of 1.86%, compared with 2.02% in the second quarter of 2021, and 3.26% in the prior year.
- The Firm's nonperforming assets totaled $8.9 billion at September 30, 2021, a decrease of $2.6 billion from the prior year, driven by:
  - paydowns and upgrades in the wholesale portfolio, across CB, CIB and AWM, and
  - lower nonaccrual loans at fair value in the consumer portfolio due to sales in CIB.

  Nonperforming assets were down $920 million from June 30, 2021, driven by lower nonaccrual loans in the wholesale and consumer portfolios, reflecting improved credit performance and paydowns.
- Firmwide average loans of $1.0 trillion were up 5% driven by higher loans in CIB and AWM, partially offset by lower loans in CB and CCB.
- Firmwide average deposits of $2.4 trillion were up 19%, reflecting significant inflows across the LOBs primarily driven by the effect of certain government actions in response to the COVID-19 pandemic.

Selected capital-related metrics

- The Firm's CET1 capital was $210 billion, and the Standardized and Advanced CET1 ratios were 12.9% and 13.6%, respectively.
- The Firm's SLR was 5.5%.
- The Firm grew TBVPS, ending the third quarter of 2021 at $69.87, up 9% versus the prior year.

Pre-provision profit, ROTCE, TCE and TBVPS are non-GAAP financial measures. Refer to Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 20-21 for a further discussion of each of these measures.

Business segment highlights

Selected business metrics for each of the Firm's four LOBs are presented below for the third quarter of 2021.

CCB ROE 34%	• Average deposits up 20%; client investment assets up 29% • Average loans down 2% YoY and up 1% QoQ; Card net charge-off rate of 1.39% • Debit and credit card sales volume[(a)] up 26% • Active mobile customers up 10%
CIB ROE 26%	• #1 ranking for Global Investment Banking fees with 9.4% wallet share YTD • Total Markets revenue of $6.3 billion, down 5%, with Fixed Income Markets down 20% and Equity Markets up 30%
CB ROE 22%	• Gross Investment Banking revenue of $1.3 billion, up 60% • Average loans down 7% YoY and 1% QoQ; average deposits up 21%
AWM ROE 33%	• Assets under management ("AUM") of $3.0 trillion, up 17% • Average loans up 20% YoY and 3% QoQ; average deposits up 41%

(a) Excludes Commercial Card.

Refer to the Business Segment Results on pages 22-46 for a detailed discussion of results by business segment.

Credit provided and capital raised

JPMorgan Chase continues to support consumers, businesses and communities around the globe. The Firm provided new and renewed credit and raised capital for wholesale and consumer clients during the first nine months of 2021, consisting of:

$2.4 trillion	Total credit provided and capital raised (including loans and commitments)[(a)]
$238 billion	Credit for consumers
$15 billion	Credit for U.S. small businesses
$957 billion	Credit for corporations
$1.2 trillion	Capital raised for corporate clients and non-U.S. government entities
$46 billion	Credit and capital raised for nonprofit and U.S. government entities[(b)]
$11 billion	Loans under the Small Business Administration's Paycheck Protection Program

(a) Excludes loans under the SBA's PPP.
(b) Includes states, municipalities, hospitals and universities.

Recent events

- On September 21, 2021, JPMorgan Chase launched its digital retail bank in the U.K.
- On August 9, 2021, JPMorgan Chase announced that the China Securities Regulatory Commission has approved the registration of J.P. Morgan International Finance Limited to take 100% ownership of J.P. Morgan Securities (China) Company Limited.
- On August 4, 2021, JPMorgan Chase announced that it has opened bank branches in all of the lower 48 states.
- Firm acquisitions and investments:
  - On October 13, 2021, JPMorgan Chase acquired restaurant discovery platform The Infatuation.
  - On September 14, 2021, JPMorgan Chase acquired college financial aid resource platform Frank.
  - On September 8, 2021, JPMorgan Chase announced that it has entered into an agreement with Volkswagen Financial Services to acquire a controlling interest of approximately 75% in the car manufacturer's payments platform, subject to regulatory approvals.

Outlook

These current expectations are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on the current beliefs and expectations of JPMorgan Chase's management, speak only as of the date of this Form 10-Q, and are subject to significant risks and uncertainties. Refer to Forward-Looking Statements on page 90 and Risk Factors on page 194 of this Form 10-Q and pages 8–32 of JPMorgan Chase's 2020 Form 10-K for a further discussion of certain of those risks and uncertainties and the other factors that could cause JPMorgan Chase's actual results to differ materially because of those risks and uncertainties. There is no assurance that actual results will be in line with the outlook information set forth below, and the Firm does not undertake to update any forward-looking statements.

JPMorgan Chase's current outlook for 2021 should be viewed against the backdrop of the global and U.S. economies, the COVID-19 pandemic, financial markets activity, the geopolitical environment, the competitive environment, client and customer activity levels, and regulatory and legislative developments in the U.S. and other countries where the Firm does business. Each of these factors will affect the performance of the Firm and its LOBs. The Firm will continue to make appropriate adjustments to its businesses and operations in response to ongoing developments in the business, economic, regulatory and legal environments in which it operates.

Full-year 2021

- Management expects net interest income, on a managed basis, to be approximately $52.5 billion, market dependent.
- Management expects adjusted expense to be approximately $71 billion, market dependent.
- Management expects the net charge-off rate in Card to be approximately 2.0%.

Net interest income, on a managed basis, and adjusted expense are non-GAAP financial measures. Refer to Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 20-21.

Business Developments

COVID-19 Pandemic

Throughout the COVID-19 pandemic, the Firm has remained focused on serving its clients, customers and communities, as well as the well-being of its employees.

The Firm continues to actively monitor the health and safety situations at local and regional levels as more of the Firm's global workforce returns to the office, and will adapt its plans as these situations evolve.

For additional information on the impact of U.S. government actions and programs in response to the COVID-19 pandemic, refer to:

- Credit Portfolio on page 60 and page 113 of JPMorgan Chase's 2020 Form 10-K for further information on PPP,
- Consumer Credit portfolio on pages 61-65 and page 116 of JPMorgan Chase's 2020 Form 10-K, and Wholesale Credit Portfolio on pages 66-74 and page 122 of JPMorgan Chase's 2020 Form 10-K for further information on retained loans under payment deferral, and
- Regulatory Developments Relating to the COVID-19 Pandemic on pages 52-53 of JPMorgan Chase's 2020 Form 10-K for a discussion of U.S. government actions impacting the Firm and U.S. government facilities and programs in which the Firm has participated.

Interbank Offered Rate ("IBOR") transition

On March 5, 2021, the U.K. Financial Conduct Authority ("FCA") confirmed that the publication of the principal tenors of the U.S. dollar London Interbank Offered Rate ("LIBOR") (i.e., overnight, one-month, three-month, six-month and 12-month LIBOR) will cease immediately following a final publication on June 30, 2023. The scheduled cessation date for U.K. sterling, Japanese yen, Swiss franc and Euro LIBOR, and the one-week and two-month tenors of U.S. dollar LIBOR, remains December 31, 2021. The Firm continues to prioritize those currencies and tenors of LIBOR for contract remediation and is finalizing its operational readiness to support rate fallback mechanisms across all products that reference IBORs for which publication will cease on December 31, 2021.

The Firm continues to engage with clients to arrange for the remediation of in-scope IBOR-linked contracts, and to amend contracts with clients that are prepared to do so. For example, substantially all of the notional amounts of the Firm's derivatives exposures that are documented under bilateral agreements now contain IBOR fallback provisions by virtue of counterparty adherence to the 2020 International Swaps and Derivatives Association, Inc.'s ("ISDA") IBOR Fallbacks Protocol. The Firm is also prepared for the conversion to alternative reference rates at various central counterparties ("CCPs") scheduled for the fourth quarter of 2021.

The Federal Reserve, the OCC and the FDIC have encouraged banks to cease entering into new contracts that use U.S. dollar LIBOR as a reference rate by December 31, 2021, and in connection with this, the Firm now offers various floating rate products, and provides and arranges various types of floating rate debt financings, that reference the Secured Overnight Financing Rate ("SOFR") across its businesses.

The Firm continues to monitor the transition relief being considered by the U.S. Treasury Department regarding the tax implications of reference rate reform and the legislative progress associated with contracts or instruments that do not have satisfactory rate fallback mechanisms and that cannot easily be amended (e.g., certain floating rate debt securities, securitizations and adjustable rate mortgages). Refer to Business Developments on page 51 of JPMorgan Chase's 2020 Form 10-K for additional information.

CONSOLIDATED RESULTS OF OPERATIONS

This section provides a comparative discussion of JPMorgan Chase's Consolidated Results of Operations on a reported basis for the three and nine months ended September 30, 2021 and 2020, unless otherwise specified. Factors that relate primarily to a single business segment are discussed in more detail within that business segment's results. Refer to pages 86-88 of this Form 10-Q and pages 152-155 of JPMorgan Chase's 2020 Form 10-K for a discussion of the Critical Accounting Estimates Used by the Firm that affect the Consolidated Results of Operations.

Revenue

	Three months ended September 30,			Nine months ended September 30,		
(in millions)	**2021**	2020	Change	**2021**	2020	Change
Investment banking fees	**$ 3,282**	$ 2,187	50 %	**$ 9,722**	$ 6,903	41 %
Principal transactions	**3,546**	4,142	(14)	**14,122**	14,700	(4)
Lending- and deposit-related fees	**1,801**	1,647	9	**5,248**	4,784	10
Asset management, administration and commissions	**5,257**	4,470	18	**15,480**	13,276	17
Investment securities gains/(losses)	**(256)**	473	NM	**(397)**	732	NM
Mortgage fees and related income	**600**	1,087	(45)	**1,855**	2,324	(20)
Card income	**1,005**	1,169	(14)	**4,002**	3,138	28
Other income(a)(b)	**1,332**	1,067	25	**3,650**	3,454	6
Noninterest revenue	**16,567**	16,242	2	**53,682**	49,311	9
Net interest income	**13,080**	13,013	1	**38,710**	41,305	(6)
Total net revenue	**$ 29,647**	$ 29,255	1 %	**$ 92,392**	$ 90,616	2 %

(a) Included operating lease income of $1.2 billion and $1.4 billion for the three months ended September 30, 2021 and 2020, respectively and $3.8 billion and $4.2 billion for the nine months ended September 30, 2021 and 2020, respectively.
(b) Prior-period amount has been revised to conform with the current presentation. Refer to Note 1 for further information.

Quarterly results

Investment banking fees increased across products in CIB, primarily reflecting:

- higher advisory fees driven by increased M&A activity and wallet share gains, and
- higher equity underwriting fees due to wallet share gains and increased activity in the IPO market.

Refer to CIB segment results on pages 29-34 and Note 5 for additional information.

Principal transactions revenue decreased, reflecting:

- lower revenue in CIB Fixed Income Markets across products, particularly in Commodities, Rates and Credit compared to a strong prior year, including an adjustment to liquidity assumptions in the derivatives portfolio; and
- net losses on certain legacy private equity investments in Corporate, compared with net gains in the prior year,

partially offset by

- higher revenue in CIB Equity Markets driven by strong performance across prime brokerage, derivatives and Cash equities.

Principal transactions revenue in CIB may in certain cases have offsets across other revenue lines, including net interest income. The Firm assesses the performance of its CIB Markets business on a total revenue basis.

Refer to CIB segment results on pages 29-34 and Note 5 for additional information.

Lending- and deposit-related fees increased largely as a result of higher cash management fees in CIB and CB.

Refer to CIB segment results on pages 29-34 and CB on pages 35-38, and Note 5 for additional information.

Asset management, administration and commissions revenue increased driven by higher asset management fees in AWM as a result of cumulative net inflows into long-term products and higher average market levels, net of liquidity fee waivers; and in CCB related to the higher level of client investment assets on higher average market levels and net inflows.

Refer to AWM and CCB segment results on pages 39-43, and pages 24-28, respectively, and Note 5 for additional information on asset management, administration and commissions revenue.

Investment securities gains/(losses) reflected net losses related to repositioning the investment securities portfolio, compared with net gains in the prior year from the sales of U.S. GSE and government agency mortgage-backed securities ("MBS"). Refer to Corporate segment results on pages 44-46 and Note 9 for additional information on investment securities gains/(losses).

Mortgage fees and related income decreased due to:

- lower net mortgage servicing revenue reflecting a net loss in MSR risk management results driven by updates to model inputs, compared with a net gain in the prior period, and

- lower mortgage production revenue reflecting lower production margins, partially offset by higher volumes.

Refer to CCB segment results on pages 24-28, Note 5 and 14 for additional information.

Card income decreased reflecting the amortization of higher account origination costs, including promotional offers. Net interchange was relatively flat as the increase in debit and credit card sales volume was offset by an increase to the rewards liability. Refer to CCB segment results on pages 24-28, Critical Accounting Estimates on pages 86-88, and Note 5 for additional information.

Other income increased reflecting:

- higher gains on several investments, predominantly in CIB, and
- the absence of losses in the prior year related to derivatives in Other Corporate and the early termination of certain of the Firm's long-term debt in Treasury and CIO,

partially offset by

- lower auto operating lease income in CCB as a result of the decline in volume.

Net interest income increased driven by balance sheet growth and higher market rates, primarily offset by change in balance sheet mix and lower net interest income in CIB Markets.

The Firm's average interest-earning assets were $3.2 trillion, up $345 billion, primarily driven by higher deposits with banks, and the yield was 1.80%, down 25 basis points ("bps"). The net yield on these assets, on an FTE basis, was 1.62%, a decrease of 20 bps. The net yield excluding CIB Markets was 1.91%, down 14 bps.

Net yield on an FTE basis, and net yield excluding CIB Markets, are non-GAAP financial measures. Refer to the Consolidated average balance sheets, interest and rates schedule on page 183 for further details; and the Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 20-21 for a further discussion of Net interest yield excluding CIB Markets.

Year-to-date results

Investment banking fees increased across products in CIB, reflecting:

- higher advisory fees driven by increased M&A activity and wallet share gains
- higher equity underwriting fees due to increased activity and wallet share gains in the IPO market, and
- higher debt underwriting fees driven by an active leveraged loan market primarily related to acquisition financing.

Principal transactions revenue decreased driven by CIB, reflecting:

- lower revenue in Fixed Income Markets, primarily in Rates, Currencies & Emerging Markets, and Commodities compared to a strong prior year, and an increase in Securitized Products,

partially offset by

- higher revenue in Equity Markets driven by strong performance across derivatives, prime brokerage, and Cash Equities,
- favorable results in Credit Adjustments & Other, with a net gain of $338 million largely driven by valuation adjustments related to derivatives, compared with a $272 million net loss, in the prior year, predominantly driven by losses on certain components of fair-value option elected liabilities, as well as the impact of funding spread widening on derivatives; and
- the absence of losses in Treasury and CIO related to cash deployment transactions in the prior year, which were more than offset by the related net interest income earned on these transactions.

Lending- and deposit-related fees increased as a result of:

- higher cash management fees in CIB and CB, and higher lending-related fees, particularly loan commitment fees in CIB,

predominantly offset by

- lower overdraft fees in CCB.

Asset management, administration and commissions revenue increased driven by:

- higher asset management fees in AWM as a result of strong cumulative net inflows into long-term and liquidity products and higher average market levels, net of liquidity fee waivers; and in CCB related to the higher level of client investment assets on higher average market levels and net inflows, and
- higher custody fees in CIB Securities Services, primarily associated with the higher level of assets under custody.

Investment securities gains/(losses) reflected net losses related to repositioning the investment securities portfolio, compared with net gains in the prior year from the sales of U.S. GSE and government agency MBS.

Mortgage fees and related income decreased due to:

- lower net mortgage servicing revenue reflecting a net loss in MSR risk management results driven by updates to model inputs, compared with a net gain in the prior year,

partially offset by

- higher mortgage production revenue reflecting higher production volumes.

Card income increased due to higher net interchange income and merchant processing fees reflecting the acceleration of debit and credit card sales volume above pre-pandemic levels, and lower amortization costs related to new account originations.

Other income increased reflecting:

- gains on several investments compared with losses in the prior year, primarily in CIB, and higher gains in AWM, and
- the absence of losses in the prior year related to the early termination of certain of the Firm's long-term debt in Treasury and CIO, and derivatives in Other Corporate,

predominantly offset by

- lower auto operating lease income in CCB as a result of the decline in volume, and
- increased amortization on a higher level of alternative energy investments in the tax-oriented investment portfolio in CIB. The increased amortization was more than offset by lower income tax expense from the associated tax credits. Additionally, the first quarter of 2021 included weather-related write-downs on certain renewable energy investments.

Net interest income decreased predominantly driven by the impact of lower market rates and change in balance sheet mix, partially offset by balance sheet growth.

The Firm’s average interest-earning assets were $3.2 trillion, up $454 billion, predominantly driven by higher deposits with banks and investment securities, and the yield was 1.82%, down 65 bps. The net yield on these assets, on an FTE basis, was 1.64%, a decrease of 40 bps. The net yield excluding CIB Markets was 1.92%, down 49 bps.

Provision for credit losses

(in millions)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Consumer, excluding credit card	$ (31)	$ (336)	91 %	$ (1,823)	$ 1,874	NM
Credit card	(355)	1,028	NM	(3,917)	10,119	NM
Total consumer	(386)	692	NM	(5,740)	11,993	NM
Wholesale	(1,127)	(178)	NM	(2,223)	7,266	NM
Investment securities	(14)	97	NM	(5)	110	NM
Total provision for credit losses	$ (1,527)	$ 611	NM	$ (7,968)	$ 19,369	NM

Quarterly results

The **provision for credit losses** decreased driven by net reductions in the allowance for credit losses.

The decrease in **wholesale** reflected a net reduction of $1.2 billion in the allowance for credit losses, predominantly in CIB and CB. The prior year included a $270 million net reduction in the allowance for credit losses.

The decrease in **consumer** was driven by:

- an $874 million reduction in the allowance for credit losses, in particular $850 million in Card reflecting improvements in the Firm's macroeconomic outlook, and
- lower net charge-offs predominantly in Card as consumer cash balances remained elevated benefiting from the residual impact of government stimulus and payment assistance programs;
- the prior year included a $396 million reduction in the allowance for credit losses.

Refer to CCB segment results on pages 24-28, CIB on pages 29-34, CB on pages 35-38, AWM on pages 39-43, the Allowance for Credit Losses on pages 75-76, and Notes 9 and 12 for additional information on the credit portfolio and the allowance for credit losses.

Year-to-date results

The **provision for credit losses** decreased driven by net reductions in the allowance for credit losses.

The decrease in **consumer** was driven by:

- an $8.0 billion reduction in the allowance for credit losses, including $6.2 billion in Card reflecting improvements in the Firm's macroeconomic outlook, and $1.2 billion in Home Lending primarily due to continued improvements in Home Price Index ("HPI") expectations, and
- lower net charge-offs predominantly in Card, as consumer cash balances remained elevated benefiting from the impact of government stimulus and payment assistance programs;
- the prior year included an $8.3 billion addition to the allowance for credit losses.

The decrease in **wholesale** reflects a net reduction of $2.3 billion in the allowance for credit losses across the LOBs, reflecting improvements in the Firm's macroeconomic outlook. The prior year included a $6.7 billion net addition to the allowance for credit losses.

Noninterest expense

(in millions)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Compensation expense	**$ 9,087**	$ 8,630	5 %	**$ 29,502**	$ 27,034	9 %
Noncompensation expense:						
Occupancy	**1,109**	1,142	(3)	**3,314**	3,288	1
Technology, communications and equipment	**2,473**	2,564	(4)	**7,480**	7,732	(3)
Professional and outside services	**2,523**	2,178	16	**7,111**	6,205	15
Marketing	**712**	470	51	**2,089**	1,751	19
Other expense[(a)(b)]	**1,159**	1,891	(39)	**3,959**	4,598	(14)
Total noncompensation expense	**7,976**	8,245	(3)	**23,953**	23,574	2
Total noninterest expense	**$ 17,063**	$ 16,875	1 %	**$ 53,455**	$ 50,608	6 %

(a) Included Firmwide legal expense of $76 million and $524 million for the three months ended September 30, 2021 and 2020, respectively, and $289 million and $839 million for the nine months ended September 30, 2021 and 2020, respectively.
(b) Included FDIC-related expense of $173 million and $186 million for the three months ended September 30, 2021 and 2020, respectively, and $551 million and $503 million for the nine months ended September 30, 2021 and 2020, respectively.

Quarterly results

Compensation expense increased driven by higher performance-related compensation largely in AWM and CCB, and the impact of investments in the businesses.

Noncompensation expense decreased as a result of:

- lower legal expense, predominantly in CIB
- the absence of an impairment in the prior year on a legacy investment in Corporate, and
- lower depreciation expense in CCB on lower auto lease assets and the impact of higher vehicle collateral values,

largely offset by

- higher volume-related brokerage expense in CIB and distribution fees in AWM
- higher marketing expense, predominantly in CCB, associated with higher investments in marketing campaigns and travel-related benefits
- higher other investments, including technology.

Year-to-date results

Compensation expense increased driven by higher performance-related compensation across the LOBs, and the impact of investments in the businesses.

Noncompensation expense increased as a result of:

- higher volume-related brokerage expense in CIB and distribution fees in AWM
- higher marketing expense in CCB associated with higher investments in marketing campaigns and travel-related benefits
- higher contribution expense, which included a $550 million donation of equity investments to the Firm's Foundation in the first quarter of 2021
- higher other investments, including technology, and
- higher FDIC and other regulatory-related expense,

partially offset by

- lower depreciation expense in CCB on lower auto lease assets and the impact of higher vehicle collateral values
- lower legal expense, driven by CIB, and
- the absence of an impairment, in the prior year, on a legacy investment in Corporate.

ncome tax expense

(in millions)		Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
ncome before income tax expense	$	**14,111**	$ 11,769	20%	$ **46,905**	$ 20,639	127%
ncome tax expense(a)		**2,424**	2,326	4	**8,970**	3,644	146
Effective tax rate(a)		**17.2%**	19.8%		**19.1%**	17.7%	

(a) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.

Quarterly results

The **effective tax rate** for the current period was 17.2%, and reflected an income tax benefit of $566 million related to finalizing the Firm's 2020 U.S. federal tax return. The tax benefit included state and local impacts of federal tax method changes and a reduction in the valuation allowance for U.S. foreign tax credits.

The prior year effective tax rate was 19.8% and also reflected an income tax benefit related to prior year returns.

Both periods reflected the impact of the level and mix of income and expenses subject to U.S. federal, state and local taxes.

Year-to-date results

The **effective tax rate** for the current period was 19.1% and reflected an income tax benefit of $566 million related to finalizing the Firm's 2020 U.S. federal tax return, largely offset by the resolution of certain tax audits. The tax benefit included state and local impacts of federal tax method changes and a reduction in the valuation allowance for U.S. foreign tax credits.

The prior year effective tax rate was 17.7% and included a benefit related to prior year returns and the higher impact of certain tax benefits due to the lower level of pre-tax income.

Both periods reflected the impact of the level and mix of income and expenses subject to U.S. federal, state and local taxes.

Consolidated balance sheets analysis

The following is a discussion of the significant changes between September 30, 2021, and December 31, 2020.

Selected Consolidated balance sheets data

(in millions)	September 30, 2021	December 31, 2020	Change
Assets			
Cash and due from banks	$ **25,857**	$ 24,874	4 %
Deposits with banks	**734,012**	502,735	46
Federal funds sold and securities purchased under resale agreements	**282,161**	296,284	(5)
Securities borrowed	**202,987**	160,635	26
Trading assets	**515,901**	503,126	3
Available-for-sale securities	**251,590**	388,178	(35)
Held-to-maturity securities, net of allowance for credit losses	**343,542**	201,821	70
Investment securities, net of allowance for credit losses	**595,132**	589,999	1
Loans	**1,044,615**	1,012,853	3
Allowance for loan losses	**(18,150)**	(28,328)	(36)
Loans, net of allowance for loan losses	**1,026,465**	984,525	4
Accrued interest and accounts receivable	**116,395**	90,503	29
Premises and equipment	**26,996**	27,109	—
Goodwill, MSRs and other intangible assets	**56,566**	53,428	6
Other assets[(a)]	**175,104**	151,539	16
Total assets	$ **3,757,576**	$ 3,384,757	11 %

(a) Prior-period amount has been revised to conform with the current presentation. Refer to Note 1 for further information.

Cash and due from banks and deposits with banks increased primarily as a result of the continued growth in deposits and limited deployment opportunities in Treasury and CIO. Deposits with banks reflect the Firm's placements of its excess cash with various central banks, including the Federal Reserve Banks.

Federal funds sold and securities purchased under resale agreements decreased driven by:

- lower deployment of funds in Treasury and CIO, and lower client-driven market-making activities in CIB Markets,

partially offset by

- higher demand for securities to cover short positions in CIB Markets.

Securities borrowed increased reflecting higher client-driven activities, and an increase in the demand for securities to cover short positions in CIB Markets.

Refer Note 10 for additional information on securities purchased under resale agreements and securities borrowed.

Trading assets increased reflecting;

- client-driven market-making activities in equity instruments, predominantly in CIB prime brokerage,

partially offset by

- lower derivative receivables, primarily driven by maturities of certain trades in CIB, and
- lower deployment of funds in Treasury and CIO.

Refer to Notes 2 and 4 for additional information.

Investment securities increased due to purchases and paydowns in held-to-maturity ("HTM") securities, partially offset by paydowns and net purchases in available-for-sale ("AFS") securities. In the second quarter of 2021, AFS securities of $104.5 billion were transferred to the HTM portfolio for capital management purposes. Refer to Corporate segment results on pages 44-46, Investment Portfolio Risk Management on page 77, and Notes 2 and 9 for additional information.

Loans increased, reflecting:

- higher secured lending in CIB Markets; and higher securities-based lending, mortgages, as well as custom lending in AWM,

partially offset by

- lower loans in CBB and CB primarily driven by the impact of PPP forgiveness; and lower retained residential real estate loans in Home Lending primarily due to net paydowns.

The **allowance for loan losses** decreased, consisting of:

- a $7.9 billion reduction in consumer, predominantly in the credit card portfolio, reflecting improvements in the Firm's macroeconomic outlook; and in the residential real estate portfolio, primarily due to continued improvements in HPI expectations, and
- a $2.3 billion net reduction in wholesale, across the LOBs, reflecting improvements in the Firm's macroeconomic outlook.

There was a $104 million net reduction in the allowance for lending-related commitments, driven by both wholesale and consumer. This allowance is included in other liabilities on the consolidated balance sheets. The total net reduction in the allowance for credit losses was $10.3 billion, as of September 30, 2021.

Refer to Credit and Investment Risk Management on pages 59-77, and Notes 2, 3, 11 and 12 for a more detailed discussion of loans and the allowance for loan losses.

Accrued interest and accounts receivable increased due to higher client receivables related to client-driven activities primarily in CIB prime brokerage.

Goodwill, MSRs and other intangibles increased reflecting:

- higher MSRs as a result of net additions, partially offset by the realization of expected cash flows; and
- an increase in Goodwill as a result of the acquisitions of Nutmeg, OpenInvest, Frank and Campbell Global.

Refer to Note 14 for additional information.

Other assets increased due to the higher cash collateral placed with central counterparties ("CCPs") in CIB, and higher tax receivables. Refer to Note 10 for additional information on securities financing transactions.

Selected Consolidated balance sheets data (continued)

(in millions)		September 30, 2021		December 31, 2020	Change	
Liabilities						
Deposits	**$**	**2,402,353**	$	2,144,257	12	%
Federal funds purchased and securities loaned or sold under repurchase agreements		**254,920**		215,209	18	
Short-term borrowings		**50,393**		45,208	11	
Trading liabilities		**179,543**		170,181	6	
Accounts payable and other liabilities[(a)]		**268,604**		231,285	16	
Beneficial interests issued by consolidated variable interest entities ("VIEs")		**13,257**		17,578	(25)	
Long-term debt		**298,465**		281,685	6	
Total liabilities		**3,467,535**		3,105,403	12	
Stockholders' equity		**290,041**		279,354	4	
Total liabilities and stockholders' equity	**$**	**3,757,576**	$	3,384,757	11	%

(a) Prior-period amount has been revised to conform with the current presentation. Refer to Note 1 for further information.

Deposits increased across the LOBs primarily driven by the effect of certain government actions in response to the COVID 19 pandemic. In CCB, the increase was also driven by growth from existing and new accounts across both consumer and small business customers. Refer to Liquidity Risk Management on pages 54-58 and Notes 2 and 15 for additional information.

Federal funds purchased and securities loaned or sold under repurchase agreements increased reflecting:

- the impact of client activities and secured financing of trading assets in CIB Markets,

partially offset by

- lower secured financing of AFS investment securities in Treasury and CIO.

Refer to Liquidity Risk Management on pages 54-58 and Note 10 for additional information.

Short-term borrowings increased predominantly as a result of higher financing of prime brokerage activities in CIB. Refer to pages 54-58 for information on changes in Liquidity Risk Management.

Trading liabilities increased due to client-driven market-making activities in CIB Fixed Income Markets, which resulted in higher levels of short positions in debt instruments, partially offset by lower derivative payables largely as a result of market movements. Refer to Notes 2 and 4 for additional information.

Accounts payable and other liabilities increased reflecting higher client payables related to client-driven activities primarily in CIB prime brokerage. Refer to Note 10 for additional information on securities financing transactions.

Beneficial interests issued by consolidated VIEs decreased driven by maturities of credit card securitizations in Treasury and CIO, as well as lower issuances of commercial paper as a result of lower loan balances in the Firm-administered multi-seller conduits in CIB. Refer to Off-Balance Sheet Arrangements on page 19 and Notes 13 and 22 for additional information on Firm-sponsored VIEs and loan securitization trusts.

Long-term debt increased driven by net issuances, partially offset by fair value hedge accounting adjustments related to higher rates. Refer to Liquidity Risk Management on pages 54-58 for additional information.

Stockholders' equity increased reflecting net income, partially offset by the net impact of capital actions, and a decrease in accumulated other comprehensive income ("AOCI"). The decrease in AOCI was driven by the impact of higher rates on the AFS securities portfolio and cash flow hedges. Refer to page 94 for information on changes in stockholders' equity, Capital actions on pages 51-52, and Note 19 for additional information on AOCI.

Consolidated cash flows analysis

The following is a discussion of cash flow activities during the nine months ended September 30, 2021 and 2020.

(in millions)	Nine months ended September 30, 2021	2020
Net cash provided by/(used in)		
Operating activities	**$ (7,011)**	$ (51,858)
Investing activities	**(29,186)**	(198,206)
Financing activities	**278,015**	470,687
Effect of exchange rate changes on cash	**(9,558)**	3,268
Net increase in cash and due from banks and deposits with banks	**$ 232,260**	$ 223,891

Operating activities

- In 2021, cash used resulted from higher securities borrowed and accrued interest and accounts receivable, partially offset by higher accounts payable and other liabilities.
- In 2020, cash used resulted from higher trading assets and other assets, partially offset by higher trading liabilities and accounts payable and other liabilities.

Investing activities

- In 2021, cash used resulted from net loan originations and net purchases of investment securities, partially offset by lower securities purchased under resale agreements.
- In 2020, cash used resulted from net purchases of investment securities and higher securities purchased under resale agreements.

Financing activities

- In 2021, cash provided reflected higher deposits and securities loaned or sold under repurchase agreements, and net proceeds from long- and short-term borrowings.
- In 2020, cash provided reflected higher deposits and securities loaned or sold under repurchase agreements, partially offset by net paydowns of long- and short-term borrowings.
- For both periods, cash was used for repurchases of common stock and cash dividends on common and preferred stock.

* * *

Refer to Consolidated Balance Sheets Analysis on pages 16-17, Capital Risk Management on pages 48-53, and Liquidity Risk Management on pages 54-58 of this Form 10-Q, and pages 102–108 of JPMorgan Chase's 2020 Form 10-K for a further discussion of the activities affecting the Firm's cash flows.

OFF-BALANCE SHEET ARRANGEMENTS

In the normal course of business, the Firm enters into various off-balance sheet arrangements and contractual obligations that may require future cash payments. Certain obligations are recognized on-balance sheet, while others are disclosed as off-balance sheet under accounting principles generally accepted in the U.S. (“U.S. GAAP”).

Special-purpose entities

The Firm has several types of off–balance sheet arrangements, including through nonconsolidated special-purpose entities (“SPEs”), which are a type of VIE, and through lending-related financial instruments (e.g., commitments and guarantees).

The Firm holds capital, as appropriate, against all SPE-related transactions and related exposures, such as derivative contracts and lending-related commitments and guarantees.

The Firm has no commitments to issue its own stock to support any SPE transaction, and its policies require that transactions with SPEs be conducted at arm’s length and reflect market pricing.

The table below provides an index of where in this Form 10-Q discussions of the Firm’s various off-balance sheet arrangements can be found. Refer to Note 1 for additional information about the Firm’s consolidation policies.

Type of off-balance sheet arrangement	Location of disclosure	Page references
Special-purpose entities: variable interests and other obligations, including contingent obligations, arising from variable interests in nonconsolidated VIEs	Refer to Note 13	155-160
Off-balance sheet lending-related financial instruments, guarantees, and other commitments	Refer to Note 22	172-175

EXPLANATION AND RECONCILIATION OF THE FIRM'S USE OF NON-GAAP FINANCIAL MEASURES

The Firm prepares its Consolidated Financial Statements in accordance with U.S. GAAP and this presentation is referred to as "reported" basis; these financial statements appear on pages 91-95.

In addition to analyzing the Firm's results on a reported basis, the Firm also reviews and uses certain non-GAAP financial measures at the Firmwide and segment level. These non-GAAP measures include:

- Firmwide "managed" basis results, including the overhead ratio, which include certain reclassifications to present total net revenue from investments that receive tax credits and tax-exempt securities on a basis comparable to taxable investments and securities ("FTE" basis)
- Pre-provision profit, which represents total net revenue less total noninterest expense
- Net interest income and net yield excluding CIB Markets
- TCE, ROTCE, and TBVPS
- Adjusted expense, which represents noninterest expense excluding Firmwide legal expense
- Allowance for loan losses to period-end loans retained, excluding trade finance and conduits.

Refer to Explanation and Reconciliation of the Firm's Use Of Non-GAAP Financial Measures and Key Performance Measures on pages 62–64 of JPMorgan Chase's 2020 Form 10-K for a further discussion of management's use of non-GAAP financial measures.

The following summary tables provide a reconciliation from the Firm's reported U.S. GAAP results to managed basis.

	Three months ended September 30,					
	2021			2020		
(in millions, except ratios)	Reported	Fully taxable-equivalent adjustments[(b)]	Managed basis	Reported	Fully taxable-equivalent adjustments[(b)]	Managed basis
Other income[(a)]	**$ 1,332**	**$ 690**	**$ 2,022**	$ 1,067	$ 582	$ 1,649
Total noninterest revenue	**16,567**	**690**	**17,257**	16,242	582	16,824
Net interest income	**13,080**	**104**	**13,184**	13,013	104	13,117
Total net revenue	**29,647**	**794**	**30,441**	29,255	686	29,941
Total noninterest expense	**17,063**	**NA**	**17,063**	16,875	NA	16,875
Pre-provision profit	**12,584**	**794**	**13,378**	12,380	686	13,066
Provision for credit losses	**(1,527)**	**NA**	**(1,527)**	611	NA	611
Income before income tax expense	**14,111**	**794**	**14,905**	11,769	686	12,455
Income tax expense[(a)]	**2,424**	**794**	**3,218**	2,326	686	3,012
Net income	**$ 11,687**	**NA**	**$ 11,687**	$ 9,443	NA	$ 9,443
Overhead ratio[(a)]	**58 %**	**NM**	**56 %**	58 %	NM	56 %

	Nine months ended September 30,					
	2021			2020		
(in millions, except ratios)	Reported	Fully taxable-equivalent adjustments[(b)]	Managed basis	Reported	Fully taxable-equivalent adjustments[(b)]	Managed basis
Other income[(a)]	**$ 3,650**	**$ 2,241**	**$ 5,891**	$ 3,454	$ 1,831	$ 5,285
Total noninterest revenue	**53,682**	**2,241**	**55,923**	49,311	1,831	51,142
Net interest income	**38,710**	**322**	**39,032**	41,305	321	41,626
Total net revenue	**92,392**	**2,563**	**94,955**	90,616	2,152	92,768
Total noninterest expense	**53,455**	**NA**	**53,455**	50,608	NA	50,608
Pre-provision profit	**38,937**	**2,563**	**41,500**	40,008	2,152	42,160
Provision for credit losses	**(7,968)**	**NA**	**(7,968)**	19,369	NA	19,369
Income before income tax expense	**46,905**	**2,563**	**49,468**	20,639	2,152	22,791
Income tax expense[(a)]	**8,970**	**2,563**	**11,533**	3,644	2,152	5,796
Net income	**$ 37,935**	**NA**	**$ 37,935**	$ 16,995	NA	$ 16,995
Overhead ratio[(a)]	**58 %**	**NM**	**56 %**	56 %	NM	55 %

(a) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.
(b) Predominantly recognized in CIB, CB and Corporate.

The following table provides information on net interest income and net yield excluding CIB Markets.

(in millions, except rates)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Net interest income – reported	**$ 13,080**	$ 13,013	1 %	**$ 38,710**	$ 41,305	(6) %
Fully taxable-equivalent adjustments	**104**	104	—	**322**	321	—
Net interest income – managed basis[(a)]	**$ 13,184**	$ 13,117	1	**$ 39,032**	$ 41,626	(6)
Less: CIB Markets net interest income[(b)]	**1,967**	2,076	(5)	**6,177**	6,208	—
Net interest income excluding CIB Markets[(a)]	**$ 11,217**	$ 11,041	2	**$ 32,855**	$ 35,418	(7)
Average interest-earning assets	**$ 3,219,786**	$ 2,874,974	12	**$ 3,174,858**	$ 2,720,636	17
Less: Average CIB Markets interest-earning assets[(b)]	**894,892**	730,141	23	**881,547**	753,748	17
Average interest-earning assets excluding CIB Markets	**$ 2,324,894**	$ 2,144,833	8 %	**$ 2,293,311**	$ 1,966,888	17 %
Net yield on average interest-earning assets – managed basis	**1.62 %**	1.82 %		**1.64 %**	2.04 %	
Net yield on average CIB Markets interest-earning assets[(b)]	**0.87**	1.13		**0.94**	1.10	
Net yield on average interest-earning assets excluding CIB Markets	**1.91 %**	2.05 %		**1.92 %**	2.41 %	

(a) Interest includes the effect of related hedges. Taxable-equivalent amounts are used where applicable.
(b) Refer to page 33 for further information on CIB Markets.

The following summary table provides a reconciliation from the Firm's common stockholders' equity to TCE.

(in millions, except per share and ratio data)	Period-end Sep 30, 2021	Dec 31, 2020	Average Three months ended September 30, 2021	2020	Nine months ended September 30, 2021	2020
Common stockholders' equity	**$ 255,203**	$ 249,291	**$ 253,556**	$ 236,797	**$ 250,011**	$ 235,251
Less: Goodwill	**50,313**	49,248	**49,457**	47,820	**49,323**	47,812
Less: Other intangible assets	**902**	904	**849**	769	**868**	791
Add: Certain deferred tax liabilities[(a)]	**2,500**	2,453	**2,480**	2,401	**2,465**	2,393
Tangible common equity	**$ 206,488**	$ 201,592	**$ 205,730**	$ 190,609	**$ 202,285**	$ 189,041
Return on tangible common equity	**NA**	NA	**22 %**	19 %	**24 %**	11 %
Tangible book value per share	**$ 69.87**	$ 66.11	**NA**	NA	**NA**	NA

(a) 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 TCE.

The Firm is managed on an LOB basis. There are four major reportable business segments – Consumer & Community Banking, Corporate & Investment Bank, Commercial Banking and Asset & Wealth Management. In addition, there is a Corporate segment.

The business segments are determined based on the products and services provided, or the type of customer served, and they reflect the manner in which financial information is currently evaluated by the Firm's Operating Committee. Segment results are presented on a managed basis. Refer to Explanation and Reconciliation of the Firm's use of Non-GAAP Financial Measures on pages 20-21 for a definition of managed basis.

Description of business segment reporting methodology

Results of the business segments are intended to present each segment as if it were a stand-alone business. The management reporting process that derives business segment results includes the allocation of certain income and expense items. The Firm periodically assesses the assumptions, methodologies and reporting classifications used for segment reporting, and further refinements may be implemented in future periods. The Firm also assesses the level of capital required for each LOB on at least an annual basis. The Firm's LOBs also provide various business metrics which are utilized by the Firm and its investors and analysts in assessing performance.

Revenue sharing

When business segments join efforts to sell products and services to the Firm's clients, the participating business segments may agree to share revenue from those transactions. Revenue is generally recognized in the segment responsible for the related product or service, with allocations to the other segment(s) involved in the transaction. The segment results reflect these revenue-sharing agreements.

Funds transfer pricing

Funds transfer pricing is the process by which the Firm allocates interest income and expense to each business segment and transfers the primary interest rate risk and liquidity risk exposures to Treasury and CIO within Corporate. The funds transfer pricing process considers the interest rate risk, liquidity risk and regulatory requirements on a product-by-product basis within each business segment.

Capital allocation

The amount of capital assigned to each segment is referred to as equity. Periodically, the assumptions and methodologies used to allocate capital are reassessed and as a result, the capital allocated to the LOBs may change. Refer to Line of business equity on page 51, and page 98 of JPMorgan Chase's 2020 Form 10-K for additional information on capital allocation.

Refer to Business Segment Results – Description of business segment reporting methodology on pages 65–66 of JPMorgan Chase's 2020 Form 10-K for a further discussion of those methodologies.

Segment results – managed basis

The following tables summarize the Firm's results by segment for the periods indicated.

Three months ended September 30,	Consumer & Community Banking			Corporate & Investment Bank			Commercial Banking		
(in millions, except ratios)	**2021**	2020	Change	**2021**	2020	Change	**2021**	2020	Change
Total net revenue	**$ 12,521**	$ 12,895	(3)%	**$ 12,396**	$ 11,546	7%	**$ 2,520**	$ 2,285	10%
Total noninterest expense	**7,238**	6,912	5	**5,871**	5,832	1	**1,032**	969	7
Pre-provision profit/(loss)	**5,283**	5,983	(12)	**6,525**	5,714	14	**1,488**	1,316	13
Provision for credit losses	**(459)**	795	NM	**(638)**	(81)	NM	**(363)**	(147)	(147)
Net income/(loss)	**4,341**	3,871	12	**5,562**	4,309	29	**1,407**	1,086	30
Return on equity ("ROE")	**34%**	29%		**26 %**	21%		**22 %**	19%	

Three months ended September 30,	Asset & Wealth Management			Corporate			Total		
(in millions, except ratios)	**2021**	2020	Change	**2021**	2020	Change	**2021**	2020	Change
Total net revenue	**$ 4,300**	$ 3,554	21%	**$ (1,296)**	$ (339)	(282)%	**$ 30,441**	$ 29,941	2%
Total noninterest expense	**2,762**	2,443	13	**160**	719	(78)	**17,063**	16,875	1
Pre-provision profit/(loss)	**1,538**	1,111	38	**(1,456)**	(1,058)	(38)	**13,378**	13,066	2
Provision for credit losses	**(60)**	(52)	(15)	**(7)**	96	NM	**(1,527)**	611	NM
Net income/(loss)	**1,194**	876	36	**(817)**	(699)	(17)	**11,687**	9,443	24
ROE	**33 %**	32%		**NM**	NM		**18 %**	15%	

Nine months ended September 30,	Consumer & Community Banking			Corporate & Investment Bank			Commercial Banking		
(in millions, except ratios)	**2021**	2020	Change	**2021**	2020	Change	**2021**	2020	Change
Total net revenue	**$ 37,798**	$ 38,540	(2)%	**$ 40,215**	$ 37,932	6%	**$ 7,396**	$ 6,850	8%
Total noninterest expense	**21,502**	20,948	3	**19,498**	18,599	5	**2,982**	2,848	5
Pre-provision profit/(loss)	**16,296**	17,592	(7)	**20,717**	19,333	7	**4,414**	4,002	10
Provision for credit losses	**(5,929)**	12,395	NM	**(1,048)**	3,307	NM	**(858)**	3,294	NM
Net income/(loss)	**16,703**	3,892	329	**16,287**	11,745	39	**3,995**	544	NM
ROE	**44%**	9%		**25%**	19%		**21 %**	2%	

Nine months ended September 30,	Asset & Wealth Management			Corporate			Total		
(in millions, except ratios)	**2021**	2020	Change	**2021**	2020	Change	**2021**	2020	Change
Total net revenue	**$ 12,484**	$ 10,373	20%	**$ (2,938)**	$ (927)	(217)%	**$ 94,955**	$ 92,768	2%
Total noninterest expense	**7,922**	7,201	10	**1,551**	1,012	53	**53,455**	50,608	6
Pre-provision profit/(loss)	**4,562**	3,172	44	**(4,489)**	(1,939)	(132)	**41,500**	42,160	(2)
Provision for credit losses	**(191)**	265	NM	**58**	108	(46)	**(7,968)**	19,369	NM
Net income/(loss)	**3,591**	2,206	63	**(2,641)**	(1,392)	(90)	**37,935**	16,995	123
ROE	**33 %**	27%		**NM**	NM		**20 %**	9%	

The following sections provide a comparative discussion of the Firm's results by segment as of or for the three and nine months ended September 30, 2021 versus the corresponding periods in the prior year, unless otherwise specified.

Refer to pages 67–70 of JPMorgan Chase's 2020 Form 10-K and Line of Business Metrics on page 191 for a further discussion of the business profile of CCB.

Selected income statement data

	Three months ended September 30,			Nine months ended September 30,		
(in millions, except ratios)	**2021**	2020	Change	**2021**	2020	Change
Revenue						
Lending- and deposit-related fees	**$ 786**	$ 771	2 %	**$ 2,281**	$ 2,360	(3) %
Asset management, administration and commissions	**893**	703	27	**2,564**	2,045	25
Mortgage fees and related income	**596**	1,076	(45)	**1,847**	2,313	(20)
Card income	**651**	826	(21)	**2,888**	2,145	35
All other income	**1,212**	1,487	(18)	**3,872**	4,319	(10)
Noninterest revenue	**4,138**	4,863	(15)	**13,452**	13,182	2
Net interest income	**8,383**	8,032	4	**24,346**	25,358	(4)
Total net revenue	**12,521**	12,895	(3)	**37,798**	38,540	(2)
Provision for credit losses	**(459)**	795	NM	**(5,929)**	12,395	NM
Noninterest expense						
Compensation expense	**3,012**	2,804	7	**8,965**	8,280	8
Noncompensation expense[(a)]	**4,226**	4,108	3	**12,537**	12,668	(1)
Total noninterest expense	**7,238**	6,912	5	**21,502**	20,948	3
Income before income tax expense	**5,742**	5,188	11	**22,225**	5,197	328
Income tax expense	**1,401**	1,317	6	**5,522**	1,305	323
Net income	**$ 4,341**	$ 3,871	12	**$ 16,703**	$ 3,892	329
Revenue by line of business						
Consumer & Business Banking	**$ 6,157**	$ 5,697	8	**$ 17,808**	$ 17,211	3
Home Lending	**1,400**	1,714	(18)	**4,207**	4,562	(8)
Card & Auto	**4,964**	5,484	(9)	**15,783**	16,767	(6)
Mortgage fees and related income details:						
Production revenue	**614**	765	(20)	**1,888**	1,826	3
Net mortgage servicing revenue[(b)]	**(18)**	311	NM	**(41)**	487	NM
Mortgage fees and related income	**$ 596**	$ 1,076	(45) %	**$ 1,847**	$ 2,313	(20) %
Financial ratios						
Return on equity	**34 %**	29 %		**44 %**	9 %	
Overhead ratio	**58**	54		**57**	54	

(a) Included depreciation expense on leased assets of $769 million and $1.0 billion for the three months ended September 30, 2021 and 2020, respectively, and $2.5 billion and $3.2 billion for the nine months ended September 30, 2021 and 2020, respectively.

(b) Included MSR risk management results of $(145) million and $145 million for the three months ended September 30, 2021 and 2020, respectively, and $(363) million and $134 million for the nine months ended September 30, 2021 and 2020, respectively.

Quarterly results

Net income was $4.3 billion, up 12%, driven by a decrease in the provision for credit losses.

Net revenue was $12.5 billion, a decrease of 3%.

Net interest income was $8.4 billion, up 4%, driven by:

- growth in deposits net of margin compression as well as the impacts from PPP including the accelerated recognition of deferred processing fees due to loan forgiveness in CBB, lower prepayments in Home Lending, higher auto loans, and lower funding costs in Card,

partially offset by

- lower revolving loans in Card due to the impact of higher payments and lower cumulative sales volume throughout 2020.

Noninterest revenue was $4.1 billion, down 15%, driven by:

- lower net mortgage servicing revenue reflecting a net loss in MSR risk management results driven by updates to model inputs, compared with a net gain in the prior period,
- lower auto operating lease income as a result of the decline in volume,
- lower card income reflecting the amortization of higher account origination costs, including promotional offers, while net interchange was relatively flat as the increase in debit and credit card sales volume was offset by an increase to the rewards liability, and
- lower mortgage production revenue reflecting the net impact of lower production margins and higher volumes,

partially offset by

- higher asset management fees related to the higher level of client investment assets on higher average market levels and net inflows.

Refer to Note 14 for further information regarding changes in the value of the MSR asset and related hedges, and mortgage fees and related income. Refer to Critical Accounting Estimates on pages 86-88, and Note 5 for additional information on card income.

Noninterest expense was $7.2 billion, up 5%, driven by:

- continued investments in the business, including marketing expense reflecting increases in marketing campaigns and travel-related benefits,
- higher expense reflecting growth across the businesses, including performance-related compensation,

partially offset by

- lower depreciation from lower auto lease assets and the impact of higher vehicle collateral values.

The provision for credit losses was a net benefit of $459 million, compared with an expense of $795 million in the prior year, driven by:

- a $950 million reduction in the allowance for credit losses, reflecting improvements in the Firm's macroeconomic outlook consisting of $850 million in Card and $100 million in CBB, and
- lower net charge-offs predominantly in Card, as consumer cash balances remained elevated benefiting from the residual impact of government stimulus and payment assistance programs.

The prior year included a $300 million reduction in the allowance for credit losses.

Refer to Credit and Investment Risk Management on pages 59-77 and Allowance for Credit Losses on pages 75-76 for further discussions of the credit portfolios and the allowance for credit losses.

Year-to-date results

Net income was $16.7 billion, up $12.8 billion, driven by a decrease in the provision for credit losses.

Net revenue was $37.8 billion, a decrease of 2%.

Net interest income was $24.3 billion, down 4%, driven by:

- lower revolving loans in Card due to the impact of higher payments and lower cumulative sales volume throughout 2020 and the net impact of deposit margin compression and growth in CBB,

largely offset by

- lower funding costs in Card related to changes in portfolio mix and the impacts from PPP including the accelerated recognition of deferred processing fees due to loan forgiveness in CBB.

Noninterest revenue was $13.5 billion, up 2%, driven by:

- higher card income due to higher net interchange income reflecting the acceleration of debit and credit card sales volume in 2021, above pre-pandemic levels, and lower amortization costs related to new account originations,
- higher asset management fees related to the higher level of client investment assets on higher average market levels and net inflows, and
- higher mortgage production revenue reflecting higher production volumes,

offset by

- lower net mortgage servicing revenue as a result of a net loss in MSR risk management results driven by updates to model inputs, compared with a net gain in the prior period,
- lower auto operating lease income as a result of the decline in volume, and
- lower overdraft fees.

Noninterest expense was $21.5 billion, up 3%, reflecting:

- continued investments in the business, including marketing expense reflecting increases in marketing campaigns and travel-related benefits,
- higher expense reflecting growth across the businesses, including performance-related compensation,

largely offset by

- lower depreciation from lower auto lease assets and the impact of higher vehicle collateral values
- lower structural expenses.

The provision for credit losses was a net benefit of $5.9 billion, compared with an expense of $12.4 billion in the prior year, driven by:

- an $8.2 billion reduction in the allowance for credit losses, driven by improvements in the Firm's macroeconomic outlook, consisting of $6.2 billion in Card, $1.2 billion in Home Lending, primarily due to continued improvements in HPI expectations, $575 million in CBB and $225 million in Auto, and
- lower net charge-offs predominantly in Card, as consumer cash balances remained elevated benefiting from the impact of government stimulus and payment assistance programs.

The prior year included an $8.7 billion addition to the allowance for credit losses.

Selected metrics

(in millions, except headcount)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Selected balance sheet data (period-end)						
Total assets	**$ 493,169**	$ 487,063	1 %	**$ 493,169**	$ 487,063	1 %
Loans:						
Consumer & Business Banking[a]	**40,659**	49,646	(18)	**40,659**	49,646	(18)
Home Lending[b]	**179,489**	188,561	(5)	**179,489**	188,561	(5)
Card	**143,166**	140,377	2	**143,166**	140,377	2
Auto	**68,391**	62,304	10	**68,391**	62,304	10
Total loans	**431,705**	440,888	(2)	**431,705**	440,888	(2)
Deposits	**1,093,852**	909,198	20	**1,093,852**	909,198	20
Equity	**50,000**	52,000	(4)	**50,000**	52,000	(4)
Selected balance sheet data (average)						
Total assets	**$ 491,512**	$ 490,094	—	**$ 487,107**	$ 506,726	(4)
Loans:						
Consumer & Business Banking	**43,256**	49,596	(13)	**47,469**	40,901	16
Home Lending[c]	**181,150**	192,172	(6)	**180,276**	200,980	(10)
Card	**141,950**	140,386	1	**137,687**	148,445	(7)
Auto	**67,785**	60,345	12	**67,313**	60,514	11
Total loans	**434,141**	442,499	(2)	**432,745**	450,840	(4)
Deposits	**1,076,323**	895,535	20	**1,034,947**	825,493	25
Equity	**50,000**	52,000	(4)	**50,000**	52,000	(4)
Headcount	**126,586**	122,905	3 %	**126,586**	122,905	3 %

(a) At September 30, 2021 and 2020, included $11.1 billion and $20.3 billion of loans, respectively, in Business Banking under the PPP. Refer to Credit Portfolio on page 60 for a further discussion of the PPP.
(b) At September 30, 2021 and 2020, Home Lending loans held-for-sale and loans at fair value were $14.5 billion and $10.0 billion, respectively.
(c) Average Home Lending loans held-for sale and loans at fair value were $17.1 billion and $9.2 billion for the three months ended September 30, 2021 and 2020, respectively, and $14.6 billion and $11.2 billion for the nine months ended September 30, 2021 and 2020, respectively.

Selected metrics

(in millions, except ratio data)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Credit data and quality statistics						
Nonaccrual loans[(a)(b)(c)]	**$ 5,000**	$ 5,144	(3) %	**$ 5,000**	$ 5,144	(3) %
Net charge-offs/(recoveries)						
Consumer & Business Banking	**66**	54	22	**203**	188	8
Home Lending	**(74)**	8	NM	**(204)**	(119)	(71)
Card	**495**	1,028	(52)	**2,233**	3,519	(37)
Auto	**4**	5	(20)	**14**	98	(86)
Total net charge-offs/(recoveries)	**$ 491**	$ 1,095	(55)	**$ 2,246**	$ 3,686	(39)
Net charge-off/(recovery) rate						
Consumer & Business Banking[(d)]	**0.61 %**	0.43 %		**0.57 %**	0.61 %	
Home Lending	**(0.18)**	0.02		**(0.16)**	(0.08)	
Card	**1.39**	2.92		**2.18**	3.17	
Auto	**0.02**	0.03		**0.03**	0.22	
Total net charge-off/(recovery) rate	**0.47 %**	1.01 %		**0.72 %**	1.12 %	
30+ day delinquency rate[(e)]						
Home Lending[(f)]	**1.06 %**	1.62 %		**1.06 %**	1.62 %	
Card	**1.00**	1.57		**1.00**	1.57	
Auto	**0.46**	0.54		**0.46**	0.54	
90+ day delinquency rate - Card[(e)]	**0.49 %**	0.69 %		**0.49 %**	0.69 %	
Allowance for loan losses						
Consumer & Business Banking	**$ 797**	$ 1,372	(42)	**$ 797**	$ 1,372	(42)
Home Lending	**630**	2,685	(77)	**630**	2,685	(77)
Card	**11,650**	17,800	(35)	**11,650**	17,800	(35)
Auto	**813**	1,044	(22)	**813**	1,044	(22)
Total allowance for loan losses	**$ 13,890**	$ 22,901	(39) %	**$ 13,890**	$ 22,901	(39) %

(a) At September 30, 2021 and 2020, nonaccrual loans excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of $355 million and $851 million, respectively. These amounts have been excluded based upon the government guarantee.
(b) Generally excludes loans that were under payment deferral programs offered in response to the COVID-19 pandemic. Refer to Consumer Credit Portfolio on pages 61-65 for further information on consumer payment assistance activity. Includes loans to customers that have exited COVID-19 related payment deferral programs and are 90 or more days past due, predominantly all of which were considered collateral-dependent at time of exit.
(c) Prior-period amount has been revised to conform with the current presentation.
(d) At September 30, 2021 and 2020, included $11.1 billion and $20.3 billion of loans, respectively, in Business Banking under the PPP. The Firm does not expect to realize material credit losses on PPP loans because the loans are guaranteed by the SBA. Refer to Credit Portfolio on page 60 for a further discussion of the PPP.
(e) At September 30, 2021 and 2020, the principal balance of loans in Home Lending, Card and Auto under payment deferral programs offered in response to the COVID-19 pandemic were as follows: (1) $3.1 billion and $10.2 billion in Home Lending, respectively; (2) $53 million and $368 million in Card, respectively; and (3) $112 million and $411 million in Auto, respectively. Loans that are performing according to their modified terms are generally not considered delinquent. Refer to Consumer Credit Portfolio on pages 61-65 for further information on consumer payment assistance activity.
(f) At September 30, 2021 and 2020, excluded mortgage loans insured by U.S. government agencies of $432 million and $1.1 billion, respectively, that are 30 or more days past due. These amounts have been excluded based upon the government guarantee.

Selected metrics

(in billions, except ratios and where otherwise noted)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Business Metrics						
Number of branches	**4,854**	4,960	(2) %	**4,854**	4,960	(2) %
Active digital customers (in thousands)(a)	**57,961**	54,779	6	**57,961**	54,779	6
Active mobile customers (in thousands)(b)	**44,333**	40,164	10	**44,333**	40,164	10
Debit and credit card sales volume	**$ 349.9**	$ 278.2	26	**$ 984.5**	$ 781.8	26
Consumer & Business Banking						
Average deposits	**$ 1,056.3**	$ 874.3	21	**$ 1,015.5**	$ 807.2	26
Deposit margin	**1.29 %**	1.43 %		**1.29 %**	1.64 %	
Business banking origination volume(c)	**$ 0.8**	$ 1.4	(38)	**$ 13.1**	$ 25.9	(50)
Client investment assets(d)	**681.5**	529.2	29	**681.5**	529.2	29
Number of client advisors	**4,689**	4,290	9	**4,689**	4,290	9
Home Lending						
Mortgage origination volume by channel						
Retail	**$ 23.7**	$ 20.7	14	**$ 69.4**	$ 52.8	31
Correspondent	**17.9**	8.3	116	**51.1**	28.5	79
Total mortgage origination volume(e)	**$ 41.6**	$ 29.0	43	**$ 120.5**	$ 81.3	48
Third-party mortgage loans serviced (period-end)	**509.3**	454.8	12	**509.3**	454.8	12
MSR carrying value (period-end)	**5.3**	3.0	77	**5.3**	3.0	77
Ratio of MSR carrying value (period-end) to third-party mortgage loans serviced (period-end)	**1.04 %**	0.66 %		**1.04 %**	0.66 %	
MSR revenue multiple(f)	**3.85 x**	2.28 x		**3.85 x**	2.28 x	
Credit Card						
Credit card sales volume, excluding Commercial Card	**$ 232.0**	$ 178.1	30	**$ 639.4**	$ 505.7	26
Net revenue rate	**9.74 %**	10.96 %		**10.84 %**	10.82 %	
Auto						
Loan and lease origination volume	**$ 11.5**	$ 11.4	1	**$ 35.1**	$ 27.4	28
Average auto operating lease assets	**18.8**	21.7	(14) %	**19.5**	22.4	(13) %

(a) Users of all web and/or mobile platforms who have logged in within the past 90 days.
(b) Users of all mobile platforms who have logged in within the past 90 days.
(c) Included origination volume under the PPP of $396 million for the three months ended September 30, 2020 and $10.6 billion and $21.9 billion for the nine months ended September 30, 2021 and 2020, respectively. The program ended on May 31, 2021 for new applications and there was no origination volume under the PPP for the three months ended September 30, 2021. Refer to Credit Portfolio on page 60 for a further discussion of the PPP.
(d) Includes assets invested in managed accounts and J.P. Morgan mutual funds where AWM is the investment manager. Refer to AWM segment results on pages 39-43 for additional information.
(e) Firmwide mortgage origination volume was $46.1 billion and $36.2 billion for the three months ended September 30, 2021 and 2020, respectively, and $134.2 billion and $96.4 billion for the nine months ended September 30, 2021 and 2020, respectively.
(f) Represents the ratio of MSR carrying value (period-end) to third-party mortgage loans serviced (period-end) divided by the ratio of annualized loan servicing-related revenue to third-party mortgage loans serviced (average).

Refer to pages 71–76 of JPMorgan Chase's 2020 Form 10-K and Line of Business Metrics on page 191 for a further discussion of the business profile of CIB.

Selected income statement data

	Three months ended September 30,			Nine months ended September 30,		
(in millions, except ratios)	**2021**	2020	Change	**2021**	2020	Change
Revenue						
Investment banking fees	**$ 3,297**	$ 2,165	52 %	**$ 9,857**	$ 6,919	42 %
Principal transactions	**3,577**	3,990	(10)	**13,648**	14,578	(6)
Lending- and deposit-related fees	**634**	546	16	**1,860**	1,496	24
Asset management, administration and commissions	**1,240**	1,086	14	**3,772**	3,495	8
All other income	**313**	331	(5)	**924**	830	11
Noninterest revenue	**9,061**	8,118	12	**30,061**	27,318	10
Net interest income	**3,335**	3,428	(3)	**10,154**	10,614	(4)
Total net revenue[(a)]	**12,396**	11,546	7	**40,215**	37,932	6
Provision for credit losses	**(638)**	(81)	NM	**(1,048)**	3,307	NM
Noninterest expense						
Compensation expense	**2,827**	2,651	7	**10,738**	9,654	11
Noncompensation expense	**3,044**	3,181	(4)	**8,760**	8,945	(2)
Total noninterest expense	**5,871**	5,832	1	**19,498**	18,599	5
Income before income tax expense	**7,163**	5,795	24	**21,765**	16,026	36
Income tax expense	**1,601**	1,486	8	**5,478**	4,281	28
Net income	**$ 5,562**	$ 4,309	29 %	**$ 16,287**	$ 11,745	39 %
Financial ratios						
Return on equity	**26 %**	21 %		**25 %**	19 %	
Overhead ratio	**47**	51		**48**	49	
Compensation expense as percentage of total net revenue	**23**	23		**27**	25	

(a) Includes tax-equivalent adjustments, predominantly due to income tax credits related to alternative energy investments; income tax credits and amortization of the cost of investments in affordable housing projects; and tax-exempt income from municipal bonds of $641 million and $533 million for the three months ended September 30, 2021 and 2020, respectively, and $2.1 billion and $1.7 billion for the nine months ended September 30, 2021 and 2020, respectively. Prior-period tax-equivalent adjustment amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.

Selected income statement data

	Three months ended September 30,			Nine months ended September 30,		
(in millions)	**2021**	2020	Change	**2021**	2020	Change
Revenue by business						
Investment Banking	**$ 3,025**	$ 2,087	45 %	**$ 9,300**	$ 6,374	46 %
Wholesale Payments	**1,624**	1,332	22	**4,469**	4,133	8
Lending	**244**	333	(27)	**738**	953	(23)
Total Banking	**4,893**	3,752	30	**14,507**	11,460	27
Fixed Income Markets	**3,672**	4,597	(20)	**13,531**	16,928	(20)
Equity Markets	**2,597**	1,999	30	**8,575**	6,616	30
Securities Services	**1,126**	1,029	9	**3,264**	3,200	2
Credit Adjustments & Other[(a)]	**108**	169	(36)	**338**	(272)	NM
Total Markets & Securities Services	**7,503**	7,794	(4)	**25,708**	26,472	(3)
Total net revenue	**$ 12,396**	$ 11,546	7 %	**$ 40,215**	$ 37,932	6 %

(a) Consists primarily of centrally managed credit valuation adjustments ("CVA"), funding valuation adjustments ("FVA") on derivatives, other valuation adjustments, and certain components of fair value option elected liabilities, which are primarily reported in principal transactions revenue. Results are presented net of associated hedging activities and net of CVA and FVA amounts allocated to Fixed Income Markets and Equity Markets.

Quarterly results

Net income was $5.6 billion, up 29% and includes a net benefit in the provision for credit losses.

Net revenue was $12.4 billion, up 7%.

Banking revenue was $4.9 billion, up 30%.

- Investment Banking revenue was $3.0 billion, up 45%, driven by higher Investment Banking fees, up 52%, reflecting higher advisory and equity underwriting fees.
  - Advisory fees were $1.2 billion, up 187%, driven by increased M&A activity and wallet share gains.
  - Equity underwriting fees were $1.0 billion, up 41%, driven by wallet share gains and increased activity in the IPO market.
  - Debt underwriting fees were $1.0 billion, up 3%, driven by an active leveraged loan market primarily related to acquisition financing.
- Wholesale Payments revenue was $1.6 billion, up 22%, and included gains on equity investments. Excluding these gains, revenue was $1.5 billion, up 10%, driven by higher deposit balances and fees, partially offset by deposit margin compression.
- Lending revenue was $244 million, down 27%, driven by lower net interest income.

Markets & Securities Services revenue was $7.5 billion, down 4%. Markets revenue was $6.3 billion, down 5%.

- Fixed Income Markets revenue was $3.7 billion, down 20%, driven by lower revenue in Commodities, Rates and Spread products compared to a strong prior year, including an adjustment to liquidity assumptions in the derivatives portfolio.
- Equity Markets revenue was $2.6 billion, up 30%, driven by strong performance across prime brokerage, derivatives, and Cash Equities.
- Securities Services revenue was $1.1 billion, up 9%, driven by growth in fees and deposit balances.

Noninterest expense was $5.9 billion, relatively flat to the prior year, as higher structural expense, volume- and revenue- related expense and investments in the business, including technology and front office hires, were offset by lower legal expense.

The provision for credit losses was a net benefit of $638 million, driven by a net reduction in the allowance for credit losses, compared with a net benefit of $81 million in the prior year.

Refer to Credit and Investment Risk Management on pages 59-77 and Allowance for Credit Losses on pages 75-76 for further discussions of the credit portfolios and the allowance for credit losses.

Year-to-date results

Net income was $16.3 billion, up 39%, primarily reflecting the absence of an increase in the provision for credit losses in the prior year.

Net revenue was $40.2 billion, up 6%.

Banking revenue was $14.5 billion, up 27%.

- Investment Banking revenue was $9.3 billion, up 46%, driven by higher Investment Banking fees, up 42%, reflecting higher fees across products. The Firm ranked #1 for Global Investment Banking fees, according to Dealogic.
  - Advisory fees were $2.8 billion, up 84%, driven by increased M&A activity and wallet share gains.
  - Equity underwriting fees were $3.2 billion, up 54%, driven by increased activity and wallet share gains in the IPO market.
  - Debt underwriting fees were $3.9 billion, up 16%, predominantly driven by an active leveraged loan market primarily related to acquisition financing.
- Wholesale Payments revenue was $4.5 billion, up 8% and included gains on equity investments. Excluding these gains, revenue was $4.3 billion, up 4%, driven by higher deposit balances and fees, largely offset by deposit margin compression.
- Lending revenue was $738 million, down 23%, driven by lower net interest income, partially offset by higher loan commitment fees.

Markets & Securities Services revenue was $25.7 billion, down 3%. Markets revenue was $22.1 billion, down 6%.

- Fixed Income Markets revenue was $13.5 billion, down 20%, driven by lower revenue in Rates, Currencies & Emerging Markets, Fixed Income Financing and Commodities compared to a strong prior year, partially offset by higher revenue in Securitized Products.
- Equity Markets revenue was $8.6 billion, up 30%, driven by strong performance across derivatives, prime brokerage, and Cash Equities.
- Securities Services revenue was $3.3 billion, up 2%, with growth in deposits and fees, predominantly offset by deposit margin compression.
- Credit Adjustments & Other was a gain of $338 million largely driven by valuation adjustments related to derivatives. The prior year loss of $272 million was predominantly driven by losses on certain components of fair value option elected liabilities, as well as the impact of funding spread widening on derivatives.

Noninterest expense was $19.5 billion, up 5%, predominantly driven by higher volume- and revenue-related expense, largely performance-related compensation, as well as higher structural expense, partially offset by lower legal expense.

The provision for credit losses was a net benefit of $1.0 billion, driven by a net reduction in the allowance for credit losses, compared with an expense of $3.3 billion in the prior year.

Selected metrics

(in millions, except headcount)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Selected balance sheet data (period-end)						
Total assets[(a)]	**$ 1,355,752**	$ 1,088,282	25 %	**$ 1,355,752**	$ 1,088,282	25 %
Loans:						
Loans retained[(b)]	**151,211**	126,841	19	**151,211**	126,841	19
Loans held-for-sale and loans at fair value[(c)]	**52,436**	33,046	59	**52,436**	33,046	59
Total loans	**203,647**	159,887	27	**203,647**	159,887	27
Equity	**83,000**	80,000	4	**83,000**	80,000	4
Selected balance sheet data (average)						
Total assets[(a)]	**$ 1,331,240**	$ 1,099,618	21	**$ 1,332,244**	$ 1,116,072	19
Trading assets-debt and equity instruments[(d)]	**442,623**	430,149	3	**461,728**	417,686	11
Trading assets-derivative receivables[(d)]	**64,730**	73,978	(13)	**69,159**	67,858	2
Loans:						
Loans retained[(b)]	**$ 149,826**	$ 131,187	14	**$ 142,286**	$ 137,996	3
Loans held-for-sale and loans at fair value[(c)]	**53,712**	30,205	78	**50,616**	32,974	54
Total loans	**$ 203,538**	$ 161,392	26	**$ 192,902**	$ 170,970	13
Equity	**83,000**	80,000	4	**83,000**	80,000	4
Headcount[(e)]	**66,267**	61,830	7 %	**66,267**	61,830	7 %

(a) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.
(b) Loans retained includes credit portfolio loans, loans held by consolidated Firm-administered multi-seller conduits, trade finance loans, other held-for-investment loans and overdrafts.
(c) Loans held-for-sale and loans at fair value primarily reflect lending related positions originated and purchased in CIB Markets, including loans held for securitization.
(d) Prior-period amounts have been revised to conform with the current presentation.
(e) During the six months ended June 30, 2021, 1,155 technology and risk management employees were transferred from Corporate to CIB.

Selected metrics

(in millions, except ratios)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Credit data and quality statistics						
Net charge-offs/(recoveries)	**$ 2**	$ 23	(91) %	**$ (17)**	$ 282	NM
Nonperforming assets:						
Nonaccrual loans:						
Nonaccrual loans retained[(a)]	**$ 547**	$ 1,178	(54)	**$ 547**	$ 1,178	(54)
Nonaccrual loans held-for-sale and loans at fair value[(b)]	**1,234**	2,111	(42)	**1,234**	2,111	(42)
Total nonaccrual loans	**1,781**	3,289	(46)	**1,781**	3,289	(46)
Derivative receivables	**393**	140	181	**393**	140	181
Assets acquired in loan satisfactions	**95**	88	8	**95**	88	8
Total nonperforming assets	**$ 2,269**	$ 3,517	(35)	**$ 2,269**	$ 3,517	(35)
Allowance for credit losses:						
Allowance for loan losses[(c)]	**$ 1,442**	$ 2,863	(50)	**$ 1,442**	$ 2,863	(50)
Allowance for lending-related commitments[(c)]	**1,426**	1,706	(16)	**1,426**	1,706	(16)
Total allowance for credit losses	**$ 2,868**	$ 4,569	(37) %	**$ 2,868**	$ 4,569	(37) %
Net charge-off/(recovery) rate[(c)(d)]	**0.01 %**	0.07 %		**(0.02)%**	0.27 %	
Allowance for loan losses to period-end loans retained[(c)]	**0.95**	2.26		**0.95**	2.26	
Allowance for loan losses to period-end loans retained, excluding trade finance and conduits[(c)(e)]	**1.29**	3.15		**1.29**	3.15	
Allowance for loan losses to nonaccrual loans retained[(a)(c)]	**264**	243		**264**	243	
Nonaccrual loans to total period-end loans	**0.87 %**	2.06 %		**0.87 %**	2.06 %	

(a) Allowance for loan losses of $138 million and $320 million were held against these nonaccrual loans at September 30, 2021 and 2020, respectively.
(b) At September 30, 2021 and 2020, nonaccrual loans excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of $289 million and $297 million, respectively. These amounts have been excluded based upon the government guarantee.
(c) Prior-period amounts have been revised to conform with the current presentation.
(d) Loans held-for-sale and loans at fair value were excluded when calculating the net charge-off/(recovery) rate.
(e) Management uses allowance for loan losses to period-end loans retained, excluding trade finance and conduits, a non-GAAP financial measure, to provide a more meaningful assessment of CIB's allowance coverage ratio.

Investment banking fees

(in millions)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Advisory	**$ 1,228**	$ 428	187 %	**$ 2,824**	$ 1,533	84 %
Equity underwriting	**1,032**	732	41	**3,151**	2,040	54
Debt underwriting[(a)]	**1,037**	1,005	3	**3,882**	3,346	16
Total investment banking fees	**$ 3,297**	$ 2,165	52 %	**$ 9,857**	$ 6,919	42 %

(a) Represents long-term debt and loan syndications.

League table results – wallet share

	Three months ended September 30, 2021		2020		Nine months ended September 30, 2021		2020		Full-year 2020	
	Rank	Share	Rank	Share	Rank	Share	Rank	Share	Rank	Share
Based on fees[(a)]										
M&A[(b)]										
Global	**# 2**	**9.9 %**	# 2	9.0 %	**# 2**	**9.5 %**	# 2	9.0 %	# 2	9.0 %
U.S.	**3**	**10.5**	1	11.6	**2**	**10.1**	2	9.6	2	9.5
Equity and equity-related[(c)]										
Global	**2**	**9.5**	3	8.1	**2**	**9.3**	2	9.8	2	8.9
U.S.	**2**	**12.5**	2	11.7	**2**	**11.6**	2	12.8	2	12.0
Long-term debt[(d)]										
Global	**2**	**7.0**	1	8.3	**1**	**8.5**	1	9.0	1	8.8
U.S.	**2**	**9.1**	1	11.9	**1**	**12.0**	1	12.7	1	12.8
Loan syndications										
Global	**2**	**7.6**	1	14.2	**1**	**11.0**	1	11.3	1	11.1
U.S.	**2**	**8.7**	1	17.8	**1**	**12.5**	1	13.4	1	12.3
Global investment banking fees[(e)]	**# 2**	**8.8 %**	# 1	8.9 %	**# 1**	**9.4 %**	# 1	9.5 %	# 1	9.2 %

(a) Source: Dealogic as of October 1, 2021. Reflects the ranking of revenue wallet and market share.
(b) Global M&A excludes any withdrawn transactions. U.S. M&A revenue wallet represents wallet from client parents based in the U.S.
(c) Global equity and equity-related ranking includes rights offerings and Chinese A-Shares.
(d) Long-term debt rankings include investment-grade, high-yield, supranationals, sovereigns, agencies, covered bonds, asset-backed securities ("ABS") and mortgage-backed securities ("MBS"); and exclude money market, short-term debt, and U.S. municipal securities.
(e) Global investment banking fees exclude money market, short-term debt and shelf securities.

Markets revenue

The following table summarizes select income statement data for the Markets businesses. Markets includes both Fixed Income Markets and Equity Markets. Markets revenue comprises principal transactions, fees, commissions and other income, as well as net interest income. The Firm assesses its Markets business performance on a total revenue basis, as offsets may occur across revenue line items. For example, securities that generate net interest income may be risk-managed by derivatives that are reflected at fair value in principal transactions revenue. Refer to Notes 5 and 6 for a description of the composition of these income statement line items. Refer to Markets revenue on page 74 of JPMorgan Chase's 2020 Form 10-K for further information.

For the periods presented below, the predominant source of principal transactions revenue was the amount recognized upon executing new transactions.

	Three months ended September 30,			Three months ended September 30,		
	2021			2020		
(in millions)	Fixed Income Markets	Equity Markets	Total Markets	Fixed Income Markets	Equity Markets	Total Markets
Principal transactions	**$ 1,624**	**$ 1,864**	**$ 3,488**	$ 2,411	$ 1,402	$ 3,813
Lending- and deposit-related fees	**83**	**4**	**87**	62	3	65
Asset management, administration and commissions	**127**	**467**	**594**	100	437	537
All other income	**173**	**(40)**	**133**	138	(33)	105
Noninterest revenue	**2,007**	**2,295**	**4,302**	2,711	1,809	4,520
Net interest income	**1,665**	**302**	**1,967**	1,886	190	2,076
Total net revenue	**$ 3,672**	**$ 2,597**	**$ 6,269**	$ 4,597	$ 1,999	$ 6,596

	Nine months ended September 30,			Nine months ended September 30,		
	2021			2020		
(in millions)	Fixed Income Markets	Equity Markets	Total Markets	Fixed Income Markets	Equity Markets	Total Markets
Principal transactions	**$ 7,113**	**$ 6,225**	**$ 13,338**	$ 10,205	$ 4,862	$ 15,067
Lending- and deposit-related fees	**234**	**12**	**246**	157	7	164
Asset management, administration and commissions	**377**	**1,496**	**1,873**	304	1,542	1,846
All other income	**532**	**(60)**	**472**	315	(56)	259
Noninterest revenue	**8,256**	**7,673**	**15,929**	10,981	6,355	17,336
Net interest income	**5,275**	**902**	**6,177**	5,947	261	6,208
Total net revenue	**$ 13,531**	**$ 8,575**	**$ 22,106**	$ 16,928	$ 6,616	$ 23,544

Selected metrics

	As of or for the three months ended September 30,			As of or for the nine months ended September 30,		
(in millions, except where otherwise noted)	**2021**	2020	Change	**2021**	2020	Change
Assets under custody ("AUC") by asset class (period-end) (in billions):						
Fixed Income	**$ 15,799**	$ 15,360	3 %	**$ 15,799**	$ 15,360	3 %
Equity	**12,276**	9,914	24	**12,276**	9,914	24
Other[(a)]	**3,887**	3,354	16	**3,887**	3,354	16
Total AUC	**$ 31,962**	$ 28,628	12	**$ 31,962**	$ 28,628	12
Merchant processing volume (in billions)[(b)]	**$ 470.9**	$ 406.1	16	**$ 1,371.8**	$ 1,152.8	19
Client deposits and other third-party liabilities (average)[(c)]	**$ 714,376**	$ 634,961	13 %	**$ 714,039**	$ 585,955	22 %

(a) Consists of mutual funds, unit investment trusts, currencies, annuities, insurance contracts, options and other contracts.
(b) Represents total merchant processing volume across CIB, CCB and CB.
(c) Client deposits and other third-party liabilities pertain to the Wholesale Payments and Securities Services businesses.

International metrics

(in millions, except where otherwise noted)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Total net revenue[(a)]						
Europe/Middle East/Africa	**$ 3,201**	$ 3,126	2 %	**$ 11,045**	$ 10,694	3 %
Asia-Pacific	**1,973**	1,909	3	**6,026**	5,881	2
Latin America/Caribbean	**526**	423	24	**1,480**	1,517	(2)
Total international net revenue	**5,700**	5,458	4	**18,551**	18,092	3
North America	**6,696**	6,088	10	**21,664**	19,840	9
Total net revenue	**$ 12,396**	$ 11,546	7	**$ 40,215**	$ 37,932	6
Loans retained (period-end)[(a)]						
Europe/Middle East/Africa	**$ 32,922**	$ 26,945	22	**$ 32,922**	$ 26,945	22
Asia-Pacific	**14,544**	12,734	14	**14,544**	12,734	14
Latin America/Caribbean	**6,495**	6,306	3	**6,495**	6,306	3
Total international loans	**53,961**	45,985	17	**53,961**	45,985	17
North America	**97,250**	80,856	20	**97,250**	80,856	20
Total loans retained	**$ 151,211**	$ 126,841	19	**$ 151,211**	$ 126,841	19
Client deposits and other third-party liabilities (average)[(b)]						
Europe/Middle East/Africa	**$ 245,895**	$ 212,635	16	**$ 243,279**	$ 206,629	18
Asia-Pacific	**131,110**	128,519	2	**131,836**	119,417	10
Latin America/Caribbean	**47,374**	39,674	19	**46,607**	35,638	31
Total international	**$ 424,379**	$ 380,828	11	**$ 421,722**	$ 361,684	17
North America	**289,997**	254,133	14	**292,317**	224,271	30
Total client deposits and other third-party liabilities	**$ 714,376**	$ 634,961	13	**$ 714,039**	$ 585,955	22
AUC (period-end)[(b)] **(in billions)**						
North America	**$ 20,792**	$ 18,534	12	**$ 20,792**	$ 18,534	12
All other regions	**11,170**	10,094	11	**11,170**	10,094	11
Total AUC	**$ 31,962**	$ 28,628	12 %	**$ 31,962**	$ 28,628	12 %

(a) Total net revenue and loans retained (excluding loans held-for-sale and loans at fair value) are based on the location of the trading desk, booking location, or domicile of the client, as applicable.
(b) Client deposits and other third-party liabilities pertaining to the Wholesale Payments and Securities Services businesses, and AUC, are based on the domicile of the client.

COMMERCIAL BANKING

Refer to pages 77–79 of JPMorgan Chase's 2020 Form 10-K and Line of Business Metrics on page 192 for a discussion of the business profile of CB.

Selected income statement data

(in millions)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Revenue						
Lending- and deposit-related fees	**$ 355**	$ 304	17 %	**$ 1,036**	$ 862	20 %
All other income	**633**	457	39	**1,819**	1,330	37
Noninterest revenue	**988**	761	30	**2,855**	2,192	30
Net interest income	**1,532**	1,524	1	**4,541**	4,658	(3)
Total net revenue(a)	**2,520**	2,285	10	**7,396**	6,850	8
Provision for credit losses	**(363)**	(147)	(147)	**(858)**	3,294	NM
Noninterest expense						
Compensation expense	**511**	492	4	**1,477**	1,394	6
Noncompensation expense	**521**	477	9	**1,505**	1,454	4
Total noninterest expense	**1,032**	969	7	**2,982**	2,848	5
Income before income tax expense	**1,851**	1,463	27	**5,272**	708	NM
Income tax expense	**444**	377	18	**1,277**	164	NM
Net income	**$ 1,407**	$ 1,086	30 %	**$ 3,995**	$ 544	NM

(a) Total net revenue included tax-equivalent adjustments from income tax credits related to equity investments in designated community development entities and in entities established for rehabilitation of historic properties, as well as tax-exempt income related to municipal financing activities of $80 million and $82 million for the three months ended September 30, 2021 and 2020, respectively, and $231 million and $243 million for the nine months ended September 30, 2021 and 2020, respectively.

Selected income statement data (continued)

(in millions, except ratios)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Revenue by product						
Lending	**$ 1,138**	$ 1,138	— %	**$ 3,478**	$ 3,219	8 %
Wholesale payments	**947**	867	9	**2,704**	2,770	(2)
Investment banking(a)	**416**	260	60	**1,136**	751	51
Other	**19**	20	(5)	**78**	110	(29)
Total net revenue	**$ 2,520**	$ 2,285	10	**$ 7,396**	$ 6,850	8
Investment banking revenue, gross(b)	**$ 1,343**	$ 840	60	**$ 3,636**	$ 2,377	53
Revenue by client segments						
Middle Market Banking	**$ 1,017**	$ 880	16	**$ 2,942**	$ 2,693	9
Corporate Client Banking	**878**	808	9	**2,580**	2,347	10
Commercial Real Estate Banking	**602**	576	5	**1,805**	1,683	7
Other	**23**	21	10	**69**	127	(46)
Total net revenue	**$ 2,520**	$ 2,285	10 %	**$ 7,396**	$ 6,850	8 %
Financial ratios						
Return on equity	**22 %**	19 %		**21 %**	2 %	
Overhead ratio	**41**	42		**40**	42	

(a) Includes CB's share of revenue from investment banking products sold to CB clients through the CIB.
(b) Refer to Business Segment Results on page 22 for discussion of revenue sharing.

Quarterly results

Net income was $1.4 billion, up 30%, largely driven by a decrease in the provision for credit losses.

Net revenue was $2.5 billion, up 10%. Net interest income was $1.5 billion, up 1%, driven by the impact of lower funding costs on loans and higher deposit balances, largely offset by deposit margin compression. Noninterest revenue was $988 million, up 30%, driven by higher investment banking revenue and wholesale payments revenue.

Noninterest expense was $1.0 billion, up 7%, predominantly driven by higher investments in the business and higher volume- and revenue- related expense.

The provision for credit losses was a net benefit of $363 million, driven by a net reduction in the allowance for credit losses, compared with a net benefit of $147 million in the prior year.

Refer to Credit and Investment Risk Management on pages 59-77 and Allowance for Credit Losses on pages 75-76 for further discussions of the credit portfolios and the allowance for credit losses.

Year-to-date results

Net income was $4.0 billion, up $3.5 billion, predominantly driven by a decrease in the provision for credit losses.

Net revenue was $7.4 billion, up 8%. Net interest income was $4.5 billion, down 3%, driven by deposit margin compression, offset by the impact of lower funding costs on loans and higher deposit balances. Noninterest revenue was $2.9 billion, up 30%, predominantly driven by higher investment banking revenue and wholesale payments revenue.

Noninterest expense was $3.0 billion, up 5%, driven by higher investments in the business and higher volume- and revenue-related expense.

The provision for credit losses was a net benefit of $858 million, driven by a net reduction in the allowance for credit losses, compared with an expense of $3.3 billion in the prior year.

Selected metrics

(in millions, except headcount)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Selected balance sheet data (period-end)						
Total assets	**$ 227,670**	$ 228,583	— %	**$ 227,670**	$ 228,583	— %
Loans:						
Loans retained	**201,283**	214,352	(6)	**201,283**	214,352	(6)
Loans held-for-sale and loans at fair value	**3,412**	349	NM	**3,412**	349	NM
Total loans	**$ 204,695**	$ 214,701	(5)	**$ 204,695**	$ 214,701	(5)
Equity	**24,000**	22,000	9	**24,000**	22,000	9
Period-end loans by client segment						
Middle Market Banking[(a)]	**$ 58,918**	$ 61,812	(5)	**$ 58,918**	$ 61,812	(5)
Corporate Client Banking	**45,107**	49,857	(10)	**45,107**	49,857	(10)
Commercial Real Estate Banking	**100,458**	102,484	(2)	**100,458**	102,484	(2)
Other	**212**	548	(61)	**212**	548	(61)
Total loans[(a)]	**$ 204,695**	$ 214,701	(5)	**$ 204,695**	$ 214,701	(5)
Selected balance sheet data (average)						
Total assets	**$ 222,760**	$ 231,691	(4)	**$ 224,955**	$ 235,079	(4)
Loans:						
Loans retained	**199,789**	217,498	(8)	**202,002**	220,167	(8)
Loans held-for-sale and loans at fair value	**2,790**	629	344	**2,840**	986	188
Total loans	**$ 202,579**	$ 218,127	(7)	**$ 204,842**	$ 221,153	(7)
Average loans by client segment						
Middle Market Banking	**$ 59,032**	$ 63,029	(6)	**$ 60,243**	$ 61,789	(3)
Corporate Client Banking	**43,330**	51,608	(16)	**44,154**	55,967	(21)
Commercial Real Estate Banking	**100,120**	102,905	(3)	**100,213**	102,650	(2)
Other	**97**	585	(83)	**232**	747	(69)
Total loans	**$ 202,579**	$ 218,127	(7)	**$ 204,842**	$ 221,153	(7)
Client deposits and other third-party liabilities	**$ 300,595**	$ 248,289	21	**$ 293,981**	$ 224,774	31
Equity	**24,000**	22,000	9	**24,000**	22,000	9
Headcount	**12,584**	11,704	8 %	**12,584**	11,704	8 %

(a) At September 30, 2021 and 2020, total loans included $2.0 billion and $6.6 billion of loans, respectively, under the PPP, of which $1.9 billion and $6.4 billion were in Middle Market Banking, respectively. Refer to Credit Portfolio on page 60 for a further discussion of the PPP.

Selected metrics (continued)

(in millions, except ratios)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Credit data and quality statistics						
Net charge-offs/(recoveries)	**$ 31**	$ 60	(48) %	**$ 63**	$ 239	(74) %
Nonperforming assets						
Nonaccrual loans:						
Nonaccrual loans retained[(a)(b)]	**$ 735**	$ 1,468	(50) %	**$ 735**	$ 1,468	(50) %
Nonaccrual loans held-for-sale and loans at fair value[(b)]	**—**	85	NM	**—**	85	NM
Total nonaccrual loans	**$ 735**	$ 1,553	(53)	**$ 735**	$ 1,553	(53)
Assets acquired in loan satisfactions	**16**	24	(33)	**16**	24	(33)
Total nonperforming assets	**$ 751**	$ 1,577	(52)	**$ 751**	$ 1,577	(52)
Allowance for credit losses:						
Allowance for loan losses[(b)]	**$ 2,354**	$ 4,466	(47)	**$ 2,354**	$ 4,466	(47)
Allowance for lending-related commitments[(b)]	**711**	864	(18)	**711**	864	(18)
Total allowance for credit losses	**$ 3,065**	$ 5,330	(42) %	**$ 3,065**	$ 5,330	(42) %
Net charge-off/(recovery) rate[(c)]	**0.06 %**	0.11 %		**0.04 %**	0.15 %	
Allowance for loan losses to period-end loans retained[(b)]	**1.17**	2.08		**1.17**	2.08	
Allowance for loan losses to nonaccrual loans retained[(a)(b)]	**320**	304		**320**	304	
Nonaccrual loans to period-end total loans	**0.36**	0.72		**0.36**	0.72	

(a) Allowance for loan losses of $123 million and $367 million was held against nonaccrual loans retained at September 30, 2021 and 2020, respectively.
(b) Prior-period amounts have been revised to conform with the current presentation.
(c) Loans held-for-sale and loans at fair value were excluded when calculating the net charge-off/(recovery) rate.

ASSET & WEALTH MANAGEMENT

Refer to pages 80–82 of JPMorgan Chase's 2020 Form 10-K and Line of Business Metrics on pages 192-193 for a discussion of the business profile of AWM.

Selected income statement data

(in millions, except ratios)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Revenue						
Asset management, administration and commissions	**$ 3,096**	$ 2,646	17 %	**$ 9,003**	$ 7,718	17 %
All other income	**216**	93	132	**620**	125	396
Noninterest revenue	**3,312**	2,739	21	**9,623**	7,843	23
Net interest income	**988**	815	21	**2,861**	2,530	13
Total net revenue	**4,300**	3,554	21	**12,484**	10,373	20
Provision for credit losses	**(60)**	(52)	(15)	**(191)**	265	NM
Noninterest expense						
Compensation expense	**1,387**	1,232	13	**4,132**	3,636	14
Noncompensation expense	**1,375**	1,211	14	**3,790**	3,565	6
Total noninterest expense	**2,762**	2,443	13	**7,922**	7,201	10
Income before income tax expense	**1,598**	1,163	37	**4,753**	2,907	64
Income tax expense	**404**	287	41	**1,162**	701	66
Net income	**$ 1,194**	$ 876	36	**$ 3,591**	$ 2,206	63
Revenue by line of business						
Asset Management	**$ 2,337**	$ 1,924	21	**$ 6,758**	$ 5,444	24
Global Private Bank[a]	**1,963**	1,630	20	**5,726**	4,929	16
Total net revenue	**$ 4,300**	$ 3,554	21 %	**$ 12,484**	$ 10,373	20 %
Financial ratios						
Return on equity	**33 %**	32 %		**33 %**	27 %	
Overhead ratio	**64**	69		**63**	69	
Pre-tax margin ratio:						
Asset Management	**36**	30		**36**	27	
Global Private Bank[a]	**38**	35		**40**	28	
Asset & Wealth Management	**37**	33		**38**	28	

(a) In the first quarter of 2021, the Wealth Management business was renamed Global Private Bank. In the fourth quarter of 2020, certain wealth management clients were transferred from AWM Global Private Bank to the J.P. Morgan Wealth Management unit in CCB's Consumer & Business Banking business. For further information see page 80 of the 2020 Form 10-K.

Quarterly results

Net income was $1.2 billion, up 36%.

Net revenue was $4.3 billion, up 21%. Net interest income was $988 million, up 21%. Noninterest revenue was $3.3 billion, up 21%.

Revenue from Asset Management was $2.3 billion, up 21%, predominantly driven by:

- higher asset management fees on cumulative net inflows into long-term products and higher average market levels, net of liquidity fee waivers; and higher performance fees.

Revenue from Global Private Bank was $2.0 billion, up 20%, predominantly driven by:

- higher deposit and loan balances, higher asset management fees, as well as the impact of lower funding costs on loans, partially offset by deposit margin compression.

Noninterest expense was $2.8 billion, up 13% predominantly driven by higher performance-related compensation, distribution fees, and structural expense.

Refer to Credit and Investment Risk Management on pages 59-77 and Allowance for Credit Losses on pages 75-76 for further discussions of the credit portfolios and the allowance for credit losses.

Year-to-date results

Net income was $3.6 billion, an increase of 63%.

Net revenue was $12.5 billion, an increase of 20%. Net interest income was $2.9 billion, up 13%. Noninterest revenue was $9.6 billion, up 23%.

Revenue from Asset Management was $6.8 billion, up 24%, predominantly driven by:

- higher asset management fees on strong cumulative net inflows into long-term and liquidity products and higher average market levels, net of liquidity fee waivers; and higher net investment valuation gains.

Revenue from Global Private Bank was $5.7 billion, up 16%, predominantly driven by:

- higher deposit and loan balances, higher asset management fees, as well as the impact of lower funding costs on loans, partially offset by deposit margin compression.

Noninterest expense was $7.9 billion, an increase of 10%, predominantly driven by performance-related compensation and distribution fees.

The provision for credit losses was a net benefit of $191 million, driven by a reduction in the allowance for credit losses, compared with an expense of $265 million in the prior year.

Asset Management has two high-level measures of its overall fund performance.

Effective September 2021, AWM changed the source for the peer group quartile rankings of its funds from Lipper to Morningstar for U.S.-domiciled funds (except for "Municipals" and "Investor" funds, for which the source remains Lipper) and Taiwan domiciled funds. AWM evaluates fund performance utilizing this peer group ranking and believes that it provides investors with comparability across the industry. This change resulted in positive impacts on the quartile rankings shown in the following table, and both positive and negative impacts on the quartile rankings for prior periods, as compared to how they would have been ranked by Lipper. In addition, AWM has changed its selection of the "primary share class" for certain non-U.S. funds, as set forth below, in order to establish a more consistent approach across these products. Prior periods in the following table have been revised to conform to the current presentation.

- **Percentage of mutual fund assets under management in funds rated 4- or 5-star:** Mutual fund rating services rank funds based on their risk-adjusted performance over various periods. A 5-star rating is the best rating and represents the top 10% of industry-wide ranked funds. A 4-star rating represents the next 22.5% of industry-wide ranked funds. A 3-star rating represents the next 35% of industry-wide ranked funds. A 2-star rating represents the next 22.5% of industry-wide ranked funds. A 1-star rating is the worst rating and represents the bottom 10% of industry-wide ranked funds. An overall Morningstar rating is derived from a weighted average of the performance associated with a fund's three-, five- and ten- year (if applicable) Morningstar Rating metrics. For U.S.-domiciled funds, separate star ratings are provided at the individual share class level. The Nomura "star rating" is based on three-year risk-adjusted performance only. Funds with fewer than three years of history are not rated and hence excluded from these rankings. All ratings, the assigned peer categories and the asset values used to derive these rankings are sourced from the applicable fund rating provider. Where applicable, the fund rating providers redenominate asset values into U.S. dollars. The percentage of AUM is based on star ratings at the share class level for U.S.-domiciled funds, and at a "primary share class" level to represent the star rating of all other funds, except for Japan, for which Nomura provides ratings at the fund level. The performance data may have been different if all share classes had been included. Past performance is not indicative of future results.
- **Percentage of mutual fund assets under management in funds ranked in the 1st or 2nd quartile (one, three and five years)**: All quartile rankings, the assigned peer categories and the asset values used to derive these rankings are sourced from the fund rating providers. Quartile rankings are based on the net-of-fee absolute return of each fund. Where applicable, the fund rating providers redenominate asset values into U.S. dollars. The percentage of AUM is based on fund performance and associated peer rankings at the share class level for U.S.-domiciled funds, at a "primary share class" level to represent the quartile ranking for U.K., Luxembourg and Hong Kong funds and at the fund level for all other funds. The performance data may have been different if all share classes had been included. Past performance is not indicative of future results.

"**Primary share class**" means the C share class for European funds and Acc share class for Hong Kong and Taiwan funds. If these share classes are not available, the oldest share class is used as the primary share class.

Selected metrics

(in millions, except ranking data, headcount and ratios)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
% of JPM mutual fund assets rated as 4- or 5-star[(a)]	**70 %**	63 %		**70 %**	63 %	
% of JPM mutual fund assets ranked in 1st or 2nd quartile:[(b)]						
1 year	**60**	55		**60**	55	
3 years	**78**	71		**78**	71	
5 years	**78**	71		**78**	71	
Selected balance sheet data (period-end)[(c)]						
Total assets	**$ 221,702**	$ 187,858	18 %	**$ 221,702**	$ 187,858	18 %
Loans	**202,871**	172,695	17	**202,871**	172,695	17
Deposits	**242,309**	166,049	46	**242,309**	166,049	46
Equity	**14,000**	10,500	33	**14,000**	10,500	33
Selected balance sheet data (average)[(c)]						
Total assets	**$ 219,022**	$ 181,850	20	**$ 213,679**	$ 177,539	20
Loans	**200,635**	167,645	20	**194,888**	162,803	20
Deposits	**229,710**	162,589	41	**218,742**	155,779	40
Equity	**14,000**	10,500	33	**14,000**	10,500	33
Headcount	**22,051**	21,058	5	**22,051**	21,058	5
Number of Global Private Bank client advisors	**2,646**	2,520	5	**2,646**	2,520	5
Credit data and quality statistics[(c)]						
Net charge-offs/(recoveries)	**$ (1)**	$ 2	NM	**$ 22**	$ 2	NM
Nonaccrual loans	**686**	970	(29)	**686**	970	(29)
Allowance for credit losses:						
Allowance for loan losses	**$ 402**	$ 580	(31)	**$ 402**	$ 580	(31)
Allowance for lending-related commitments	**20**	41	(51)	**20**	41	(51)
Total allowance for credit losses	**$ 422**	$ 621	(32) %	**$ 422**	$ 621	(32) %
Net charge-off/(recovery) rate	**— %**	— %		**0.02 %**	— %	
Allowance for loan losses to period-end loans	**0.20**	0.34		**0.2**	0.34	
Allowance for loan losses to nonaccrual loans	**59**	60		**59**	60	
Nonaccrual loans to period-end loans	**0.34**	0.56		**0.34**	0.56	

(a) Represents the Morningstar Rating for all domiciled funds except for Japan domiciled funds which use Nomura. Includes only Asset Management retail open-ended mutual funds that have a rating. Excludes money market funds, Undiscovered Managers Fund, and Brazil domiciled funds. Prior-period amounts were revised to conform with the current period presentation.
(b) Quartile ranking sourced from Morningstar, Lipper and Nomura based on country of domicile. Includes only Asset Management retail open-ended mutual funds that are ranked by the aforementioned sources. Excludes money market funds, Undiscovered Managers Fund, and Brazil domiciled funds. Prior-period amounts were revised to conform with the current period presentation.
(c) Loans, deposits and related credit data and quality statistics relate to the Global Private Bank business.

Client assets

Client assets of $4.1 trillion and assets under management of $3.0 trillion were up 22% and 17%, respectively, driven by higher market levels and cumulative net inflows.

Client assets

	As of September 30,		
(in billions)	**2021**	2020	Change
Assets by asset class			
Liquidity	**$ 685**	$ 674	2 %
Fixed income	**695**	650	7
Equity	**725**	499	45
Multi-asset	**702**	593	18
Alternatives	**189**	144	31
Total assets under management	**2,996**	2,560	17
Custody/brokerage/administration/deposits	**1,100**	810	36
Total client assets[(a)]	**$ 4,096**	$ 3,370	22
Assets by client segment			
Private Banking	**$ 773**	$ 650	19
Global Institutional[(b)]	**1,375**	1,245	10
Global Funds[(b)]	**848**	665	28
Total assets under management	**$ 2,996**	$ 2,560	17
Private Banking	**$ 1,817**	$ 1,422	28
Global Institutional[(b)]	**1,425**	1,278	12
Global Funds[(b)]	**854**	670	27
Total client assets[(a)]	**$ 4,096**	$ 3,370	22 %

(a) Includes CCB client investment assets invested in managed accounts and J.P. Morgan mutual funds where AWM is the investment manager.
(b) In the first quarter of 2021, Institutional and Retail client segments were renamed to Global Institutional and Global Funds, respectively. This did not result in a change to the clients within either client segment.

Client assets (continued)

	Three months ended September 30,		Nine months ended September 30,	
(in billions)	**2021**	2020	**2021**	2020
Assets under management rollforward				
Beginning balance	**$ 2,987**	$ 2,476	**$ 2,716**	$ 2,328
Net asset flows:				
Liquidity	**(11)**	(30)	**48**	140
Fixed income	**11**	22	**36**	40
Equity	**16**	9	**67**	19
Multi-asset	**3**	(1)	**11**	(5)
Alternatives	**3**	2	**16**	5
Market/performance/other impacts	**(13)**	82	**102**	33
Ending balance, September 30	**$ 2,996**	$ 2,560	**$ 2,996**	$ 2,560
Client assets rollforward				
Beginning balance	**$ 4,044**	$ 3,241	**$ 3,652**	$ 3,089
Net asset flows	**75**	11	**280**	237
Market/performance/other impacts	**(23)**	118	**164**	44
Ending balance, September 30	**$ 4,096**	$ 3,370	**$ 4,096**	$ 3,370

International

(in millions)	Three months ended September 30, 2021	2020	Change	Nine months ended September 30, 2021	2020	Change
Total net revenue [a]						
Europe/Middle East/Africa	$ **905**	$ 755	20 %	$ **2,627**	$ 2,097	25 %
Asia-Pacific	**503**	413	22	**1,513**	1,191	27
Latin America/Caribbean	**229**	199	15	**659**	585	13
Total international net revenue	**1,637**	1,367	20	**4,799**	3,873	24
North America	**2,663**	2,187	22	**7,685**	6,500	18
Total net revenue[a]	$ **4,300**	$ 3,554	21 %	$ **12,484**	$ 10,373	20 %

(a) Regional revenue is based on the domicile of the client.

(in billions)	As of September 30, 2021	2020	Change	As of September 30, 2021	2020	Change
Assets under management						
Europe/Middle East/Africa	$ **548**	$ 481	14 %	$ **548**	$ 481	14 %
Asia-Pacific	**246**	203	21	**246**	203	21
Latin America/Caribbean	**76**	67	13	**76**	67	13
Total international assets under management	**870**	751	16	**870**	751	16
North America	**2,126**	1,809	18	**2,126**	1,809	18
Total assets under management	$ **2,996**	$ 2,560	17	$ **2,996**	$ 2,560	17
Client assets						
Europe/Middle East/Africa	$ **669**	$ 578	16	$ **669**	$ 578	16
Asia-Pacific	**371**	295	26	**371**	295	26
Latin America/Caribbean	**181**	153	18	**181**	153	18
Total international client assets	**1,221**	1,026	19	**1,221**	1,026	19
North America	**2,875**	2,344	23	**2,875**	2,344	23
Total client assets	$ **4,096**	$ 3,370	22 %	$ **4,096**	$ 3,370	22 %

Refer to pages 83–84 of JPMorgan Chase's 2020 Form 10-K for a discussion of Corporate.

Selected income statement and balance sheet data

(in millions, except headcount)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Revenue						
Principal transactions	$ **(103)**	$ 87	NM	$ **161**	$ (28)	NM
Investment securities gains/(losses)	**(256)**	466	NM	**(397)**	725	NM
All other income	**117**	(210)	NM	**168**	(90)	NM
Noninterest revenue	**(242)**	343	NM	**(68)**	607	NM
Net interest income	**(1,054)**	(682)	(55)%	**(2,870)**	(1,534)	(87)%
Total net revenue[(a)]	**(1,296)**	(339)	(282)	**(2,938)**	(927)	(217)
Provision for credit losses	**(7)**	96	NM	**58**	108	(46)
Noninterest expense	**160**	719	(78)	**1,551**	1,012	53
Income/(loss) before income tax expense/(benefit)	**(1,449)**	(1,154)	(26)	**(4,547)**	(2,047)	(122)
Income tax expense/(benefit)	**(632)**	(455)	(39)	**(1,906)**	(655)	(191)
Net income/(loss)	$ **(817)**	$ (699)	(17)	$ **(2,641)**	$ (1,392)	(90)
Total net revenue						
Treasury and CIO	$ **(1,198)**	$ (243)	(393)	$ **(2,984)**	$ (745)	(301)
Other Corporate	**(98)**	(96)	(2)	**46**	(182)	NM
Total net revenue	$ **(1,296)**	$ (339)	(282)	$ **(2,938)**	$ (927)	(217)
Net income/(loss)						
Treasury and CIO	$ **(998)**	$ (349)	(186)	$ **(2,629)**	$ (816)	(222)
Other Corporate	**181**	(350)	NM	**(12)**	(576)	98
Total net income/(loss)	$ **(817)**	$ (699)	(17)	$ **(2,641)**	$ (1,392)	(90)
Total assets (period-end)	$ **1,459,283**	$ 1,253,275	16	$ **1,459,283**	$ 1,253,275	16
Loans (period-end)	**1,697**	1,569	8	**1,697**	1,569	8
Headcount[(b)]	**38,302**	38,861	(1)%	**38,302**	38,861	(1)%

(a) Included tax-equivalent adjustments, driven by tax-exempt income from municipal bonds, of $64 million and $62 million for the three months ended September 30, 2021 and 2020, respectively, and $197 million and $186 million for the nine months ended September 30, 2021 and 2020, respectively.
(b) During the six months ended June 30, 2021, 1,155 technology and risk management employees were transferred from Corporate to CIB.

Quarterly results

Net loss was $817 million compared with a net loss of $699 million in the prior year.

Net revenue was a loss of $1.3 billion, down $957 million, driven by:

- limited deployment opportunities as deposit growth continued,
- net investment securities losses related to repositioning the investment securities portfolio, compared with net gains in the prior year from the sales of U.S. GSE and government agency MBS, and
- net losses on certain legacy private equity investments, compared with net gains in the prior year,

partially offset by

- the absence of losses in the prior year related to derivatives in Other Corporate and the early termination of certain of the Firm's long-term debt in Treasury and CIO

Noninterest expense of $160 million was down $559 million primarily driven by the absence of an impairment on a legacy investment in the prior year and lower structural expense.

The current period income tax benefit was predominantly driven by an income tax benefit of $383 million related to finalizing the Firm's 2020 U.S. federal tax return and the change in the level and mix of income and expenses subject to U.S. federal and state and local taxes.

Year-to-date results

Net loss was $2.6 billion compared with a net loss of $1.4 billion in the prior year.

Net revenue was a loss of $2.9 billion, compared with a loss of $927 million in the prior year, primarily driven by lower net interest income on limited deployment opportunities as deposit growth continued.

Noninterest revenue decreased primarily due to:

- net investment securities losses related to repositioning the investment securities portfolio, compared with net gains in the prior year from the sales of U.S. GSE and government agency MBS,

predominantly offset by

- the absence of losses in Treasury and CIO related to cash deployment transactions in the prior year, which were more than offset by the related net interest income earned on these transactions, and

- the absence of losses in the prior year related to the early termination of certain of the Firm's long-term debt in Treasury and CIO and derivatives in Other Corporate

Noninterest expense of $1.6 billion was up $539 million primarily due to a higher contribution to the Firm's Foundation and higher legal and technology expense, partially offset by the absence of an impairment on a legacy investment in the prior year.

The current period income tax benefit was driven by the change in the level and mix of income and expenses subject to U.S. federal and state and local taxes, the impact of the Firm's estimated full-year expected tax rate relative to the level of year-to-date pretax income, as well as an income tax benefit of $383 million related to finalizing the Firm's 2020 U.S. federal tax return.

Treasury and CIO overview

At September 30, 2021, the average credit rating of the Treasury and CIO investment securities comprising the portfolio in the table below was AA+ (based upon external ratings where available and, where not available, based primarily upon internal risk ratings). Refer to Note 9 for further information on the Firm's investment securities portfolio and internal risk ratings.

Refer to Liquidity Risk Management on pages 54-58 for further information on liquidity and funding risk. Refer to Market Risk Management on pages 78-82 for information on interest rate and foreign exchange risks.

Selected income statement and balance sheet data

(in millions)	As of or for the three months ended September 30, 2021	2020	Change	As of or for the nine months ended September 30, 2021	2020	Change
Investment securities gains/(losses)	**$ (256)**	$ 466	NM	**$ (397)**	$ 725	NM
Available-for-sale securities (average)	**$ 223,747**	$ 442,943	(49) %	**$ 312,298**	$ 414,228	(25) %
Held-to-maturity securities (average)[(a)]	**339,544**	103,596	228	**263,214**	74,102	255
Investment securities portfolio (average)	**$ 563,291**	$ 546,539	3	**$ 575,512**	$ 488,330	18
Available-for-sale securities (period-end)	**$ 249,484**	$ 387,663	(36)	**$ 249,484**	$ 387,663	(36)
Held-to-maturity securities, net of allowance for credit losses (period-end)[(a)]	**343,542**	141,553	143	**343,542**	141,553	143
Investment securities portfolio, net of allowance for credit losses (period-end)[(b)]	**$ 593,026**	$ 529,216	12 %	**$ 593,026**	$ 529,216	12 %

(a) During 2021 and 2020, the Firm transferred $104.5 billion and $164.2 billion of investment securities, respectively, from AFS to HTM for capital management purposes.
(b) At September 30, 2021 and 2020, the allowance for credit losses on investment securities was $73 million and $120 million, respectively.

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.

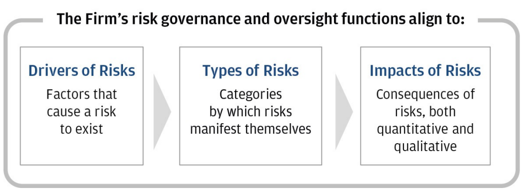
The Firm believes that effective risk management requires, among other things:

- Acceptance of responsibility, including identification and escalation of risks by all individuals within the Firm;
- Ownership of risk identification, assessment, data and management within each of the LOBs and Corporate; and
- Firmwide structures for risk governance.

The Firm follows a disciplined and balanced compensation framework with strong internal governance and independent oversight by the Board of Directors (the "Board"). The impact of risk and control issues is carefully considered in the Firm's performance evaluation and incentive compensation processes.

Risk governance and oversight framework

The Firm's risk management governance and oversight framework involves understanding drivers of risks, types of risks, and impacts of risks.



Refer to pages 85-89 of JPMorgan Chase's 2020 Form 10-K for a further discussion of Firmwide risk management governance and oversight.

Risk governance and oversight functions

The following sections of this Form 10-Q and the 2020 Form 10-K discuss the risk governance and oversight functions in place to manage the risks inherent in the Firm's business activities.

Risk governance and oversight functions	Form 10-Q page reference	Form 10-K page reference
Strategic risk		90
Capital risk	48-53	91-101
Liquidity risk	54-58	102-108
Reputation risk		109
Consumer credit risk	61-65	114-120
Wholesale credit risk	66-74	121-131
Investment portfolio risk	77	134
Market risk	78-82	135-142
Country risk	83	143-144
Operational risk	84	145-151
Compliance risk		148
Conduct risk		149
Legal risk		150
Estimations and Model risk	85	151

Capital risk is the risk the Firm has an insufficient level or composition of capital to support the Firm's business activities and associated risks during normal economic environments and under stressed conditions.

The Firm has been impacted by market events as a result of the COVID-19 pandemic, but has remained well-capitalized.

Refer to pages 91-101 of JPMorgan Chase's 2020 Form 10-K, Note 21 of this Form 10-Q and the Firm's Pillar 3 Regulatory Capital Disclosures reports, which are available on the Firm's website, for a further discussion of the Firm's Capital Risk Management, including capital planning and stress testing.

Basel III Overview

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 ("BHCs") 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 compared to their respective minimum capital ratios.

The Firm's Basel III Standardized-risk-based ratios are currently more binding than the Basel III Advanced-risk-based ratios.

Basel III also includes a requirement for Advanced Approach banking organizations, including the Firm, to calculate the SLR. The Firm's SLR is currently more binding than the Basel III Standardized-risk-based ratios. Refer to SLR on page 51 for additional information.

Key Regulatory Developments

CECL regulatory capital transition delay. As part of their response to the impact of the COVID-19 pandemic, the federal banking agencies issued a final rule that provided the option beginning January 1, 2020 to delay the effects of CECL on regulatory capital for two years, followed by a three-year transition period beginning January 1, 2022 ("CECL capital transition provisions").

The Firm has elected to apply the CECL capital transition provisions, and accordingly, for the period ended September 30, 2021, the capital metrics of the Firm exclude $3.3 billion, which is the $2.7 billion day 1 impact to retained earnings and 25% of the $1.9 billion increase in the allowance for credit losses from January 1, 2020 (excluding allowances on PCD loans).

The impacts of the CECL capital transition provisions have also been incorporated into Tier 2 capital, adjusted average assets, and total leverage exposure. Refer to Capital Risk Management on pages 91-101 and Note 1 of JPMorgan Chase's 2020 Form 10-K for further information on CECL capital transition provisions and the CECL accounting guidance.

PPP. On April 13, 2020, the federal banking agencies issued an interim final rule (issued as final on September 29, 2020) to neutralize the regulatory capital effects of participating in the PPP on risk-based capital ratios by applying a zero percent risk weight to loans originated under the program. The Firm does not expect to realize material credit losses on PPP loans because the loans are guaranteed by the SBA. As of September 30, 2021, the Firm had approximately $13 billion of loans remaining under the program.

Total leverage exposure for purposes of calculating the SLR includes PPP loans as the Firm did not participate in the Federal Reserve's Paycheck Protection Program Lending Facility, which would have allowed the Firm to exclude them under the final rule.

TLAC Holdings rule. On October 20, 2020, the federal banking agencies issued a final rule prescribing the regulatory capital treatment for holdings of Total Loss-Absorbing Capacity ("TLAC") debt instruments by certain large banking organizations, such as the Firm and JPMorgan Chase Bank, N.A. This rule expands the scope of the existing capital deductions rule around the holdings of capital instruments of financial institutions to also include TLAC debt instruments issued by systemically important banking organizations. The final rule became effective April 1, 2021 and did not have a material impact on the Firm's risk-based capital metrics.

The following tables present the Firm's risk-based capital metrics under both the Basel III Standardized and Advanced approaches and leverage-based capital metrics. Refer to Capital Risk Management on pages 91-101 of JPMorgan Chase's 2020 Form 10-K for a further discussion of these capital metrics.

(in millions, except ratios)	Standardized September 30, 2021[(a)]	Standardized December 31, 2020[(a)]	Standardized Minimum capital ratios[(b)]	Advanced September 30, 2021[(a)]	Advanced December 31, 2020[(a)]	Advanced Minimum capital ratios[(b)]
Risk-based capital metrics:						
CET1 capital	**$ 209,917**	$ 205,078		**$ 209,917**	$ 205,078	
Tier 1 capital	**244,207**	234,844		**244,207**	234,844	
Total capital	**274,994**	269,923		**264,469**	257,228	
Risk-weighted assets	**1,628,406**	1,560,609		**1,544,512**	1,484,431	
CET1 capital ratio	**12.9 %**	13.1 %	**11.3 %**	**13.6 %**	13.8 %	**10.5 %**
Tier 1 capital ratio	**15.0**	15.0	**12.8**	**15.8**	15.8	**12.0**
Total capital ratio	**16.9**	17.3	**14.8**	**17.1**	17.3	**14.0**

(a) The capital metrics reflect the CECL capital transition provisions. Additionally, loans originated under the PPP receive a zero percent risk weight.
(b) Represents minimum requirements and regulatory buffers applicable to the Firm. Refer to Note 21 for additional information.

(in millions, except ratios)	September 30, 2021[(b)]	December 31, 2020[(b)(c)]	Minimum capital ratios[(d)]
Leverage-based capital metrics:			
Adjusted average assets[(a)]	**$ 3,675,803**	$ 3,353,319	
Tier 1 leverage ratio	**6.6 %**	7.0 %	**4.0 %**
Total leverage exposure	**$ 4,463,904**	$ 3,401,542	
SLR	**5.5 %**	6.9 %	**5.0 %**

(a) Adjusted average assets, for purposes of calculating the leverage ratios, 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.
(b) The capital metrics reflect the CECL capital transition provisions.
(c) Total leverage exposure for purposes of calculating the SLR excludes U.S. Treasury securities and deposits at Federal Reserve Banks, as provided by the rule issued by the Federal Reserve which became effective April 1, 2020 and remained in effect through March 31, 2021. The SLR excluding the relief was 5.8% for the period ended December 31, 2020.
(d) Represents minimum requirements and regulatory buffers applicable to the Firm. Refer to Note 21 for additional information.

Capital components

The following table presents reconciliations of total stockholders' equity to Basel III CET1 capital, Tier 1 capital and Total capital as of September 30, 2021 and December 31, 2020.

(in millions)		September 30, 2021	December 31, 2020
Total stockholders' equity	**$**	**290,041**	$ 279,354
Less: Preferred stock		34,838	30,063
Common stockholders' equity		**255,203**	249,291
Add:			
Certain deferred tax liabilities[a]		2,500	2,453
Other CET1 capital adjustments[b]		3,429	3,486
Less:			
Goodwill		50,313	49,248
Other intangible assets		902	904
Standardized/Advanced CET1 capital		**209,917**	205,078
Preferred stock		34,838	30,063
Less: Other Tier 1 adjustments		548	297
Standardized/Advanced Tier 1 capital	**$**	**244,207**	$ 234,844
Long-term debt and other instruments qualifying as Tier 2 capital	$	14,733	$ 16,645
Qualifying allowance for credit losses[c]		16,338	18,372
Other		(284)	62
Standardized Tier 2 capital	**$**	**30,787**	$ 35,079
Standardized Total capital	**$**	**274,994**	$ 269,923
Adjustment in qualifying allowance for credit losses for Advanced Tier 2 capital[d]		(10,525)	(12,695)
Advanced Tier 2 capital	**$**	**20,262**	$ 22,384
Advanced Total capital	**$**	**264,469**	$ 257,228

(a) 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.
(b) As of September 30, 2021 and December 31, 2020, the impact of the CECL capital transition provision was an increase in CET1 capital of $3.3 billion and $5.7 billion, respectively.
(c) Represents the allowance for credit losses eligible for inclusion in Tier 2 capital up to 1.25% of credit risk RWA, including the impact of the CECL capital transition provision with any excess deducted from RWA.
(d) Represents an adjustment to qualifying allowance for credit losses for the excess of eligible credit reserves over expected credit losses up to 0.6% of credit risk RWA, including the impact of the CECL capital transition provision with any excess deducted from RWA.

Capital rollforward

The following table presents the changes in Basel III CET1 capital, Tier 1 capital and Tier 2 capital for the nine months ended September 30, 2021.

Nine months ended September 30, (in millions)		2021
Standardized/Advanced CET1 capital at December 31, 2020	$	205,078
Net income applicable to common equity		36,761
Dividends declared on common stock		(8,475)
Net purchase of treasury stock		(15,314)
Changes in additional paid-in capital		(37)
Changes related to AOCI		(7,023)
Adjustment related to AOCI[a]		2,592
Changes related to other CET1 capital adjustments[b]		(3,665)
Change in Standardized/Advanced CET1 capital		4,839
Standardized/Advanced CET1 capital at September 30, 2021	**$**	**209,917**
Standardized/Advanced Tier 1 capital at December 31, 2020	$	234,844
Change in CET1 capital[b]		4,839
Net issuance of noncumulative perpetual preferred stock		4,775
Other		(251)
Change in Standardized/Advanced Tier 1 capital		9,363
Standardized/Advanced Tier 1 capital at September 30, 2021	**$**	**244,207**
Standardized Tier 2 capital at December 31, 2020	$	35,079
Change in long-term debt and other instruments qualifying as Tier 2		(1,912)
Change in qualifying allowance for credit losses[b]		(2,034)
Other		(346)
Change in Standardized Tier 2 capital		(4,292)
Standardized Tier 2 capital at September 30, 2021	**$**	**30,787**
Standardized Total capital at September 30, 2021	**$**	**274,994**
Advanced Tier 2 capital at December 31, 2020	$	22,384
Change in long-term debt and other instruments qualifying as Tier 2		(1,912)
Change in qualifying allowance for credit losses[b]		136
Other		(346)
Change in Advanced Tier 2 capital		(2,122)
Advanced Tier 2 capital at September 30, 2021	**$**	**20,262**
Advanced Total capital at September 30, 2021	**$**	**264,469**

(a) Includes cash flow hedges and debit valuation adjustment ("DVA") related to structured notes recorded in AOCI.
(b) Includes the impact of the CECL capital transition provisions.

RWA rollforward

The following table presents changes in the components of RWA under Basel III Standardized and Advanced approaches for the nine months ended September 30, 2021. The amounts in the rollforward categories are estimates, based on the predominant driver of the change.

	Standardized			Advanced			
Nine months ended September 30, 2021 (in millions)	Credit risk RWA	Market risk RWA	**Total RWA**	Credit risk RWA	Market risk RWA	Operational risk RWA	**Total RWA**
December 31, 2020	$ 1,464,219	$ 96,390	**$ 1,560,609**	$ 1,002,330	$ 96,910	$ 385,191	**$ 1,484,431**
Model & data changes(a)	1,370	(2,867)	**(1,497)**	(200)	(2,867)	—	**(3,067)**
Portfolio runoff(b)	(4,100)	—	**(4,100)**	(2,700)	—	—	**(2,700)**
Movement in portfolio levels(c)	66,795	6,599	**73,394**	38,228	6,436	21,184	**65,848**
Changes in RWA	64,065	3,732	**67,797**	35,328	3,569	21,184	**60,081**
September 30, 2021	**$ 1,528,284**	**$ 100,122**	**$ 1,628,406**	**$ 1,037,658**	**$ 100,479**	**$ 406,375**	**$ 1,544,512**

(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.
(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 and macroeconomic model inputs for operational risk RWA; and deductions to credit risk RWA for excess eligible credit reserves not eligible for inclusion in Tier 2 capital.

Supplementary leverage ratio

Refer to Supplementary Leverage Ratio on page 95 of JPMorgan Chase's 2020 Form 10-K for additional information.

The following table presents the components of the Firm's SLR.

Three months ended (in millions, except ratio)	**September 30, 2021**	December 31, 2020
Tier 1 capital	**$ 244,207**	$ 234,844
Total average assets	3,725,219	3,399,818
Less: Regulatory capital adjustments(a)	49,416	46,499
Total adjusted average assets(b)	3,675,803	3,353,319
Add: Off-balance sheet exposures(c)	788,101	729,978
Less: Exclusion for U.S. Treasuries and Federal Reserve Bank deposits	—	681,755
Total leverage exposure	**$ 4,463,904**	$ 3,401,542
SLR	**5.5 %**	6.9 %(d)

(a) For purposes of calculating the SLR, includes total quarterly average assets adjusted for on-balance sheet assets that are subject to deduction from Tier 1 capital, predominantly goodwill, other intangible assets and adjustments for the CECL capital transition provisions.
(b) Adjusted average assets used for the calculation of Tier 1 leverage ratio.
(c) Off-balance sheet exposures are calculated as the average of the three month-end spot balances during the reporting quarter.
(d) The SLR excluding the relief was 5.8% for the period ended December 31, 2020.

Refer to Note 21 for JPMorgan Chase Bank, N.A.'s SLR.

Line of business equity

Each business segment is allocated capital by taking into consideration a variety of factors including capital levels of similarly rated peers and applicable regulatory capital requirements. Refer to line of business equity on page 98 of JPMorgan Chase's 2020 Form 10-K for additional information on capital allocation.

The following table presents the capital allocated to each business segment.

Line of business equity (Allocated capital)

(in billions)	**September 30, 2021**	December 31, 2020
Consumer & Community Banking	**$ 50.0**	$ 52.0
Corporate & Investment Bank	**83.0**	80.0
Commercial Banking	**24.0**	22.0
Asset & Wealth Management	**14.0**	10.5
Corporate	**84.2**	84.8
Total common stockholders' equity	**$ 255.2**	$ 249.3

Capital actions

Common stock dividends

On September 21, 2021, the Firm announced that its Board of Directors had declared a quarterly common stock dividend, which increased to $1.00 per share from $0.90 per share, effective with the dividend payable on October 31, 2021. The Firm's dividends are subject to approval by the Board of Directors on a quarterly basis.

Common stock

On December 18, 2020, the Federal Reserve announced that all large banks, including the Firm, could resume share repurchases commencing in the first quarter of 2021. Subsequently, the Firm announced that its Board of Directors authorized a new common share repurchase program for up to $30 billion. As directed by the Federal Reserve, total net repurchases and common stock dividends in the first and second quarters of 2021 were restricted and could not exceed the average of the Firm's net income for the four preceding calendar quarters.

On June 24, 2021, the Federal Reserve announced that the temporary restrictions on capital distributions would expire on June 30, 2021 as a result of the Firm remaining above its minimum risk-based capital requirements under the 2021 Comprehensive Capital Analysis and Review ("CCAR") stress test. Effective July 1, 2021, the Firm became subject to the normal capital distribution restrictions provided under the regulatory capital framework. The Firm continues to be authorized to repurchase common shares under its existing common share repurchase program previously approved by the Board of Directors.

Refer to capital planning and stress testing on page 52 for additional information.

The following table sets forth the Firm's repurchases of common stock for the three and nine months ended September 30, 2021 and 2020.

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020[a]	**2021**	2020[a]
Total number of shares of common stock repurchased	**33.4**	—	**107.6**	50.0
Aggregate purchase price of common stock repurchases	**$ 5,240**	$ —	**$ 16,440**	$ 6,397

(a) On March 15, 2020, in response to the economic disruptions caused by the COVID-19 pandemic, the Firm temporarily suspended repurchases of its common stock. Subsequently, the Federal Reserve directed all large banks, including the Firm, to discontinue net share repurchases through the end of 2020.

Refer to Part II, Item 2: Unregistered Sales of Equity Securities and Use of Proceeds and Part II, Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities on pages 195-196 of this Form 10-Q and page 34 of JPMorgan Chase's 2020 Form 10-K, respectively, for additional information regarding repurchases of the Firm's equity securities.

Preferred stock

Preferred stock dividends declared were $402 million and $1.2 billion for the three and nine months ended September 30, 2021.

During the nine months ended September 30, 2021, the Firm issued and redeemed several series of non-cumulative preferred stock. Refer to Note 17 of this Form 10-Q and Note 21 of JPMorgan Chase's 2020 Form 10-K for additional information on the Firm's preferred stock, including the issuance and redemption of preferred stock.

Capital planning and stress testing

Comprehensive Capital Analysis and Review

On June 28, 2021, JPMorgan Chase announced that it had completed the 2021 CCAR stress test process. On August 5, 2021, the Federal Reserve affirmed the Firm's 2021 Stress Capital Buffer ("SCB") requirement of 3.2% (down from 3.3%) and the Firm's minimum Standardized CET1 capital ratio of 11.2% (down from 11.3%). The 2021 SCB requirement became effective on October 1, 2021 and will remain in effect until September 30, 2022.

Refer to Capital planning and stress testing on pages 91-92 of JPMorgan Chase's 2020 Form 10-K for additional information on CCAR.

Other capital requirements

Total Loss-Absorbing Capacity

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").

Refer to other capital requirements on page 100 of JPMorgan Chase's 2020 Form 10-K for additional information on TLAC.

The following table presents the eligible external TLAC and eligible LTD amounts, as well as a representation of the amounts as a percentage of the Firm's total RWA and total leverage exposure applying the impact of the CECL capital transition provisions as of September 30, 2021 and December 31, 2020.

	September 30, 2021		December 31, 2020[a]	
(in billions, except ratio)	External TLAC	LTD	External TLAC	LTD
Total eligible amount	**$ 461.5**	**$ 208.7**	$ 421.0	$ 181.4
% of RWA	**28.3 %**	**12.8 %**	27.0 %	11.6 %
Minimum Requirements	**22.5**	**9.5**	23.0	9.5
Surplus/(shortfall)	**$ 95.1**	**$ 54.0**	$ 62.1	$ 33.1
% of total leverage exposure	**10.3 %**	**4.7 %**	12.4 %	5.3 %
Minimum Requirements	**9.5**	**4.5**	9.5	4.5
Surplus/(shortfall)	**$ 37.4**	**$ 7.8**	$ 97.9	$ 28.3

(a) Total leverage exposure excludes U.S. Treasury securities and deposits at Federal Reserve Banks, as provided by the rule issued by the Federal Reserve which became effective April 1, 2020 and remained in effect through March 31, 2021.

Refer to Liquidity Risk Management on pages 54-58 for further information on long-term debt issued by the Parent Company.

Refer to Part I, Item 1A: Risk Factors on pages 8-32 of JPMorgan Chase's 2020 Form 10-K for information on the financial consequences to holders of the Firm's debt and equity securities in a resolution scenario.

Broker-dealer regulatory capital

J.P. Morgan Securities

JPMorgan Chase's principal U.S. broker-dealer subsidiary is J.P. Morgan Securities. J.P. Morgan Securities is subject to Rule 15c3-1 under the Securities Exchange Act of 1934 (the "Net Capital Rule"). J.P. Morgan Securities is also registered as a futures commission merchant and is subject to regulatory capital requirements, including those imposed by the SEC, Commodity Futures Trading Commission ("CFTC"), Financial Industry Regulatory Authority ("FINRA") and the National Futures Association ("NFA").

Refer to Broker-dealer regulatory capital on page 101 of JPMorgan Chase's 2020 Form 10-K for a discussion on J.P. Morgan Securities' capital requirements.

The following table presents J.P. Morgan Securities' net capital:

September 30, 2021 (in millions)	Actual	Minimum
Net Capital	$ 25,580	$ 5,437

J.P. Morgan Securities plc

J.P. Morgan Securities plc is a wholly-owned subsidiary of JPMorgan Chase Bank, N.A. and has authority to engage in banking, investment banking and broker-dealer activities. J.P. Morgan Securities plc is jointly regulated by the U.K. Prudential Regulation Authority ("PRA") and the Financial Conduct Authority ("FCA"). J.P. Morgan Securities plc is subject to the European Union Capital Requirements Regulation, as adopted in the U.K., and the PRA capital rules, each of which have implemented Basel III and thereby subject J.P. Morgan Securities plc to its requirements.

Refer to Broker-dealer regulatory capital on page 101 of JPMorgan Chase's 2020 Form 10-K for a further discussion on J.P. Morgan Securities plc.

The Bank of England requires, on a transitional basis, that U.K. banks, including U.K. regulated subsidiaries of overseas groups, maintain a minimum requirement for own funds and eligible liabilities ("MREL"). As of September 30, 2021, J.P. Morgan Securities plc was compliant with the requirements of the MREL rule.

The following table presents J.P. Morgan Securities plc's capital metrics:

September 30, 2021 (in millions, except ratios)	Estimated	Regulatory Minimum ratios[(a)]
Total capital	$ 54,842	
CET1 ratio	16.6 %	4.5 %
Total capital ratio	21.2 %	8.0 %

(a) Represents minimum requirements excluding additional capital requirements (i.e. capital buffers) specified by the PRA. J.P. Morgan Securities plc's capital ratios as of September 30, 2021 exceeded the minimum requirements, including the additional capital requirements specified by the PRA.

Liquidity risk is the risk that the Firm will be unable to meet its contractual and contingent financial obligations as they arise or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities. Refer to pages 102–108 of JPMorgan Chase's 2020 Form 10-K and the Firm's U.S. LCR Disclosure reports, which are available on the Firm's website for a further discussion of the Firm's Liquidity Risk Management.

LCR and HQLA

The LCR rule requires that the Firm and JPMorgan Chase Bank, N.A. maintain an amount of eligible HQLA that is sufficient to meet their respective estimated total net cash outflows over a prospective 30 calendar-day period of significant stress. Under the LCR rule, the amount of eligible HQLA held by JPMorgan Chase Bank, N.A. that is in excess of its stand-alone 100% minimum LCR requirement, and that is not transferable to non-bank affiliates, must be excluded from the Firm's reported eligible HQLA. The LCR for both the Firm and JPMorgan Chase Bank, N.A. is required to be a minimum of 100%. Refer to page 103 of JPMorgan Chase's 2020 Form 10-K and the Firm's U.S. LCR Disclosure reports for additional information on HQLA and net cash outflows.

The following table summarizes the Firm and JPMorgan Chase Bank, N.A.'s average LCR for the three months ended September 30, 2021, June 30, 2021 and September 30, 2020 based on the Firm's interpretation of the LCR framework.

	Three months ended		
Average amount (in millions)	**September 30, 2021**	June 30, 2021	September 30, 2020
JPMorgan Chase & Co.			
HQLA			
Eligible cash[(a)]	**$ 690,013**	$ 673,724	$ 458,336
Eligible securities[(b)(c)]	**34,049**	42,832	211,841
Total HQLA[(d)]	**$ 724,062**	$ 716,556	$ 670,177
Net cash outflows	**$ 645,557**	$ 647,757	$ 587,811
LCR	**112 %**	111 %	114 %
Net excess eligible HQLA[(d)]	**$ 78,505**	$ 68,799	$ 82,366
JPMorgan Chase Bank N.A.:			
LCR	**174 %**	171 %	157 %
Net excess eligible HQLA	**$ 516,374**	$ 489,311	$ 366,096

(a) Represents cash on deposit at central banks, primarily the Federal Reserve Banks.
(b) Predominantly U.S. Treasuries, U.S. GSE and government agency MBS, and sovereign bonds net of applicable haircuts under the LCR rule.
(c) Eligible HQLA securities may be reported in securities borrowed or purchased under resale agreements, trading assets, or investment securities on the Firm's Consolidated balance sheets.
(d) Excludes average excess eligible HQLA at JPMorgan Chase Bank, N.A. that are not transferable to non-bank affiliates.

The Firm's average LCR increased during the three months ended September 30, 2021, compared with the three-month period ended June 30, 2021, primarily due to an increase in cash from long-term debt issuances during the second quarter 2021.

The Firm's average LCR decreased during the three months ended September 30, 2021, compared with the prior year period primarily due to the relative impact on net cash outflows from the significant increase in deposits.

JPMorgan Chase Bank, N.A.'s average LCR increased during the three months ended September 30, 2021, compared with both the three month periods ended June 30, 2021 and September 30, 2020 primarily due to growth in deposits. Deposits continued to increase in the third quarter primarily driven by the effect of certain government actions in response to the COVID-19 pandemic. The increase in excess liquidity in JPMorgan Chase Bank, N.A. is excluded from the Firm's reported LCR under the LCR rule.

The Firm and JPMorgan Chase Bank, N.A.'s average LCR fluctuates from period to period, due to changes in its eligible HQLA and estimated net cash outflows as a result of ongoing business activity.

Other liquidity sources

In addition to the assets reported in the Firm's eligible HQLA above, the Firm had unencumbered marketable securities, such as equity and debt securities, that the Firm believes would be available to raise liquidity. This includes excess eligible HQLA securities at JPMorgan Chase Bank, N.A. that are not transferable to non-bank affiliates. The fair value of these securities was approximately $878 billion and $740 billion as of September 30, 2021 and December 31, 2020, respectively, although the amount of liquidity that could be raised would be dependent on prevailing market conditions. The fair value increased compared to December 31, 2020, due to an increase in excess eligible HQLA at JPMorgan Chase Bank, N.A. which was primarily a result of higher deposits as well as an increase in CIB trading assets.

The Firm also had available borrowing capacity at the Federal Home Loan Banks ("FHLBs") and the discount window at the Federal Reserve Bank as a result of collateral pledged by the Firm to such banks of approximately $303 billion and $307 billion as of September 30, 2021 and December 31, 2020, respectively. This borrowing capacity excludes the benefit of cash and securities reported in the Firm's eligible HQLA or other unencumbered securities that are currently pledged at the Federal Reserve Bank discount window and other central banks. Although available, the Firm does not view this borrowing capacity at the Federal Reserve Bank discount window and the other central banks as a primary source of liquidity.

NSFR

The net stable funding ratio ("NSFR") is a liquidity requirement for large banking organizations that is intended to measure the adequacy of "available" and "required" amounts of stable funding over a one-year horizon. On October 20, 2020, the federal banking agencies issued a final NSFR rule under which large banking organizations such as the Firm and JPMorgan Chase Bank, N.A. will be required to maintain an NSFR of at least 100% on an ongoing basis. The final NSFR rule became effective on July 1, 2021, and the Firm will be required to publicly disclose its quarterly average NSFR semi-annually beginning in 2023.

As of September 30, 2021, the Firm and JPMorgan Chase Bank, N.A. are compliant with the 100% minimum NSFR, based on the Firm's current understanding of the final rule.

Funding

Sources of funds

Management believes that the Firm's unsecured and secured funding capacity is sufficient to meet its on- and off-balance sheet obligations.

The Firm funds its global balance sheet through diverse sources of funding including stable deposits, secured and unsecured funding in the capital markets and stockholders' equity. Deposits are the primary funding source for JPMorgan Chase Bank, N.A. Additionally, JPMorgan Chase Bank, N.A. may also access funding through short- or long-term secured borrowings, through the issuance of unsecured long-term debt, or from borrowings from the Parent Company or the Intermediate Holding Company ("IHC"). The Firm's non-bank subsidiaries are primarily funded from long-term unsecured borrowings and short-term secured borrowings, primarily securities loaned or sold under repurchase agreements. Excess funding is invested by Treasury and CIO in the Firm's investment securities portfolio or deployed in cash or other short-term liquid investments based on their interest rate and liquidity risk characteristics.

Deposits

The table below summarizes, by LOB and Corporate, the period-end deposit balances as of September 30, 2021, and December 31, 2020, and the average deposit balances for the three and nine months ended September 30, 2021 and 2020, respectively.

Deposits (in millions)	**September 30, 2021**	December 31, 2020	Three months ended September 30, Average **2021**	Three months ended September 30, Average 2020	Nine months ended September 30, Average **2021**	Nine months ended September 30, Average 2020
Consumer & Community Banking	**$ 1,093,852**	$ 958,706	**$ 1,076,323**	$ 895,535	**$ 1,034,947**	$ 825,493
Corporate & Investment Bank	**750,920**	702,215	**762,539**	678,843	**758,534**	631,351
Commercial Banking	**314,726**	284,263	**300,433**	248,078	**293,817**	224,591
Asset & Wealth Management	**242,309**	198,755	**229,710**	162,589	**218,742**	155,779
Corporate	**546**	318	**454**	554	**452**	760
Total Firm	**$ 2,402,353**	$ 2,144,257	**$ 2,369,459**	$ 1,985,599	**$ 2,306,492**	$ 1,837,974

Deposits provide a stable source of funding and reduce the Firm's reliance on the wholesale funding markets. A significant portion of the Firm's deposits are consumer deposits and wholesale operating deposits, which are both considered to be stable sources of liquidity. Wholesale operating deposits are considered to be stable sources of liquidity because they are generated from customers that maintain operating service relationships with the Firm.

The table below shows the loan and deposit balances, the loans-to-deposits ratio, and deposits as a percentage of total liabilities, as of September 30, 2021 and December 31, 2020.

(in billions except ratios)	**September 30, 2021**	December 31, 2020
Deposits	**$ 2,402.4**	$ 2,144.3
Deposits as a % of total liabilities	**69 %**	69 %
Loans	**$ 1,044.6**	$ 1,012.9
Loans-to-deposits ratio	**43 %**	47 %

The Firm believes that average deposit balances are generally more representative of deposit trends than period-end deposit balances. However, during periods of market disruption those trends could be affected.

Average deposits increased for the three and nine months ended September 30, 2021 compared to the three and nine months ended September 30, 2020, reflecting significant inflows across the LOBs primarily driven by the effect of certain government actions in response to the COVID-19 pandemic. In CCB, the increase was also driven by growth from existing and new accounts across both consumer and small business customers.

Refer to the discussion of the Firm's Business Segment Results and the Consolidated Balance Sheets Analysis on pages 22-46 and pages 16-17, respectively, for further information on deposit and liability balance trends.

The following table summarizes short-term and long-term funding, excluding deposits, as of September 30, 2021, and December 31, 2020, and average balances for the three and nine months ended September 30, 2021 and 2020, respectively. Refer to the Consolidated Balance Sheets Analysis on pages 16-17 and Note 10 for additional information.

Sources of funds (excluding deposits) (in millions)	**September 30, 2021**	December 31, 2020	Three months ended September 30, Average **2021**	Three months ended September 30, Average 2020	Nine months ended September 30, Average **2021**	Nine months ended September 30, Average 2020
Commercial paper	**$ 10,309**	$ 12,031	**$ 10,304**	$ 10,921	**$ 12,275**	$ 12,968
Other borrowed funds	**10,788**	8,510	**12,257**	8,791	**12,467**	8,832
Total short-term unsecured funding	**$ 21,097**	$ 20,541	**$ 22,561**	$ 19,712	**$ 24,742**	$ 21,800
Securities sold under agreements to repurchase[(a)]	**$ 246,178**	$ 207,877	**$ 231,338**	$ 244,638	**$ 257,846**	$ 249,087
Securities loaned[(a)]	**6,529**	4,886	**7,395**	6,563	**7,488**	6,620
Other borrowed funds	**29,296**	24,667 [(f)]	**29,571**	23,755 [(f)]	**27,953** [(f)]	23,907 [(f)]
Obligations of Firm-administered multi-seller conduits[(b)]	**$ 8,612**	$ 10,523	**$ 9,620**	$ 12,120	**$ 9,896**	$ 11,484
Total short-term secured funding	**$ 290,615**	$ 247,953	**$ 277,924**	$ 287,076	**$ 303,183**	$ 291,098
Senior notes	**$ 187,069**	$ 166,089	**$ 188,568**	$ 178,282	**$ 178,697**	$ 174,014
Subordinated debt	**20,689**	21,608	**20,956**	22,234	**20,954**	20,448
Structured notes[(c)]	**75,255**	75,325	**75,285**	74,038	**75,226**	72,665
Total long-term unsecured funding	**$ 283,013**	$ 263,022	**$ 284,809**	$ 274,554	**$ 274,877**	$ 267,127
Credit card securitization[(b)]	**$ 2,396**	$ 4,943	**$ 2,396**	$ 5,070	**$ 3,412**	$ 5,714
FHLB advances	**11,113**	14,123	**11,713**	30,628	**12,532**	31,293
Other long-term secured funding[(d)]	**4,339**	4,540	**4,379**	4,189	**4,487**	4,432
Total long-term secured funding	**$ 17,848**	$ 23,606	**$ 18,488**	$ 39,887	**$ 20,431**	$ 41,439
Preferred stock[(e)]	**$ 34,838**	$ 30,063	**$ 34,229**	$ 30,063	**$ 32,417**	$ 29,844
Common stockholders' equity[(e)]	**$ 255,203**	$ 249,291	**$ 253,556**	$ 236,797	**$ 250,011**	$ 235,251

(a) Primarily consists of short-term securities loaned or sold under agreements to repurchase.
(b) Included in beneficial interests issued by consolidated variable interest entities on the Firm's Consolidated balance sheets.
(c) Includes certain TLAC-eligible long-term unsecured debt issued by the Parent Company.
(d) Includes long-term structured notes which are secured.
(e) Refer to Capital Risk Management on pages 48-53 and Consolidated statements of changes in stockholders' equity on page 94 of this Form 10-Q, and Note 21 and Note 22 of JPMorgan Chase's 2020 Form 10-K for additional information on preferred stock and common stockholders' equity.
(f) Includes nonrecourse advances provided under the MMLF. Refer to page 106 of JPMorgan Chase's 2020 Form 10-K for additional information on the MMLF.

Short-term funding

The Firm's sources of short-term secured funding primarily consist of securities loaned or sold under agreements to repurchase. These instruments are secured predominantly by high-quality securities collateral, including government-issued debt and U.S. GSE and government agency MBS. Securities sold under agreements to repurchase increased at September 30, 2021, compared with December 31, 2020, reflecting the impact of client activities and secured financing of trading assets in CIB Markets, partially offset by lower secured financing of AFS investment securities in Treasury and CIO.

The balances associated with securities loaned or sold under agreements to repurchase fluctuate over time due to investment and financing activities of clients, the Firm's demand for financing, the ongoing management of the mix of the Firm's liabilities, including its secured and unsecured financing (for both the investment securities and market-making portfolios), and other market and portfolio factors.

The Firm's sources of short-term unsecured funding consist of other borrowed funds and issuance of wholesale commercial paper. The decrease in commercial paper at September 30, 2021, from December 31, 2020 was due to lower net issuance primarily for short-term liquidity management.

The increase in unsecured other borrowed funds at September 30, 2021, from December 31, 2020, and for the average three and nine months ended September 30, 2021 compared to the prior year period, was primarily due to net issuances of structured notes and higher overdrafts in CIB Markets.

Long-term funding and issuance

Long-term funding provides an additional source of stable funding and liquidity for the Firm. The Firm's long-term funding plan is driven primarily by expected client activity, liquidity considerations, and regulatory requirements, including TLAC. Long-term funding objectives include maintaining diversification, maximizing market access and optimizing funding costs. The Firm evaluates various funding markets, tenors and currencies in creating its optimal long-term funding plan.

The significant majority of the Firm's long-term unsecured funding is issued by the Parent Company to provide flexibility in support of both bank and non-bank subsidiary funding needs. The Parent Company advances substantially all net funding proceeds to its subsidiary, the IHC. The IHC does not issue debt to external counterparties. The following table summarizes long-term unsecured issuance and maturities or redemptions for the three and nine months ended September 30, 2021 and 2020. Refer to Liquidity Risk Management on pages 102–108 and Note 20 of JPMorgan Chase's 2020 Form 10-K for additional information on the IHC and long-term debt.

Long-term unsecured funding

	Three months ended September 30,		Nine months ended September 30,		Three months ended September 30,		Nine months ended September 30,	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020
(Notional in millions)	Parent Company				Subsidiaries			
Issuance								
Senior notes issued in the U.S. market	**$ 4,500**	$ 1,000	**$ 33,750**	$ 19,750	**$ —**	$ —	**$ —**	$ —
Senior notes issued in non-U.S. markets	**—**	—	**5,581**	1,355	**—**	—	**—**	—
Total senior notes	**4,500**	1,000	**39,331**	21,105	**—**	—	**—**	—
Subordinated debt	**—**	—	**—**	3,000	**—**	—	**—**	—
Structured notes[(a)]	**798**	1,170	**3,733**	6,478	**8,145**	3,778	**25,925**	16,892
Total long-term unsecured funding – issuance	**$ 5,298**	$ 2,170	**$ 43,064**	$ 30,583	**$ 8,145**	$ 3,778	**$ 25,925**	$ 16,892
Maturities/redemptions								
Senior notes	**$ 3,523**	$ 16,697	**$ 10,840**	$ 24,781	**$ —**	$ 5	**$ 66**	$ 7,642
Subordinated debt	**4**	100	**4**	100	**—**	—	**—**	—
Structured notes	**530**	1,879	**3,691**	4,713	**7,280**	7,513	**25,453**	22,250
Total long-term unsecured funding – maturities/redemptions	**$ 4,057**	$ 18,676	**$ 14,535**	$ 29,594	**$ 7,280**	$ 7,518	**$ 25,519**	$ 29,892

(a) Includes certain TLAC-eligible long-term unsecured debt issued by the Parent Company.

The Firm can also raise secured long-term funding through securitization of consumer credit card loans and FHLB advances. The following table summarizes the securitization issuance and FHLB advances and their respective maturities or redemptions for the three and nine months ended September 30, 2021 and 2020, respectively.

Long-term secured funding

	Three months ended September 30,				Nine months ended September 30,			
	Issuance		Maturities/Redemptions		Issuance		Maturities/Redemptions	
(in millions)	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Credit card securitization	**$ —**	$ —	**$ —**	$ 851	**$ —**	$ 1,000	**$ 2,550**	$ 2,525
FHLB advances	**—**	—	**1,002**	20,002	**—**	15,000	**3,008**	27,507
Other long-term secured funding[(a)]	**63**	553	**238**	473	**304**	876	**430**	907
Total long-term secured funding	**$ 63**	$ 553	**$ 1,240**	$ 21,326	**$ 304**	$ 16,876	**$ 5,988**	$ 30,939

(a) Includes long-term structured notes which are secured.

The Firm's wholesale businesses also securitize loans for client-driven transactions; those client-driven loan securitizations are not considered to be a source of funding for the Firm and are not included in the table above. Refer to Note 14 of JPMorgan Chase's 2020 Form 10-K for further description of the client-driven loan securitizations.

Credit ratings

The cost and availability of financing are influenced by credit ratings. Reductions in these ratings could have an adverse effect on the Firm's access to liquidity sources, increase the cost of funds, trigger additional collateral or funding requirements and decrease the number of investors and counterparties willing to lend to the Firm. The nature and magnitude of the impact of ratings downgrades depends on numerous contractual and behavioral factors, which the Firm believes are incorporated in its liquidity risk and stress testing metrics. The Firm believes that it maintains sufficient liquidity to withstand a potential decrease in funding capacity due to ratings downgrades.

Additionally, the Firm's funding requirements for VIEs and other third-party commitments may be adversely affected by a decline in credit ratings. Refer to SPEs on page 19, and liquidity risk and credit-related contingent features in Note 4 for additional information on the impact of a credit ratings downgrade on the funding requirements for VIEs, and on derivatives and collateral agreements.

The credit ratings of the Parent Company and the Firm's principal bank and non-bank subsidiaries as of September 30, 2021, were as follows:

	JPMorgan Chase & Co.			JPMorgan Chase Bank, N.A.			J.P. Morgan Securities LLC J.P. Morgan Securities plc		
September 30, 2021	Long-term issuer	Short-term issuer	Outlook	Long-term issuer	Short-term issuer	Outlook	Long-term issuer	Short-term issuer	Outlook
Moody's Investors Service (a)	A2	P-1	Positive/Stable	Aa2	P-1	Stable	Aa3	P-1	Stable
Standard & Poor's (b)	A-	A-2	Positive	A+	A-1	Positive	A+	A-1	Positive
Fitch Ratings (c)	AA-	F1+	Stable	AA	F1+	Stable	AA	F1+	Stable

(a) On July 12, 2021, Moody's revised the outlook of the Parent Company's long-term issuer rating from stable to positive. The outlook for the Parent Company's short-term issuer rating and the Firm's principal bank and non-bank subsidiaries remained unchanged at stable.
(b) On May 24, 2021, Standard & Poor's affirmed the credit ratings of the Parent Company and the Firm's principal bank and non-bank subsidiaries, and revised the outlook from stable to positive.
(c) On April 23, 2021, Fitch affirmed the credit ratings of the Parent Company and the Firm's principal bank and non-bank subsidiaries, and revised the outlook from negative to stable.

Refer to page 108 of JPMorgan Chase's 2020 Form 10-K for a discussion of the factors that could affect credit ratings of the Parent Company and the Firm's principal bank and non-bank subsidiaries.

CREDIT AND INVESTMENT RISK MANAGEMENT

Credit and investment risk is the risk associated with the default or change in credit profile of a client, counterparty or customer; or loss of principal or a reduction in expected returns on investments, including consumer credit risk,
wholesale credit risk, and investment portfolio risk. Refer to Consumer Credit Portfolio, Wholesale Credit Portfolio and
Allowance for Credit Losses on pages 61-76 for a further discussion of Credit Risk.

Refer to page 77 for a further discussion of Investment Portfolio Risk. Refer to Credit and Investment Risk Management on pages 110–134 of JPMorgan Chase's 2020 Form 10-K for a further discussion of the Firm's Credit and Investment Risk Management framework.

Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer.

In the following tables, reported loans include loans retained (i.e., held-for-investment); loans held-for-sale; and certain loans accounted for at fair value. The following tables do not include loans which the Firm accounts for at fair value and classifies as trading assets; refer to Notes 2 and 3 for further information regarding these loans. Refer to Notes 11, 22, and 4 for additional information on the Firm's loans, lending-related commitments and derivative receivables.

Refer to Note 9 for information regarding the credit risk inherent in the Firm's investment securities portfolio; and refer to Note 10 for information regarding the credit risk inherent in the securities financing portfolio. Refer to Consumer Credit Portfolio on pages 61-65 and Note 11 for further discussions of the consumer credit environment and consumer loans. Refer to Wholesale Credit Portfolio on pages 66-74 and Note 11 for further discussions of the wholesale credit environment and wholesale loans.

Total credit portfolio

	Credit exposure		Nonperforming[d]	
(in millions)	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020
Loans retained	**$ 974,260**	$ 960,506	**$ 6,995**	$ 8,782
Loans held-for-sale	**9,727**	7,873	**190**	284
Loans at fair value	**60,628**	44,474	**1,058**	1,507
Total loans	**1,044,615**	1,012,853	**8,243**	10,573
Derivative receivables	**67,908**	75,444 [c]	**393**	56
Receivables from customers[a]	**58,752**	47,710	**—**	—
Total credit-related assets	**1,171,275**	1,136,007	**8,636**	10,629
Assets acquired in loan satisfactions				
Real estate owned	**NA**	NA	**229**	256
Other	**NA**	NA	**17**	21
Total assets acquired in loan satisfactions	**NA**	NA	**246**	277
Lending-related commitments	**1,266,530**	1,165,688	**641**	577
Total credit portfolio	**$ 2,437,805**	$ 2,301,695	**$ 9,523**	$ 11,483
Credit derivatives and credit-related notes used in credit portfolio management activities[b]	**$ (33,868)**	$ (23,965)	**$ —**	$ —
Liquid securities and other cash collateral held against derivatives	**(11,001)**	(14,806)	**NA**	NA

(in millions, except ratios)	Three months ended September 30,		Nine months ended September 30,	
	2021	2020	**2021**	2020
Net charge-offs	**$ 524**	$ 1,180	**$ 2,315**	$ 4,209
Average retained loans	**968,369**	950,850	**958,260**	962,054
Net charge-off rates	**0.21 %**	0.49 %	**0.32 %**	0.58 %

(a) Receivables from customers reflect held-for-investment margin loans to brokerage clients in CIB, CCB and AWM; these are reported within accrued interest and accounts receivable on the Consolidated balance sheets.

(b) Represents the net notional amount of protection purchased and sold through credit derivatives and credit-related notes used to manage credit exposures. Prior-period amount has been revised to conform with the current presentation.

(c) Prior-period amounts have been revised to conform with the current presentation.

(d) At September 30, 2021, and December 31, 2020, nonperforming assets excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of $644 million and $874 million, respectively, and real estate owned ("REO") insured by U.S. government agencies of $5 million and $9 million, respectively. These amounts have been excluded based upon the government guarantee. In addition, the Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance.

The Firm has provided various forms of assistance to customers and clients impacted by the COVID-19 pandemic, including payment deferrals and covenant modifications. The majority of the Firm's COVID-19 related loan modifications have not been considered troubled debt restructurings ("TDRs"). Assistance provided in response to the COVID-19 pandemic could delay the recognition of delinquencies, nonaccrual status, and net charge-offs for those customers and clients who would have otherwise moved into past due or nonaccrual status. Refer to Consumer Credit Portfolio on pages 61-65 and Wholesale Credit Portfolio on pages 66-74 for information on loan modifications as of September 30, 2021. Refer to Notes 12 and 13 of JPMorgan Chase's 2020 Form 10-K for further information on the Firm's accounting policies for loan modifications and the allowance for credit losses.

Paycheck Protection Program

At September 30, 2021 and December 31, 2020, the Firm had approximately $13 billion and $27 billion, respectively, of PPP loans remaining, including $11 billion and $19 billion, respectively, in the consumer portfolio, and $2 billion and $8 billion, respectively, in the wholesale portfolio. Since inception of the Program, the Firm funded approximately $40 billion of loans. The PPP ended on May 31, 2021 for new applications.

The Firm continues to process forgiveness applications, and through September 30, 2021, approximately $27 billion of loans were forgiven by the SBA. This resulted in accelerated recognition in interest income of the associated deferred processing fees, primarily in CCB.

Refer to CCB segment results on pages 24-28 and Credit Portfolio on page 113 of JPMorgan Chase's 2020 Form 10-K for a further discussion on the PPP.

CONSUMER CREDIT PORTFOLIO

The Firm's retained consumer portfolio consists primarily of residential real estate loans, credit card loans, scored auto and business banking loans, as well as associated lending-related commitments. The Firm's focus is on serving primarily the prime segment of the consumer credit market. The macroeconomic environment continued to improve in 2021, with the credit performance of the consumer portfolio, including net charge-offs, benefiting from government stimulus programs, payment deferral programs and increasing home prices. Refer to Note 11 of this Form 10-Q; and Consumer Credit Portfolio on pages 114-120 and Note 12 of JPMorgan Chase's 2020 Form 10-K for further information on consumer loans, as well as the Firm's nonaccrual and charge-off accounting policies. Refer to Note 22 of this Form 10-Q and Note 28 of JPMorgan Chase's 2020 Form 10-K for further information on lending-related commitments.

The following table presents consumer credit-related information with respect to the scored credit portfolios held in CCB, AWM, CIB and Corporate.

Consumer credit portfolio

					Three months ended September 30,				Nine months ended September 30,			
	Credit exposure		Nonaccrual loans[j][k]		Net charge-offs/(recoveries)		Net charge-off/(recovery) rate[l]		Net charge-offs/(recoveries)		Net charge-off/(recovery) rate[l]	
(in millions, except ratios)	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Consumer, excluding credit card												
Residential real estate[a]	**$ 221,671**	$ 225,302	**$ 4,794**	$ 5,313	**$ (74)**	$ 10	**(0.13)%**	0.02 %	**$ (205)**	$ (115)	**(0.12)%**	(0.06)%
Auto and other[b][c][d]	**76,637**	76,825	**117**	151	**66**	50	**0.34**	0.27	**187**	252	**0.31**	0.53
Total loans – retained	**298,308**	302,127	**4,911**	5,464	**(8)**	60	**(0.01)**	0.08	**(18)**	137	**(0.01)**	0.06
Loans held-for-sale	**1,407**	1,305	**—**	—	**NA**	NA	**NA**	NA	**NA**	NA	**NA**	NA
Loans at fair value[e]	**28,449**	15,147	**440**	1,003	**NA**	NA	**NA**	NA	**NA**	NA	**NA**	NA
Total consumer, excluding credit card loans	**328,164**	318,579	**5,351**	6,467	**(8)**	60	**(0.01)**	0.08	**(18)**	137	**(0.01)**	0.06
Lending-related commitments[f]	**56,684**	57,319										
Total consumer exposure, excluding credit card	**384,848**	375,898										
Credit card												
Loans retained[g]	**143,166**	143,432	**NA**	NA	**495**	1,028	**1.39**	2.92	**2,233**	3,519	**2.18**	3.17
Loans held-for-sale	**—**	784	**NA**	NA	**NA**	NA	**NA**	NA	**NA**	NA	**NA**	NA
Total credit card loans	**143,166**	144,216	**NA**	NA	**495**	1,028	**1.39**	2.92	**2,233**	3,519	**2.18**	3.17
Lending-related commitments[f][h]	**710,610**	658,506										
Total credit card exposure[h]	**853,776**	802,722										
Total consumer credit portfolio[h]	**$ 1,238,624**	$ 1,178,620	**$ 5,351**	$ 6,467	**$ 487**	$ 1,088	**0.44 %**	0.97 %	**$ 2,215**	$ 3,656	**0.68 %**	1.09 %
Credit-related notes used in credit portfolio management activities[i]	**$ (2,284)**	$ (747)										

(a) Includes scored mortgage and home equity loans held in CCB and AWM, and scored mortgage loans held in Corporate.
(b) At September 30, 2021 and December 31, 2020, excluded operating lease assets of $18.3 billion and $20.6 billion, respectively. These operating lease assets are included in other assets on the Firm's Consolidated balance sheets. Refer to Note 16 for further information.
(c) Includes scored auto and business banking loans and overdrafts.
(d) At September 30, 2021 and December 31, 2020, included $11.1 billion and $19.2 billion of loans, respectively, in Business Banking under the PPP. The Firm does not expect to realize material credit losses on PPP loans because the loans are guaranteed by the SBA. Refer to Credit Portfolio on page 60 for a further discussion of the PPP.
(e) Includes scored mortgage loans held in CCB and CIB.
(f) Credit card, home equity and certain business banking lending-related commitments represent the total available lines of credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit would be used at the same time. For credit card commitments, and if certain conditions are met, home equity commitments and certain business banking commitments, the Firm can reduce or cancel these lines of credit by providing the borrower notice or, in some cases as permitted by law, without notice. Refer to Note 22 for further information.
(g) Includes billed interest and fees.
(h) Also includes commercial card lending-related commitments primarily in CB and CIB.
(i) Represents the notional amount of protection obtained through the issuance of credit-related notes that reference certain pools of residential real estate and auto loans in the retained consumer portfolio.
(j) At September 30, 2021 and December 31, 2020, nonaccrual loans excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of $644 million and $874 million, respectively. These amounts have been excluded from nonaccrual loans based upon the government guarantee. In addition, the Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status, as permitted by regulatory guidance.
(k) Generally excludes loans under payment deferral programs offered in response to the COVID-19 pandemic. Includes loans to customers that have exited COVID-19 related payment deferral programs and are 90 or more days past due, predominantly all of which were considered collateral-dependent at time of exit.
(l) Average consumer loans held-for-sale and loans at fair value were $35.2 billion and $16.0 billion for the three months ended September 30, 2021 and 2020, respectively, and were $27.9 billion and $18.2 billion for the nine months ended September 30, 2021 and 2020, respectively. These amounts were excluded when calculating net charge-off/(recovery) rates.

Consumer assistance

In March 2020, the Firm began providing assistance to customers in response to the COVID-19 pandemic, predominantly in the form of payment deferrals. During the third quarter of 2021, there were approximately $390 million of new enrollments in consumer payment deferral programs.

As of September 30, 2021, the Firm had approximately $3.7 billion of retained consumer loans under payment deferral programs, a decrease of approximately $24.6 billion from June 30, 2020. The loans under deferral were predominantly in residential real estate. Predominantly all borrowers that exited payment deferral programs are current. The Firm continues to monitor the credit risk associated with loans subject to payment deferrals throughout the deferral period and on an ongoing basis after the borrowers are required to resume making regularly scheduled payments and considers expected losses of principal and accrued interest on these loans in its allowance for credit losses.

Of the $3.7 billion of retained loans still under payment deferral programs as of September 30, 2021, approximately $1.6 billion were accounted for as TDRs prior to payment deferral and approximately $100 million were accounted for as TDRs because they did not qualify for or the Firm did not elect the option to suspend TDR accounting guidance provided by the CARES Act and extended by the Consolidated Appropriations Act. Borrowers that are unable to resume or continue making payments in accordance with the original or modified contractual terms of their agreements upon exit from deferral programs will be placed on nonaccrual status in line with the Firm's nonaccrual policy, except for credit cards as permitted by regulatory guidance, and the loans charged off or down in accordance with the Firm's charge-off policies. Refer to Note 12 of JPMorgan Chase's 2020 Form 10-K for additional information on the Firm's nonaccrual and charge-off policies.

Consumer, excluding credit card

Portfolio analysis

Loans increased from December 31, 2020 driven by higher residential real estate loans at fair value, partially offset by lower retained residential real estate loans.

Residential real estate: The residential real estate portfolio, including loans held-for-sale and loans at fair value, predominantly consists of prime mortgage loans and home equity lines of credit.

Retained loans declined from December 31, 2020 due to paydowns outpacing originations of prime mortgage loans in Home Lending, largely offset by growth in AWM. Retained nonaccrual loans decreased from December 31, 2020 reflecting improved credit performance. The three and nine month periods ending September 30, 2021 reflected net recoveries benefiting from further improvement in HPI and higher reversals of prior write-downs due to loan prepayments as a result of the low rate environment compared to net charge-offs for the three months ended September 30, 2020, and lower net recoveries for the nine months ended September 30, 2020. In addition, the nine months ended September 30, 2020 included a recovery on a loan sale.

Loans at fair value increased from December 31, 2020, reflecting loan purchase activity in CIB driven by higher client demand, as well as increased originations in Home Lending due to the continued low rate environment. Nonaccrual loans at fair value decreased from December 31, 2020 due to sales in CIB.

The carrying value of home equity lines of credit outstanding was $19.8 billion at September 30, 2021. This amount included $6.6 billion of HELOCs that have recast from interest-only to fully amortizing payments or have been modified and $6.4 billion of interest-only balloon HELOCs, which primarily mature after 2030. The Firm manages the risk of HELOCs during their revolving period by closing or reducing the undrawn line to the extent permitted by law when borrowers are exhibiting a material deterioration in their credit risk profile.

At September 30, 2021 and December 31, 2020, the carrying value of interest-only residential mortgage loans were $27.8 billion and $25.6 billion, respectively. These loans have an interest-only payment period generally followed by an adjustable-rate or fixed-rate fully amortizing payment period to maturity and are typically originated as higher-balance loans to higher-income borrowers, predominantly in AWM. Net recoveries and charge-offs for the three and nine months ended September 30, 2021, respectively, were not material, as the credit performance of this portfolio is generally in line with the performance of the broader prime mortgage portfolio.

The following table provides a summary of the Firm's residential mortgage portfolio insured and/or guaranteed by U.S. government agencies, predominantly loans held-for-sale and loans at fair value. The Firm monitors its exposure to certain potential unrecoverable claim payments related to government-insured loans and considers this exposure in estimating the allowance for loan losses.

(in millions)	September 30, 2021	December 31, 2020
Current	$ **740**	$ 669
30-89 days past due	**140**	235
90 or more days past due	**644**	874
Total government guaranteed loans	$ **1,524**	$ 1,778

Geographic composition and current estimated loan-to-value ratio of residential real estate loans

Refer to Note 11 for information on the geographic composition and current estimated LTVs of the Firm's residential real estate loans.

Modified residential real estate loans

The following table presents information relating to modified retained residential real estate loans for which concessions have been granted to borrowers experiencing financial difficulty, which include both TDRs and modified PCD loans not accounted for as TDRs. The following table does not include loans with short-term or other insignificant modifications that are not considered concessions and, therefore, are not TDRs, or loans for which the Firm has elected to apply the option to suspend the application of accounting guidance for TDRs as provided by the CARES Act and extended by the Consolidated Appropriations Act. Refer to Note 11 for further information on modifications for the three and nine months ended September 30, 2021 and 2020.

(in millions)	September 30, 2021	December 31, 2020
Retained loans[(a)]	$ **13,728**	$ 15,406
Nonaccrual retained loans[(b)]	$ **3,913**	$ 3,899

(a) At September 30, 2021 and December 31, 2020, $9 million and $7 million of loans modified subsequent to repurchase from Ginnie Mae in accordance with the standards of the appropriate government agency (i.e., Federal Housing Administration ("FHA"), U.S. Department of Veterans Affairs ("VA"), Rural Housing Service of the U.S. Department of Agriculture ("RHS")) are not included in the table above. When such loans perform subsequent to modification in accordance with Ginnie Mae guidelines, they are generally sold back into Ginnie Mae loan pools. Modified loans that do not re-perform become subject to foreclosure. Refer to Note 13 for additional information about sales of loans in securitization transactions with Ginnie Mae.

(b) At September 30, 2021 and December 31, 2020, nonaccrual loans included $2.9 billion and $3.0 billion of TDRs for which the borrowers were less than 90 days past due. Refer to Note 12 of JPMorgan Chase's 2020 Form 10-K for additional information about loans modified in a TDR that are on nonaccrual status.

Auto and other: The auto and other loan portfolio, including loans at fair value, predominantly consists of prime-quality scored auto and business banking loans, as well as overdrafts. The portfolio was relatively flat when compared with December 31, 2020 due to growth in the scored auto portfolio predominantly offset by a decrease in business banking loans. The increase in the scored auto portfolio was predominantly driven by loan originations largely offset by paydowns. Business Banking loans declined due to PPP loan forgiveness and paydowns largely offset by loan originations. Net charge offs for the three months ended September 30, 2021 increased when compared to the same period in the prior year primarily due to overdrafts. Net charge offs for the nine months ended September 30, 2021 decreased when compared to the same period in the prior year primarily due to lower auto charge-offs as the current year had a greater benefit from government stimulus, payment assistance programs, and higher vehicle collateral values. The scored auto portfolio net charge-off rates were 0.03% and 0.04% for the three months ended September 30, 2021 and 2020, respectively, and 0.01% and 0.28% for the nine months ended September 30, 2021 and 2020, respectively.

Nonperforming assets

The following table presents information as of September 30, 2021 and December 31, 2020, about consumer, excluding credit card, nonperforming assets.

Nonperforming assets[(a)]

(in millions)	September 30, 2021	December 31, 2020
Nonaccrual loans		
Residential real estate[(b)]	**$ 5,232**	$ 6,316
Auto and other	**119**	151
Total nonaccrual loans	**5,351**	6,467
Assets acquired in loan satisfactions		
Real estate owned	**105**	131
Other	**17**	21
Total assets acquired in loan satisfactions	**122**	152
Total nonperforming assets	**$ 5,473**	$ 6,619

(a) At September 30, 2021 and December 31, 2020, nonperforming assets excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of $644 million and $874 million, respectively, and REO insured by U.S. government agencies of $5 million and $9 million, respectively. These amounts have been excluded based upon the government guarantee.
(b) Generally excludes loans under payment deferral programs offered in response to the COVID-19 pandemic. Includes loans to customers that have exited COVID-19 related payment deferral programs and are 90 or more days past due, predominantly all of which were considered collateral-dependent at time of exit.

Nonaccrual loans

The following table presents changes in consumer, excluding credit card, nonaccrual loans for the nine months ended September 30, 2021 and 2020.

Nonaccrual loan activity

Nine months ended September 30, (in millions)	2021	2020
Beginning balance	**$ 6,467**	$ 3,366
Additions:		
PCD loans, upon adoption of CECL	**NA**	708
Other additions	**2,032**	4,109 [(b)]
Total additions	**2,032**	4,817
Reductions:		
Principal payments and other[(a)]	**1,625**	508
Charge-offs	**167**	319
Returned to performing status	**1,295**	619
Foreclosures and other liquidations	**61**	332
Total reductions	**3,148**	1,778
Net changes	**(1,116)**	3,039
Ending balance	**$ 5,351**	$ 6,405

(a) Other reductions includes loan sales.
(b) Includes loans to customers that have exited COVID-19 related payment deferral programs and are 90 or more days past due, predominantly all of which were considered collateral-dependent at time of exit.

Refer to Note 11 for further information about the consumer credit portfolio, including information about delinquencies, other credit quality indicators, loan modifications and loans that were in the process of active or suspended foreclosure.

Purchased credit deteriorated ("PCD") loans

The following tables provide credit-related information for PCD loans which are reported in residential real estate.

(in millions, except ratios)	September 30, 2021	December 31, 2020
Loan delinquency[(a)]		
Current	**$ 13,658**	$ 16,036
30-149 days past due	**283**	432
150 or more days past due	**574**	573
Total PCD loans	**$ 14,515**	$ 17,041
% of 30+ days past due to total retained PCD loans	**5.90 %**	5.90 %
Nonaccrual loans[(b)]	**$ 1,581**	$ 1,609

(in millions, except ratios)	Three months ended September 30, 2021	2020	Nine months ended September 30, 2021	2020
Net charge-offs	**$ 1**	$ 33	**$ 17**	$ 66
Net charge-off rate	**0.03 %**	0.71 %	**0.14 %**	0.46 %

(a) At September 30, 2021 and December 31, 2020, loans under payment deferral programs offered in response to the COVID-19 pandemic which are still within their deferral period and performing according to their modified terms are generally not considered delinquent.
(b) Includes loans to customers that have exited COVID-19 related payment deferral programs and are 90 or more days past due, predominantly all of which were considered collateral-dependent at time of exit.

Credit card

Total credit card loans were relatively flat from December 31, 2020 reflecting higher payments, offset by strong sales volume in the second and third quarters of 2021. The September 30, 2021 30+ and 90+ day delinquency rates of 1.00% and 0.49%, respectively, decreased compared to the December 31, 2020 30+ and 90+ day delinquency rates of 1.68% and 0.92%, respectively. The delinquency rates continue to be positively impacted by government stimulus and support provided to borrowers who participated in payment assistance programs. Net charge-offs decreased for the three and nine months ended September 30, 2021 compared with the prior year periods reflecting lower charge-offs and higher recoveries as consumer cash balances remained elevated benefiting from the impact of government stimulus and payment assistance programs.

Consistent with the Firm's policy, all credit card loans typically remain on accrual status until charged off. However, the Firm's allowance for loan losses includes the estimated uncollectible portion of accrued and billed interest and fee income. Refer to Note 11 for further information about this portfolio, including information about delinquencies.

Geographic and FICO composition of credit card loans

Refer to Note 11 for information on the geographic and FICO composition of the Firm's credit card loans.

Modifications of credit card loans

At September 30, 2021, the Firm had $1.1 billion of credit card loans outstanding that have been modified in TDRs, which does not include loans with short-term or other insignificant modifications that are not considered TDRs, compared to $1.4 billion at December 31, 2020. Refer to Note 11 for additional information about loan modification programs to borrowers.

In its wholesale businesses, the Firm is exposed to credit risk primarily through its underwriting, lending, market-making, and hedging activities with and for clients and counterparties, as well as through various operating services (such as cash management and clearing activities), securities financing activities and cash placed with banks. A portion of the loans originated or acquired by the Firm's wholesale businesses is generally retained on the balance sheet. The Firm distributes a significant percentage of the loans that it originates into the market as part of its syndicated loan business and to manage portfolio concentrations and credit risk. The wholesale portfolio is actively managed, in part by conducting ongoing, in-depth reviews of client credit quality and transaction structure inclusive of collateral where applicable, and of industry, product and client concentrations. Refer to the industry discussion on pages 68-71 for further information.

The Firm's wholesale credit portfolio includes exposure held in CIB, CB, AWM and Corporate, as well as risk-rated exposures held in CCB, including business banking and auto dealer exposure for which the wholesale methodology is applied when determining the allowance for credit losses.

In the nine months ended September 30, 2021, the credit environment continued to improve following the broad-based deterioration in 2020 that resulted from the impacts of the COVID-19 pandemic.

As of September 30, 2021, retained loans increased $17.8 billion driven by CIB and AWM partially offset by decreases in CB and CCB. In CB, the decrease was largely driven by a net decrease in PPP loans. Lending-related commitments increased $49.4 billion, predominantly driven by net portfolio activity in CIB and CB, including an increase in held for sale commitments intended to be syndicated.

In the nine months ended September 30, 2021, the investment-grade percentage of the credit portfolio decreased from 71% to 70% driven by net portfolio activity, including new commitments. Criticized exposure was $41.6 billion at both September 30, 2021 and December 31, 2020. Nonperforming exposure decreased $814 million driven by lower nonperforming loans, largely in Oil & Gas and Individuals and Individual Entities, with net portfolio activity and select upgrades being partially offset by select downgrades. The decrease in nonperforming loans was partially offset by an increase in nonperforming derivatives. Net charge-offs were $100 million.

Wholesale credit portfolio

	Credit exposure		Nonperforming[d]	
(in millions)	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020
Loans retained	**$ 532,786**	$ 514,947	**$ 2,084**	$ 3,318
Loans held-for-sale	**8,320**	5,784	**190**	284
Loans at fair value	**32,179**	29,327	**618**	504
Loans	**573,285**	550,058	**2,892**	4,106
Derivative receivables	**67,908**	75,444 [c]	**393**	56
Receivables from customers[a]	**58,752**	47,710	**—**	—
Total wholesale credit-related assets	**699,945**	673,212	**3,285**	4,162
Assets acquired in loan satisfactions				
Real estate owned	**NA**	NA	**124**	125
Other	**NA**	NA	**—**	—
Total assets acquired in loan satisfactions	**NA**	NA	**124**	125
Lending-related commitments	**499,236**	449,863	**641**	577
Total wholesale credit portfolio	**$ 1,199,181**	$ 1,123,075	**$ 4,050**	$ 4,864
Credit derivatives and credit-related notes used in credit portfolio management activities[b]	**$ (31,584)**	$ (23,218) [c]	**$ —**	$ —
Liquid securities and other cash collateral held against derivatives	**(11,001)**	(14,806)	**NA**	NA

(a) Receivables from customers reflect held-for-investment margin loans to brokerage clients in CIB, CCB and AWM; these are reported within accrued interest and accounts receivable on the Consolidated balance sheets.
(b) Represents the net notional amount of protection purchased and sold through credit derivatives and credit-related notes used to manage both performing and nonperforming wholesale credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. Refer to Credit derivatives on page 74 and Note 4 for additional information.
(c) Prior-period amounts have been revised to conform with the current presentation.
(d) Loans that were modified in response to the COVID-19 pandemic continue to be risk-rated in accordance with the Firm's overall credit risk management framework. As of September 30, 2021, predominantly all of these loans were considered performing.

Wholesale assistance

In March 2020, the Firm began providing assistance to clients in response to the COVID-19 pandemic, predominantly in the form of payment deferrals and covenant modifications.

As of September 30, 2021, the Firm had approximately $177 million of retained loans under payment deferral, which decreased from $16.8 billion at June 30, 2020. Predominantly all clients that exited deferral are current or have paid down their loans. The Firm continues to monitor the credit risk associated with loans subject to deferrals throughout the deferral period and on an ongoing basis after the borrowers are required to resume making regularly scheduled payments and considers expected losses of principal and accrued interest on these loans in its allowance for credit losses.

In addition, the Firm granted assistance in the form of covenant modifications. These types of assistance, both payment deferrals and covenant modifications, are generally not reported as TDRs, either because the modifications were insignificant or they qualified for the option to suspend the application of accounting guidance for TDRs as provided by the CARES Act and extended by the Consolidated Appropriations Act. Loans under assistance continue to be risk-rated in accordance with the Firm's overall credit risk management framework. As of September 30, 2021, substantially all of these loans were considered performing.

Wholesale credit exposure – maturity and ratings profile

The following tables present the maturity and internal risk ratings profiles of the wholesale credit portfolio as of September 30, 2021, and December 31, 2020. The Firm generally considers internal ratings with qualitative characteristics equivalent to BBB-/Baa3 or higher as investment grade, and takes into consideration collateral and structural support when determining the internal risk rating for each credit facility. Refer to Note 12 of JPMorgan Chase's 2020 Form 10-K for further information on internal risk ratings.

	Maturity profile[e]				Ratings profile			
September 30, 2021 (in millions, except ratios)	1 year or less	1 year through 5 years	After 5 years	Total	Investment-grade	Noninvestment-grade	Total	Total % of IG
Loans retained	**$ 200,142**	**$ 206,146**	**$ 126,498**	**$ 532,786**	**$ 388,506**	**$ 144,280**	**$ 532,786**	**73 %**
Derivative receivables				**67,908**			**67,908**	
Less: Liquid securities and other cash collateral held against derivatives				**(11,001)**			**(11,001)**	
Total derivative receivables, net of collateral	**18,272**	**17,146**	**21,489**	**56,907**	**36,178**	**20,729**	**56,907**	**64**
Lending-related commitments	**131,685**	**340,669**	**26,882**	**499,236**	**338,916**	**160,320**	**499,236**	**68**
Subtotal	**350,099**	**563,961**	**174,869**	**1,088,929**	**763,600**	**325,329**	**1,088,929**	**70**
Loans held-for-sale and loans at fair value[a]				**40,499**			**40,499**	
Receivables from customers				**58,752**			**58,752**	
Total exposure – net of liquid securities and other cash collateral held against derivatives				**$ 1,188,180**			**$ 1,188,180**	
Credit derivatives and credit-related notes used in credit portfolio management activities[b][c]	**$ (19,659)**	**$ (7,897)**	**$ (4,028)**	**$ (31,584)**	**$ (24,161)**	**$ (7,423)**	**$ (31,584)**	**76 %**

	Maturity profile[e]				Ratings profile			
December 31, 2020 (in millions, except ratios)	1 year or less	1 year through 5 years	After 5 years	Total	Investment-grade	Noninvestment-grade	Total	Total % of IG
Loans retained	$ 183,969	$ 197,905	$ 133,073	$ 514,947	$ 379,273	$ 135,674	$ 514,947	74 %
Derivative receivables				75,444 [d]			75,444 [d]	
Less: Liquid securities and other cash collateral held against derivatives				(14,806)			(14,806)	
Total derivative receivables, net of collateral	17,750	14,478	28,410	60,638	38,941	21,697	60,638	64
Lending-related commitments	116,950	315,179	17,734	449,863	312,694	137,169	449,863	70
Subtotal	318,669	527,562	179,217	1,025,448	730,908	294,540	1,025,448	71
Loans held-for-sale and loans at fair value[a]				35,111			35,111	
Receivables from customers				47,710			47,710	
Total exposure – net of liquid securities and other cash collateral held against derivatives				$ 1,108,269			$ 1,108,269	
Credit derivatives and credit-related notes used in credit portfolio management activities[b][c][d]	$ (6,765)	$ (13,627)	$ (2,826)	$ (23,218)	$ (18,164)	$ (5,054)	$ (23,218)	78 %

(a) Represents loans held-for-sale, primarily related to syndicated loans and loans transferred from the retained portfolio, and loans at fair value.
(b) These derivatives do not qualify for hedge accounting under U.S. GAAP.
(c) The notional amounts are presented on a net basis by underlying reference entity and the ratings profile shown is based on the ratings of the reference entity on which protection has been purchased. Predominantly all of the credit derivatives entered into by the Firm where it has purchased protection used in credit portfolio management activities are executed with investment-grade counterparties. In addition, the Firm obtains credit protection against certain loans in the retained loan portfolio through the issuance of credit-related notes. Prior-period amounts have been revised to conform with the current presentation.
(d) Prior-period amounts have been revised to conform with the current presentation.
(e) The maturity profile of retained loans, lending-related commitments and derivative receivables is generally based on remaining contractual maturity. Derivative contracts that are in a receivable position at September 30, 2021, may become payable prior to maturity based on their cash flow profile or changes in market conditions.

Wholesale credit exposure – industry exposures

The Firm focuses on the management and diversification of its industry exposures, and pays particular attention to industries with actual or potential credit concerns.

Exposures deemed criticized align with the U.S. banking regulators' definition of criticized exposures, which consist of the special mention, substandard and doubtful categories. Total criticized exposure excluding loans held-for-sale and loans at fair value, was $41.6 billion at both September 30, 2021 and December 31, 2020, representing approximately 3.8% and 4.0% of total wholesale credit exposure, respectively, as select downgrades were offset by select upgrades and net portfolio activity. The total criticized exposure at September 30, 2021 was largely undrawn and $38.5 billion was performing.

The table below summarizes by industry the Firm's exposures as of September 30, 2021, and December 31, 2020. The industry of risk category is generally based on the client or counterparty's primary business activity. Refer to Note 4 of JPMorgan Chase's 2020 Form 10-K for additional information on industry concentrations.

Wholesale credit exposure – industries[(a)]

As of or for the nine months ended **September 30, 2021** (in millions)	Credit exposure[(f)(g)]	Investment-grade	Noninvestment-grade: Noncriticized	Noninvestment-grade: Criticized performing	Noninvestment-grade: Criticized nonperforming	Selected metrics: 30 days or more past due and accruing loans[(i)]	Selected metrics: Net charge-offs/ (recoveries)	Selected metrics: Credit derivative hedges and credit-related notes[(i)]	Selected metrics: Liquid securities and other cash collateral held against derivative receivables
Real Estate	$ 156,298	$ 122,285	$ 27,366	$ 6,342	$ 305	$ 236	$ (3)	$ (169)	$ —
Individuals and Individual Entities[(b)]	132,793	117,260	14,886	107	540	1,495	24	—	(5)
Consumer & Retail	115,534	59,037	47,732	8,293	472	115	10	(167)	—
Asset Managers	80,801	68,069	12,726	—	6	7	—	—	(4,739)
Technology, Media & Telecommunications	79,946	47,608	25,737	6,271	330	40	(3)	(964)	(27)
Industrials	68,298	34,913	29,699	3,577	109	146	11	(772)	(10)
Healthcare	60,544	42,521	16,325	1,637	61	83	(5)	(305)	(153)
Banks & Finance Cos	55,086	34,004	19,498	1,572	12	91	10	(565)	(1,161)
Oil & Gas	46,203	18,935	23,955	3,067	246	31	57	(320)	(1)
Automotive	38,042	25,809	11,460	601	172	—	(3)	(420)	—
State & Municipal Govt[(c)]	35,318	34,628	576	101	13	3	—	—	(14)
Utilities	33,727	24,664	7,790	1,099	174	5	6	(383)	(4)
Chemicals & Plastics	19,766	11,437	7,897	424	8	7	—	(10)	—
Transportation	16,459	6,937	4,884	4,434	204	16	—	(51)	(24)
Metals & Mining	15,426	6,875	8,133	326	92	—	2	(29)	(2)
Insurance	14,515	10,739	3,722	54	—	—	—	—	(2,235)
Central Govt	12,982	12,697	285	—	—	—	—	(6,326)	(197)
Securities Firms	5,573	2,611	2,409	550	3	—	—	(48)	(285)
Financial Markets Infrastructure	5,257	4,939	318	—	—	—	—	—	(32)
All other[(d)]	107,362	88,036	18,948	7	371	394	(6)	(21,055)	(2,112)
Subtotal	$ 1,099,930	$ 774,004	$ 284,346	$ 38,462	$ 3,118	$ 2,669	$ 100	$ (31,584)	$ (11,001)
Loans held-for-sale and loans at fair value	40,499								
Receivables from customers	58,752								
Total[(e)]	$ 1,199,181								

(continued from previous page)

As of or for the year ended December 31, 2020 (in millions)	Credit exposure[f][g]	Investment-grade	Noninvestment-grade: Noncriticized	Noninvestment-grade: Criticized performing	Noninvestment-grade: Criticized nonperforming	Selected metrics: 30 days or more past due and accruing loans[i]	Selected metrics: Net charge-offs/ (recoveries)	Selected metrics: Credit derivative hedges and credit-related notes[h][j]	Selected metrics: Liquid securities and other cash collateral held against derivative receivables
Real Estate	$ 148,498	$ 116,124	$ 27,576	$ 4,294	$ 504	$ 374	$ 94	$ (190)	$ —
Individuals and Individual Entities[b]	122,870	107,266	14,688	227	689	1,570	(17)	—	—
Consumer & Retail	108,437	57,580	41,624	8,852	381	203	55	(381)	(5)
Asset Managers	66,573	57,582	8,885	85	21	19	1	—	(4,685)
Technology, Media & Telecommunications	72,150	36,435	27,770	7,738	207	10	73	(984)	(56)
Industrials	66,470	37,512	26,881	1,852	225	278	70	(658)	(61)
Healthcare	60,118	44,901	13,356	1,684	177	96	104	(378)	(191)
Banks & Finance Cos	54,032	35,115	17,820	1,045	52	20	13	(659)	(1,648)
Oil & Gas	39,159	18,456	14,969	4,952	782	11	249	(488)	(4)
Automotive	43,331	25,548	15,575	2,149	59	152	22	(434)	—
State & Municipal Govt[c]	38,286	37,705	574	2	5	41	—	—	(41)
Utilities	30,124	22,451	7,048	571	54	14	(7)	(402)	(1)
Chemicals & Plastics	17,176	10,622	5,703	822	29	6	—	(83)	—
Transportation	16,232	7,549	6,340	2,137	206	30	117	(83)	(26)
Metals & Mining	15,542	5,958	8,699	704	181	8	16	(141)	(13)
Insurance	13,141	10,177	2,960	3	1	7	—	—	(1,771)
Central Govt	17,025	16,652	373	—	—	—	—	(8,364)	(982)
Securities Firms	8,048	6,116	1,927	1	4	—	18	(49)	(3,423)
Financial Markets Infrastructure	6,515	6,449	66	—	—	—	—	—	(10)
All other[d]	96,527 [h]	84,650	10,999 [h]	504	374	83	(9)	(9,924)	(1,889)
Subtotal	$ 1,040,254	$ 744,848	$ 253,833	$ 37,622	$ 3,951	$ 2,922	$ 799	$ (23,218)	$ (14,806)
Loans held-for-sale and loans at fair value	35,111								
Receivables from customers	47,710								
Total[e]	$ 1,123,075								

(a) The industry rankings presented in the table as of December 31, 2020, are based on the industry rankings of the corresponding exposures at September 30, 2021, not actual rankings of such exposures at December 31, 2020.
(b) Individuals and Individual Entities predominantly consists of Global Private Bank clients within AWM and includes exposure to personal investment companies and personal and testamentary trusts.
(c) In addition to the credit risk exposure to states and municipal governments (both U.S. and non-U.S.) at September 30, 2021, and December 31, 2020, noted above, the Firm held: $6.7 billion and $7.2 billion, respectively, of trading assets; $17.5 billion and $20.4 billion, respectively, of AFS securities; and $13.5 billion and $12.8 billion, respectively, of HTM securities, issued by U.S. state and municipal governments. Refer to Note 2 and Note 9 for further information.
(d) All other includes: SPEs, and Private education and civic organizations, representing approximately 93% and 7%, respectively, at September 30, 2021 and 92% and 8%, respectively, at December 31, 2020.
(e) Excludes cash placed with banks of $749.7 billion and $516.9 billion, at September 30, 2021, and December 31, 2020, respectively, which is predominantly placed with various central banks, primarily Federal Reserve Banks.
(f) Credit exposure is net of risk participations and excludes the benefit of credit derivatives and credit-related notes used in credit portfolio management activities held against derivative receivables or loans and liquid securities and other cash collateral held against derivative receivables.
(g) Credit exposure includes held-for-sale and fair value option elected lending-related commitments.
(h) Prior-period amounts have been revised to conform with the current presentation.
(i) Generally excludes loans under payment deferral programs offered in response to the COVID-19 pandemic.
(j) Represents the net notional amounts of protection purchased and sold through credit derivatives and credit-related notes used to manage the credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. The All other category includes purchased credit protection on certain credit indices.

Presented below is additional detail on certain of the Firm's industry exposures.

Real Estate

Real Estate exposure was $156.3 billion as of September 30, 2021, of which $86.5 billion was multifamily lending as shown in the table below. Criticized exposure increased by $1.8 billion from $4.8 billion at December 31, 2020 to $6.6 billion at September 30, 2021, driven by select downgrades partially offset by select upgrades.

	September 30, 2021				
(in millions, except ratios)	**Loans and Lending-related Commitments**	**Derivative Receivables**	**Credit exposure**	**% Investment-grade**	**% Drawn[d]**
Multifamily[a]	**$ 86,410**	**$ 108**	**$ 86,518**	**85 %**	**90 %**
Other Income Producing Properties[b]	**17,807**	**472**	**18,279**	**84**	**40**
Office	**15,819**	**231**	**16,050**	**75**	**71**
Services and Non Income Producing	**11,463**	**30**	**11,493**	**59**	**46**
Industrial	**10,524**	**46**	**10,570**	**76**	**61**
Retail	**9,755**	**125**	**9,880**	**64**	**66**
Lodging	**3,456**	**52**	**3,508**	**5**	**34**
Total Real Estate Exposure[c]	**155,234**	**1,064**	**156,298**	**78**	**75**

	December 31, 2020				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[d]
Multifamily[a]	$ 85,368	$ 183	$ 85,551	85 %	92 %
Other Income Producing Properties[b]	13,435	421	13,856	76	55
Office	16,372	475	16,847	76	70
Services and Non Income Producing	9,242	22	9,264	62	47
Industrial	9,039	69	9,108	76	73
Retail	10,573	199	10,772	60	69
Lodging	3,084	16	3,100	24	57
Total Real Estate Exposure	147,113	1,385	148,498	78	80

(a) Multifamily exposure is largely in California.
(b) Other Income Producing Properties consists of clients with diversified property types or other property types outside of categories listed in the table above.
(c) Real Estate exposure is approximately 76% secured; unsecured exposure is approximately 78% investment-grade.
(d) Represents drawn exposure as a percentage of credit exposure.

Consumer & Retail

Consumer & Retail exposure was $115.5 billion as of September 30, 2021, and predominantly included Retail, Food and Beverage, and Business and Consumer Services as shown in the table below.

	September 30, 2021				
(in millions, except ratios)	**Loans and Lending-related Commitments**	**Derivative Receivables**	**Credit exposure**	**% Investment-grade**	**% Drawn[(d)]**
Retail[(a)]	**$ 31,673**	**$ 1,795**	**$ 33,468**	**51 %**	**31 %**
Food and Beverage	**30,326**	**1,067**	**31,393**	**60**	**34**
Business and Consumer Services	**27,371**	**400**	**27,771**	**50**	**35**
Consumer Hard Goods	**15,162**	**111**	**15,273**	**53**	**31**
Leisure[(b)]	**7,491**	**138**	**7,629**	**14**	**33**
Total Consumer & Retail[(c)]	**112,023**	**3,511**	**115,534**	**51**	**33**

	December 31, 2020				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[(d)]
Retail[(a)]	$ 32,486	$ 887	$ 33,373	52 %	33 %
Food and Beverage	28,012	897	28,909	62	33
Business and Consumer Services	24,760	599	25,359	52	41
Consumer Hard Goods	12,937	178	13,115	59	36
Leisure[(b)]	7,440	241	7,681	18	43
Total Consumer & Retail	105,635	2,802	108,437	53	36

(a) Retail consists of Home Improvement & Specialty Retailers, Restaurants, Supermarkets, Discount & Drug Stores, Specialty Apparel and Department Stores.
(b) Leisure consists of Gaming, Arts & Culture, Travel Services and Sports & Recreation. As of September 30, 2021 approximately 79% of the noninvestment-grade Leisure portfolio is secured.
(c) Approximately 78% of the noninvestment-grade portfolio is secured.
(d) Represents drawn exposure as a percent of credit exposure.

Oil & Gas

Oil & Gas exposure was $46.2 billion as of September 30, 2021, including $27.2 billion of Exploration & Production and Oil field Services as shown in the table below. During the nine months ended September 30, 2021, the investment-grade percentage decreased from 47% to 41%, predominantly driven by increased noninvestment-grade derivative receivables resulting from market movements related to Oil & Gas prices. However, criticized exposure decreased by $2.4 billion from $5.7 billion at December 31, 2020 to $3.3 billion at September 30, 2021, driven by net portfolio activity and select upgrades partially offset by select downgrades.

	September 30, 2021				
(in millions, except ratios)	**Loans and Lending-related Commitments**	**Derivative Receivables**	**Credit exposure**	**% Investment-grade**	**% Drawn[(c)]**
Exploration & Production ("E&P") and Oil field Services	**$ 17,833**	**$ 9,393**	**$ 27,226**	**29 %**	**24 %**
Other Oil & Gas[(a)]	**17,964**	**1,013**	**18,977**	**58**	**24**
Total Oil & Gas[(b)]	**35,797**	**10,406**	**46,203**	**41**	**24**

	December 31, 2020				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[(c)]
Exploration & Production ("E&P") and Oil field Services	$ 18,228	$ 1,048	$ 19,276	32 %	37 %
Other Oil & Gas[(a)]	19,288	595	19,883	62	21
Total Oil & Gas[(b)]	37,516	1,643	39,159	47	29

(a) Other Oil & Gas includes Integrated Oil & Gas companies, Midstream/Oil Pipeline companies and refineries.
(b) Secured lending was $20.3 billion and $13.2 billion at September 30, 2021 and December 31, 2020, respectively, over half of which is reserve-based lending to the Exploration & Production sub-sector; unsecured exposure is largely investment-grade.
(c) Represents drawn exposure as a percent of credit exposure.

Loans

In its wholesale businesses, the Firm provides loans to a variety of clients, ranging from large corporate and institutional clients to high-net-worth individuals. Refer to Note 11 for a further discussion on loans, including information about delinquencies, loan modifications and other credit quality indicators.

The following table presents the change in the nonaccrual loan portfolio for the nine months ended September 30, 2021 and 2020. Since September 30, 2020, nonaccrual loan exposure decreased $1.7 billion, largely in Oil & Gas and Individuals and Individual Entities, with net portfolio activity and select upgrades being partially offset by select downgrades.

Wholesale nonaccrual loan activity

Nine months ended September 30, (in millions)	2021	2020
Beginning balance	$ 4,106	$ 1,271
Additions	2,021	5,650
Reductions:		
Paydowns and other	1,782	1,381
Gross charge-offs	180	614
Returned to performing status	893	238
Sales	380	91
Total reductions	3,235	2,324
Net changes	(1,214)	3,326
Ending balance	$ 2,892	$ 4,597

The following table presents net charge-offs/recoveries, which are defined as gross charge-offs less recoveries, for the three and nine months ended September 30, 2021 and 2020. The amounts in the table below do not include gains or losses from sales of nonaccrual loans recognized in noninterest revenue.

Wholesale net charge-offs/(recoveries)

	Three months ended September 30,		Nine months ended September 30,	
(in millions, except ratios)	2021	2020	2021	2020
Loans				
Average loans retained	$ 528,979	$ 504,449	$ 521,628	$ 512,137
Gross charge-offs	52	150	187	641
Gross recoveries collected	(15)	(58)	(87)	(88)
Net charge-offs/(recoveries)	37	92	100	553
Net charge-off/(recovery) rate	0.03 %	0.07 %	0.03 %	0.14 %

Lending-related commitments

The Firm uses lending-related financial instruments, such as commitments (including revolving credit facilities) and guarantees, to address the financing needs of its clients. The contractual amounts of these financial instruments represent the maximum possible credit risk should the clients draw down on these commitments or when the Firm fulfills its obligations under these guarantees, and the clients subsequently fail to perform according to the terms of these contracts. Most of these commitments and guarantees have historically been refinanced, extended, cancelled, or expired without being drawn upon or a default occurring. As a result, the Firm does not believe that the total contractual amount of these wholesale lending-related commitments is representative of the Firm's expected future credit exposure or funding requirements. Refer to Note 22 for further information on wholesale lending-related commitments.

Receivables from customers

Receivables from customers reflect held-for-investment margin loans to brokerage clients in CIB, CCB and AWM that are collateralized by assets maintained in the clients' brokerage accounts (e.g., cash on deposit, and liquid and readily marketable debt or equity securities). Because of this collateralization, no allowance for credit losses is generally held against these receivables. To manage its credit risk the Firm establishes margin requirements and monitors the required margin levels on an ongoing basis, and requires clients to deposit additional cash or other collateral, or to reduce positions, when appropriate. These receivables are reported within accrued interest and accounts receivable on the Firm's Consolidated balance sheets.

Derivative contracts

Derivatives enable clients and counterparties to manage risk including credit risk and risks arising from fluctuations in interest rates, foreign exchange, equities, and commodities. The Firm makes markets in derivatives in order to meet these needs and uses derivatives to manage certain risks associated with net open risk positions from its market-making activities, including the counterparty credit risk arising from derivative receivables. The Firm also uses derivative instruments to manage its own credit risk and other market risk exposure. The nature of the counterparty and the settlement mechanism of the derivative affect the credit risk to which the Firm is exposed. For OTC derivatives the Firm is exposed to the credit risk of the derivative counterparty. For exchange-traded derivatives ("ETD"), such as futures and options, and cleared over-the-counter ("OTC-cleared") derivatives, the Firm can also be exposed to the credit risk of the relevant CCP. Where possible, the Firm seeks to mitigate its credit risk exposures arising from derivative contracts through the use of legally enforceable master netting arrangements and collateral agreements.

The percentage of the Firm's over-the-counter derivative transactions subject to collateral agreements — excluding foreign exchange spot trades, which are not typically covered by collateral agreements due to their short maturity and centrally cleared trades that are settled daily — was approximately 88% at both September 30, 2021, and December 31, 2020. Refer to Note 4 for additional information on the Firm's use of collateral agreements. Refer to Note 4 for a further discussion of derivative contracts, counterparties and settlement types.

The fair value of derivative receivables reported on the Consolidated balance sheets were $67.9 billion and $75.4 billion at September 30, 2021, and December 31, 2020, respectively, with decreases primarily driven by maturities of certain trades in CIB. Derivative receivables represent the fair value of the derivative contracts after giving effect to legally enforceable master netting agreements and the related cash collateral held by the Firm.

In addition, the Firm held liquid securities and other cash collateral that the Firm believes is legally enforceable and may be used as security when the fair value of the client's exposure is in the Firm's favor. For these purposes, the definition of liquid securities is consistent with the definition of high quality liquid assets as defined in the LCR rule.

In management's view, the appropriate measure of current credit risk should also take into consideration other collateral, which generally represents securities that do not qualify as high quality liquid assets under the LCR rule, but that the Firm believes is legally enforceable. The collateral amounts for each counterparty are limited to the net derivative receivables for the counterparty.

The Firm also holds additional collateral (primarily cash, G7 government securities, other liquid government agency and guaranteed securities, and corporate debt and equity securities) delivered by clients at the initiation of transactions, as well as collateral related to contracts that have a non-daily call frequency and collateral that the Firm has agreed to return but has not yet settled as of the reporting date. Although this collateral does not reduce the balances and is not included in the tables below, it is available as security against potential exposure that could arise should the fair value of the client's derivative contracts move in the Firm's favor. Refer to Note 4 for additional information on the Firm's use of collateral agreements.

The following tables summarize the net derivative receivables and the internal ratings profile for the periods presented.

Derivative receivables

(in millions)		September 30, 2021		December 31, 2020
Total, net of cash collateral	**$**	**67,908**	$	75,444 (a)
Liquid securities and other cash collateral held against derivative receivables		**(11,001)**		(14,806)
Total, net of liquid securities and other cash collateral	**$**	**56,907**	$	60,638
Other collateral held against derivative receivables		**(1,906)**		(1,836) (a)
Total, net of collateral	**$**	**55,001**	$	58,802

Ratings profile of derivative receivables

	September 30, 2021			December 31, 2020		
(in millions, except ratios)		Exposure net of collateral	% of exposure net of collateral		Exposure net of collateral	% of exposure net of collateral
Investment-grade	**$**	**34,379**	**63 %**	$	37,013	63 %
Noninvestment-grade		**20,622**	**37**		21,789 (a)	37 (a)
Total	**$**	**55,001**	**100 %**	$	58,802	100 %

(a) Prior-period amounts have been revised to conform with the current presentation.

Credit portfolio management activities

The Firm uses credit derivatives for two primary purposes: first, in its capacity as a market-maker, and second, as an end-user, to manage the Firm's own credit risk associated with traditional lending activities (loans and lending-related commitments) and derivatives counterparty exposure in the Firm's wholesale businesses. In addition, the Firm obtains credit protection against certain loans in the retained wholesale portfolio through the issuance of credit-related notes. Information on credit portfolio management activities is provided in the table below.

Credit derivatives and credit-related notes used in credit portfolio management activities

	Notional amount of protection purchased and sold(a)			
(in millions)		September 30, 2021		December 31, 2020
Credit derivatives and credit-related notes used to manage:				
Loans and lending-related commitments	**$**	**2,803**	$	4,856
Derivative receivables		**28,781**		18,362
Credit derivatives and credit-related notes used in credit portfolio management activities	**$**	**31,584**	$	23,218

(a) Amounts are presented net, considering the Firm's net protection purchased or sold with respect to each underlying reference entity or index. Prior-period amounts have been revised to conform with the current presentation.

Refer to Credit derivatives in Note 4 of this Form 10-Q and Note 5 of JPMorgan Chase's 2020 Form 10-K for further information on credit derivatives and derivatives used in credit portfolio management activities.

ALLOWANCE FOR CREDIT LOSSES

The Firm's allowance for credit losses represents management's estimate of expected credit losses over the remaining expected life of the Firm's financial assets measured at amortized cost and certain off-balance sheet lending-related commitments. The allowance for credit losses comprises:

- the allowance for loan losses, which covers the Firm's retained loan portfolios (scored and risk-rated) and is presented separately on the Consolidated balance sheets,
- the allowance for lending-related commitments, which is presented on the Consolidated balance sheets in accounts payable and other liabilities, and
- the allowance for credit losses on investment securities, which covers the Firm's HTM and AFS securities and is reflected within Investment Securities on the Consolidated balance sheets.

Discussion of changes in the allowance

The allowance for credit losses as of September 30, 2021 was $20.5 billion, a decrease from $30.8 billion at December 31, 2020. The decrease in the allowance for credit losses reflected:

- an $8.0 billion reduction in consumer, predominantly in the credit card portfolio, reflecting improvements in the Firm's macroeconomic outlook; and
- a $2.3 billion net reduction in wholesale, across the LOBs, reflecting improvements in the Firm's macroeconomic outlook.

The COVID-19 pandemic has stressed many macroeconomic variables ("MEVs") used in the Firm's allowance estimate which has created challenges in the use of modeled credit loss estimates, increased the reliance on management judgment, and resulted in adjustments to appropriately address the economic circumstances. These adjustments continued through the third quarter of 2021, although to a lesser extent than experienced during 2020.

The U.S. economy has continued to improve despite the ongoing impact of the COVID-19 pandemic, with the benefits of vaccination resulting in improvements in the Firm's macroeconomic outlook, particularly in the adverse scenarios. However, uncertainties remain, including the impact that additional waves and variants of COVID-19 may have on the pace of economic growth, the strength of underlying labor markets with the expiration of government assistance programs, and the potential for changes in consumer behavior that could have longer term impacts on certain sectors. As a result of these uncertainties, the Firm retained meaningful weighting on its adverse scenarios in the third quarter of 2021, in line with the second quarter of 2021, but to a lesser extent than the fourth quarter of 2020. These adverse scenarios incorporate more punitive macroeconomic factors than the central case assumptions outlined below, resulting in a weighted average U.S. unemployment rate near 7% into the first quarter of 2022 and falling below 6% in the third quarter of 2022, and a weighted average cumulative change in U.S. gross domestic product ("GDP") of 3.8% in the fourth quarter of 2022.

The Firm's central case assumptions reflected U.S. unemployment rates and U.S. real GDP as follows:

	Assumptions at September 30, 2021		
	4Q21	2Q22	4Q22
U.S. unemployment rate(a)	5.1 %	4.4 %	4.1 %
Cumulative change in U.S. real GDP from 12/31/2019	3.3 %	5.0 %	6.2 %

	Assumptions at December 31, 2020		
	2Q21	4Q21	2Q22
U.S. unemployment rate(a)	6.8 %	5.7 %	5.1 %
Cumulative change in U.S. real GDP from 12/31/2019	(1.9)%	0.6 %	2.0 %

(a) Reflects quarterly average of forecasted U.S. unemployment rate.

Subsequent changes to this forecast and related estimates will be reflected in the provision for credit losses in future periods.

Refer to Note 13 and Note 10 of JPMorgan Chase's 2020 Form 10-K for a description of the policies, methodologies and judgments used to determine the Firm's allowances for credit losses on loans, lending-related commitments, and investment securities.

Refer to Critical Accounting Estimates Used by the Firm on pages 86-88 for further information on the allowance for credit losses and related management judgments.

Refer to Consumer Credit Portfolio on pages 61-65, Wholesale Credit Portfolio on pages 66-74 and Note 11 for additional information on the consumer and wholesale credit portfolios.

Allowance for credit losses and related information

Nine months ended September 30, (in millions, except ratios)	2021 Consumer, excluding credit card	2021 Credit card	2021 Wholesale	2021 Total	2020 Consumer, excluding credit card	2020 Credit card	2020 Wholesale	2020 Total
Allowance for loan losses								
Beginning balance at January 1,	**$ 3,636**	**$ 17,800**	**$ 6,892**	**$ 28,328**	$ 2,538	$ 5,683	$ 4,902	$ 13,123
Cumulative effect of a change in accounting principle	**NA**	**NA**	**NA**	**NA**	297	5,517	(1,642)	4,172
Gross charge-offs	**452**	**2,957**	**187**	**3,596**	620	4,104	641	5,365
Gross recoveries collected	**(470)**	**(724)**	**(87)**	**(1,281)**	(483)	(585)	(88)	(1,156)
Net charge-offs/(recoveries)	**(18)**	**2,233**	**100**	**2,315**	137	3,519	553	4,209
Provision for loan losses	**(1,778)**	**(3,917)**	**(2,162)**	**(7,857)**	1,803	10,119	5,802	17,724
Other	**(2)**	**—**	**(4)**	**(6)**	1	—	3	4
Ending balance at September 30,	**$ 1,874**	**$ 11,650**	**$ 4,626**	**$ 18,150**	$ 4,502	$ 17,800	$ 8,512	$ 30,814
Allowance for lending-related commitments								
Beginning balance at January 1,	**$ 187**	**$ —**	**$ 2,222**	**$ 2,409**	$ 12	$ —	$ 1,179	$ 1,191
Cumulative effect of a change in accounting principle	**NA**	**NA**	**NA**	**NA**	133	—	(35)	98
Provision for lending-related commitments	**(45)**	**—**	**(61)**	**(106)**	71	—	1,464	1,535
Other	**—**	**—**	**2**	**2**	—	—	(1)	(1)
Ending balance at September 30,	**$ 142**	**$ —**	**$ 2,163**	**$ 2,305**	$ 216	$ —	$ 2,607	$ 2,823
Impairment methodology								
Asset-specific[(a)]	**$ (571)**	**$ 383**	**$ 357**	**$ 169**	$ 228	$ 652	$ 792	$ 1,672
Portfolio-based	**2,445**	**11,267**	**4,269**	**17,981**	4,274	17,148	7,720	29,142
Total allowance for loan losses	**$ 1,874**	**$ 11,650**	**$ 4,626**	**$ 18,150**	$ 4,502	$ 17,800	$ 8,512	$ 30,814
Impairment methodology								
Asset-specific	**$ —**	**$ —**	**$ 129**	**$ 129**	$ —	$ —	$ 109	$ 109
Portfolio-based	**142**	**—**	**2,034**	**2,176**	216	—	2,498	2,714
Total allowance for lending-related commitments	**$ 142**	**$ —**	**$ 2,163**	**$ 2,305**	$ 216	$ —	$ 2,607	$ 2,823
Total allowance for credit losses[(b)]	**$ 2,016**	**$ 11,650**	**$ 6,789**	**$ 20,455**	$ 4,718	$ 17,800	$ 11,119	$ 33,637
Memo:								
Retained loans, end of period	**$ 298,308**	**$ 143,166**	**$ 532,786**	**$ 974,260**	$ 305,106	$ 139,590	$ 500,841	$ 945,537
Retained loans, average	**299,620**	**137,012**	**521,628**	**958,260**	301,535	148,382	512,137	962,054
Credit ratios								
Allowance for loan losses to retained loans	**0.63 %**	**8.14 %**	**0.87 %**	**1.86 %**	1.48 %	12.75 %	1.70 %	3.26 %
Allowance for loan losses to retained nonaccrual loans[(c)]	**38**	**NM**	**222**	**259**	89	NM	227	350
Allowance for loan losses to retained nonaccrual loans excluding credit card	**38**	**NM**	**222**	**93**	89	NM	227	148
Net charge-off/(recovery) rates	**(0.01)**	**2.18**	**0.03**	**0.32**	0.06	3.17	0.14	0.58

(a) Includes collateral dependent loans, including those considered TDRs and those for which foreclosure is deemed probable, modified PCD loans, and non-collateral dependent loans that have been modified or are reasonably expected to be modified in a TDR. Also includes risk-rated loans that have been placed on nonaccrual status for the wholesale portfolio segment. The asset-specific credit card allowance for loan losses modified or reasonably expected to be modified in a TDR is calculated based on the loans' original contractual interest rates and does not consider any incremental penalty rates.

(b) Excludes the allowance for credit losses on investment securities of $73 million and $120 million as of September 30, 2021 and 2020, respectively.

(c) The Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance.

Investment portfolio risk is the risk associated with the loss of principal or a reduction in expected returns on investments arising from the investment securities portfolio or from principal investments. The investment securities portfolio is predominantly held by Treasury and CIO in connection with the Firm's balance sheet or asset-liability management objectives. Principal investments are predominantly privately-held non-traded financial instruments and are managed in the LOBs and Corporate. Investments are typically intended to be held over extended periods and, accordingly, the Firm has no expectation for short-term realized gains with respect to these investments.

Investment securities risk

Investment securities risk includes the exposure associated with a default in the payment of principal and interest. This risk is mitigated given that the investment securities portfolio held by Treasury and CIO is predominantly invested in high-quality securities. At September 30, 2021, the Treasury and CIO investment securities portfolio, net of allowance for credit losses, was $593.0 billion, and the average credit rating of the securities comprising the portfolio was AA+ (based upon external ratings where available and where not available, based primarily upon internal risk ratings). Refer to Corporate segment results on pages 44-46 and Note 9 for further information on the investment securities portfolio and internal risk ratings. Refer to Market Risk Management on pages 78-82 for further information on the market risk inherent in the portfolio. Refer to Liquidity Risk Management on pages 54-58 for further information on related liquidity risk.

Principal investment risk

Principal investments are typically privately held non-traded financial instruments representing ownership interests or other forms of junior capital and span multiple asset classes. These investments are made by dedicated investing businesses or as part of a broader business strategy. In general, principal investments include tax-oriented investments and investments made to enhance or accelerate the Firm's business strategies and exclude those that are consolidated on the Firm's balance sheets. The Firm's investments will continue to evolve in line with its strategies, including the Firm's commitment to support underserved communities and minority-owned businesses. The Firm's principal investments are managed by the LOBs and Corporate and are reflected within their respective financial results. The aggregate carrying values of the principal investment portfolios have not been significantly affected as a result of the COVID-19 pandemic.

The table below presents the aggregate carrying values of the principal investment portfolios as September 30, 2021 and December 31, 2020.

(in billions)		September 30, 2021		December 31, 2020
Tax-oriented investments, primarily in alternative energy and affordable housing(a)	**$**	**20.9**	$	20.0
Private equity, various debt and equity instruments, and real assets		**7.0**		6.2
Total carrying value	**$**	**27.9**	$	26.2

(a) Prior-period amount has been revised to conform with the current presentation. Refer to Note 1 for further information.

Refer to page 134 of JPMorgan Chase's 2020 Form 10-K for a discussion of the Firm's Investment Portfolio Risk Management governance and oversight.

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. Refer to Market Risk Management on pages 135–142 of JPMorgan Chase's 2020 Form 10-K for a discussion of the Firm's Market Risk Management organization, market risk measurement, risk monitoring and control, and predominant business activities that give rise to market risk.

Market Risk Management continues to actively monitor the impact of the COVID-19 pandemic on market risk exposures by leveraging existing risk measures and controls.

Models used to measure market risk are inherently imprecise and are limited in their ability to measure certain risks or to predict losses. This imprecision may be heightened when sudden or severe shifts in market conditions occur. For additional discussion on model uncertainty refer to Estimations and Model Risk Management on page 85.

Market Risk Management periodically reviews the Firm's existing market risk measures to identify opportunities for enhancement, and to the extent appropriate, will calibrate those measures accordingly over time.

Value-at-risk

JPMorgan Chase utilizes value-at-risk ("VaR"), a statistical risk measure, 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.

The Firm's Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. For risk management purposes, the Firm believes this methodology provides a daily measure of risk that is closely aligned to risk management decisions made by the LOBs and Corporate and, along with other market risk measures, provides the appropriate information needed to respond to risk events. The Firm calculates separately a daily aggregated VaR in accordance with regulatory rules ("Regulatory VaR"), which is used to derive the Firm's regulatory VaR-based capital requirements under Basel III.

The Firm's VaR model calculations are periodically evaluated and enhanced in response to changes in the composition of the Firm's portfolios, changes in market conditions, improvements in the Firm's modeling techniques and measurements, and other factors. Such changes may affect historical comparisons of VaR results. Refer to Estimations and Model Risk Management on page 151 of JPMorgan Chase's 2020 Form 10-K for information regarding model reviews and approvals.

Refer to page 137 of JPMorgan Chase's 2020 Form 10-K for further information regarding VaR, including the inherent limitations, and the key differences between Risk Management VaR and Regulatory VaR. Refer to JPMorgan Chase's Basel III Pillar 3 Regulatory Capital Disclosures reports, which are available on the Firm's website, for additional information on Regulatory VaR and the other components of market risk regulatory capital for the Firm (e.g., VaR-based measure, stressed VaR-based measure and the respective backtesting). Refer to Other risk measures on pages 140-142 of JPMorgan Chase's 2020 Form 10-K for further information regarding nonstatistical market risk measures used by the Firm.

The table below shows the results of the Firm's Risk Management VaR measure using a 95% confidence level. VaR can vary significantly as positions change, market volatility fluctuates, and diversification benefits change.

Total VaR

	Three months ended								
	September 30, 2021			June 30, 2021			September 30, 2020		
(in millions)	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max
CIB trading VaR by risk type									
Fixed income	**$ 38**	**$ 30**	**$ 46**	$ 39	$ 33	$ 44	$ 93	$ 79	$ 124
Foreign exchange	**5**	**3**	**8**	6	4	9	13	7	18
Equities	**11**	**8**	**15**	18	11	23	26	22	31
Commodities and other	**11**	**9**	**13**	22	12	35	33	24	47
Diversification benefit to CIB trading VaR	**(33)** (a)	**NM** (b)	**NM** (b)	(44) (a)	NM (b)	NM (b)	(76) (a)	NM (b)	NM (b)
CIB trading VaR	**32**	**22**	**44**	41	34	51	89	73	115
Credit portfolio VaR	**5**	**4**	**7**	6	4	9	15	12	17
Diversification benefit to CIB VaR	**(4)** (a)	**NM** (b)	**NM** (b)	(6) (a)	NM (b)	NM (b)	(14) (a)	NM (b)	NM (b)
CIB VaR	**33**	**22**	**45**	41	34	52	90	74	116
CCB VaR	**6**	**4**	**10**	5	4	7	3	1	7
Corporate and other LOB VaR	**17**	**15**	**19**	20	18	22	16	15	19
Diversification benefit to other VaR	**(4)** (a)	**NM** (b)	**NM** (b)	(5) (a)	NM (b)	NM (b)	(3) (a)	NM (b)	NM (b)
Other VaR	**19**	**16**	**23**	20	19	22	16	14	19
Diversification benefit to CIB and other VaR	**(16)** (a)	**NM** (b)	**NM** (b)	(18) (a)	NM (b)	NM (b)	(16) (a)	NM (b)	NM (b)
Total VaR	**$ 36**	**$ 24**	**$ 50**	$ 43	$ 35	$ 52	$ 90	$ 74	$ 117

(a) Diversification benefit represents the difference between the portfolio VaR and the sum of its individual components. This reflects the non-additive nature of VaR due to imperfect correlation across LOBs, Corporate, and risk types.
(b) The maximum and minimum VaR for each portfolio may have occurred on different trading days than the components and consequently diversification benefit is not meaningful.

Quarter over quarter results

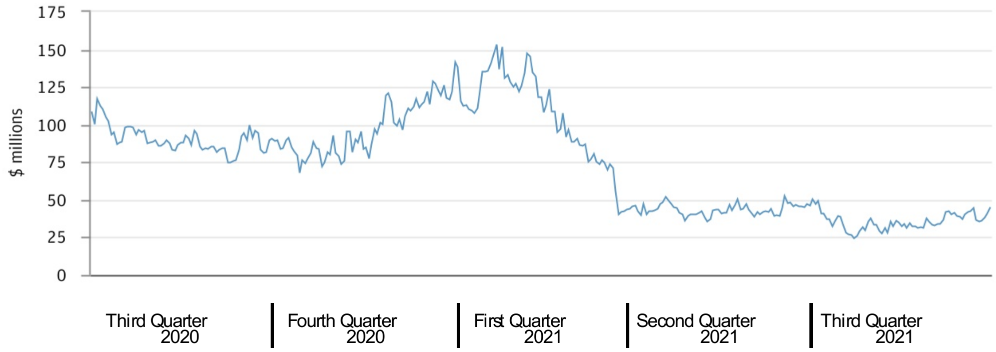
Average total VaR decreased by $7 million for the three months ended September 30, 2021 when compared with June 30, 2021. This was due to volatility rolling out of the one-year historical look-back period impacting exposures in commodities, as well as risk reductions in equities.

Year over year results

Average total VaR decreased by $54 million for the three months ended September 30, 2021, compared with the same period in the prior year. This decrease was driven by volatility which occurred at the onset of the COVID-19 pandemic rolling out of the one-year historical look-back period, predominantly impacting exposures in fixed income and commodities.

The following graph presents daily Risk Management VaR for the five trailing quarters. As noted previously, average total VaR decreased by $54 million for the three months ended September 30, 2021, compared with the same period in the prior year. Daily Risk Management VaR has returned to pre-pandemic levels, as the volatility which occurred in late March of 2020 at the onset of the COVID-19 pandemic has rolled out of the one-year historical look-back period.

Daily Risk Management VaR



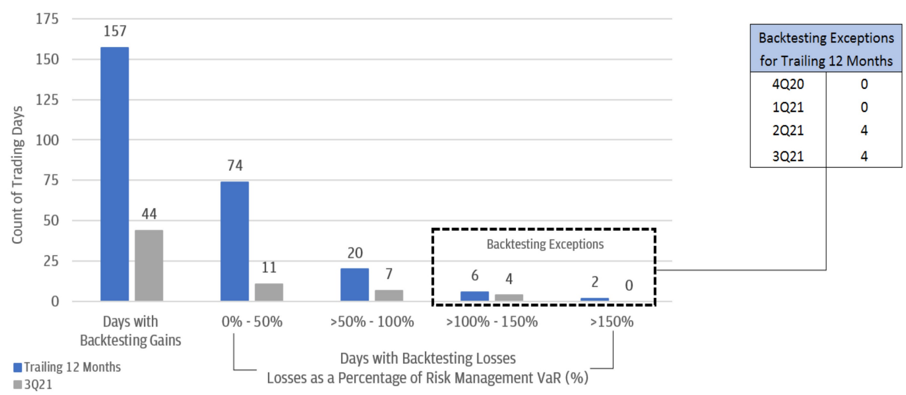
VaR backtesting

The Firm performs daily VaR model backtesting, which compares the daily Risk Management VaR results with the daily gains and losses that are utilized for VaR backtesting purposes. The gains and losses depicted in the chart below do not reflect the Firm's reported revenue 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 definition of backtesting gains and losses above is consistent with the requirements for backtesting under Basel III capital rules.

For the 12 months ended September 30, 2021, the Firm posted backtesting gains on 157 of the 259 days, and observed eight VaR backtesting exceptions. For the three months ended September 30, 2021, the Firm posted backtesting gains on 44 of the 66 days, and observed four VaR backtesting exceptions.

The following chart presents the distribution of Firmwide daily backtesting gains and losses for the trailing 12 months and three months ended September 30, 2021. The daily backtesting losses are displayed as a percentage of the corresponding daily Risk Management VaR. The count of days with backtesting losses are shown in aggregate, in fifty percentage point intervals. A backtesting exception occurs when the daily backtesting loss exceeds the daily Risk Management VaR for the prior day. Backtesting exceptions are displayed within the intervals that are greater than one hundred percent. The results in the chart below differ from the results of backtesting disclosed in the Market Risk section of the Firm's Basel III Pillar 3 Regulatory Capital Disclosures reports, which are based on Regulatory VaR applied to the Firm's covered positions.

Distribution of Daily Backtesting Gains and Losses



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 the table on page 136 of JPMorgan Chase's 2020 Form 10-K for a summary by LOB and Corporate, identifying positions included in earnings-at-risk.

One way the Firm evaluates its structural interest rate risk is through earnings-at-risk. Earnings-at-risk estimates the Firm's interest rate exposure for a given interest rate scenario. It is presented as a sensitivity to a baseline, which includes net interest income and certain interest rate sensitive fees. The baseline uses market interest rates and in the case of deposits, pricing assumptions. The Firm conducts simulations of changes to this baseline for interest rate-sensitive assets and liabilities denominated in U.S. dollars and other currencies ("non-U.S. dollar" currencies). These simulations primarily include retained loans, deposits, deposits with banks, investment securities, long-term debt and any related interest rate hedges, and funds transfer pricing of other positions in risk management VaR and other sensitivity-based measures as described on page 136 of JPMorgan Chase's 2020 Form 10-K.

Earnings-at-risk scenarios estimate the potential change to a net interest income baseline, over the following 12 months utilizing multiple assumptions. These scenarios include a parallel shift involving changes to both short-term and long-term rates by an equal amount; a steeper yield curve involving holding short-term rates constant and increasing long-term rates; and a flatter yield curve involving increasing short-term rates and holding long-term rates constant. These scenarios consider many different factors, including:

- The impact on exposures as a result of instantaneous changes in interest rates from baseline rates.
- Forecasted balance sheet, as well as modeled prepayment and reinvestment behavior, but do not include assumptions about actions that could be taken by the Firm or its clients and customers in response to any such instantaneous rate changes. Mortgage prepayment assumptions are based on the interest rates used in the scenarios compared with underlying contractual rates, the time since origination, and other factors which are updated periodically based on historical experience. Deposit forecasts do not currently include assumptions to account for the reversal of Quantitative Easing in the 12-month horizon for earnings-at-risk.
- The pricing sensitivity of deposits, known as deposit betas, represent the amount by which deposit rates paid could change upon a given change in market interest rates. The deposit rates paid in these scenarios may differ from actual deposit rates paid, due to repricing lags and other factors.

The Firm's earnings-at-risk scenarios are periodically evaluated and enhanced in response to changes in the composition of the Firm's balance sheet, changes in market conditions, improvements in the Firm's simulation and other factors. While a relevant measure of the Firm's interest rate exposure, the earnings-at-risk analysis does not represent a forecast of the Firm's net interest income (Refer to Outlook on page 8 for additional information).

The Firm's U.S. dollar sensitivities are presented in the table below.

(in billions)	September 30, 2021	December 31, 2020
Parallel shift:		
+100 bps shift in rates	**$ 6.7**	$ 6.9
Steeper yield curve:		
+100 bps shift in long-term rates	**1.3**	2.4
Flatter yield curve:		
+100 bps shift in short-term rates	**5.4**	4.5

The change in the Firm's U.S. dollar sensitivities as of September 30, 2021 compared to December 31, 2020 reflected updates to the Firm's baseline for higher long-term rates as well as the impact of changes in the Firm's balance sheet.

The Firm's sensitivity to rates is primarily a result of assets repricing at a faster pace than deposits.

Based upon current and implied market rates as of September 30, 2021, scenarios reflecting lower rates could result in negative interest rates. The U.S. has never experienced an interest rate environment where the Federal Reserve has a negative interest rate policy. In a negative interest rate environment, the modeling assumptions used for certain assets and liabilities require additional management judgment and therefore, the actual outcomes may differ from these assumptions.

The Firm's non-U.S. dollar sensitivities are presented in the table below.

(in billions)	September 30, 2021	December 31, 2020
Parallel shift:		
+100 bps shift in rates	**$ 0.9**	$ 0.9
Flatter yield curve:		
+100 bps shift in short-term rates	**0.8**	0.8

The results of the non-U.S. dollar interest rate scenario involving a steeper yield curve with long-term rates rising by 100 basis points and short-term rates staying at current levels were not material to the Firm's earnings-at-risk at September 30, 2021 and December 31, 2020.

Other sensitivity-based measures

The Firm quantifies the market risk of certain debt and equity and funding activities by assessing the potential impact on net revenue, other comprehensive income ("OCI") and noninterest expense due to changes in relevant market variables. Refer to the predominant business activities that give rise to market risk on page 136 of JPMorgan Chase's 2020 Form 10-K for additional information on the positions captured in other sensitivity-based measures.

The table below represents the potential impact to net revenue, OCI or noninterest expense for market risk-sensitive instruments that are not included in VaR or earnings-at-risk. Where appropriate, instruments used for hedging purposes are reported net of the positions being hedged. The sensitivities disclosed in the table below may not be representative of the actual gain or loss that would have been realized at September 30, 2021 and December 31, 2020, as the movement in market parameters across maturities may vary and are not intended to imply management's expectation of future changes in these sensitivities.

Gain/(loss) (in millions) **Activity**	**Description**	**Sensitivity measure**	**September 30, 2021**	December 31, 2020
Debt and equity[(a)]				
Asset Management activities	Consists of seed capital and related hedges; fund co-investments[(c)]; and certain deferred compensation and related hedges[(d)]	10% decline in market value	**$ (68)**	$ (48)
Other debt and equity	Consists of certain asset-backed fair value option elected loans, privately held equity and other investments held at fair value[(c)]	10% decline in market value	**(933)**	(919)
Funding activities				
Non-USD LTD cross-currency basis	Represents the basis risk on derivatives used to hedge the foreign exchange risk on the non-USD LTD[(e)]	1 basis point parallel tightening of cross currency basis	**(17)**	(16)
Non-USD LTD hedges foreign currency ("FX") exposure	Primarily represents the foreign exchange revaluation on the fair value of the derivative hedges[(e)]	10% depreciation of currency	**19**	13
Derivatives – funding spread risk[(b)]	Impact of changes in the spread related to derivatives FVA[(c)]	1 basis point parallel increase in spread	**(6)**	(9)
Fair value option elected liabilities – funding spread risk[(b)]	Impact of changes in the spread related to fair value option elected liabilities DVA[(e)]	1 basis point parallel increase in spread	**44**	40
Fair value option elected liabilities – interest rate sensitivity	Interest rate sensitivity on fair value option elected liabilities resulting from a change in the Firm's own credit spread[(e)]	1 basis point parallel increase in spread	**(2)**	(3)
	Interest rate sensitivity related to risk management of changes in the Firm's own credit spread on the fair value option elected liabilities noted above[(c)]	1 basis point parallel increase in spread	**2**	3

(a) Excludes equity securities without readily determinable fair values that are measured under the measurement alternative. Refer to Note 2 for additional information.
(b) Effective September 30, 2021, the Firm's funding spread risk measure for both derivatives and fair value option elected liabilities now represents the sensitivity to the Firm's FVA spread. Previously, these measures represented the sensitivity to the Firm's credit spread observed in the market. The Firm believes the updated measure is more reflective of the Firm's funding spread risk. Prior-period amounts have been revised to conform with the current presentation.
(c) Impact recognized through net revenue.
(d) Impact recognized through noninterest expense.
(e) Impact recognized through OCI.

The Firm, through its LOBs and Corporate, may be exposed to country risk resulting from financial, economic, political or other significant developments which adversely affect the value of the Firm's exposures related to a particular country or set of countries. The Country Risk Management group actively monitors the various portfolios which may be impacted by these developments and measures the extent to which the Firm's exposures are diversified given the Firm's strategy and risk tolerance relative to a country.

Country Risk Management continues to monitor the impact of the COVID-19 pandemic on individual countries.

Refer to pages 143-144 of JPMorgan Chase's 2020 Form 10-K for a further discussion of the Firm's country risk management.

Risk Reporting

The following table presents the Firm's top 20 exposures by country (excluding the U.S.) as of September 30, 2021 and their comparative exposures as of December 31, 2020. The selection of countries represents the Firm's largest total exposures by individual country, based on the Firm's internal country risk management approach, and does not represent the Firm's view of any existing or potentially adverse credit conditions. Country exposures may fluctuate from period to period due to client activity and market flows.

The increase in exposure to Australia was due to increased cash placements with the central bank of Australia in the first quarter of 2021, predominantly driven by client activity following policy decisions in the country and growth in client deposits.

Top 20 country exposures (excluding the U.S.)[(a)]

(in billions)	**September 30, 2021**				December 31, 2020[(e)]
	Lending and deposits[(b)]	Trading and investing[(c)]	Other[(d)]	Total exposure	Total exposure
Germany	**$ 110.7**	**$ 4.0**	**$ 0.3**	**$ 115.0**	$ 127.2
United Kingdom	**52.2**	**13.0**	**2.3**	**67.5**	68.4
Japan	**25.6**	**9.3**	**0.3**	**35.2**	45.6
Australia	**24.0**	**7.5**	**0.2**	**31.7**	15.9
France	**13.5**	**4.8**	**1.7**	**20.0**	18.8
China	**11.0**	**7.0**	**1.7**	**19.7**	21.2
Switzerland	**11.1**	**0.8**	**2.8**	**14.7**	18.7
Canada	**12.5**	**1.5**	**0.2**	**14.2**	14.5
Brazil	**4.6**	**8.3**	**—**	**12.9**	10.8
Luxembourg	**10.7**	**1.4**	**—**	**12.1**	12.4
India	**4.9**	**5.4**	**1.4**	**11.7**	10.5
South Korea	**4.1**	**7.2**	**0.3**	**11.6**	10.1
Singapore	**6.8**	**4.1**	**0.3**	**11.2**	8.7
Spain	**9.1**	**1.5**	**—**	**10.6**	5.8
Netherlands	**7.0**	**1.4**	**1.3**	**9.7**	7.7
Italy	**5.9**	**3.5**	**0.2**	**9.6**	9.7
Sweden	**7.8**	**0.2**	**0.1**	**8.1**	4.3
Saudi Arabia	**5.6**	**2.2**	**—**	**7.8**	5.8
Belgium	**5.5**	**1.4**	**—**	**6.9**	4.0
Hong Kong SAR	**4.7**	**1.9**	**0.2**	**6.8**	6.2

(a) Country exposures presented in the table reflect 89% and 90% of total Firmwide non-U.S. exposure, where exposure is attributed to an individual country, at September 30, 2021 and December 31, 2020, respectively.
(b) Lending and deposits includes loans and accrued interest receivable, lending related commitments (net of eligible collateral and the allowance for credit losses), deposits with banks (including central banks), acceptances, other monetary assets, and issued letters of credit net of participations. Excludes intra-day and operating exposures, such as those from settlement and clearing activities.
(c) Includes market-making inventory, investment securities, and counterparty exposure on derivative and securities financings net of eligible collateral and hedging. Includes exposure from single reference entity ("single-name"), index and other multiple reference entity transactions for which one or more of the underlying reference entities is in a country listed in the above table.
(d) Predominantly includes physical commodity inventory.
(e) The country rankings presented in the table as of December 31, 2020, are based on the country rankings of the corresponding exposures at September 30, 2021, not actual rankings of such exposures at December 31, 2020.

Operational risk is the risk of an adverse outcome resulting from inadequate or failed internal processes or systems; human factors; or external events impacting the Firm's processes or systems; Operational Risk 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, cyber 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 Operational Risk Management on pages 145-147 of JPMorgan Chase's 2020 Form 10-K for a discussion of the Firm's Operational Risk Management.

Subcategories and examples of operational risks

Operational risk can manifest itself in various ways. Operational risk subcategories such as Compliance risk, Conduct risk, Legal risk, and Estimations and Model risk as well as other operational risks, can lead to losses which are captured through the Firm's operational risk measurement processes. Refer to Compliance Risk Management on page 148, Conduct Risk Management on page 149, Legal Risk Management on page 150 and Estimations and Model Risk Management on page 151 of JPMorgan Chase's 2020 Form 10-K for more information. Details on other select examples of operational risks are provided below.

Business and technology resiliency risk

Business disruptions can occur due to forces beyond the Firm's control such as the spread of infectious diseases or pandemics, severe weather, power or telecommunications loss, accidents, failure of a third party to provide expected services, cyberattack, flooding, transit strikes, terrorism and health emergencies. The safety of the Firm's employees and customers is of the highest priority. The Firmwide resiliency program is intended to enable the Firm to recover its critical business functions and supporting assets (e.g., people, technology, data and facilities) in the event of a business interruption. The program includes governance, awareness training, and testing of recovery strategies, as well as strategic and tactical initiatives to identify, assess, and manage business interruption and public safety risks. The strength and proficiency of the Firmwide resiliency program has played an integral role in maintaining the Firm's business operations during and after various events.

Cybersecurity Risk

Due to the ongoing impact of COVID-19, the Firm continues to leverage use of remote access and video conferencing solutions provided by third parties to facilitate remote work. As a result, the Firm has deployed additional precautionary measures to mitigate cybersecurity risks.

Payment Fraud Risk

The risk of payment fraud has normalized since the heightened levels experienced during earlier stages of the COVID-19 pandemic. The Firm continues to employ various controls for managing payment fraud risk as well as providing employee and client education and awareness trainings.

ESTIMATIONS AND MODEL RISK MANAGEMENT

Estimations and Model risk, a subcategory of operational risk, is the potential for adverse consequences from decisions based on incorrect or misused estimation outputs.

The Firm uses models and other analytical and judgment- based estimations across various businesses and functions. The estimation methods are of varying levels of sophistication and are used for many purposes, such as the valuation of positions and measurement of risk, assessing regulatory capital requirements, conducting stress testing, and making business decisions.

While models are inherently imprecise, the degree of imprecision or uncertainty can be heightened by the market or economic environment. This is particularly true when the current and forecasted environment is significantly different from the historical macroeconomic environments upon which the models were trained, as the Firm has experienced during the COVID-19 pandemic. This uncertainty may necessitate a greater degree of judgment and analytics to inform adjustments to model outputs than in typical periods.

Refer to Critical Accounting Estimates Used by the Firm on pages 86-88 and Note 2 of this Form 10-Q, and Estimations and Model Risk Management section on page 151 of JPMorgan Chase's 2020 Form 10-K for a summary of model-based valuations and other valuation techniques.

JPMorgan Chase's accounting policies and use of estimates are integral to understanding its reported results. The Firm's most complex accounting estimates require management's judgment to ascertain the appropriate carrying value of assets and liabilities. The Firm has established policies and control procedures intended to ensure that estimation methods, including any judgments made as part of such methods, are well-controlled, independently reviewed and applied consistently from period to period. The methods used and judgments made reflect, among other factors, the nature of the assets or liabilities and the related business and risk management strategies, which may vary across the Firm's businesses and portfolios. In addition, the policies and procedures are intended to ensure that the process for changing methodologies occurs in an appropriate manner. The Firm believes its estimates for determining the carrying value of its assets and liabilities are appropriate. The following is a brief description of the Firm's critical accounting estimates involving significant judgments.

Allowance for credit losses

The Firm's allowance for credit losses represents management's estimate of expected credit losses over the remaining expected life of the Firm's financial assets measured at amortized cost and certain off-balance sheet lending-related commitments. The allowance for credit losses comprises:

- The allowance for loan losses, which covers the Firm's retained loan portfolios (scored and risk-rated),
- The allowance for lending-related commitments, and
- The allowance for credit losses on investment securities, which covers the Firm's HTM and AFS securities.

The allowance for credit losses involves significant judgment on a number of matters including development and weighting of macroeconomic forecasts, incorporation of historical loss experience, assessment of risk characteristics, assignment of risk ratings, valuation of collateral, and the determination of remaining expected life. Refer to Note 10 and Note 13 of JPMorgan Chase's 2020 Form 10-K for further information on these judgments as well as the Firm's policies and methodologies used to determine the Firm's allowance for credit losses; and refer to Allowance for credit losses on pages 75-76 and Note 12 of this Form 10-Q for further information.

One of the most significant judgments involved in estimating the Firm's allowance for credit losses relates to the macroeconomic forecasts used to estimate credit losses over the eight-quarter forecast period within the Firm's methodology. The eight-quarter forecast incorporates hundreds of MEVs that are relevant for exposures across the Firm, with modeled credit losses being driven primarily by a subset of less than twenty variables. The specific variables that have the greatest effect on the modeled losses of each portfolio vary by portfolio and geography.

- Key MEVs for the consumer portfolio include U.S. unemployment, HPI and U.S. real GDP.
- Key MEVs for the wholesale portfolio include U.S. real GDP, U.S. unemployment, U.S. equity prices, corporate credit spreads, oil prices, commercial real estate prices and HPI.

Changes in the Firm's assumptions and forecasts of economic conditions could significantly affect its estimate of expected credit losses in the portfolio at the balance sheet date or lead to significant changes in the estimate from one reporting period to the next.

The COVID-19 pandemic resulted in a weak labor market and weak overall economic conditions that affected borrowers across the Firm's consumer and wholesale lending portfolios.

The U.S. economy has continued to improve despite the ongoing impact of the COVID-19 pandemic, with the benefits of vaccination resulting in improvements in the Firm's macroeconomic outlook, particularly in the adverse scenarios. However, uncertainties remain, including the impact that additional waves and variants of COVID-19 may have on the pace of economic growth, the strength of underlying labor markets with the expiration of government assistance programs, and the potential for changes in consumer behavior that could have longer term impacts on certain sectors. Judgment is still required to estimate the speed and trajectory of the economic recovery.

It is difficult to estimate how potential changes in any one factor or input might affect the overall allowance for credit losses because management considers a wide variety of factors and inputs in estimating the allowance for credit losses. Changes in the factors and inputs considered may not occur at the same rate and may not be consistent across all geographies or product types, and changes in factors and inputs may be directionally inconsistent, such that improvement in one factor or input may offset deterioration in others.

To consider the impact of a hypothetical alternate macroeconomic forecast, the Firm compared the modeled credit losses determined using its central and relative adverse macroeconomic scenarios, which are two of the five scenarios considered in estimating the allowances for loan losses and lending-related commitments. The central and relative adverse scenarios each included a full suite of MEVs, but differed in the levels, paths and peaks/troughs of those variables over the eight-quarter forecast period.

For example, compared to the Firm's central scenario shown on page 75 and in Note 12, the Firm's relative adverse scenario assumes a significantly elevated U.S. unemployment rate through 2021, averaging approximately 2.3% higher over the eight-quarter forecast, with a peak difference of approximately 3.7% in the first quarter of 2022; lower U.S. real GDP with a slower recovery, remaining nearly 2.7% lower at the end of the eight-quarter forecast, with a peak difference of approximately 5.9% in the first quarter of 2022; and lower national HPI with a peak difference of nearly 14.4% and forecasted trough, both in the first quarter of 2023.

This analysis is not intended to estimate expected future changes in the allowance for credit losses, for a number of reasons, including:

- the Firm continues to place meaningful weighting on its adverse scenarios in estimating its allowance for credit losses as of September 30, 2021, and accordingly, the existing allowance already reflects credit losses beyond those estimated under the central scenario
- the impacts of changes in many MEVs are both interrelated and nonlinear, so the results of this analysis cannot be simply extrapolated for more severe changes in macroeconomic variables
- the COVID-19 pandemic has stressed many MEVs used in the Firm's allowance estimate, which has created challenges in the use of modeled credit loss estimations
- significant changes in the expected severity and duration of the economic downturn caused by the COVID-19 pandemic, effects of government support and customer assistance, and speed and trajectory of the subsequent recovery could significantly affect the Firm's estimate of expected credit losses irrespective of the estimated sensitivities described below.

To demonstrate the sensitivity of credit loss estimates to macroeconomic forecasts as of September 30, 2021, the Firm compared the modeled estimates under its relative adverse scenario to its central scenario. Without considering the additional weight the Firm has placed on its adverse scenarios or any other offsetting or correlated effects in other qualitative components of the Firm's allowance for credit losses for these lending exposures, the comparison between these two scenarios reflects the following differences:

- An increase of approximately $350 million for residential real estate loans and lending-related commitments
- An increase of approximately $2.6 billion for credit card loans
- An increase of approximately $2.1 billion for wholesale loans and lending-related commitments

This analysis relates only to the modeled credit loss estimates and is not intended to estimate changes in the overall allowance for credit losses as it does not reflect any potential changes in other adjustments to the quantitative calculation, which would also be influenced by the judgment management applies to the modeled lifetime loss estimates to reflect the uncertainty and imprecision of these modeled lifetime loss estimates based on then-current circumstances and conditions.

Recognizing that forecasts of macroeconomic conditions are inherently uncertain, particularly in light of the recent economic conditions, the Firm believes that its process to consider the available information and associated risks and uncertainties is appropriately governed and that its estimates of expected credit losses were reasonable and appropriate for the period ended September 30, 2021.

Fair value

JPMorgan Chase carries a portion of its assets and liabilities at fair value. The majority of such assets and liabilities are measured at fair value on a recurring basis, including, derivatives, structured note products and certain securities financing agreements. Certain assets and liabilities are measured at fair value on a nonrecurring basis, including certain mortgage, home equity and other loans, where the carrying value is based on the fair value of the underlying collateral.

Assets measured at fair value

The following table includes the Firm's assets measured at fair value and the portion of such assets that are classified within level 3 of the valuation hierarchy. Refer to Note 2 for further information.

September 30, 2021 (in billions, except ratios)	Total assets at fair value	Total level 3 assets
Federal funds sold and securities purchased under resale agreements	$ 273.2	$ —
Securities borrowed	72.8	—
Trading assets:		
Trading–debt and equity instruments	447.9	2.5
Derivative receivables[(a)]	67.9	6.8
Total trading assets	515.8	9.3
AFS securities	251.6	0.1
Loans	60.6	2.1
MSRs	5.4	5.4
Other	13.7	0.2
Total assets measured at fair value on a recurring basis	1,193.1	17.1
Total assets measured at fair value on a nonrecurring basis	2.7	1.5
Total assets measured at fair value	$ 1,195.8	$ 18.6
Total Firm assets	$ 3,757.6	
Level 3 assets at fair value as a percentage of total Firm assets[(a)]		0.5 %
Level 3 assets at fair value as a percentage of total Firm assets at fair value[(a)]		1.6 %

(a) For purposes of the table above, the derivative receivables total reflects the impact of netting adjustments; however, the $6.8 billion of derivative receivables classified as level 3 does not reflect the netting adjustment as such netting is not relevant to a presentation based on the transparency of inputs to the valuation of an asset. The level 3 balances would be reduced if netting were applied, including the netting benefit associated with cash collateral.

Valuation

Estimating fair value requires the application of judgment. The type and level of judgment required is largely dependent on the amount of observable market information available to the Firm. For instruments valued using internally developed valuation models and other valuation techniques that use significant unobservable inputs and are therefore classified within level 3 of the valuation hierarchy, judgments used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate valuation model or other valuation technique to use. Second, the lack of observability of certain significant inputs requires management to assess all relevant empirical data in deriving valuation inputs including, for example, transaction details, yield curves, interest rates, prepayment speed, default rates, volatilities, correlations, prices (such as commodity, equity or debt prices), valuations of comparable instruments, foreign exchange rates and credit curves. Refer to Note 2 for a further discussion of the valuation of level 3 instruments, including unobservable inputs used.

For instruments classified in levels 2 and 3, management judgment must be applied to assess the appropriate level of valuation adjustments to reflect counterparty credit quality, the Firm's creditworthiness, market funding rates, liquidity considerations, unobservable parameters, and for portfolios that meet specified criteria, the size of the net open risk position. The judgments made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole. In periods of heightened market volatility and uncertainty judgments are further affected by the wider variation of reasonable valuation estimates, particularly for positions that are less liquid. Refer to Note 2 for a further discussion of valuation adjustments applied by the Firm.

Imprecision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Firm believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgment and may vary across the Firm's businesses and portfolios.

The Firm uses various methodologies and assumptions in the determination of fair value. The use of methodologies or assumptions different than those used by the Firm could result in a different estimate of fair value at the reporting date. Refer to Note 2 for a detailed discussion of the Firm's valuation process and hierarchy, and its determination of fair value for individual financial instruments.

Goodwill impairment

Management applies significant judgment when testing goodwill for impairment. Refer to Goodwill impairment on page 154 of JPMorgan Chase's 2020 Form 10-K for a description of the significant valuation judgments associated with goodwill impairment.

Refer to Note 14 for additional information on goodwill, including the goodwill impairment assessment as of September 30, 2021.

Credit card rewards liability

The credit card rewards liability was $9.4 billion and $7.7 billion at September 30, 2021 and December 31, 2020, respectively, and is recorded in accounts payable and other liabilities on the Consolidated balance sheets. The increase in the liability was driven by continued growth in rewards points earned on accelerated spend and promotional offers outpacing redemptions throughout 2021, and to a lesser extent adjustments to redemption rate assumptions. Refer to page 154 of JPMorgan Chase's 2020 Form 10-K for a description of the significant assumptions and sensitivities, associated with the Firm's credit card rewards liability.

Income taxes

Refer to Income taxes on pages 154-155 of JPMorgan Chase's 2020 Form 10-K for a description of the significant assumptions, judgments and interpretations associated with the accounting for income taxes.

Litigation reserves

Refer to Note 24 of this Form 10-Q, and Note 30 of JPMorgan Chase's 2020 Form 10-K for a description of the significant estimates and judgments associated with establishing litigation reserves.

Financial Accounting Standards Board ("FASB") Standards Adopted since January 1, 2021

Standard	Summary of guidance	Effects on financial statements
Reference Rate Reform *Issued March 2020 and updated January 2021*	• Provides optional expedients and exceptions to current accounting guidance when financial instruments, hedge accounting relationships, and other transactions are amended due to reference rate reform. • Provides an election to account for certain contract amendments related to reference rate reform as modifications rather than extinguishments without the requirement to assess the significance of the amendments. • Allows for changes in critical terms of a hedge accounting relationship without automatic termination of that relationship. Provides various practical expedients and elections designed to allow hedge accounting to continue uninterrupted during the transition period. • Provides a one-time election to transfer securities out of the held-to-maturity classification if certain criteria are met. • The January 2021 update provides an election to account for derivatives modified to change the rate used for discounting, margining, or contract price alignment (collectively "discounting transition") as modifications.	• Issued and effective March 12, 2020. The January 7, 2021 update was effective when issued. • The Firm elected to apply certain of the practical expedients related to contract modifications and hedge accounting relationships, and discounting transition beginning in the third quarter of 2020. The discounting transition election was applied retrospectively. The main purpose of the practical expedients is to ease the administrative burden of accounting for contracts impacted by reference rate reform. These elections did not have a material impact on the Consolidated Financial Statements.

FORWARD-LOOKING STATEMENTS

From time to time, the Firm has made and will make forward-looking statements. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as "anticipate," "target," "expect," "estimate," "intend," "plan," "goal," "believe," or other words of similar meaning. Forward-looking statements provide JPMorgan Chase's current expectations or forecasts of future events, circumstances, results or aspirations. JPMorgan Chase's disclosures in this Form 10-Q contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The Firm also may make forward-looking statements in its other documents filed or furnished with the SEC. In addition, the Firm's senior management may make forward-looking statements orally to investors, analysts, representatives of the media and others.

All forward-looking statements are, by their nature, subject to risks and uncertainties, many of which are beyond the Firm's control. JPMorgan Chase's actual future results may differ materially from those set forth in its 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 from those in the forward-looking statements:

- Economic, financial, reputational and other impacts of the COVID-19 pandemic;
- Local, regional and global business, economic and political conditions and geopolitical events;
- Changes in laws and regulatory requirements, including capital and liquidity requirements affecting the Firm's businesses, and the ability of the Firm to address those requirements;
- Heightened regulatory and governmental oversight and scrutiny of JPMorgan Chase's business practices, including dealings with retail customers;
- Changes in trade, monetary and fiscal policies and laws;
- Changes in the level of inflation;
- Changes in income tax laws and regulations;
- Securities and capital markets behavior, including changes in market liquidity and volatility;
- Changes in investor sentiment or consumer spending or savings behavior;
- Ability of the Firm to manage effectively its capital and liquidity;
- Changes in credit ratings assigned to the Firm or its subsidiaries;
- Damage to the Firm's reputation;
- Ability of the Firm to appropriately address social, environmental and sustainability concerns that may arise, including from its business activities;
- Ability of the Firm to deal effectively with an economic slowdown or other economic or market disruption, including, but not limited to, in the interest rate environment;
- Technology changes instituted by the Firm, its counterparties or competitors;
- The effectiveness of the Firm's control agenda;
- Ability of the Firm to develop or discontinue products and services, and the extent to which products or services previously sold by the Firm require the Firm to incur liabilities or absorb losses not contemplated at their initiation or origination;
- Acceptance of the Firm's new and existing products and services by the marketplace and the ability of the Firm to innovate and to increase market share;
- Ability of the Firm to attract and retain qualified and diverse employees;
- Ability of the Firm to control expenses;
- Competitive pressures;
- Changes in the credit quality of the Firm's clients, customers and counterparties;
- Adequacy of the Firm's risk management framework, disclosure controls and procedures and internal control over financial reporting;
- Adverse judicial or regulatory proceedings;
- Changes in applicable accounting policies, including the introduction of new accounting standards;
- Ability of the Firm to determine accurate values of certain assets and liabilities;
- Occurrence of natural or man-made disasters or calamities, including health emergencies, the spread of infectious diseases, pandemics or outbreaks of hostilities, or the effects of climate change, and the Firm's ability to deal effectively with disruptions caused by the foregoing;
- Ability of the Firm to maintain the security of its financial, accounting, technology, data processing and other operational systems and facilities;
- Ability of the Firm to withstand disruptions that may be caused by any failure of its operational systems or those of third parties;
- Ability of the Firm to effectively defend itself against cyber attacks and other attempts by unauthorized parties to access information of the Firm or its customers or to disrupt the Firm's systems; and
- The other risks and uncertainties detailed in Part II, Item 1A: Risk Factors in this Form 10-Q and Part I, Item 1A: Risk Factors in JPMorgan Chase's 2020 Form 10-K.

Any forward-looking statements made by or on behalf of the Firm speak only as of the date they are made, and JPMorgan Chase does not undertake to update any forward-looking statements. The reader should, however, consult any further disclosures of a forward-looking nature the Firm may make in any subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q or Current Reports on Form 8-K.

JPMorgan Chase & Co.
Consolidated statements of income (unaudited)

(in millions, except per share data)	Three months ended September 30, 2021	Three months ended September 30, 2020	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Revenue				
Investment banking fees	**$ 3,282**	$ 2,187	**$ 9,722**	$ 6,903
Principal transactions	**3,546**	4,142	**14,122**	14,700
Lending- and deposit-related fees	**1,801**	1,647	**5,248**	4,784
Asset management, administration and commissions	**5,257**	4,470	**15,480**	13,276
Investment securities gains/(losses)	**(256)**	473	**(397)**	732
Mortgage fees and related income	**600**	1,087	**1,855**	2,324
Card income	**1,005**	1,169	**4,002**	3,138
Other income[(a)]	**1,332**	1,067	**3,650**	3,454
Noninterest revenue	**16,567**	16,242	**53,682**	49,311
Interest income	**14,480**	14,700	**42,845**	49,973
Interest expense	**1,400**	1,687	**4,135**	8,668
Net interest income	**13,080**	13,013	**38,710**	41,305
Total net revenue	**29,647**	29,255	**92,392**	90,616
Provision for credit losses	**(1,527)**	611	**(7,968)**	19,369
Noninterest expense				
Compensation expense	**9,087**	8,630	**29,502**	27,034
Occupancy expense	**1,109**	1,142	**3,314**	3,288
Technology, communications and equipment expense	**2,473**	2,564	**7,480**	7,732
Professional and outside services	**2,523**	2,178	**7,111**	6,205
Marketing	**712**	470	**2,089**	1,751
Other expense	**1,159**	1,891	**3,959**	4,598
Total noninterest expense	**17,063**	16,875	**53,455**	50,608
Income before income tax expense	**14,111**	11,769	**46,905**	20,639
Income tax expense[(a)]	**2,424**	2,326	**8,970**	3,644
Net income	**$ 11,687**	$ 9,443	**$ 37,935**	$ 16,995
Net income applicable to common stockholders	**$ 11,229**	$ 9,015	**$ 36,576**	$ 15,712
Net income per common share data				
Basic earnings per share	**$ 3.74**	$ 2.93	**$ 12.05**	$ 5.10
Diluted earnings per share	**3.74**	2.92	**12.02**	5.09
Weighted-average basic shares	**2,999.9**	3,077.8	**3,036.4**	3,083.3
Weighted-average diluted shares	**3,005.1**	3,082.8	**3,041.7**	3,088.1

(a) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.

The Notes to Consolidated Financial Statements (unaudited) are an integral part of these statements.

JPMorgan Chase & Co.
Consolidated statements of comprehensive income (unaudited)

(in millions)	Three months ended September 30, 2021	Three months ended September 30, 2020	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Net income	**$ 11,687**	$ 9,443	**$ 37,935**	$ 16,995
Other comprehensive income/(loss), after–tax				
Unrealized gains/(losses) on investment securities	**(434)**	514	**(4,099)**	4,377
Translation adjustments, net of hedges	**(187)**	127	**(373)**	(61)
Fair value hedges	**9**	(69)	**(42)**	35
Cash flow hedges	**(450)**	(70)	**(2,108)**	2,629
Defined benefit pension and OPEB plans	**6**	(12)	**83**	14
DVA on fair value option elected liabilities	**(551)**	(339)	**(484)**	377
Total other comprehensive income/(loss), after–tax	**(1,607)**	151	**(7,023)**	7,371
Comprehensive income	**$ 10,080**	$ 9,594	**$ 30,912**	$ 24,366

The Notes to Consolidated Financial Statements (unaudited) are an integral part of these statements.

JPMorgan Chase & Co.
Consolidated balance sheets (unaudited)

(in millions, except share data)		September 30, 2021		December 31, 2020
Assets				
Cash and due from banks	**$**	**25,857**	$	24,874
Deposits with banks		**734,012**		502,735
Federal funds sold and securities purchased under resale agreements (included **$273,158** and $238,015 at fair value)		**282,161**		296,284
Securities borrowed (included **$72,833** and $52,983 at fair value)		**202,987**		160,635
Trading assets (included assets pledged of **$104,047** and $130,645)		**515,901**		503,126
Available-for-sale securities (amortized cost of **$249,733** and $381,729, net of allowance for credit losses; included assets pledged of **$13,621** and $32,227)		**251,590**		388,178
Held-to-maturity securities (net of allowance for credit losses)		**343,542**		201,821
Investment securities, net of allowance for credit losses		**595,132**		589,999
Loans (included **$60,628** and $44,474 at fair value)		**1,044,615**		1,012,853
Allowance for loan losses		**(18,150)**		(28,328)
Loans, net of allowance for loan losses		**1,026,465**		984,525
Accrued interest and accounts receivable		**116,395**		90,503
Premises and equipment		**26,996**		27,109
Goodwill, MSRs and other intangible assets		**56,566**		53,428
Other assets[(a)] (included **$14,471** and $13,827 at fair value and assets pledged of **$4,740** and $3,739)		**175,104**		151,539
Total assets[(b)]	**$**	**3,757,576**	$	3,384,757
Liabilities				
Deposits (included **$11,808** and $14,484 at fair value)	**$**	**2,402,353**	$	2,144,257
Federal funds purchased and securities loaned or sold under repurchase agreements (included **$187,439** and $155,735 at fair value)		**254,920**		215,209
Short-term borrowings (included **$20,033** and $16,893 at fair value)		**50,393**		45,208
Trading liabilities		**179,543**		170,181
Accounts payable and other liabilities[(a)] (included **$5,340** and $3,476 at fair value)		**268,604**		231,285
Beneficial interests issued by consolidated VIEs (included **$99** and $41 at fair value)		**13,257**		17,578
Long-term debt (included **$76,499** and $76,817 at fair value)		**298,465**		281,685
Total liabilities[(b)]		**3,467,535**		3,105,403
Commitments and contingencies (refer to Notes 22, 23 and 24)				
Stockholders' equity				
Preferred stock ($1 par value; authorized 200,000,000 shares; issued **3,483,750** and 3,006,250 shares)		**34,838**		30,063
Common stock ($1 par value; authorized 9,000,000,000 shares; issued **4,104,933,895** shares)		**4,105**		4,105
Additional paid-in capital		**88,357**		88,394
Retained earnings		**265,276**		236,990
Accumulated other comprehensive income		**963**		7,986
Treasury stock, at cost (**1,149,667,834** and 1,055,499,435 shares)		**(103,498)**		(88,184)
Total stockholders' equity		**290,041**		279,354
Total liabilities and stockholders' equity	**$**	**3,757,576**	$	3,384,757

(a) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.
(b) The following table presents information on assets and liabilities related to VIEs that are consolidated by the Firm at September 30, 2021, and December 31, 2020. The assets of the consolidated VIEs are used to settle the liabilities of those entities. The holders of the beneficial interests generally do not have recourse to the general credit of JPMorgan Chase. The assets and liabilities in the table below include third-party assets and liabilities of consolidated VIEs and exclude intercompany balances that eliminate in consolidation. Refer to Note 13 for a further discussion.

(in millions)		September 30, 2021		December 31, 2020
Assets				
Trading assets	**$**	**2,011**	$	1,934
Loans		**35,352**		37,619
All other assets		**516**		681
Total assets	**$**	**37,879**	$	40,234
Liabilities				
Beneficial interests issued by consolidated VIEs	**$**	**13,257**	$	17,578
All other liabilities		**234**		233
Total liabilities	**$**	**13,491**	$	17,811

The Notes to Consolidated Financial Statements (unaudited) are an integral part of these statements.

JPMorgan Chase & Co.
Consolidated statements of changes in stockholders' equity (unaudited)

	Three months ended September 30,		Nine months ended September 30,	
(in millions, except per share data)	**2021**	2020	**2021**	2020
Preferred stock				
Balance at the beginning of the period	**$ 32,838**	$ 30,063	**$ 30,063**	$ 26,993
Issuance	**2,000**	—	**7,350**	4,500
Redemption	**—**	—	**(2,575)**	(1,430)
Balance at September 30	**34,838**	30,063	**34,838**	30,063
Common stock				
Balance at the beginning and end of the period	**4,105**	4,105	**4,105**	4,105
Additional paid-in capital				
Balance at the beginning of the period	**88,194**	88,125	**88,394**	88,522
Shares issued and commitments to issue common stock for employee share-based compensation awards, and related tax effects	**227**	215	**93**	(177)
Other	**(64)**	(51)	**(130)**	(56)
Balance at September 30	**88,357**	88,289	**88,357**	88,289
Retained earnings				
Balance at the beginning of the period	**256,983**	221,732	**236,990**	223,211
Cumulative effect of change in accounting principles	**—**	—	**—**	(2,650)
Net income	**11,687**	9,443	**37,935**	16,995
Dividends declared:				
Preferred stock	**(402)**	(381)	**(1,174)**	(1,203)
Common stock (**$1.00** and $0.90 per share and **$2.80** and $2.70 per share, respectively)	**(2,992)**	(2,780)	**(8,475)**	(8,339)
Balance at September 30	**265,276**	228,014	**265,276**	228,014
Accumulated other comprehensive income/(loss)				
Balance at the beginning of the period	**2,570**	8,789	**7,986**	1,569
Other comprehensive income/(loss), after-tax	**(1,607)**	151	**(7,023)**	7,371
Balance at September 30	**963**	8,940	**963**	8,940
Shares held in Restricted Stock Units ("RSU") Trust, at cost				
Balance at the beginning of the period	**—**	(11)	**—**	(21)
Liquidation of RSU Trust	**—**	—	**—**	10
Balance at September 30	**—**	(11)	**—**	(11)
Treasury stock, at cost				
Balance at the beginning of the period	**(98,304)**	(88,337)	**(88,184)**	(83,049)
Repurchase	**(5,240)**	—	**(16,440)**	(6,397)
Reissuance	**46**	50	**1,126**	1,159
Balance at September 30	**(103,498)**	(88,287)	**(103,498)**	(88,287)
Total stockholders' equity	**$ 290,041**	$ 271,113	**$ 290,041**	$ 271,113

The Notes to Consolidated Financial Statements (unaudited) are an integral part of these statements.

JPMorgan Chase & Co.
Consolidated statements of cash flows (unaudited)

(in millions)	Nine months ended September 30, 2021	2020
Operating activities		
Net income	**$ 37,935**	$ 16,995
Adjustments to reconcile net income to net cash used in operating activities:		
Provision for credit losses	**(7,968)**	19,369
Depreciation and amortization	**6,001**	6,487
Deferred tax (benefit)/expense[(a)]	**(1,063)**	(5,139)
Other	**2,662**	1,245
Originations and purchases of loans held-for-sale	**(259,159)**	(112,142)
Proceeds from sales, securitizations and paydowns of loans held-for-sale	**244,966**	120,786
Net change in:		
Trading assets	**2,700**	(145,124)
Securities borrowed	**(42,471)**	(2,509)
Accrued interest and accounts receivable	**(26,148)**	(4,398)
Other assets[(a)]	**(358)**	(28,732)
Trading liabilities	**(10,668)**	63,516
Accounts payable and other liabilities[(a)]	**47,547**	16,495
Other operating adjustments	**(987)**	1,293
Net cash (used in) operating activities	**(7,011)**	(51,858)
Investing activities		
Net change in:		
Federal funds sold and securities purchased under resale agreements	**14,089**	(70,597)
Held-to-maturity securities:		
Proceeds from paydowns and maturities	**39,106**	11,498
Purchases	**(78,976)**	(5,528)
Available-for-sale securities:		
Proceeds from paydowns and maturities	**39,346**	43,709
Proceeds from sales	**146,858**	110,354
Purchases	**(163,211)**	(281,147)
Proceeds from sales and securitizations of loans held-for-investment	**25,981**	18,509
Other changes in loans, net	**(45,028)**	(21,606)
All other investing activities, net	**(7,351)**	(3,398)
Net cash (used in) investing activities	**(29,186)**	(198,206)
Financing activities		
Net change in:		
Deposits	**234,716**	452,454
Federal funds purchased and securities loaned or sold under repurchase agreements	**39,753**	52,745
Short-term borrowings	**4,710**	1,945
Beneficial interests issued by consolidated VIEs	**(1,839)**	2,838
Proceeds from long-term borrowings	**69,272**	64,243
Payments of long-term borrowings	**(46,041)**	(90,481)
Proceeds from issuance of preferred stock	**7,350**	4,500
Redemption of preferred stock	**(2,575)**	(1,430)
Treasury stock repurchased	**(16,286)**	(6,517)
Dividends paid	**(9,472)**	(9,551)
All other financing activities, net	**(1,573)**	(59)
Net cash provided by financing activities	**278,015**	470,687
Effect of exchange rate changes on cash and due from banks and deposits with banks	**(9,558)**	3,268
Net increase in cash and due from banks and deposits with banks	**232,260**	223,891
Cash and due from banks and deposits with banks at the beginning of the period	**527,609**	263,631
Cash and due from banks and deposits with banks at the end of the period	**$ 759,869**	$ 487,522
Cash interest paid	**$ 3,882**	$ 11,576
Cash income taxes paid, net[(a)]	**17,617**	6,523

(a) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information on the revisions to the operating activities.

The Notes to Consolidated Financial Statements (unaudited) are an integral part of these statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

Note 1 – Basis of presentation

JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm"), a financial holding company incorporated under Delaware law in 1968, is a leading financial services firm based in the U.S., with operations worldwide. The Firm is a leader in investment banking, financial services for consumers and small businesses, commercial banking, financial transaction processing and asset management. Refer to Note 25 for a further discussion of the Firm's business segments.

The accounting and financial reporting policies of JPMorgan Chase and its subsidiaries conform to U.S. GAAP. Additionally, where applicable, the policies conform to the accounting and reporting guidelines prescribed by regulatory authorities.

The unaudited Consolidated Financial Statements prepared in conformity with U.S. GAAP require management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expense, and the disclosures of contingent assets and liabilities. Actual results could be different from these estimates. In the opinion of management, all normal, recurring adjustments have been included such that this interim financial information is fairly stated.

These unaudited Consolidated Financial Statements should be read in conjunction with the audited Consolidated Financial Statements, and related notes thereto, included in JPMorgan Chase's 2020 Form 10-K.

Certain amounts reported in prior periods have been reclassified to conform with the current presentation, including certain deferred investment tax credits. In the first quarter of 2021 the Firm reclassified certain deferred investment tax credits from accounts payable and other liabilities to other assets to be a reduction to the carrying value of the associated tax-oriented investments. The reclassification also resulted in an increase in income tax expense and a corresponding increase in other income, with no effect on net income. Prior-period amounts have been revised to conform with the current presentation, including the Firm's effective income tax rate. The reclassification did not change the Firm's results of operations on a managed basis.

Consolidation

The Consolidated Financial Statements include the accounts of JPMorgan Chase and other entities in which the Firm has a controlling financial interest. All material intercompany balances and transactions have been eliminated.

Assets held for clients in an agency or fiduciary capacity by the Firm are not assets of JPMorgan Chase and are not included on the Consolidated balance sheets.

The Firm determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a variable interest entity.

Refer to Notes 1 and 14 of JPMorgan Chase's 2020 Form 10-K for a further description of JPMorgan Chase's accounting policies regarding consolidation.

Offsetting assets and liabilities

U.S. GAAP permits entities to present derivative receivables and derivative payables with the same counterparty and the related cash collateral receivables and payables on a net basis on the Consolidated balance sheets when a legally enforceable master netting agreement exists. U.S. GAAP also permits securities financing activities to be presented on a net basis when specified conditions are met, including the existence of a legally enforceable master netting agreement. The Firm has elected to net such balances when the specified conditions are met. Refer to Note 1 of JPMorgan Chase's 2020 Form 10-K for further information on offsetting assets and liabilities.

Income tax expense

The Firm's effective tax rate was 17.2% and 19.1% for the three and nine months ended September 30, 2021, respectively, and 19.8% and 17.7% for the three and nine months ended September 30, 2020, respectively. The effective tax rate for the three and nine months ended September 30, 2021 reflects the recognition of an income tax benefit of $566 million related to finalizing the Firm's 2020 U.S. federal tax return, which reduced the Firm's effective tax rate by 4.0% and 1.2% respectively. The tax benefit included state and local impacts of federal tax method changes and a reduction in the valuation allowance for U.S. foreign tax credits. Refer to Note 25 of JPMorgan Chase's 2020 Form 10-K for further information.

Note 2 – Fair value measurement

Refer to Note 2 of JPMorgan Chase's 2020 Form 10-K 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.

The following table presents the assets and liabilities reported at fair value as of September 30, 2021, and December 31, 2020, by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

	Fair value hierarchy				
September 30, 2021 (in millions)	Level 1	Level 2	Level 3	Derivative netting adjustments[f]	Total fair value
Federal funds sold and securities purchased under resale agreements	$ —	$ 273,158	$ —	$ —	$ 273,158
Securities borrowed	—	72,833	—	—	72,833
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. GSEs and government agencies[a]	—	35,746	299	—	36,045
Residential – nonagency	—	2,281	24	—	2,305
Commercial – nonagency	—	1,662	19	—	1,681
Total mortgage-backed securities	—	39,689	342	—	40,031
U.S. Treasury, GSEs and government agencies[a]	87,623	9,282	—	—	96,905
Obligations of U.S. states and municipalities	—	6,735	7	—	6,742
Certificates of deposit, bankers' acceptances and commercial paper	—	2,567	—	—	2,567
Non-U.S. government debt securities	41,486	48,345	104	—	89,935
Corporate debt securities	—	31,472	370	—	31,842
Loans	—	6,359	982	—	7,341
Asset-backed securities	—	2,569	28	—	2,597
Total debt instruments	129,109	147,018	1,833	—	277,960
Equity securities	124,349	1,658	634	—	126,641
Physical commodities[b]	6,471	12,887	—	—	19,358
Other	—	23,920	58	—	23,978
Total debt and equity instruments[c]	259,929	185,483	2,525	—	447,937
Derivative receivables:					
Interest rate	1,931	281,315	1,863	(260,343)	24,766
Credit	—	10,032	492	(9,349)	1,175
Foreign exchange	235	162,182	779	(148,671)	14,525
Equity	—	71,346	3,076	(63,930)	10,492
Commodity	—	35,781	534	(19,365)	16,950
Total derivative receivables	2,166	560,656	6,744	(501,658)	67,908
Total trading assets[d]	262,095	746,139	9,269	(501,658)	515,845
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. GSEs and government agencies[a]	—	73,049	—	—	73,049
Residential – nonagency	—	6,373	—	—	6,373
Commercial – nonagency	—	3,132	—	—	3,132
Total mortgage-backed securities	—	82,554	—	—	82,554
U.S. Treasury and government agencies	121,471	—	—	—	121,471
Obligations of U.S. states and municipalities	—	17,515	—	—	17,515
Non-U.S. government debt securities	5,457	10,368	—	—	15,825
Corporate debt securities	—	165	95	—	260
Asset-backed securities:					
Collateralized loan obligations	—	9,137	—	—	9,137
Other	—	4,828	—	—	4,828
Total available-for-sale securities	126,928	124,567	95	—	251,590
Loans [e]	—	58,557	2,071	—	60,628
Mortgage servicing rights	—	—	5,351	—	5,351
Other assets[d]	9,332	4,061	321	—	13,714
Total assets measured at fair value on a recurring basis	$ 398,355	$ 1,279,315	$ 17,107	$ (501,658)	$ 1,193,119
Deposits	$ —	$ 9,431	$ 2,377	$ —	$ 11,808
Federal funds purchased and securities loaned or sold under repurchase agreements	—	187,439	—	—	187,439
Short-term borrowings	—	17,622	2,411	—	20,033
Trading liabilities:					
Debt and equity instruments[c]	98,932	27,096	30	—	126,058
Derivative payables:					
Interest rate	1,661	248,655	1,976	(243,460)	8,832
Credit	—	11,301	498	(10,406)	1,393
Foreign exchange	248	160,511	1,336	(148,090)	14,005
Equity	—	79,924	6,913	(69,063)	17,774
Commodity	—	33,037	1,406	(22,962)	11,481
Total derivative payables	1,909	533,428	12,129	(493,981)	53,485
Total trading liabilities	100,841	560,524	12,159	(493,981)	179,543
Accounts payable and other liabilities	4,957	332	51	—	5,340
Beneficial interests issued by consolidated VIEs	—	99	—	—	99
Long-term debt	—	52,985	23,514	—	76,499
Total liabilities measured at fair value on a recurring basis	$ 105,798	$ 828,432	$ 40,512	$ (493,981)	$ 480,761

December 31, 2020 (in millions)	Fair value hierarchy Level 1	Level 2	Level 3	Derivative netting adjustments[f]	Total fair value
Federal funds sold and securities purchased under resale agreements	$ —	$ 238,015	$ —	$ —	$ 238,015
Securities borrowed	—	52,983	—	—	52,983
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. GSEs and government agencies[a]	—	68,395	449	—	68,844
Residential – nonagency	—	2,138	28	—	2,166
Commercial – nonagency	—	1,327	3	—	1,330
Total mortgage-backed securities	—	71,860	480	—	72,340
U.S. Treasury, GSEs and government agencies[a]	104,263	10,996	—	—	115,259
Obligations of U.S. states and municipalities	—	7,184	8	—	7,192
Certificates of deposit, bankers' acceptances and commercial paper	—	1,230	—	—	1,230
Non-U.S. government debt securities	26,772	40,671	182	—	67,625
Corporate debt securities	—	21,017	507	—	21,524
Loans	—	6,101	893	—	6,994
Asset-backed securities	—	2,304	28	—	2,332
Total debt instruments	131,035	161,363	2,098	—	294,496
Equity securities	97,035	2,652	476 [g]	—	100,163
Physical commodities[b]	6,382	5,189	—	—	11,571
Other	—	21,351 [g]	49 [g]	—	21,400
Total debt and equity instruments[c]	234,452	190,555	2,623	—	427,630
Derivative receivables:					
Interest rate[g]	2,318	387,023	2,307	(355,923)	35,725
Credit[g]	—	12,721	624	(12,665)	680
Foreign exchange	146	205,127	987	(190,479)	15,781
Equity	—	67,093 [g]	3,519	(54,125)	16,487
Commodity	—	21,272	231	(14,732)	6,771
Total derivative receivables	2,464	693,236	7,668	(627,924)	75,444
Total trading assets[d]	236,916	883,791	10,291	(627,924)	503,074
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. GSEs and government agencies[a][g]	7	113,294	—	—	113,301
Residential – nonagency	—	10,233	—	—	10,233
Commercial – nonagency	—	2,856	—	—	2,856
Total mortgage-backed securities	7	126,383	—	—	126,390
U.S. Treasury and government agencies	201,951	—	—	—	201,951
Obligations of U.S. states and municipalities	—	20,396	—	—	20,396
Non-U.S. government debt securities	13,135	9,793	—	—	22,928
Corporate debt securities	—	216	—	—	216
Asset-backed securities:					
Collateralized loan obligations	—	10,048	—	—	10,048
Other	—	6,249	—	—	6,249
Total available-for-sale securities	215,093	173,085	—	—	388,178
Loans[e]	—	42,169	2,305	—	44,474
Mortgage servicing rights	—	—	3,276	—	3,276
Other assets[d]	8,110	4,561	538	—	13,209
Total assets measured at fair value on a recurring basis	$ 460,119	$ 1,394,604	$ 16,410	$ (627,924)	$ 1,243,209
Deposits	$ —	$ 11,571	$ 2,913	$ —	$ 14,484
Federal funds purchased and securities loaned or sold under repurchase agreements	—	155,735	—	—	155,735
Short-term borrowings	—	14,473	2,420	—	16,893
Trading liabilities:					
Debt and equity instruments[c]	82,669	16,838	51	—	99,558
Derivative payables:					
Interest rate[g]	2,496	349,442	2,049	(340,975)	13,012
Credit[g]	—	13,984	848	(12,837)	1,995
Foreign exchange	132	214,373	1,421	(194,493)	21,433
Equity	—	74,032	7,381	(55,515)	25,898
Commodity	—	21,767	962	(14,444)	8,285
Total derivative payables	2,628	673,598	12,661	(618,264)	70,623
Total trading liabilities	85,297	690,436	12,712	(618,264)	170,181
Accounts payable and other liabilities	2,895	513	68	—	3,476
Beneficial interests issued by consolidated VIEs	—	41	—	—	41
Long-term debt	—	53,420	23,397	—	76,817
Total liabilities measured at fair value on a recurring basis	$ 88,192	$ 926,189	$ 41,510	$ (618,264)	$ 437,627

(a) At September 30, 2021, and December 31, 2020, included total U.S. GSE obligations of $68.6 billion and $117.6 billion, respectively, which were mortgage-related.
(b) Physical commodities inventories are generally accounted for at the lower of cost or net realizable value. "Net realizable value" is a term defined in U.S. GAAP as not exceeding fair value less costs to sell ("transaction costs"). Transaction costs for the Firm's physical commodities inventories are either not applicable or immaterial to the value of the inventory. Therefore, net realizable value approximates fair value for the Firm's physical commodities inventories. When fair value hedging has been applied (or when net realizable value is below cost), the carrying value of physical commodities approximates fair value, because under fair value hedge accounting, the cost basis is adjusted for changes in fair value. Refer to Note 4 for a further discussion of the Firm's hedge accounting relationships. To provide consistent fair value disclosure information, all physical commodities inventories have been included in each period presented.

(c) Balances reflect the reduction of securities owned (long positions) by the amount of identical securities sold but not yet purchased (short positions).
(d) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not required to be classified in the fair value hierarchy. At September 30, 2021, and December 31, 2020, the fair values of these investments, which include certain hedge funds, private equity funds, real estate and other funds, were $813 million and $670 million, respectively. Included in these balances at September 30, 2021, and December 31, 2020, were trading assets of $56 million and $52 million, respectively, and other assets of $757 million and $618 million, respectively.
(e) At September 30, 2021, and December 31, 2020, included $27.2 billion and $15.1 billion, respectively, of residential first-lien mortgages, and $8.1 billion and $6.3 billion, respectively, of commercial first-lien mortgages. Residential mortgage loans include conforming mortgage loans originated with the intent to sell to U.S. GSEs and government agencies of $13.1 billion and $8.4 billion, respectively.
(f) As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral received and paid when a legally enforceable master netting agreement exists. The level 3 balances would be reduced if netting were applied, including the netting benefit associated with cash collateral.
(g) Prior-period amounts have been revised to conform with the current presentation.

Level 3 valuations

Refer to Note 2 of JPMorgan Chase's 2020 Form 10-K for further information on the Firm's valuation process and a detailed discussion of the determination of fair value for individual financial instruments.

The following table presents the Firm's primary level 3 financial instruments, the valuation techniques used to measure the fair value of those financial instruments, the significant unobservable inputs, the range of values for those inputs and the weighted or arithmetic averages of such inputs. While the determination to classify an instrument within level 3 is based on the significance of the unobservable inputs to the overall fair value measurement, level 3 financial instruments typically include observable components (that is, components that are actively quoted and can be validated to external sources) in addition to the unobservable components. The level 1 and/or level 2 inputs are not included in the table. In addition, the Firm manages the risk of the observable components of level 3 financial instruments using securities and derivative positions that are classified within levels 1 or 2 of the fair value hierarchy.

The range of values presented in the table is representative of the highest and lowest level input used to value the significant groups of instruments within a product/instrument classification. Where provided, the weighted averages of the input values presented in the table are calculated based on the fair value of the instruments that the input is being used to value.

In the Firm's view, the input range, weighted and arithmetic average values do not reflect the degree of input uncertainty or an assessment of the reasonableness of the Firm's estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by the Firm and the relative distribution of instruments within the range of characteristics. For example, two option contracts may have similar levels of market risk exposure and valuation uncertainty, but may have significantly different implied volatility levels because the option contracts have different underlyings, tenors, or strike prices. The input range and weighted average values will therefore vary from period-to-period and parameter-to-parameter based on the characteristics of the instruments held by the Firm at each balance sheet date.

Level 3 inputs[(a)]

September 30, 2021							
Product/Instrument	**Fair value (in millions)**	**Principal valuation technique**	**Unobservable inputs[(g)]**	**Range of input values**			**Average[(i)]**
Residential mortgage-backed securities and loans[(b)]	$ 1,161	Discounted cash flows	Yield	(2)%	–	15%	4%
			Prepayment speed	0%	–	100%	12%
			Conditional default rate	0%	–	30%	5%
			Loss severity	0%	–	110%	5%
Commercial mortgage-backed securities and loans[(c)]	480	Market comparables	Price	$0	–	$100	$84
Corporate debt securities	465	Market comparables	Price	$2	–	$150	$95
Loans[(d)]	1,754	Market comparables	Price	$5	–	$104	$86
Asset-backed securities	28	Market comparables	Price	$6	–	$99	$56
Net interest rate derivatives	(118)	Option pricing	Interest rate volatility	8bps	–	569bps	120bps
			Interest rate spread volatility	11bps	–	23bps	15bps
			Interest rate correlation	(65)%	–	95%	33%
			IR-FX correlation	(35)%	–	50%	(3)%
	5	Discounted cash flows	Prepayment speed	0%	–	30%	8%
Net credit derivatives	(56)	Discounted cash flows	Credit correlation	33%	–	63%	45%
			Credit spread	1bps	–	2,539 bps	395bps
			Recovery rate	40%	–	67%	54%
			Conditional default rate		100%		100%
			Loss severity		100%		100%
	50	Market comparables	Price	$0		$115	$78
Net foreign exchange derivatives	(448)	Option pricing	IR-FX correlation	(40)%	–	65%	21%
	(109)	Discounted cash flows	Prepayment speed	9%		9%	9%
Net equity derivatives	(3,837)	Option pricing	Forward equity price[(h)]	61%	–	123%	99%
			Equity volatility	2%	–	144%	29%
			Equity correlation	12%	–	100%	55%
			Equity-FX correlation	(79)%	–	59%	(27)%
			Equity-IR correlation	15%	–	50%	28%
Net commodity derivatives	(872)	Option pricing	Oil Commodity Forward	$635 / MT	–	$850 / MT	$743 / MT
			Forward power price	$24 / MWH	–	$64 / MWH	$44 / MWH
			Commodity volatility	2%	–	142%	72%
			Commodity correlation	(50)%	–	77%	14%
MSRs	5,351	Discounted cash flows	Refer to Note 14				
Long-term debt, short-term borrowings, and deposits[(e)]	27,319	Option pricing	Interest rate volatility	8bps	–	569bps	120bps
			Interest rate correlation	(65)%	–	95%	33%
			IR-FX correlation	(35)%	–	50%	(3)%
			Equity correlation	12%	–	100%	55%
			Equity-FX correlation	(79)%	–	59%	(27)%
			Equity-IR correlation	15%	–	50%	28%
	983	Discounted cash flows	Credit correlation	33%	–	63%	45%
Other level 3 assets and liabilities, net[(f)]	1,043						

(a) The categories presented in the table have been aggregated based upon the product type, which may differ from their classification on the Consolidated balance sheets. Furthermore, the inputs presented for each valuation technique in the table are, in some cases, not applicable to every instrument valued using the technique as the characteristics of the instruments can differ.
(b) Comprises U.S. GSE and government agency securities of $299 million, nonagency securities of $24 million and non-trading loans of $838 million.
(c) Comprises nonagency securities of $19 million, trading loans of $41 million and non-trading loans of $420 million.
(d) Comprises trading loans of $941 million and non-trading loans of $813 million.
(e) Long-term debt, short-term borrowings and deposits include structured notes issued by the Firm that are financial instruments that typically contain embedded derivatives. The estimation of the fair value of structured notes includes the derivative features embedded within the instrument. The significant unobservable inputs are broadly consistent with those presented for derivative receivables.
(f) Includes equity securities of $1.0 billion including $379 million in Other Assets, for which quoted prices are not readily available and the fair value is generally based on internal valuation techniques such as EBITDA multiples and comparable analysis. All other level 3 assets and liabilities are insignificant both individually and in aggregate.
(g) Price is a significant unobservable input for certain instruments. When quoted market prices are not readily available, reliance is generally placed on price-based internal valuation techniques. The price input is expressed assuming a par value of $100.
(h) Forward equity price is expressed as a percentage of the current equity price.
(i) Amounts represent weighted averages except for derivative related inputs where arithmetic averages are used.

Changes in and ranges of unobservable inputs

Refer to Note 2 of JPMorgan Chase's 2020 Form 10-K for a discussion of the impact on fair value of changes in unobservable inputs and the relationships between unobservable inputs as well as a description of attributes of the underlying instruments and external market factors that affect the range of inputs used in the valuation of the Firm's positions.

Changes in level 3 recurring fair value measurements

The following tables include a rollforward of the Consolidated balance sheets amounts (including changes in fair value) for financial instruments classified by the Firm within level 3 of the fair value hierarchy for the three and nine months ended September 30, 2021 and 2020. When a determination is made to classify a financial instrument within level 3, the determination is based on the significance of the unobservable inputs to the overall fair value measurement. However, level 3 financial instruments typically include, in addition to the unobservable or level 3 components, observable components (that is, components that are actively quoted and can be validated to external sources); accordingly, the gains and losses in the table below include changes in fair value due in part to observable factors that are part of the valuation methodology. Also, the Firm risk-manages the observable components of level 3 financial instruments using securities and derivative positions that are classified within level 1 or 2 of the fair value hierarchy; as these level 1 and level 2 risk management instruments are not included below, the gains or losses in the following tables do not reflect the effect of the Firm's risk management activities related to such level 3 instruments.

Three months ended September 30, 2021 (in millions)	Fair value measurements using significant unobservable inputs								Change in unrealized gains/(losses) related to financial instruments held at September 30, 2021
	Fair value at July 1, 2021	Total realized/unrealized gains/(losses)	Purchases[f]	Sales	Settlements[g]	Transfers into level 3	Transfers (out of) level 3	Fair value at September 30, 2021	
Assets:[a]									
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	$ 329	$ (12)	$ 13	$ (6)	$ (25)	$ —	$ —	$ 299	$ (12)
Residential – nonagency	16	—	9	—	(1)	—	—	24	(1)
Commercial – nonagency	10	7	1	—	(13)	14	—	19	6
Total mortgage-backed securities	355	(5)	23	(6)	(39)	14	—	342	(7)
Obligations of U.S. states and municipalities	8	—	—	—	(1)	—	—	7	—
Non-U.S. government debt securities	183	(2)	128	(98)	—	—	(107)	104	(1)
Corporate debt securities	487	(33)	38	(115)	(3)	25	(29)	370	(25)
Loans	795	—	219	(197)	(130)	409	(114)	982	2
Asset-backed securities	35	1	3	(4)	—	—	(7)	28	—
Total debt instruments	1,863	(39)	411	(420)	(173)	448	(257)	1,833	(31)
Equity securities	690	(41)	5	(44)	—	62	(38)	634	(34)
Other	47	26	17	—	(31)	—	(1)	58	26
Total trading assets – debt and equity instruments	2,600	(54) (c)	433	(464)	(204)	510	(296)	2,525	(39) (c)
Net derivative receivables:[b]									
Interest rate	(22)	618	21	(44)	(683)	13	(16)	(113)	246
Credit	(17)	(9)	4	(7)	59	(4)	(32)	(6)	(1)
Foreign exchange	(583)	2	28	(44)	41	(5)	4	(557)	15
Equity	(4,936)	723	192	(1,001)	912	214	59	(3,837)	397
Commodity	(1,167)	88	130	(88)	156	(2)	11	(872)	178
Total net derivative receivables	(6,725)	1,422 (c)	375	(1,184)	485	216	26	(5,385)	835 (c)
Available-for-sale securities:									
Corporate debt securities	—	—	95	—	—	—	—	95	—
Total available-for-sale securities	—	—	95	—	—	—	—	95	—
Loans	1,734	(13) (c)	209	(1)	(180)	427	(105)	2,071	(11) (c)
Mortgage servicing rights	4,549	(11) (d)	1,013	1	(201)	—	—	5,351	(11) (d)
Other assets	518	(35) (c)	3	—	(165)	—	—	321	(34) (c)

Three months ended September 30, 2021 (in millions)	Fair value measurements using significant unobservable inputs									Change in unrealized (gains)/losses related to financial instruments held at September 30, 2021
	Fair value at July 1, 2021	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements[g]	Transfers into level 3	Transfers (out of) level 3	Fair value at September 30, 2021	
Liabilities:[a]										
Deposits	$ 2,684	$ (11) (c)(e)	$ —	$ —	$ 33	$ (172)	$ —	$ (157)	$ 2,377	$ (7) (c)(e)
Short-term borrowings	3,075	(699) (c)(e)	—	—	1,166	(1,121)	—	(10)	2,411	(124) (c)(e)
Trading liabilities – debt and equity instruments	36	(2) (c)	(8)	2	—	—	3	(1)	30	1 (c)
Accounts payable and other liabilities	51	—	—	—	—	—	—	—	51	1 (c)
Long-term debt	23,527	(216) (c)(e)	—	—	2,950	(2,512)	11	(246)	23,514	(242) (c)(e)

Three months ended September 30, 2020 (in millions)	Fair value at July 1, 2020	Total realized/unrealized gains/(losses)	Purchases[f]	Sales	Settlements[g]	Transfers into level 3	Transfers (out of) level 3	Fair value at September 30, 2020	Change in unrealized gains/(losses) related to financial instruments held at September 30, 2020
	Fair value measurements using significant unobservable inputs								
Assets:[a]									
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	$ 469	$ (4)	$ 110	$ (28)	$ (40)	$ —	$ —	$ 507	$ (2)
Residential – nonagency	23	—	8	(2)	(1)	—	(3)	25	—
Commercial – nonagency	2	—	—	—	—	—	—	2	—
Total mortgage-backed securities	494	(4)	118	(30)	(41)	—	(3)	534	(2)
Obligations of U.S. states and municipalities	8	—	—	—	—	—	—	8	—
Non-U.S. government debt securities	167	6	25	(23)	(2)	—	(8)	165	6
Corporate debt securities	946	45	114	(33)	(225)	4	(202)	649	45
Loans	905	22	240	(173)	(21)	69	(312)	730	8
Asset-backed securities	39	3	5	(21)	(2)	9	—	33	—
Total debt instruments	2,559	72	502	(280)	(291)	82	(525)	2,119	57
Equity securities	191	24	13	(104)	—	104	(42)	186	29
Other	379	75	203	(4)	(2)	2	—	653	77
Total trading assets – debt and equity instruments	3,129	171 (c)	718	(388)	(293)	188	(567)	2,958	163 (c)
Net derivative receivables:[b]									
Interest rate	(104)	657	15	(30)	(647)	35	102	28	323
Credit	(137)	(62)	22	(16)	154	(12)	2	(49)	(21)
Foreign exchange	(595)	(57)	7	(7)	(34)	7	3	(676)	(90)
Equity	(2,036)	(1,437)	323	(384)	29	33	369	(3,103)	(1,051)
Commodity	(297)	15	11	(79)	36	(302)	(5)	(621)	39
Total net derivative receivables	(3,169)	(884) (c)	378	(516)	(462)	(239)	471	(4,421)	(800) (c)
Available-for-sale securities:									
Mortgage-backed securities	—	—	—	—	—	—	—	—	—
Total available-for-sale securities	—	—	—	—	—	—	—	—	—
Loans	1,874	(44) (c)	197	(44)	(324)	316	(169)	1,806	(44) (c)
Mortgage servicing rights	3,080	34 (d)	221	(104)	(215)	—	—	3,016	34 (d)
Other assets	701	(21) (c)	5	—	(27)	—	—	658	32 (c)

Three months ended September 30, 2020 (in millions)	Fair value at July 1, 2020	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements[g]	Transfers into level 3	Transfers (out of) level 3	Fair value at September 30, 2020	Change in unrealized (gains)/losses related to financial instruments held at September 30, 2020
	Fair value measurements using significant unobservable inputs									
Liabilities:[a]										
Deposits	$ 3,217	$ 43 (c)(e)	$ —	$ —	$ 170	$ (110)	$ —	$ (264)	$ 3,056	$ 87 (c)(e)
Short-term borrowings	2,305	(47) (c)(e)	—	—	1,421	(1,093)	25	(3)	2,608	(47) (c)(e)
Trading liabilities – debt and equity instruments	59	(2) (c)	(5)	5	—	1	3	(4)	57	(3) (c)
Accounts payable and other liabilities	91	3 (c)	(62)	4	—	—	8	—	44	3 (c)
Beneficial interests issued by consolidated VIEs	—	—	—	—	—	—	—	—	—	—
Long-term debt	22,728	766 (c)(e)	—	—	1,225	(2,493)	78	(88)	22,216	646 (c)(e)

Nine months ended September 30, 2021 (in millions)	Fair value measurements using significant unobservable inputs								Change in unrealized gains/(losses) related to financial instruments held at September 30, 2021
	Fair value at January 1, 2021	Total realized/unrealized gains/(losses)	Purchases[f]	Sales	Settlements[g]	Transfers into level 3	Transfers (out of) level 3	Fair value at September 30, 2021	
Assets:[a]									
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	$ 449	$ (22)	$ 20	$ (62)	$ (86)	$ 1	$ (1)	$ 299	$ (25)
Residential – nonagency	28	1	24	(24)	(4)	—	(1)	24	(2)
Commercial – nonagency	3	7	12	(1)	(16)	14	—	19	6
Total mortgage-backed securities	480	(14)	56	(87)	(106)	15	(2)	342	(21)
Obligations of U.S. states and municipalities	8	—	—	—	(1)	—	—	7	—
Non-U.S. government debt securities	182	(10)	330	(284)	(7)	—	(107)	104	(2)
Corporate debt securities	507	(18)	357	(415)	(3)	138	(196)	370	(3)
Loans	893	6	785	(434)	(256)	584	(596)	982	—
Asset-backed securities	28	8	41	(43)	(1)	2	(7)	28	—
Total debt instruments	2,098	(28)	1,569	(1,263)	(374)	739	(908)	1,833	(26)
Equity securities	476	(38)	258	(114)	—	140	(88)	634	(92)
Other	49	74	118	—	(86)	3	(100)	58	37
Total trading assets – debt and equity instruments	2,623	8 (c)	1,945	(1,377)	(460)	882	(1,096)	2,525	(81) (c)
Net derivative receivables:[b]									
Interest rate	258	1,587	92	(146)	(1,874)	68	(98)	(113)	212
Credit	(224)	140	6	(11)	103	(13)	(7)	(6)	143
Foreign exchange	(434)	(196)	67	(98)	140	6	(42)	(557)	(44)
Equity	(3,862)	(195)	667	(2,246)	1,638	233	(72)	(3,837)	(187)
Commodity	(731)	(505)	140	(382)	600	(3)	9	(872)	(223)
Total net derivative receivables	(4,993)	831 (c)	972	(2,883)	607	291	(210)	(5,385)	(99) (c)
Available-for-sale securities:									
Corporate debt securities	—	—	95	—	—	—	—	95	—
Total available-for-sale securities	—	—	95	—	—	—	—	95	—
Loans	2,305	(79) (c)	516	(326)	(699)	1,027	(673)	2,071	(92) (c)
Mortgage servicing rights	3,276	258 (d)	2,410	(23)	(570)	—	—	5,351	258 (d)
Other assets	538	9 (c)	10	(18)	(217)	—	(1)	321	22 (c)

Nine months ended September 30, 2021 (in millions)	Fair value measurements using significant unobservable inputs									Change in unrealized (gains)/losses related to financial instruments held at September 30, 2021
	Fair value at January 1, 2021	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements[g]	Transfers into level 3	Transfers (out of) level 3	Fair value at September 30, 2021	
Liabilities:[a]										
Deposits	$ 2,913	$ (67) (c)(e)	$ —	$ —	$ 252	$ (360)	$ 2	$ (363)	$ 2,377	$ (60) (c)(e)
Short-term borrowings	2,420	(1,095) (c)(e)	—	—	5,479	(4,333)	9	(69)	2,411	(117) (c)(e)
Trading liabilities – debt and equity instruments	51	(6) (c)	(100)	36	—	—	62	(13)	30	(2) (c)
Accounts payable and other liabilities	68	(10) (c)	—	1	—	—	—	(8)	51	(9) (c)
Long-term debt	23,397	190 (c)(e)	—	—	9,884	(9,250)	29	(736)	23,514	48 (c)(e)

Nine months ended September 30, 2020 (in millions)	Fair value measurements using significant unobservable inputs								
	Fair value at Jan 1, 2020	Total realized/unrealized gains/(losses)	Purchases[f]	Sales	Settlements[g]	Transfers into level 3	Transfers (out of) level 3	Fair value at September 30, 2020	Change in unrealized gains/(losses) related to financial instruments held at September 30, 2020
Assets:[a]									
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	$ 797	$ (153)	$ 134	$ (149)	$ (122)	$ —	$ —	$ 507	$ (140)
Residential – nonagency	23	(1)	12	(4)	(2)	—	(3)	25	2
Commercial – nonagency	4	—	1	—	(1)	1	(3)	2	4
Total mortgage-backed securities	824	(154)	147	(153)	(125)	1	(6)	534	(134)
Obligations of U.S. states and municipalities	10	—	—	(1)	(1)	—	—	8	—
Non-U.S. government debt securities	155	10	164	(148)	(7)	—	(9)	165	7
Corporate debt securities	558	(10)	475	(131)	(234)	296	(305)	649	13
Loans	673	(72)	829	(400)	(130)	676	(846)	730	(35)
Asset-backed securities	37	(4)	42	(36)	(5)	9	(10)	33	(1)
Total debt instruments	2,257	(230)	1,657	(869)	(502)	982	(1,176)	2,119	(150)
Equity securities	196	(79)	37	(109)	—	259	(118)	186	(40)
Other	232	239	213	(9)	(23)	4	(3)	653	263
Total trading assets – debt and equity instruments	2,685	(70) (c)	1,907	(987)	(525)	1,245	(1,297)	2,958	73 (c)
Net derivative receivables:[b]									
Interest rate	(332)	2,052	102	(97)	(1,510)	(317)	130	28	290
Credit	(139)	—	70	(150)	137	59	(26)	(49)	24
Foreign exchange	(607)	(214)	46	(16)	75	15	25	(676)	(181)
Equity	(3,395)	564	912	(1,473)	558	(524)	255	(3,103)	1,342
Commodity	(16)	(248)	22	(107)	54	(306)	(20)	(621)	363
Total net derivative receivables	(4,489)	2,154 (c)	1,152	(1,843)	(686)	(1,073)	364	(4,421)	1,838 (c)
Available-for-sale securities:									
Mortgage-backed securities	1	—	—	—	(1)	—	—	—	—
Total available-for-sale securities	1	—	—	—	(1)	—	—	—	—
Loans	516	(195) (c)	450	(77)	(678)	2,312	(522)	1,806	(147) (c)
Mortgage servicing rights	4,699	(1,459) (d)	663	(177)	(710)	—	—	3,016	(1,459) (d)
Other assets	917	(56) (c)	66	(28)	(281)	40	—	658	4 (c)

Nine months ended September 30, 2020 (in millions)	Fair value measurements using significant unobservable inputs									
	Fair value at Jan 1, 2020	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements[g]	Transfers into level 3	Transfers (out of) level 3	Fair value at September 30, 2020	Change in unrealized (gains)/losses related to financial instruments held at September 30, 2020
Liabilities:[a]										
Deposits	$ 3,360	$ 88 (c)(e)	$ —	$ —	$ 636	$ (538)	$ 265	$ (755)	$ 3,056	$ 137 (c)(e)
Short-term borrowings	1,674	(294) (c)(e)	—	—	3,961	(2,769)	77	(41)	2,608	(27) (c)(e)
Trading liabilities – debt and equity instruments	41	1 (c)	(81)	12	—	(4)	96	(8)	57	—
Accounts payable and other liabilities	45	(1) (c)	(85)	37	—	—	48	—	44	1 (c)
Long-term debt	23,339	(639) (c)(e)	—	—	7,432	(7,851)	1,056	(1,121)	22,216	(507) (c)(e)

(a) Level 3 assets at fair value as a percentage of total Firm assets at fair value (including assets measured at fair value on a nonrecurring basis) were 2% and 1% at September 30, 2021 and December 31, 2020, respectively. Level 3 liabilities at fair value as a percentage of total Firm liabilities at fair value (including liabilities measured at fair value on a nonrecurring basis) were 8% and 9% at September 30, 2021 and December 31, 2020, respectively.

(b) All level 3 derivatives are presented on a net basis, irrespective of the underlying counterparty.

(c) Predominantly reported in principal transactions revenue, except for changes in fair value for CCB mortgage loans and lending-related commitments originated with the intent to sell, and mortgage loan purchase commitments, which are reported in mortgage fees and related income.

(d) Changes in fair value for MSRs are reported in mortgage fees and related income.
(e) Realized (gains)/losses due to DVA for fair value option elected liabilities are reported in principal transactions revenue, and were not material for the three and nine months ended September 30, 2021 and 2020. Unrealized (gains)/losses are reported in OCI, and were $318 million and $120 million for the three months ended September 30, 2021 and 2020, respectively, and $300 million and $(78) million for the nine months ended September 30, 2021 and 2020, respectively.
(f) Loan originations are included in purchases.
(g) Includes financial assets and liabilities that have matured, been partially or fully repaid, impacts of modifications, deconsolidations associated with beneficial interests in VIEs and other items.

Level 3 analysis

Consolidated balance sheets changes

The following describes significant changes to level 3 assets since December 31, 2020, for those items measured at fair value on a recurring basis. Refer to Assets and liabilities measured at fair value on a nonrecurring basis on page 109 for further information on changes impacting items measured at fair value on a nonrecurring basis.

Three and nine months ended September 30, 2021

Level 3 assets were $17.1 billion at September 30, 2021, reflecting an increase of $1.2 billion from June 30, 2021 and an increase of $697 million from December 31, 2020.

The increase for the three months ended September 30, 2021 was largely driven by an $802 million increase in MSRs.

The increase for the nine months ended September 30, 2021 was predominantly driven by:

- a $2.1 billion increase in MSRs.

partially offset by

- $444 million decrease in gross interest rate derivative receivables due to settlements net of gains and $443 million decrease in gross equity derivative receivables due to settlements and transfers net of gains.

Refer to Note 14 for information on MSRs.

Refer to the sections below for additional information.

Transfers between levels for instruments carried at fair value on a recurring basis

For the three months ended September 30, 2021, there were no significant transfers from level 2 into level 3.

For the nine months ended September 30, 2021, significant transfers from level 2 into level 3 included the following:

- $882 million of total debt and equity instruments, largely trading loans, driven by a decrease in observability.
- $937 million of gross equity derivative receivables and $704 million of gross equity derivative payables as a result of a decrease in observability and an increase in the significance of unobservable inputs.
- $1.0 billion of non-trading loans driven by a decrease in observability.

For the three months ended September 30, 2021, there were no significant transfers from level 3 into level 2.

For the nine months ended September 30, 2021, significant transfers from level 3 into level 2 included the following:

- $1.1 billion of total debt and equity instruments, largely trading loans, driven by an increase in observability.
- $1.7 billion of gross equity derivative receivables and $1.6 billion of gross equity derivative payables as a result of an increase in observability and a decrease in the significance of unobservable inputs.
- $673 million of non-trading loans, driven by an increase in observability.
- $736 million of long-term debt driven, by an increase in observability and a decrease in the significance of unobservable inputs for certain structured notes.

For the three months ended September 30, 2020, there were no significant transfers from level 2 into level 3.

For the nine months ended September 30, 2020, significant transfers from level 2 into level 3 included the following:

- $2.2 billion of gross equity derivative receivables and $2.7 billion of gross equity derivative payables as a result of a decrease in observability and an increase in the significance of unobservable inputs.
- $2.3 billion of non-trading loans, driven by a decrease in observability.
- $1.1 billion of long-term debt, driven by a decrease in observability and an increase in the significance of unobservable inputs for certain structured notes.

For the three months ended September 30, 2020, significant transfers from level 3 into level 2 included the following:

- $965 million of gross equity derivative payables as a result of an increase in observability and a decrease in the significance of unobservable inputs.

For the nine months ended September 30, 2020, significant transfers from level 3 into level 2 included the following:

- $1.7 billion of gross equity derivative receivables and $1.9 billion of gross equity derivative payables as a result of an increase in observability and a decrease in the significance of unobservable inputs.
- $1.1 billion of long-term debt driven by an increase in observability and a decrease in the significance of unobservable inputs for certain structured notes.

All transfers are based on changes in the observability and/or significance of the valuation inputs and are assumed to occur at the beginning of the quarterly reporting period in which they occur.

Gains and losses
The following describes significant components of total realized/unrealized gains/(losses) for instruments measured at fair value on a recurring basis for the periods indicated. These amounts exclude any effects of the Firm's risk management activities where the financial instruments are classified as level 1 and 2 of the fair value hierarchy. Refer to Changes in level 3 recurring fair value measurements rollforward tables on pages 102-108 for further information on these instruments.

Three months ended September 30, 2021

- $1.3 billion of net gains on assets, driven by gains in net interest rate derivative receivables and net equity derivative receivables due to market movements.
- $928 million of net gains on liabilities, largely driven by gains in short-term borrowings due to market movements.

Three months ended September 30, 2020

- $744 million of net losses on assets, driven by market movements in net equity derivative receivables.
- $763 million of net losses on liabilities, driven by market movements in long-term debt.

Nine months ended September 30, 2021

- $1.0 billion of net gains on assets, driven by gains in net interest rate derivative receivables due to market movements, partially offset by losses in net commodity derivative receivables due to market movements.
- $988 million of net gains on liabilities, driven by gains in short-term borrowings due to market movements.

Nine months ended September 30, 2020

- $374 million of net gains on assets, driven by gains in net interest rate derivative receivables due to market movements largely offset by losses in MSRs reflecting faster prepayment speeds on lower rates. Refer to Note 14 for additional information on MSRs.
- $845 million of net gains on liabilities, predominantly driven by market movements in long-term debt.

Credit and funding adjustments — derivatives
The following table provides the impact of credit and funding adjustments on principal transactions revenue in the respective periods, excluding the effect of any associated hedging activities. The FVA presented below includes the impact of the Firm's own credit quality on the inception value of liabilities as well as the impact of changes in the Firm's own credit quality over time.

(in millions)	Three months ended September 30, 2021	Three months ended September 30, 2020	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Credit and funding adjustments:				
Derivatives CVA	**$ 60**	$ 144	**$ 343**	$ (574)
Derivatives FVA	**38**	109	**99**	(236)

Refer to Note 2 of JPMorgan Chase's 2020 Form 10-K for further information about both credit and funding adjustments, as well as information about valuation adjustments on fair value option elected liabilities.

Assets and liabilities measured at fair value on a nonrecurring basis

The following tables present the assets and liabilities held as of September 30, 2021 and 2020, for which nonrecurring fair value adjustments were recorded during the nine months ended September 30, 2021 and 2020, by major product category and fair value hierarchy.

September 30, 2021 (in millions)	Fair value hierarchy Level 1	Level 2	Level 3	Total fair value
Loans	**$ —**	**$ 1,175**	**$ 314** (b)	**$ 1,489**
Other assets(a)	**—**	**7**	**1,202**	**1,209**
Total assets measured at fair value on a nonrecurring basis	**$ —**	**$ 1,182**	**$ 1,516**	**$ 2,698**
Accounts payable and other liabilities	**—**	**—**	**2**	**2**
Total liabilities measured at fair value on a nonrecurring basis	**$ —**	**$ —**	**$ 2**	**$ 2**

September 30, 2020 (in millions)	Fair value hierarchy Level 1	Level 2	Level 3	Total fair value
Loans	$ —	$ 1,714	$ 788	$ 2,502
Other assets	—	11	945	956
Total assets measured at fair value on a nonrecurring basis	$ —	$ 1,725	$ 1,733	$ 3,458
Accounts payable and other liabilities	—	—	3	3
Total liabilities measured at fair value on a nonrecurring basis	$ —	$ —	$ 3	$ 3

(a) Primarily includes equity securities without readily determinable fair values that were adjusted based on observable price changes in orderly transactions from an identical or similar investment of the same issuer (measurement alternative). Of the $1.2 billion in level 3 assets measured at fair value on a nonrecurring basis as of September 30, 2021, $1.1 billion related to equity securities adjusted based on the measurement alternative. These equity securities are classified as level 3 due to the infrequency of the observable prices and/or the restrictions on the shares.

(b) Of the $314 million in level 3 assets measured at fair value on a nonrecurring basis as of September 30, 2021, $208 million related to residential real estate loans carried at the net realizable value of the underlying collateral (e.g., collateral-dependent loans). These amounts are classified as level 3 as they are valued using information from broker's price opinions, appraisals and automated valuation models and discounted based upon the Firm's experience with actual liquidation values. These discounts ranged from 12% to 45% with a weighted average of 25%.

Nonrecurring fair value changes

The following table presents the total change in value of assets and liabilities for which fair value adjustments have been recognized for the three and nine months ended September 30, 2021 and 2020, related to assets and liabilities held at those dates.

(in millions)	Three months ended September 30, **2021**	2020	Nine months ended September 30, **2021**	2020
Loans	**$ (10)**	$ (35)	**$ (40)**	$ (318)
Other assets(a)	**84**	(363)	**177**	(539)
Accounts payable and other liabilities	**—**	92	**6**	(3)
Total nonrecurring fair value gains/(losses)	**$ 74**	$ (306)	**$ 143**	$ (860)

(a) Included $90 million and $2 million for the three months ended September 30, 2021 and 2020, respectively, and $197 million and $(155) million for the nine months ended September 30, 2021 and 2020, respectively, of net gains/(losses) as a result of the measurement alternative.

Refer to Note 11 for further information about the measurement of collateral-dependent loans.

Equity securities without readily determinable fair values

The Firm measures certain equity securities without readily determinable fair values at cost less impairment (if any), plus or minus observable price changes from an identical or similar investment of the same issuer, with such changes recognized in other income.

In its determination of the new carrying values upon observable price changes, the Firm may adjust the prices if deemed necessary to arrive at the Firm's estimated fair values. Such adjustments may include adjustments to reflect the different rights and obligations of similar securities, and other adjustments that are consistent with the Firm's valuation techniques for private equity direct investments.

The following table presents the carrying value of equity securities without readily determinable fair values held as of September 30, 2021 and 2020, that are measured under the measurement alternative and the related adjustments recorded during the periods presented for those securities with observable price changes. These securities are included in the nonrecurring fair value tables when applicable price changes are observable.

As of or for the period ended, (in millions)	Three months ended September 30 2021	Three months ended September 30 2020	Nine months ended September 30 2021	Nine months ended September 30 2020
Other assets				
Carrying value[a]	**$ 3,207**	$ 2,329	**$ 3,207**	$ 2,329
Upward carrying value changes[b]	**100**	36	**216**	49
Downward carrying value changes/impairment[c]	**(10)**	(34)	**(18)**	(204)

(a) The carrying value as of December 31, 2020 was $2.4 billion. The period-end carrying values reflect cumulative purchases and sales in addition to upward and downward carrying value changes.
(b) The cumulative upward carrying value changes between January 1, 2018 and September 30, 2021 were $826 million.
(c) The cumulative downward carrying value changes/impairment between January 1, 2018 and September 30, 2021 were $(335) million.

Included in other assets above is the Firm's interest in approximately 40 million Visa Class B common shares, recorded at a nominal carrying value. These shares are subject to certain transfer restrictions currently and will be convertible into Visa Class A common shares upon final resolution of certain litigation matters involving Visa. The conversion rate of Visa Class B common shares into Visa Class A common shares is 1.6228 at September 30, 2021, and may be adjusted by Visa depending on developments related to the litigation matters.

Additional disclosures about the fair value of financial instruments that are not carried on the Consolidated balance sheets at fair value

The following table presents, by fair value hierarchy classification, the carrying values and estimated fair values at September 30, 2021, and December 31, 2020, of financial assets and liabilities, excluding financial instruments that are carried at fair value on a recurring basis, and their classification within the fair value hierarchy.

	September 30, 2021					December 31, 2020				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value
Financial assets										
Cash and due from banks	**$ 25.9**	**$ 25.9**	**$ —**	**$ —**	**$ 25.9**	$ 24.9	$ 24.9	$ —	$ —	$ 24.9
Deposits with banks	**734.0**	**734.0**	**—**	**—**	**734.0**	502.7	502.7	—	—	502.7
Accrued interest and accounts receivable	**115.7**	**—**	**115.6**	**0.1**	**115.7**	89.4	—	89.3	0.1	89.4
Federal funds sold and securities purchased under resale agreements	**9.0**	**—**	**9.0**	**—**	**9.0**	58.3	—	58.3	—	58.3
Securities borrowed	**130.2**	**—**	**130.2**	**—**	**130.2**	107.7	—	107.7	—	107.7
Investment securities, held-to-maturity	**343.5**	**181.3**	**163.1**	**—**	**344.4**	201.8	53.2	152.3	—	205.5
Loans, net of allowance for loan losses[(a)]	**965.8**	**—**	**203.2**	**781.7**	**984.9**	940.1	—	210.9	755.6	966.5
Other	**98.0**	**—**	**96.7**	**1.4**	**98.1**	81.8	—	80.0	1.9	81.9
Financial liabilities										
Deposits	**$ 2,390.5**	**$ —**	**$ 2,390.6**	**$ —**	**$ 2,390.6**	$ 2,129.8	$ —	$ 2,128.9	$ —	$ 2,128.9
Federal funds purchased and securities loaned or sold under repurchase agreements	**67.5**	**—**	**67.5**	**—**	**67.5**	59.5	—	59.5	—	59.5
Short-term borrowings	**30.4**	**—**	**30.4**	**—**	**30.4**	28.3	—	28.3	—	28.3
Accounts payable and other liabilities	**228.6**	**—**	**224.0**	**4.2**	**228.2**	186.6	—	181.9	4.3	186.2
Beneficial interests issued by consolidated VIEs	**13.2**	**—**	**13.2**	**—**	**13.2**	17.5	—	17.6	—	17.6
Long-term debt	**221.9**	**—**	**225.6**	**3.3**	**228.9**	204.8	—	209.2	3.2	212.4

(a) Fair value is typically estimated using a discounted cash flow model that incorporates the characteristics of the underlying loans (including principal, contractual interest rate and contractual fees) and other key inputs, including expected lifetime credit losses, interest rates, prepayment rates, and primary origination or secondary market spreads. For certain loans, the fair value is measured based on the value of the underlying collateral. Carrying value of the loan takes into account the loan's allowance for loan losses, which represents the loan's expected credit losses over its remaining expected life. The difference between the estimated fair value and carrying value of a loan is generally attributable to changes in market interest rates, including credit spreads, market liquidity premiums and other factors that affect the fair value of a loan but do not affect its carrying value.

The majority of the Firm's lending-related commitments are not carried at fair value on a recurring basis on the Consolidated balance sheets. The carrying value and the estimated fair value of these wholesale lending-related commitments were as follows for the periods indicated.

	September 30, 2021					December 31, 2020				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value[(a)(b)]	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value[(a)(b)]	Level 1	Level 2	Level 3	Total estimated fair value
Wholesale lending-related commitments	**$ 2.1**	**$ —**	**$ —**	**$ 3.1**	**$ 3.1**	$ 2.2	$ —	$ —	$ 2.1	$ 2.1

(a) Excludes the current carrying values of the guarantee liability and the offsetting asset, each of which is recognized at fair value at the inception of the guarantees.
(b) Includes the wholesale allowance for lending-related commitments.

The Firm does not estimate the fair value of consumer off-balance sheet lending-related commitments. In many cases, the Firm can reduce or cancel these commitments by providing the borrower notice or, in some cases as permitted by law, without notice. Refer to page 173 of JPMorgan Chase's 2020 Form 10-K for a further discussion of the valuation of lending-related commitments.

Note 3 – Fair value option

The fair value option provides an option to elect fair value as an alternative measurement for selected financial assets, financial liabilities, unrecognized firm commitments, and written loan commitments.

The Firm has elected to measure certain instruments at fair value for several reasons including to mitigate income statement volatility caused by the differences between the measurement basis of elected instruments (e.g., certain instruments that otherwise would be accounted for on an accrual basis) and the associated risk management arrangements that are accounted for on a fair value basis, as well as to better reflect those instruments that are managed on a fair value basis.

The Firm's election of fair value includes the following instruments:

- Loans purchased or originated as part of securitization warehousing activity, subject to bifurcation accounting, or managed on a fair value basis, including lending-related commitments
- Certain securities financing agreements
- Owned beneficial interests in securitized financial assets that contain embedded credit derivatives, which would otherwise be required to be separately accounted for as a derivative instrument
- Structured notes, which are predominantly financial instruments that contain embedded derivatives that are issued as part of client-driven activities
- Certain long-term beneficial interests issued by CIB's consolidated securitization trusts where the underlying assets are carried at fair value

Changes in fair value under the fair value option election

The following table presents the changes in fair value included in the Consolidated statements of income for the three and nine months ended September 30, 2021 and 2020, for items for which the fair value option was elected. The profit and loss information presented below only includes the financial instruments that were elected to be measured at fair value; related risk management instruments, which are required to be measured at fair value, are not included in the table.

	Three months ended September 30,					
	2021			2020		
(in millions)	Principal transactions	All other income	Total changes in fair value recorded [e]	Principal transactions	All other income	Total changes in fair value recorded [e]
Federal funds sold and securities purchased under resale agreements	**$ (19)**	**$ —**	**$ (19)**	$ (148)	$ —	$ (148)
Securities borrowed	**(22)**	**—**	**(22)**	5	—	5
Trading assets:						
Debt and equity instruments, excluding loans	**(2,255)**	**—**	**(2,255)**	1,780 [f]	—	1,780
Loans reported as trading assets:						
Changes in instrument-specific credit risk	**66**	**—**	**66**	216	—	216
Other changes in fair value	**1**	**—**	**1**	—	—	—
Loans:						
Changes in instrument-specific credit risk	**119**	**(7)** [c]	**112**	112	(13) [c]	99
Other changes in fair value	**25**	**609** [c]	**634**	93	928 [c]	1,021
Other assets	**(22)**	**—**	**(22)**	(28)	(7) [d]	(35)
Deposits[a]	**38**	**—**	**38**	(147)	—	(147)
Federal funds purchased and securities loaned or sold under repurchase agreements	**11**	**—**	**11**	58	—	58
Short-term borrowings[a]	**388**	**—**	**388**	(54)	—	(54)
Trading liabilities	**(1)**	**—**	**(1)**	1	—	1
Other liabilities	**(1)**	**—**	**(1)**	(8)	—	(8)
Long-term debt[a][b]	**643**	**11** [c][d]	**654**	(530)	(4) [c]	(534)

(in millions)	Nine months ended September 30, 2021 Principal transactions		2021 All other income		2021 Total changes in fair value recorded (e)	2020 Principal transactions		2020 All other income		2020 Total changes in fair value recorded (e)
Federal funds sold and securities purchased under resale agreements	**$ (33)**		**$ —**		**$ (33)**	$ 96		$ —		$ 96
Securities borrowed	**(119)**		**—**		**(119)**	173		—		173
Trading assets:										
Debt and equity instruments, excluding loans	**(1,188)**		**(1)**	(c)	**(1,189)**	1,083	(f)	(1)	(c)	1,082
Loans reported as trading assets:										
Changes in instrument-specific credit risk	**342**		**—**		**342**	(39)		—		(39)
Other changes in fair value	**(7)**		**—**		**(7)**	1		—		1
Loans:										
Changes in instrument-specific credit risk	**540**		**(9)**	(c)	**531**	143		2	(c)	145
Other changes in fair value	**(82)**		**1,733**	(c)	**1,651**	357		2,423	(c)	2,780
Other assets	**6**		**(23)**	(d)	**(17)**	74		1	(d)	75
Deposits(a)	**(53)**		**—**		**(53)**	(612)		—		(612)
Federal funds purchased and securities loaned or sold under repurchase agreements	**42**		**—**		**42**	(20)		—		(20)
Short-term borrowings(a)	**(223)**		**—**		**(223)**	1,035		—		1,035
Trading liabilities	**(2)**		**—**		**(2)**	1		—		1
Other liabilities	**1**		**—**		**1**	(54)		—		(54)
Long-term debt(a)(b)	**(262)**		**6**	(c)(d)	**(256)**	70		(1)	(c)	69

(a) Unrealized gains/(losses) due to instrument-specific credit risk (DVA) for liabilities for which the fair value option has been elected are recorded in OCI, while realized gains/(losses) are recorded in principal transactions revenue. Realized gains/(losses) due to instrument-specific credit risk recorded in principal transactions revenue were $(6) million and $1 million for the three months ended September 30, 2021 and 2020, respectively and $(8) million and $20 million for the nine months ended September 30, 2021 and 2020, respectively.
(b) Long-term debt measured at fair value predominantly relates to structured notes. Although the risk associated with the structured notes is actively managed, the gains/(losses) reported in this table do not include the income statement impact of the risk management instruments used to manage such risk.
(c) Reported in mortgage fees and related income.
(d) Reported in other income.
(e) Changes in fair value exclude contractual interest, which is included in interest income and interest expense for all instruments other than certain hybrid financial instruments recorded in CIB. Refer to Note 6 for further information regarding interest income and interest expense.
(f) Prior-period amounts have been revised to conform with the current presentation.

Difference between aggregate fair value and aggregate remaining contractual principal balance outstanding

The following table reflects the difference between the aggregate fair value and the aggregate remaining contractual principal balance outstanding as of September 30, 2021, and December 31, 2020, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

(in millions)	September 30, 2021 Contractual principal outstanding	September 30, 2021 Fair value	September 30, 2021 Fair value over/(under) contractual principal outstanding	December 31, 2020 Contractual principal outstanding	December 31, 2020 Fair value	December 31, 2020 Fair value over/(under) contractual principal outstanding
Loans						
Nonaccrual loans						
Loans reported as trading assets	**$ 3,591**	**$ 642**	**$ (2,949)**	$ 3,386	$ 555	$ (2,831)
Loans	**1,193**	**1,055**	**(138)**	1,867	1,507	(360)
Subtotal	**4,784**	**1,697**	**(3,087)**	5,253	2,062	(3,191)
90 or more days past due and government guaranteed						
Loans[(a)]	**301**	**289**	**(12)**	328	317	(11)
All other performing loans[(b)]						
Loans reported as trading assets	**7,950**	**6,699**	**(1,251)**	7,917	6,439	(1,478)
Loans	**58,949**	**59,284**	**335**	42,022	42,650	628
Subtotal	**66,899**	**65,983**	**(916)**	49,939	49,089	(850)
Total loans	**$ 71,984**	**$ 67,969**	**$ (4,015)**	$ 55,520	$ 51,468	$ (4,052)
Long-term debt						
Principal-protected debt	**$ 37,445** [(d)]	**$ 35,244**	**$ (2,201)**	$ 40,560 [(d)]	$ 40,526	$ (34)
Nonprincipal-protected debt[(c)]	**NA**	**41,255**	**NA**	NA	36,291	NA
Total long-term debt	**NA**	**$ 76,499**	**NA**	NA	$ 76,817	NA
Long-term beneficial interests						
Nonprincipal-protected debt[(c)]	**NA**	**$ 99**	**NA**	NA	$ 41	NA
Total long-term beneficial interests	**NA**	**$ 99**	**NA**	NA	$ 41	NA

(a) These balances are excluded from nonaccrual loans as the loans are insured and/or guaranteed by U.S. government agencies.
(b) There were no performing loans that were ninety days or more past due as of September 30, 2021, and December 31, 2020, respectively.
(c) Remaining contractual principal is not applicable to nonprincipal-protected structured notes and long-term beneficial interests. Unlike principal-protected structured notes and long-term beneficial interests, for which the Firm is obligated to return a stated amount of principal at maturity, nonprincipal-protected structured notes and long-term beneficial interests do not obligate the Firm to return a stated amount of principal at maturity, but for structured notes to return an amount based on the performance of an underlying variable or derivative feature embedded in the note. However, investors are exposed to the credit risk of the Firm as issuer for both nonprincipal-protected and principal-protected notes.
(d) Where the Firm issues principal-protected zero-coupon or discount notes, the balance reflects the contractual principal payment at maturity or, if applicable, the contractual principal payment at the Firm's next call date.

At September 30, 2021, and December 31, 2020, the contractual amount of lending-related commitments for which the fair value option was elected was $16.9 billion and $18.1 billion, respectively, with a corresponding fair value of $(2) million and $(39) million, respectively. Refer to Note 28 of JPMorgan Chase's 2020 Form 10-K, and Note 22 of this Form 10-Q for further information regarding off-balance sheet lending-related financial instruments.

Structured note products by balance sheet classification and risk component

The following table presents the fair value of structured notes, by balance sheet classification and the primary risk type.

(in millions)	September 30, 2021 Long-term debt	Short-term borrowings	Deposits	Total	December 31, 2020 Long-term debt	Short-term borrowings	Deposits	Total
Risk exposure								
Interest rate	**$ 35,571**	**$ 13**	**$ 5,700**	**$ 41,284**	$ 38,129	$ 65	$ 5,057	$ 43,251
Credit	**6,843**	**1,438**	**—**	**8,281**	6,409	1,022	—	7,431
Foreign exchange	**3,648**	**244**	**221**	**4,113**	3,613	92	—	3,705
Equity	**28,496**	**6,258**	**5,565**	**40,319**	26,943	5,021	6,893	38,857
Commodity	**321**	**—**	**6** (a)	**327**	250	13	232 (a)	495
Total structured notes	**$ 74,879**	**$ 7,953**	**$ 11,492**	**$ 94,324**	$ 75,344	$ 6,213	$ 12,182	$ 93,739

(a) Excludes deposits linked to precious metals for which the fair value option has not been elected of $676 million and $739 million for the periods ended September 30, 2021 and December 31, 2020, respectively.

Note 4 – Derivative instruments

JPMorgan Chase makes markets in derivatives for clients and also uses derivatives to hedge or manage its own risk exposures. Refer to Note 5 of JPMorgan Chase's 2020 Form 10-K for a further discussion of the Firm's use of and accounting policies regarding derivative instruments.

The Firm's disclosures are based on the accounting treatment and purpose of these derivatives. A limited number of the Firm's derivatives are designated in hedge accounting relationships and are disclosed according to the type of hedge (fair value hedge, cash flow hedge, or net investment hedge). Derivatives not designated in hedge accounting relationships include certain derivatives that are used to manage risks associated with specified assets and liabilities ("specified risk management" positions) as well as derivatives used in the Firm's market-making businesses or for other purposes.

The following table outlines the Firm's primary uses of derivatives and the related hedge accounting designation or disclosure category.

Type of Derivative	Use of Derivative	Designation and disclosure	Affected segment or unit	10-Q page reference
Manage specifically identified risk exposures in qualifying hedge accounting relationships:				
• Interest rate	Hedge fixed rate assets and liabilities	Fair value hedge	Corporate	122-123
• Interest rate	Hedge floating-rate assets and liabilities	Cash flow hedge	Corporate	124
• Foreign exchange	Hedge foreign currency-denominated assets and liabilities	Fair value hedge	Corporate	122-123
• Foreign exchange	Hedge foreign currency-denominated forecasted revenue and expense	Cash flow hedge	Corporate	124
• Foreign exchange	Hedge the value of the Firm's investments in non-U.S. dollar functional currency entities	Net investment hedge	Corporate	125
• Commodity	Hedge commodity inventory	Fair value hedge	CIB, AWM	122-123
Manage specifically identified risk exposures not designated in qualifying hedge accounting relationships:				
• Interest rate	Manage the risk associated with mortgage commitments, warehouse loans and MSRs	Specified risk management	CCB	125
• Credit	Manage the credit risk associated with wholesale lending exposures	Specified risk management	CIB	125
• Interest rate and foreign exchange	Manage the risk associated with certain other specified assets and liabilities	Specified risk management	Corporate	125
Market-making derivatives and other activities:				
• Various	Market-making and related risk management	Market-making and other	CIB	125
• Various	Other derivatives	Market-making and other	CIB, AWM, Corporate	125

Notional amount of derivative contracts

The following table summarizes the notional amount of free-standing derivative contracts outstanding as of September 30, 2021, and December 31, 2020.

	Notional amounts[b]	
(in billions)	**September 30, 2021**	December 31, 2020
Interest rate contracts		
Swaps	**$ 24,116**	$ 20,990 [c]
Futures and forwards	**3,824**	3,057
Written options	**3,211**	3,375
Purchased options	**3,523**	3,675
Total interest rate contracts	**34,674**	31,097
Credit derivatives[a]	**1,340**	1,197 [c]
Foreign exchange contracts		
Cross-currency swaps	**4,081**	3,924
Spot, futures and forwards	**8,268**	6,871
Written options	**803**	830
Purchased options	**791**	825
Total foreign exchange contracts	**13,943**	12,450
Equity contracts		
Swaps	**628**	448
Futures and forwards	**145**	140
Written options	**750**	668 [c]
Purchased options	**704**	610 [c]
Total equity contracts	**2,227**	1,866
Commodity contracts		
Swaps	**185**	138
Spot, futures and forwards	**195**	198
Written options	**149**	124
Purchased options	**122**	105
Total commodity contracts	**651**	565
Total derivative notional amounts	**$ 52,835**	$ 47,175

(a) Refer to the Credit derivatives discussion on page 126 for more information on volumes and types of credit derivative contracts.
(b) Represents the sum of gross long and gross short third-party notional derivative contracts.
(c) Prior-period amounts have been revised to conform with the current presentation.

While the notional amounts disclosed above give an indication of the volume of the Firm's derivatives activity, the notional amounts significantly exceed, in the Firm's view, the possible losses that could arise from such transactions. For most derivative contracts, the notional amount is not exchanged; it is simply a reference amount used to calculate payments.

Impact of derivatives on the Consolidated balance sheets

The following table summarizes information on derivative receivables and payables (before and after netting adjustments) that are reflected on the Firm's Consolidated balance sheets as of September 30, 2021, and December 31, 2020, by accounting designation (e.g., whether the derivatives were designated in qualifying hedge accounting relationships or not) and contract type.

Free-standing derivative receivables and payables[a]

	Gross derivative receivables				Gross derivative payables			
September 30, 2021 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[b]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[b]
Trading assets and liabilities								
Interest rate	**$ 284,351**	**$ 758**	**$ 285,109**	**$ 24,766**	**$ 252,292**	**$ —**	**$ 252,292**	**$ 8,832**
Credit	**10,524**	**—**	**10,524**	**1,175**	**11,799**	**—**	**11,799**	**1,393**
Foreign exchange	**162,107**	**1,089**	**163,196**	**14,525**	**161,159**	**936**	**162,095**	**14,005**
Equity	**74,422**	**—**	**74,422**	**10,492**	**86,837**	**—**	**86,837**	**17,774**
Commodity	**32,269**	**4,046**	**36,315**	**16,950**	**28,906**	**5,537**	**34,443**	**11,481**
Total fair value of trading assets and liabilities	**$ 563,673**	**$ 5,893**	**$ 569,566**	**$ 67,908**	**$ 540,993**	**$ 6,473**	**$ 547,466**	**$ 53,485**

	Gross derivative receivables				Gross derivative payables			
December 31, 2020 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[b]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[b]
Trading assets and liabilities								
Interest rate	$ 390,817 [c]	$ 831	$ 391,648	$ 35,725	$ 353,987 [c]	$ —	$ 353,987	$ 13,012
Credit	13,345 [c]	—	13,345	680	14,832 [c]	—	14,832	1,995
Foreign exchange	205,359	901	206,260	15,781	214,229	1,697	215,926	21,433
Equity	70,612 [c]	—	70,612	16,487 [c]	81,413	—	81,413	25,898
Commodity	20,579	924	21,503	6,771	20,834	1,895	22,729	8,285
Total fair value of trading assets and liabilities	$ 700,712	$ 2,656	$ 703,368	$ 75,444	$ 685,295	$ 3,592	$ 688,887	$ 70,623

(a) Balances exclude structured notes for which the fair value option has been elected. Refer to Note 3 for further information.
(b) As permitted under U.S. GAAP, the Firm has elected to net derivative receivables and derivative payables and the related cash collateral receivables and payables when a legally enforceable master netting agreement exists.
(c) Prior-period amounts have been revised to conform with the current presentation.

Derivatives netting

The following tables present, as of September 30, 2021, and December 31, 2020, gross and net derivative receivables and payables by contract and settlement type. Derivative receivables and payables, as well as the related cash collateral from the same counterparty, have been netted on the Consolidated balance sheets where the Firm has obtained an appropriate legal opinion with respect to the master netting agreement. Where such a legal opinion has not been either sought or obtained, amounts are not eligible for netting on the Consolidated balance sheets, and those derivative receivables and payables are shown separately in the tables below.

In addition to the cash collateral received and transferred that is presented on a net basis with derivative receivables and payables, the Firm receives and transfers additional collateral (financial instruments and cash). These amounts mitigate counterparty credit risk associated with the Firm's derivative instruments, but are not eligible for net presentation:

- collateral that consists of liquid securities and other cash collateral held at third-party custodians, which are shown separately as "Collateral not nettable on the Consolidated balance sheets" in the tables below, up to the fair value exposure amount. For the purpose of this disclosure, the definition of liquid securities is consistent with the definition of high quality liquid assets as defined in the LCR rule;
- the amount of collateral held or transferred that exceeds the fair value exposure at the individual counterparty level, as of the date presented, which is excluded from the tables below; and
- collateral held or transferred that relates to derivative receivables or payables where an appropriate legal opinion has not been either sought or obtained with respect to the master netting agreement, which is excluded from the tables below.

	September 30, 2021			December 31, 2020		
(in millions)	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables
U.S. GAAP nettable derivative receivables						
Interest rate contracts:						
Over-the-counter ("OTC")	**$ 262,855**	**$ (243,110)**	**$ 19,745**	$ 367,214 (e)	$ (337,609) (e)	$ 29,605
OTC–cleared	**17,441**	**(16,953)**	**488**	18,340	(17,919)	421
Exchange-traded(a)	**290**	**(280)**	**10**	554	(395)	159
Total interest rate contracts	**280,586**	**(260,343)**	**20,243**	386,108	(355,923)	30,185
Credit contracts:						
OTC	**7,735**	**(6,953)**	**782**	8,894 (e)	(8,356) (e)	538
OTC–cleared	**2,492**	**(2,396)**	**96**	4,326	(4,309)	17
Total credit contracts	**10,227**	**(9,349)**	**878**	13,220	(12,665)	555
Foreign exchange contracts:						
OTC	**159,235**	**(148,098)**	**11,137**	201,349	(189,655)	11,694
OTC–cleared	**640**	**(572)**	**68**	834	(819)	15
Exchange-traded(a)	**10**	**(1)**	**9**	35	(5)	30
Total foreign exchange contracts	**159,885**	**(148,671)**	**11,214**	202,218	(190,479)	11,739
Equity contracts:						
OTC	**27,692**	**(25,632)**	**2,060**	29,844 (e)	(27,374)	2,470
Exchange-traded(a)	**39,348**	**(38,298)**	**1,050**	28,294	(26,751)	1,543
Total equity contracts	**67,040**	**(63,930)**	**3,110**	58,138	(54,125)	4,013
Commodity contracts:						
OTC	**21,467**	**(8,256)**	**13,211**	10,924	(7,901)	3,023
OTC–cleared	**72**	**(72)**	**—**	20	(20)	—
Exchange-traded(a)	**11,482**	**(11,037)**	**445**	6,833	(6,811)	22
Total commodity contracts	**33,021**	**(19,365)**	**13,656**	17,777	(14,732)	3,045
Derivative receivables with appropriate legal opinion	**550,759**	**(501,658)**	**49,101** (d)	677,461	(627,924)	49,537 (d)
Derivative receivables where an appropriate legal opinion has not been either sought or obtained	**18,807**		**18,807**	25,907		25,907
Total derivative receivables recognized on the Consolidated balance sheets	**$ 569,566**		**$ 67,908**	$ 703,368		$ 75,444
Collateral not nettable on the Consolidated balance sheets(b)(c)			**(11,001)**			(14,806)
Net amounts			**$ 56,907**			$ 60,638

(in millions)	September 30, 2021 Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables	December 31, 2020 Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables
U.S. GAAP nettable derivative payables						
Interest rate contracts:						
OTC	**$ 232,047**	**$ (224,749)**	**$ 7,298**	$ 332,214 (e)	$ (321,140) (e)	$ 11,074
OTC–cleared	**18,841**	**(18,532)**	**309**	19,710	(19,494)	216
Exchange-traded(a)	**184**	**(179)**	**5**	358	(341)	17
Total interest rate contracts	**251,072**	**(243,460)**	**7,612**	352,282	(340,975)	11,307
Credit contracts:						
OTC	**8,775**	**(8,060)**	**715**	10,311 (e)	(8,781) (e)	1,530
OTC–cleared	**2,433**	**(2,346)**	**87**	4,075	(4,056)	19
Total credit contracts	**11,208**	**(10,406)**	**802**	14,386	(12,837)	1,549
Foreign exchange contracts:						
OTC	**157,829**	**(147,518)**	**10,311**	210,803	(193,672)	17,131
OTC–cleared	**579**	**(572)**	**7**	836	(819)	17
Exchange-traded(a)	**12**	**—**	**12**	34	(2)	32
Total foreign exchange contracts	**158,420**	**(148,090)**	**10,330**	211,673	(194,493)	17,180
Equity contracts:						
OTC	**34,759**	**(30,733)**	**4,026**	35,330	(28,763)	6,567
Exchange-traded(a)	**43,462**	**(38,330)**	**5,132**	34,491	(26,752)	7,739
Total equity contracts	**78,221**	**(69,063)**	**9,158**	69,821	(55,515)	14,306
Commodity contracts:						
OTC	**18,060**	**(11,770)**	**6,290**	10,365	(7,544)	2,821
OTC–cleared	**85**	**(85)**	**—**	32	(32)	—
Exchange-traded(a)	**12,241**	**(11,107)**	**1,134**	7,391	(6,868)	523
Total commodity contracts	**30,386**	**(22,962)**	**7,424**	17,788	(14,444)	3,344
Derivative payables with appropriate legal opinion	**529,307**	**(493,981)**	**35,326** (d)	665,950	(618,264)	47,686 (d)
Derivative payables where an appropriate legal opinion has not been either sought or obtained	**18,159**		**18,159**	22,937		22,937
Total derivative payables recognized on the Consolidated balance sheets	**$ 547,466**		**$ 53,485**	$ 688,887		$ 70,623
Collateral not nettable on the Consolidated balance sheets(b)(c)			**(7,091)**			(11,964)
Net amounts			**$ 46,394**			$ 58,659

(a) Exchange-traded derivative balances that relate to futures contracts are settled daily.
(b) Includes liquid securities and other cash collateral held at third-party custodians related to derivative instruments where an appropriate legal opinion has been obtained. For some counterparties, the collateral amounts of financial instruments may exceed the derivative receivables and derivative payables balances. Where this is the case, the total amount reported is limited to the net derivative receivables and net derivative payables balances with that counterparty.
(c) Derivative collateral relates only to OTC and OTC-cleared derivative instruments.
(d) Net derivatives receivable included cash collateral netted of $68.8 billion and $88.0 billion at September 30, 2021, and December 31, 2020, respectively. Net derivatives payable included cash collateral netted of $61.2 billion and $78.4 billion at September 30, 2021, and December 31, 2020, respectively. Derivative cash collateral relates to OTC and OTC-cleared derivative instruments.
(e) Prior-period amounts have been revised to conform with the current presentation.

Liquidity risk and credit-related contingent features

Refer to Note 5 of JPMorgan Chase's 2020 Form 10-K for a more detailed discussion of liquidity risk and credit-related contingent features related to the Firm's derivative contracts.

The following table shows the aggregate fair value of net derivative payables related to OTC and OTC-cleared derivatives that contain contingent collateral or termination features that may be triggered upon a ratings downgrade, and the associated collateral the Firm has posted in the normal course of business, at September 30, 2021, and December 31, 2020.

OTC and OTC-cleared derivative payables containing downgrade triggers

(in millions)	September 30, 2021	December 31, 2020
Aggregate fair value of net derivative payables	$ 19,541	$ 26,945 (a)
Collateral posted	17,160	26,289

(a) Prior-period amount has been revised to conform with the current presentation.

The following table shows the impact of a single-notch and two-notch downgrade of the long-term issuer ratings of JPMorgan Chase & Co. and its subsidiaries, predominantly JPMorgan Chase Bank, N.A., at September 30, 2021, and December 31, 2020, related to OTC and OTC-cleared derivative contracts with contingent collateral or termination features that may be triggered upon a ratings downgrade. Derivatives contracts generally require additional collateral to be posted or terminations to be triggered when the predefined threshold rating is breached. A downgrade by a single rating agency that does not result in a rating lower than a preexisting corresponding rating provided by another major rating agency will generally not result in additional collateral (except in certain instances in which additional initial margin may be required upon a ratings downgrade), nor in termination payments requirements. The liquidity impact in the table is calculated based upon a downgrade below the lowest current rating of the rating agencies referred to in the derivative contract.

Liquidity impact of downgrade triggers on OTC and OTC-cleared derivatives

	September 30, 2021		December 31, 2020	
(in millions)	Single-notch downgrade	Two-notch downgrade	Single-notch downgrade	Two-notch downgrade
Amount of additional collateral to be posted upon downgrade(a)	$ 230	$ 1,572	$ 119	$ 1,243
Amount required to settle contracts with termination triggers upon downgrade(b)	109	685	153	1,682 (c)

(a) Includes the additional collateral to be posted for initial margin.
(b) Amounts represent fair values of derivative payables, and do not reflect collateral posted.
(c) Prior-period amount has been revised to conform with the current presentation.

Derivatives executed in contemplation of a sale of the underlying financial asset

In certain instances the Firm enters into transactions in which it transfers financial assets but maintains the economic exposure to the transferred assets by entering into a derivative with the same counterparty in contemplation of the initial transfer. The Firm generally accounts for such transfers as collateralized financing transactions as described in Note 10, but in limited circumstances they may qualify to be accounted for as a sale and a derivative under U.S. GAAP. The amount of such transfers accounted for as a sale where the associated derivative was outstanding was not material at September 30, 2021 and December 31, 2020.

Impact of derivatives on the Consolidated statements of income

The following tables provide information related to gains and losses recorded on derivatives based on their hedge accounting designation or purpose.

Fair value hedge gains and losses

The following tables present derivative instruments, by contract type, used in fair value hedge accounting relationships, as well as pre-tax gains/(losses) recorded on such derivatives and the related hedged items for the three and nine months ended September 30, 2021 and 2020, respectively. The Firm includes gains/(losses) on the hedging derivative in the same line item in the Consolidated statements of income as the related hedged item.

	Gains/(losses) recorded in income			Income statement impact of excluded components[e]		OCI impact
Three months ended September 30, 2021 (in millions)	Derivatives	Hedged items	Income statement impact	Amortization approach	Changes in fair value	Derivatives - Gains/(losses) recorded in OCI[f]
Contract type						
Interest rate[(a)(b)]	**$ (812)**	**$ 1,401**	**$ 589**	**$ —**	**$ 592**	**$ —**
Foreign exchange[(c)]	**(363)**	**367**	**4**	**(71)**	**3**	**12**
Commodity[(d)]	**(732)**	**754**	**22**	**—**	**14**	**—**
Total	**$ (1,907)**	**$ 2,522**	**$ 615**	**$ (71)**	**$ 609**	**$ 12**

	Gains/(losses) recorded in income			Income statement impact of excluded components[e]		OCI impact
Three months ended September 30, 2020 (in millions)	Derivatives	Hedged items	Income statement impact	Amortization approach	Changes in fair value	Derivatives - Gains/(losses) recorded in OCI[f]
Contract type						
Interest rate[(a)(b)]	$ (464)	$ 743	$ 279	$ —	$ 309	$ —
Foreign exchange[(c)]	307	(280)	27	(79)	27	(91)
Commodity[(d)]	(569)	593	24	—	14	—
Total	$ (726)	$ 1,056	$ 330	$ (79)	$ 350	$ (91)

	Gains/(losses) recorded in income			Income statement impact of excluded components[e]		OCI impact
ine months ended September 30, 2021 (in millions)	Derivatives	Hedged items	Income statement impact	Amortization approach	Changes in fair value	Derivatives - Gains/(losses) recorded in OCI[f]
ontract type						
terest rate[(a)(b)]	**$ (3,749)**	**$ 5,217**	**$ 1,468**	**$ —**	**$ 1,572**	**$ —**
oreign exchange[(c)]	**(862)**	**893**	**31**	**(221)**	**30**	**(56)**
ommodity[(d)]	**(5,119)**	**5,197**	**78**	**—**	**46**	**—**
otal	**$ (9,730)**	**$ 11,307**	**$ 1,577**	**$ (221)**	**$ 1,648**	**$ (56)**

	Gains/(losses) recorded in income			Income statement impact of excluded components[e]		OCI impact
ne months ended September 30, 2020 (in millions)	Derivatives	Hedged items	Income statement impact	Amortization approach	Changes in fair value	Derivatives - Gains/(losses) recorded in OCI[f]
ontract type						
terest rate[(a)(b)]	$ 4,087	$ (3,333)	$ 754	$ —	$ 728	$ —
oreign exchange[(c)]	579	(430)	149	(379)	149	45
ommodity[(d)]	(771)	882	111	—	107	—
otal	$ 3,895	$ (2,881)	$ 1,014	$ (379)	$ 984	$ 45

(a) Primarily consists of hedges of the benchmark (e.g., London Interbank Offered Rate ("LIBOR")) interest rate risk of fixed-rate long-term debt and AFS securities. Gains and losses were recorded in net interest income.

(b) Excludes the amortization expense associated with the inception hedge accounting adjustment applied to the hedged item. This expense is recorded in net interest income and substantially offsets the income statement impact of the excluded components. Also excludes the accrual of interest on interest rate swaps and the related hedged items.

(c) Primarily consists of hedges of the foreign currency risk of long-term debt and AFS securities for changes in spot foreign currency rates. Gains and losses related to the derivatives and the hedged items due to changes in foreign currency rates and the income statement impact of excluded components were recorded primarily in principal transactions revenue and net interest income.

(d) Consists of overall fair value hedges of physical commodities inventories that are generally carried at the lower of cost or net realizable value (net realizable value approximates fair value). Gains and losses were recorded in principal transactions revenue.

(e) The assessment of hedge effectiveness excludes certain components of the changes in fair values of the derivatives and hedged items such as forward points on foreign exchange forward contracts, time values and cross-currency basis spreads. Excluded components may impact earnings either through amortization of the initial amount over the life of the derivative, or through fair value changes recognized in the current period.

(f) Represents the change in value of amounts excluded from the assessment of effectiveness under the amortization approach, predominantly cross-currency basis spreads. The amount excluded at inception of the hedge is recognized in earnings over the life of the derivative.

As of September 30, 2021 and December 31, 2020, the following amounts were recorded on the Consolidated balance sheets related to certain cumulative fair value hedge basis adjustments that are expected to reverse through the income statement in future periods as an adjustment to yield.

September 30, 2021 (in millions)	Carrying amount of the hedged items[a][b]	Cumulative amount of fair value hedging adjustments included in the carrying amount of hedged items: Active hedging relationships	Discontinued hedging relationships[d][e]	Total
Assets				
Investment securities - AFS	**$ 71,464** [c]	**$ 906**	**$ 558**	**$ 1,464**
Liabilities				
Long-term debt	**$ 191,783**	**$ (1,121)**	**$ 9,042**	**$ 7,921**
Beneficial interests issued by consolidated VIEs	**748**	**—**	**(2)**	**(2)**

December 31, 2020 (in millions)	Carrying amount of the hedged items[a][b]	Cumulative amount of fair value hedging adjustments included in the carrying amount of hedged items: Active hedging relationships	Discontinued hedging relationships[d][e]	Total
Assets				
Investment securities - AFS	$ 139,684 [c]	$ 3,572	$ 847	$ 4,419
Liabilities				
Long-term debt	$ 177,611	$ 3,194	$ 11,473	$ 14,667
Beneficial interests issued by consolidated VIEs	746	—	(3)	(3)

(a) Excludes physical commodities with a carrying value of $19.3 billion and $11.5 billion at September 30, 2021 and December 31, 2020, respectively, to which the Firm applies fair value hedge accounting. As a result of the application of hedge accounting, these inventories are carried at fair value, thus recognizing unrealized gains and losses in current periods. Since the Firm exits these positions at fair value, there is no incremental impact to net income in future periods.
(b) Excludes hedged items where only foreign currency risk is the designated hedged risk, as basis adjustments related to foreign currency hedges will not reverse through the income statement in future periods. At September 30, 2021 and December 31, 2020, the carrying amount excluded for AFS securities is $12.6 billion and $14.5 billion, respectively, and for long-term debt is $11.8 billion and $6.6 billion, respectively.
(c) Carrying amount represents the amortized cost, net of allowance if applicable. Refer to Note 9 for additional information.
(d) Represents basis adjustments existing on the balance sheet date associated with hedged items that have been de-designated from qualifying fair value hedging relationships.
(e) Positive amounts related to assets represent cumulative fair value hedge basis adjustments that will reduce net interest income in future periods. Positive (negative) amounts related to liabilities represent cumulative fair value hedge basis adjustments that will increase (reduce) net interest income in future periods.

Cash flow hedge gains and losses

The following tables present derivative instruments, by contract type, used in cash flow hedge accounting relationships, and the pre-tax gains/(losses) recorded on such derivatives, for the three and nine months ended September 30, 2021 and 2020, respectively. The Firm includes the gains/(losses) on the hedging derivative in the same line item in the Consolidated statements of income as the change in cash flows on the related hedged item.

	Derivatives gains/(losses) recorded in income and other comprehensive income/(loss)		
Three months ended September 30, 2021 (in millions)	Amounts reclassified from AOCI to income	Amounts recorded in OCI	Total change in OCI for period
Contract type			
Interest rate[(a)]	**$ 272**	**$ (232)**	**$ (504)**
Foreign exchange[(b)]	**54**	**(35)**	**(89)**
Total	**$ 326**	**$ (267)**	**$ (593)**

	Derivatives gains/(losses) recorded in income and other comprehensive income/(loss)		
Three months ended September 30, 2020 (in millions)	Amounts reclassified from AOCI to income	Amounts recorded in OCI	Total change in OCI for period
Contract type			
Interest rate[(a)]	$ 214	$ 8	$ (206)
Foreign exchange[(b)]	13	126	113
Total	$ 227	$ 134	$ (93)

	Derivatives gains/(losses) recorded in income and other comprehensive income/(loss)		
Nine months ended September 30, 2021 (in millions)	Amounts reclassified from AOCI to income	Amounts recorded in OCI	Total change in OCI for period
Contract type			
Interest rate[(a)]	**$ 771**	**$ (1,871)**	**$ (2,642)**
Foreign exchange[(b)]	**159**	**27**	**(132)**
Total	**$ 930**	**$ (1,844)**	**$ (2,774)**

	Derivatives gains/(losses) recorded in income and other comprehensive income/(loss)		
Nine months ended September 30, 2020 (in millions)	Amounts reclassified from AOCI to income	Amounts recorded in OCI	Total change in OCI for period
Contract type			
Interest rate[(a)]	$ 332	$ 3,881	$ 3,549
Foreign exchange[(b)]	(4)	(94)	(90)
Total	$ 328	$ 3,787	$ 3,459

(a) Primarily consists of hedges of LIBOR-indexed floating-rate assets and floating-rate liabilities. Gains and losses were recorded in net interest income.

(b) Primarily consists of hedges of the foreign currency risk of non-U.S. dollar-denominated revenue and expense. The income statement classification of gains and losses follows the hedged item – primarily noninterest revenue and compensation expense.

The Firm did not experience any forecasted transactions that failed to occur for the three and nine months ended September 30, 2021 and 2020.

Over the next 12 months, the Firm expects that approximately $812 million (after-tax) of net gains recorded in AOCI at September 30, 2021, related to cash flow hedges will be recognized in income. For cash flow hedges that have been terminated, the maximum length of time over which the derivative results recorded in AOCI will be recognized in earnings is approximately eight years, corresponding to the timing of the originally hedged forecasted cash flows. For open cash flow hedges, the maximum length of time over which forecasted transactions are hedged is approximately seven years. The Firm's longer-dated forecasted transactions relate to core lending and borrowing activities.

Net investment hedge gains and losses

The following table presents hedging instruments, by contract type, that were used in net investment hedge accounting relationships, and the pre-tax gains/(losses) recorded on such instruments for the three and nine months ended September 30, 2021 and 2020.

Three months ended September 30, (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss) 2021: Amounts recorded in income[(a)(b)]	2021: Amounts recorded in OCI	2020: Amounts recorded in income[(a)(b)]	2020: Amounts recorded in OCI
Foreign exchange derivatives	**$ (73)**	**$ 1,028**	$ (37)	$ (868)

Nine months ended September 30, (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss) 2021: Amounts recorded in income[(a)(b)]	2021: Amounts recorded in OCI	2020: Amounts recorded in income[(a)(b)]	2020: Amounts recorded in OCI
Foreign exchange derivatives	**$ (180)**	**$ 1,958**	$ (108)	$ 308

(a) Certain components of hedging derivatives are permitted to be excluded from the assessment of hedge effectiveness, such as forward points on foreign exchange forward contracts. The Firm elects to record changes in fair value of these amounts directly in other income.

(b) Excludes amounts reclassified from AOCI to income on the sale or liquidation of hedged entities. The amount reclassified for the three and nine months ended September 30, 2021 was not material. During the nine months ended September 30, 2020, the Firm reclassified pre-tax losses of $8 million to other income related to the liquidation of certain legal entities and the amount was not material for the three months ended September 30, 2020. Refer to Note 19 for further information.

Gains and losses on derivatives used for specified risk management purposes

The following table presents pre-tax gains/(losses) recorded on a limited number of derivatives, not designated in hedge accounting relationships, that are used to manage risks associated with certain specified assets and liabilities, including certain risks arising from mortgage commitments, warehouse loans, MSRs, wholesale lending exposures, and foreign currency-denominated assets and liabilities.

	Derivatives gains/(losses) recorded in income: Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Contract type				
Interest rate[(a)]	**$ 320**	$ 597	**$ 822**	$ 2,533
Credit[(b)]	**(14)**	(19)	**(81)**	(58)
Foreign exchange[(c)]	**14**	18	**82**	96
Total	**$ 320**	$ 596	**$ 823**	$ 2,571

(a) Primarily represents interest rate derivatives used to hedge the interest rate risk inherent in mortgage commitments, warehouse loans and MSRs, as well as written commitments to originate warehouse loans. Gains and losses were recorded predominantly in mortgage fees and related income.

(b) Relates to credit derivatives used to mitigate credit risk associated with lending exposures in the Firm's wholesale businesses. These derivatives do not include credit derivatives used to mitigate counterparty credit risk arising from derivative receivables, which is included in gains and losses on derivatives related to market-making activities and other derivatives. Gains and losses were recorded in principal transactions revenue.

(c) Primarily relates to derivatives used to mitigate foreign exchange risk of specified foreign currency-denominated assets and liabilities. Gains and losses were recorded in principal transactions revenue.

Gains and losses on derivatives related to market-making activities and other derivatives

The Firm makes markets in derivatives in order to meet the needs of customers and uses derivatives to manage certain risks associated with net open risk positions from its market-making activities, including the counterparty credit risk arising from derivative receivables. All derivatives not included in the hedge accounting or specified risk management categories above are included in this category. Gains and losses on these derivatives are primarily recorded in principal transactions revenue. Refer to Note 5 for information on principal transactions revenue.

Credit derivatives

Refer to Note 5 of JPMorgan Chase's 2020 Form 10-K for a more detailed discussion of credit derivatives. The following tables present a summary of the notional amounts of credit derivatives and credit-related notes the Firm sold and purchased as of September 30, 2021 and December 31, 2020. The Firm does not use notional amounts of credit derivatives as the primary measure of risk management for such derivatives, because the notional amount does not take into account the probability of the occurrence of a credit event, the recovery value of the reference obligation, or related cash instruments and economic hedges, each of which reduces, in the Firm's view, the risks associated with such derivatives.

Total credit derivatives and credit-related notes

	Maximum payout/Notional amount			
September 30, 2021 (in millions)	Protection sold	Protection purchased with identical underlyings(b)	Net protection (sold)/purchased(c)	Other protection purchased(d)
Credit derivatives				
Credit default swaps	**$ (577,311)**	**$ 599,454**	**$ 22,143**	**$ 3,198**
Other credit derivatives(a)	**(61,083)**	**82,067**	**20,984**	**16,431**
Total credit derivatives	**(638,394)**	**681,521**	**43,127**	**19,629**
Credit-related notes	**—**	**—**	**—**	**12,745**
Total	**$ (638,394)**	**$ 681,521**	**$ 43,127**	**$ 32,374**

	Maximum payout/Notional amount			
December 31, 2020 (in millions)	Protection sold	Protection purchased with identical underlyings(b)	Net protection (sold)/purchased(c)	Other protection purchased(d)
Credit derivatives				
Credit default swaps	$ (533,900) (e)	$ 552,021 (e)	$ 18,121	$ 2,786 (e)
Other credit derivatives(a)	(40,084)	57,344	17,260	10,630 (e)
Total credit derivatives	(573,984)	609,365	35,381	13,416
Credit-related notes	—	—	—	10,248
Total	$ (573,984)	$ 609,365	$ 35,381	$ 23,664

(a) Other credit derivatives predominantly consist of credit swap options and total return swaps.
(b) Represents the total notional amount of protection purchased where the underlying reference instrument is identical to the reference instrument on protection sold; the notional amount of protection purchased for each individual identical underlying reference instrument may be greater or lower than the notional amount of protection sold.
(c) Does not take into account the fair value of the reference obligation at the time of settlement, which would generally reduce the amount the seller of protection pays to the buyer of protection in determining settlement value.
(d) Represents protection purchased by the Firm on referenced instruments (single-name, portfolio or index) where the Firm has not sold any protection on the identical reference instrument.
(e) Prior-period amounts have been revised to conform with the current presentation.

The following tables summarize the notional amounts by the ratings, maturity profile, and total fair value, of credit derivatives as of September 30, 2021, and December 31, 2020, where JPMorgan Chase is the seller of protection. The maturity profile is based on the remaining contractual maturity of the credit derivative contracts. The ratings profile is based on the rating of the reference entity on which the credit derivative contract is based. The ratings and maturity profile of credit derivatives where JPMorgan Chase is the purchaser of protection are comparable to the profile reflected below.

Protection sold — credit derivatives ratings(a)/maturity profile

September 30, 2021 (in millions)	<1 year	1–5 years	>5 years	Total notional amount	Fair value of receivables(b)	Fair value of payables(b)	Net fair value
Risk rating of reference entity							
Investment-grade	**$ (116,560)**	**$ (291,195)**	**$ (78,593)**	**$ (486,348)**	**$ 3,996**	**$ (597)**	**$ 3,399**
Noninvestment-grade	**(31,180)**	**(96,565)**	**(24,301)**	**(152,046)**	**3,110**	**(1,886)**	**1,224**
Total	**$ (147,740)**	**$ (387,760)**	**$ (102,894)**	**$ (638,394)**	**$ 7,106**	**$ (2,483)**	**$ 4,623**

December 31, 2020 (in millions)	<1 year	1–5 years	>5 years	Total notional amount	Fair value of receivables(b)	Fair value of payables(b)	Net fair value
Risk rating of reference entity							
Investment-grade	$ (93,529) (c)	$ (306,830) (c)	$ (35,326)	$ (435,685)	$ 5,372 (c)	$ (834) (c)	$ 4,538
Noninvestment-grade	(31,809)	(97,337)	(9,153)	(138,299)	3,953	(2,542)	1,411
Total	$ (125,338)	$ (404,167)	$ (44,479)	$ (573,984)	$ 9,325	$ (3,376)	$ 5,949

(a) The ratings scale is primarily based on external credit ratings defined by S&P and Moody's.
(b) Amounts are shown on a gross basis, before the benefit of legally enforceable master netting agreements including cash collateral netting.
(c) Prior-period amounts have been revised to conform with the current presentation.

Note 5 – Noninterest revenue and noninterest expense

Noninterest revenue

Refer to Note 6 of JPMorgan Chase's 2020 Form 10-K for a discussion of the components of and accounting policies for the Firm's noninterest revenue.

Investment banking fees

The following table presents the components of investment banking fees.

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Underwriting				
Equity	**$ 1,034**	$ 736	**$ 3,169**	$ 2,037
Debt	**1,019**	1,019	**3,713**	3,342
Total underwriting	**2,053**	1,755	**6,882**	5,379
Advisory	**1,229**	432	**2,840**	1,524
Total investment banking fees	**$ 3,282**	$ 2,187	**$ 9,722**	$ 6,903

Principal transactions

The following table presents all realized and unrealized gains and losses recorded in principal transactions revenue. This table excludes interest income and interest expense on trading assets and liabilities, which are an integral part of the overall performance of the Firm's client-driven market-making activities in CIB and fund deployment activities in Treasury and CIO. Refer to Note 6 for further information on interest income and interest expense.

Trading revenue is presented primarily by instrument type. The Firm's client-driven market-making businesses generally utilize a variety of instrument types in connection with their market-making and related risk-management activities; accordingly, the trading revenue presented in the table below is not representative of the total revenue of any individual LOB.

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Trading revenue by instrument type				
Interest rate[(a)]	**$ 339**	$ 287	**$ 1,726**	$ 2,258
Credit[(b)]	**496**	950 [(c)]	**2,525**	2,201 [(c)]
Foreign exchange	**648**	714	**2,287**	3,606
Equity	**1,863**	1,410	**6,449**	4,816
Commodity	**315**	747	**1,165**	1,775
Total trading revenue	**3,661**	4,108	**14,152**	14,656
Private equity gains/(losses)	**(115)**	34	**(30)**	44
Principal transactions	**$ 3,546**	$ 4,142	**$ 14,122**	$ 14,700

(a) Includes the impact of changes in funding valuation adjustments on derivatives.
(b) Includes the impact of changes in credit valuation adjustments on derivatives, net of the associated hedging activities.
(c) Includes marks on held-for-sale positions, including unfunded commitments, in the bridge financing portfolio.

Lending- and deposit-related fees

The following table presents the components of lending- and deposit-related fees.

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Lending-related fees	**$ 374**	$ 337	**$ 1,102**	$ 916
Deposit-related fees	**1,427**	1,310	**4,146**	3,868
Total lending- and deposit-related fees	**$ 1,801**	$ 1,647	**$ 5,248**	$ 4,784

Asset management, administration and commissions

The following table presents the components of asset management, administration and commissions.

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Asset management fees				
Investment management fees[(a)]	**$ 3,554**	$ 2,937	**$ 10,232**	$ 8,439
All other asset management fees[(b)]	**94**	85	**283**	253
Total asset management fees	**3,648**	3,022	**10,515**	8,692
Total administration fees[(c)]	**642**	561	**1,925**	1,661
Commissions and other fees				
Brokerage commissions[(d)]	**719**	645	**2,280**	2,224
All other commissions and fees	**248**	242	**760**	699
Total commissions and fees	**967**	887	**3,040**	2,923
Total asset management, administration and commissions	**$ 5,257**	$ 4,470	**$ 15,480**	$ 13,276

(a) Represents fees earned from managing assets on behalf of the Firm's clients, including investors in Firm-sponsored funds and owners of separately managed investment accounts.
(b) Represents fees for services that are ancillary to investment management services, such as commissions earned on the sales or distribution of mutual funds to clients.
(c) Predominantly includes fees for custody, securities lending, funds services and securities clearance.
(d) Represents commissions earned when the Firm acts as a broker, by facilitating its clients' purchases and sales of securities and other financial instruments.

Card income

The following table presents the components of card income:

(in millions)	Three months ended September 30, 2021	2020	Nine months ended September 30, 2021	2020
Interchange and merchant processing income	**$ 6,117**	$ 4,757	**$ 16,959**	$ 13,479
Rewards costs and partner payments	**(4,860)**	(3,497)	**(12,676)**	(9,895)
Other card income[a]	**(252)**	(91)	**(281)**	(446)
Total card income	**$ 1,005**	$ 1,169	**$ 4,002**	$ 3,138

(a) Predominantly represents the amortization of account origination costs and annual fees.

Refer to Note 14 for further information on mortgage servicing rights, including risk management activities.

Refer to Note 16 for information on operating lease income included within other income.

Noninterest expense

Other expense

Other expense on the Firm's Consolidated statements of income included the following:

(in millions)	Three months ended September 30, 2021	2020	Nine months ended September 30, 2021	2020
Legal expense	**$ 76**	$ 524	**$ 289**	$ 839
FDIC-related expense	**173**	186	**551**	503

Note 6 – Interest income and Interest expense

Refer to Note 7 of JPMorgan Chase's 2020 Form 10-K for a description of JPMorgan Chase's accounting policies regarding interest income and interest expense.

The following table presents the components of interest income and interest expense.

(in millions)	Three months ended September 30, 2021	2020	Nine months ended September 30, 2021	2020
Interest income				
Loans[a]	**$ 10,445**	$ 10,215	**$ 30,777**	$ 33,409
Taxable securities	**1,553**	1,816	**4,735**	6,203
Non-taxable securities[b]	**262**	294	**809**	901
Total investment securities[a]	**1,815**	2,110	**5,544**	7,104
Trading assets - debt instruments	**1,682**	1,850	**5,175**	5,980
Federal funds sold and securities purchased under resale agreements	**231**	401	**639**	2,097
Securities borrowed[c]	**(73)**	(128)	**(240)**	(151)
Deposits with banks	**174**	69	**342**	708
All other interest-earning assets[d]	**206**	183	**608**	826
Total interest income	**$ 14,480**	$ 14,700	**$ 42,845**	$ 49,973
Interest expense				
Interest-bearing deposits	**$ 126**	$ 245	**$ 404**	$ 2,169
Federal funds purchased and securities loaned or sold under repurchase agreements	**119**	105	**194**	1,023
Short-term borrowings[e]	**31**	60	**97**	335
Trading liabilities – debt and all other interest-bearing liabilities[c][f]	**52**	(51)	**130**	278
Long-term debt	**1,054**	1,293	**3,244**	4,679
Beneficial interest issued by consolidated VIEs	**18**	35	**66**	184
Total interest expense	**$ 1,400**	$ 1,687	**$ 4,135**	$ 8,668
Net interest income	**$ 13,080**	$ 13,013	**$ 38,710**	$ 41,305
Provision for credit losses	**(1,527)**	611	**(7,968)**	19,369
Net interest income after provision for credit losses	**$ 14,607**	$ 12,402	**$ 46,678**	$ 21,936

(a) Includes the amortization/accretion of unearned income (e.g., purchase premiums/discounts and net deferred fees/costs).
(b) Represents securities which are tax-exempt for U.S. federal income tax purposes.
(c) Negative interest income is related to the impact of current interest rates combined with the fees paid on client-driven securities borrowed balances. The negative interest expense related to prime brokerage customer payables is recognized in interest expense and reported within trading liabilities - debt and all other interest-bearing liabilities.
(d) Includes interest earned on brokerage-related held-for-investment customer receivables, which are classified in accrued interest and accounts receivable, and all other interest-earning assets which are classified in other assets on the Consolidated balance sheets.
(e) Includes commercial paper.
(f) All other interest-bearing liabilities includes interest expense on brokerage-related customer payables.

Note 7 – Pension and other postretirement employee benefit plans

Refer to Note 8 of JPMorgan Chase's 2020 Form 10-K for a discussion of JPMorgan Chase's pension and OPEB plans.

The following table presents the components of net periodic benefit costs reported in the Consolidated statements of income for the Firm's defined benefit pension, defined contribution and OPEB plans.

	Three months ended September 30,		Nine months ended September 30,	
	2021	2020	**2021**	2020
(in millions)	Pension and OPEB plans		Pension and OPEB plans	
Components of net periodic benefit cost, U.S. defined benefit pension plans				
Benefits earned during the period	**$ —**	$ —	**$ 1**	$ 1
Interest cost on benefit obligations	**85**	105	**256**	316
Expected return on plan assets	**(129)**	(158)	**(387)**	(475)
Amortization:				
Net (gain)/loss	**3**	2	**8**	5
Net periodic defined benefit plan cost/(credit), U.S. defined benefit pension plans	**(41)**	(51)	**(122)**	(153)
Other defined benefit pension and OPEB plans	**(24)**	(23)	**(62)**	(65)
Total net periodic defined benefit plan cost/(credit)	**(65)**	(74)	**(184)**	(218)
Total defined contribution plans	**327**	340	**998**	960
Total pension and OPEB cost included in noninterest expense	**$ 262**	$ 266	**$ 814**	$ 742

The following table presents the fair values of plan assets for the Firm's defined benefit pension and OPEB plans.

(in billions)	**September 30, 2021**	December 31, 2020
Fair value of plan assets		
U.S. defined benefit pension plans	**$ 17.5**	$ 17.6
Other defined benefit pension and OPEB plans	**7.9**	7.8

Note 8 – Employee share-based incentives

Refer to Note 9 of JPMorgan Chase's 2020 Form 10-K for a discussion of the accounting policies and other information relating to employee share-based incentives.

The Firm recognized the following noncash compensation expense related to its various employee share-based incentive plans in its Consolidated statements of income.

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Cost of prior grants of RSUs, performance share units ("PSUs"), stock appreciation rights ("SARs") and stock options that are amortized over their applicable vesting periods	**$ 283**	$ 249	**$ 919**	$ 859
Accrual of estimated costs of share-based awards to be granted in future periods, predominantly those to full-career eligible employees	**335**	272	**1,346**	1,108
Total noncash compensation expense related to employee share-based incentive plans	**$ 618**	$ 521	**$ 2,265**	$ 1,967

In the first quarter of 2021, in connection with its annual incentive grant for the 2020 performance year, the Firm granted 17 million RSUs and 678 thousand PSUs with weighted-average grant date fair values of $137.38 per RSU and $136.94 per PSU.

Note 9 – Investment securities

Investment securities consist of debt securities that are classified as AFS or HTM. Debt securities classified as trading assets are discussed in Note 2. Predominantly all of the Firm's AFS and HTM securities are held by Treasury and CIO in connection with its asset-liability management activities. At September 30, 2021, the investment securities portfolio consisted of debt securities with an average credit rating of AA+ (based upon external ratings where available, and where not available, based primarily upon internal risk ratings).

During the second quarter of 2021, the Firm transferred $104.5 billion of investment securities from AFS to HTM for capital management purposes. AOCI included pretax unrealized gains of $425 million on the securities at the date of transfer.

Refer to Note 10 of JPMorgan Chase's 2020 Form 10-K for additional information regarding the investment securities portfolio.

The amortized costs and estimated fair values of the investment securities portfolio were as follows for the dates indicated.

	September 30, 2021				December 31, 2020			
(in millions)	Amortized cost[c][d]	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost[c][d]	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale securities								
Mortgage-backed securities:								
U.S. GSEs and government agencies[a]	**$ 72,749**	**$ 1,091**	**$ 791**	**$ 73,049**	$ 110,979	$ 2,372	$ 50	$ 113,301
Residential:								
U.S.	**2,265**	**58**	**—**	**2,323**	6,246	224	3	6,467
Non-U.S.	**4,014**	**36**	**—**	**4,050**	3,751	20	5	3,766
Commercial	**3,102**	**41**	**11**	**3,132**	2,819	71	34	2,856
Total mortgage-backed securities	**82,130**	**1,226**	**802**	**82,554**	123,795	2,687	92	126,390
U.S. Treasury and government agencies	**121,227**	**730**	**486**	**121,471**	199,910	2,141	100	201,951
Obligations of U.S. states and municipalities	**16,471**	**1,049**	**5**	**17,515**	18,993	1,404	1	20,396
Non-U.S. government debt securities	**15,738**	**111**	**24**	**15,825**	22,587	354	13	22,928
Corporate debt securities	**263**	**6**	**9**	**260**	215	4	3	216
Asset-backed securities:								
Collateralized loan obligations	**9,133**	**8**	**4**	**9,137**	10,055	24	31	10,048
Other	**4,771**	**59**	**2**	**4,828**	6,174	91	16	6,249
Total available-for-sale securities	**249,733**	**3,189**	**1,332**	**251,590**	381,729	6,705	256	388,178
Held-to-maturity securities[b]								
Mortgage-backed securities:								
U.S. GSEs and government agencies[a]	**101,086**	**1,923**	**412**	**102,597**	107,889	2,968	29	110,828
U.S. Residential	**7,021**	**4**	**43**	**6,982**	4,345	8	30	4,323
Commercial	**3,738**	**20**	**21**	**3,737**	2,602	77	—	2,679
Total mortgage-backed securities	**111,845**	**1,947**	**476**	**113,316**	114,836	3,053	59	117,830
U.S. Treasury and government agencies	**182,368**	**133**	**1,225**	**181,276**	53,184	50	—	53,234
Obligations of U.S. states and municipalities	**13,465**	**397**	**9**	**13,853**	12,751	519	—	13,270
Asset-backed securities:								
Collateralized loan obligations	**33,664**	**90**	**9**	**33,745**	21,050	90	2	21,138
Other	**2,200**	**4**	**1**	**2,203**	—	—	—	—
Total held-to-maturity securities	**343,542**	**2,571**	**1,720**	**344,393**	201,821	3,712	61	205,472
Total investment securities, net of allowance for credit losses	**$ 593,275**	**$ 5,760**	**$ 3,052**	**$ 595,983**	$ 583,550	$ 10,417	$ 317	$ 593,650

(a) Includes AFS U.S. GSE obligations with fair values of $44.1 billion and $65.8 billion, and HTM U.S. GSE obligations with amortized cost of $71.9 billion and $86.3 billion, at September 30, 2021 and December 31, 2020, respectively. As of September 30, 2021, mortgage-backed securities issued by Fannie Mae and Freddie Mac each exceeded 10% of JPMorgan Chase's total stockholders' equity; the amortized cost and fair value of such securities were $69.5 billion and $71.1 billion, and $46.3 billion and $46.3 billion, respectively.

(b) The Firm purchased $15.9 billion and $79.0 billion of HTM securities for the three and nine months ended September 30, 2021, respectively, and $514 million and $5.5 billion for the three and nine months ended September 30, 2020, respectively.

(c) The amortized cost of investment securities is reported net of allowance for credit losses of $73 million and $78 million at September 30, 2021 and December 31, 2020, respectively.

(d) Excludes $1.8 billion and $2.1 billion of accrued interest receivables at September 30, 2021 and December 31, 2020, respectively. The Firm did not reverse through interest income any accrued interest receivables for the three and nine months ended September 30, 2021 and 2020.

AFS securities impairment

The following tables present the fair value and gross unrealized losses by aging category for AFS securities at September 30, 2021 and December 31, 2020. The tables exclude U.S. Treasury and government agency securities and U.S. GSE and government agency MBS with unrealized losses of $1.3 billion and $150 million, at September 30, 2021 and December 31, 2020, respectively; changes in the value of these securities are generally driven by changes in interest rates rather than changes in their credit profile given the explicit or implicit guarantees provided by the U.S. government.

	Available-for-sale securities with gross unrealized losses					
	Less than 12 months		12 months or more			
September 30, 2021 (in millions)	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale securities						
Mortgage-backed securities:						
Residential:						
U.S.	**$ 72**	**$ —**	**$ 31**	**$ —**	**$ 103**	**$ —**
Non-U.S.	**134**	**—**	**—**	**—**	**134**	**—**
Commercial	**250**	**5**	**363**	**6**	**613**	**11**
Total mortgage-backed securities	**456**	**5**	**394**	**6**	**850**	**11**
Obligations of U.S. states and municipalities	**271**	**5**	**—**	**—**	**271**	**5**
Non-U.S. government debt securities	**5,031**	**17**	**441**	**7**	**5,472**	**24**
Corporate debt securities	**149**	**9**	**40**	**—**	**189**	**9**
Asset-backed securities:						
Collateralized loan obligations	**4,381**	**4**	**270**	**—**	**4,651**	**4**
Other	**1,500**	**—**	**206**	**2**	**1,706**	**2**
Total available-for-sale securities with gross unrealized losses	**$ 11,788**	**$ 40**	**$ 1,351**	**$ 15**	**$ 13,139**	**$ 55**

	Available-for-sale securities with gross unrealized losses					
	Less than 12 months		12 months or more			
December 31, 2020 (in millions)	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale securities						
Mortgage-backed securities:						
Residential:						
U.S.	$ 562	$ 3	$ 32	$ —	$ 594	$ 3
Non-U.S.	2,507	4	235	1	2,742	5
Commercial	699	18	124	16	823	34
Total mortgage-backed securities	3,768	25	391	17	4,159	42
Obligations of U.S. states and municipalities	49	1	—	—	49	1
Non-U.S. government debt securities	2,709	9	968	4	3,677	13
Corporate debt securities	91	3	5	—	96	3
Asset-backed securities:						
Collateralized loan obligations	5,248	18	2,645	13	7,893	31
Other	268	1	685	15	953	16
Total available-for-sale securities with gross unrealized losses	$ 12,133	$ 57	$ 4,694	$ 49	$ 16,827	$ 106

HTM securities – credit risk

Credit quality indicator

The primary credit quality indicator for HTM securities is the risk rating assigned to each security. At both September 30, 2021 and December 31, 2020, all HTM securities were rated investment grade and were current and accruing, with approximately 98% rated at least AA+.

Allowance for credit losses

The allowance for credit losses on investment securities was $73 million and $120 million as of September 30, 2021 and 2020, respectively.

Refer to Note 10 of JPMorgan Chase's 2020 Form 10-K for further discussion of accounting policies for AFS and HTM securities.

Selected impacts of investment securities on the Consolidated statements of income

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Realized gains	**$ 60**	$ 1,123	**$ 481**	$ 2,842
Realized losses	**(316)**	(650)	**(878)**	(2,110)
Investment securities gains/(losses)	**$ (256)**	$ 473	**$ (397)**	$ 732
Provision for credit losses	**$ (14)**	$ 97	**$ (5)**	$ 110

Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at September 30, 2021, of JPMorgan Chase's investment securities portfolio by contractual maturity.

By remaining maturity September 30, 2021 (in millions)	Due in one year or less	Due after one year through five years	Due after five years through 10 years	Due after 10 years[b]	Total
Available-for-sale securities					
Mortgage-backed securities					
Amortized cost	$ —	$ 2,882	$ 5,326	$ 73,925	$ 82,133
Fair value	—	2,916	5,650	73,988	82,554
Average yield[a]	— %	1.47 %	1.79 %	2.33 %	2.26 %
U.S. Treasury and government agencies					
Amortized cost	$ 5,111	$ 88,001	$ 19,610	$ 8,505	$ 121,227
Fair value	5,150	88,082	19,581	8,658	121,471
Average yield[a]	1.28 %	0.53 %	0.68 %	0.50 %	0.58 %
Obligations of U.S. states and municipalities					
Amortized cost	$ 15	$ 167	$ 1,216	$ 15,073	$ 16,471
Fair value	16	172	1,277	16,050	17,515
Average yield[a]	3.91 %	4.37 %	4.88 %	5.01 %	4.99 %
Non-U.S. government debt securities					
Amortized cost	$ 6,750	$ 4,980	$ 3,811	$ 197	$ 15,738
Fair value	6,762	5,050	3,816	197	15,825
Average yield[a]	2.02 %	2.54 %	0.84 %	0.38 %	1.88 %
Corporate debt securities					
Amortized cost	$ —	$ 233	$ 30	$ —	$ 263
Fair value	—	228	32	—	260
Average yield[a]	— %	7.74 %	1.63 %	— %	7.01 %
Asset-backed securities					
Amortized cost	$ 1,500	$ 1,076	$ 3,800	$ 7,528	$ 13,904
Fair value	1,500	1,081	3,807	7,577	13,965
Average yield[a]	1.19 %	1.93 %	1.27 %	1.26 %	1.31 %
Total available-for-sale securities					
Amortized cost	$ 13,376	$ 97,339	$ 33,793	$ 105,228	$ 249,736
Fair value	13,428	97,529	34,163	106,470	251,590
Average yield[a]	1.65 %	0.70 %	1.09 %	2.48 %	1.56 %
Held-to-maturity securities					
Mortgage-backed securities					
Amortized cost	$ —	$ 1,029	$ 11,737	$ 99,091	$ 111,857
Fair value	—	1,050	12,197	100,069	113,316
Average yield[a]	— %	1.68 %	2.42 %	2.90 %	2.84 %
U.S. Treasury and government agencies					
Amortized cost	$ 14,376	$ 97,814	$ 70,178	$ —	$ 182,368
Fair value	14,383	97,545	69,348	—	181,276
Average yield[a]	0.65 %	0.66 %	1.29 %	— %	0.90 %
Obligations of U.S. states and municipalities					
Amortized cost	$ 35	$ 66	$ 1,059	$ 12,363	$ 13,523
Fair value	35	66	1,105	12,647	13,853
Average yield[a]	3.78 %	2.67 %	3.67 %	3.84 %	3.82 %
Asset-backed securities					
Amortized cost	$ —	$ —	$ 13,535	$ 22,329	$ 35,864
Fair value	—	—	13,592	22,356	35,948
Average yield[a]	— %	— %	1.19 %	1.25 %	1.23 %
Total held-to-maturity securities					
Amortized cost	$ 14,411	$ 98,909	$ 96,509	$ 133,783	$ 343,612
Fair value	14,418	98,661	96,242	135,072	344,393
Average yield[a]	0.66 %	0.67 %	1.44 %	2.71 %	1.68 %

(a) Average yield is computed using the effective yield of each security owned at the end of the period, weighted based on the amortized cost of each security. The effective yield considers the contractual coupon, amortization of premiums and accretion of discounts, and the effect of related hedging derivatives. Taxable-equivalent amounts are used where applicable. The effective yield excludes unscheduled principal prepayments; and accordingly, actual maturities of securities may differ from their contractual or expected maturities as certain securities may be prepaid. However, for certain callable debt securities, the average yield is calculated to the earliest call date.

(b) Substantially all of the Firm's U.S. residential MBS and collateralized mortgage obligations are due in 10 years or more, based on contractual maturity. The estimated weighted-average life, which reflects anticipated future prepayments, is approximately 6 years for agency residential MBS, 4 years for agency residential collateralized mortgage obligations and 3 years for nonagency residential collateralized mortgage obligations.

Note 10 – Securities financing activities

Refer to Note 11 of JPMorgan Chase's 2020 Form 10-K for a discussion of accounting policies relating to securities financing activities. Refer to Note 3 for further information regarding securities borrowed and securities lending agreements for which the fair value option has been elected. Refer to Note 23 for further information regarding assets pledged and collateral received in securities financing agreements.

The table below summarizes the gross and net amounts of the Firm's securities financing agreements as of September 30, 2021 and December 31, 2020. When the Firm has obtained an appropriate legal opinion with respect to a master netting agreement with a counterparty and where other relevant netting criteria under U.S. GAAP are met, the Firm nets, on the Consolidated balance sheets, the balances outstanding under its securities financing agreements with the same counterparty. In addition, the Firm exchanges securities and/or cash collateral with its counterparty to reduce the economic exposure with the counterparty, but such collateral is not eligible for net Consolidated balance sheet presentation. Where the Firm has obtained an appropriate legal opinion with respect to the counterparty master netting agreement, such collateral, along with securities financing balances that do not meet all these relevant netting criteria under U.S. GAAP, is presented in the table below as "Amounts not nettable on the Consolidated balance sheets," and reduces the "Net amounts" presented. Where a legal opinion has not been either sought or obtained, the securities financing balances are presented gross in the "Net amounts" below. In transactions where the Firm is acting as the lender in a securities-for-securities lending agreement and receives securities that can be pledged or sold as collateral, the Firm recognizes the securities received at fair value within other assets and the obligation to return those securities within accounts payable and other liabilities on the Consolidated balance sheets.

	September 30, 2021				
(in millions)	Gross amounts	Amounts netted on the Consolidated balance sheets	Amounts presented on the Consolidated balance sheets	Amounts not nettable on the Consolidated balance sheets[b]	Net amounts[c]
Assets					
Securities purchased under resale agreements	**$ 569,373**	**$ (287,212)**	**$ 282,161**	**$ (269,113)**	**$ 13,048**
Securities borrowed	**243,904**	**(40,917)**	**202,987**	**(149,458)**	**53,529**
Liabilities					
Securities sold under repurchase agreements	**$ 533,390**	**$ (287,212)**	**$ 246,178**	**$ (222,187)**	**$ 23,991**
Securities loaned and other[a]	**52,735**	**(40,917)**	**11,818**	**(11,362)**	**456**

	December 31, 2020				
(in millions)	Gross amounts	Amounts netted on the Consolidated balance sheets	Amounts presented on the Consolidated balance sheets	Amounts not nettable on the Consolidated balance sheets[b]	Net amounts[c]
Assets					
Securities purchased under resale agreements	$ 666,467	$ (370,183)	$ 296,284	$ (273,206)	$ 23,078
Securities borrowed	193,700	(33,065)	160,635	(115,219)	45,416
Liabilities					
Securities sold under repurchase agreements	$ 578,060	$ (370,183)	$ 207,877	$ (191,980)	$ 15,897
Securities loaned and other[a]	41,366	(33,065)	8,301	(8,257)	44

(a) Includes securities-for-securities lending agreements of $5.3 billion and $3.4 billion at September 30, 2021 and December 31, 2020, respectively, accounted for at fair value, where the Firm is acting as lender.

(b) In some cases, collateral exchanged with a counterparty exceeds the net asset or liability balance with that counterparty. In such cases, the amounts reported in this column are limited to the related net asset or liability with that counterparty.

(c) Includes securities financing agreements that provide collateral rights, but where an appropriate legal opinion with respect to the master netting agreement has not been either sought or obtained. At September 30, 2021 and December 31, 2020, included $10.6 billion and $17.0 billion, respectively, of securities purchased under resale agreements; $49.0 billion and $42.1 billion, respectively, of securities borrowed; $22.6 billion and $14.5 billion, respectively, of securities sold under repurchase agreements; and $203 million and $8 million, respectively, of securities loaned and other.

The tables below present as of September 30, 2021, and December 31, 2020 the types of financial assets pledged in securities financing agreements and the remaining contractual maturity of the securities financing agreements.

	Gross liability balance			
	September 30, 2021		December 31, 2020	
(in millions)	Securities sold under repurchase agreements	Securities loaned and other	Securities sold under repurchase agreements	Securities loaned and other
Mortgage-backed securities				
U.S. GSEs and government agencies	**$ 21,919**	**$ —**	$ 56,744	$ —
Residential - nonagency	**722**	**—**	1,016	—
Commercial - nonagency	**1,065**	**—**	855	—
U.S. Treasury, GSEs and government agencies	**280,004**	**230**	315,834	143
Obligations of U.S. states and municipalities	**1,726**	**8**	1,525	2
Non-U.S. government debt	**155,164**	**2,021**	157,563	1,730
Corporate debt securities	**35,682**	**1,325**	22,849	1,864
Asset-backed securities	**703**	**—**	694	—
Equity securities	**36,405**	**49,151**	20,980	37,627
Total	**$ 533,390**	**$ 52,735**	$ 578,060	$ 41,366

	Remaining contractual maturity of the agreements				
September 30, 2021 (in millions)	Overnight and continuous	Up to 30 days	30 – 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	**$ 223,354**	**$ 201,325**	**$ 40,302**	**$ 68,409**	**$ 533,390**
Total securities loaned and other	**51,764**	**76**	**—**	**895**	**52,735**

	Remaining contractual maturity of the agreements				
December 31, 2020 (in millions)	Overnight and continuous	Up to 30 days	30 – 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	$ 238,667	$ 230,980	$ 70,777	$ 37,636	$ 578,060
Total securities loaned and other	37,887	1,647	500	1,332	41,366

Transfers not qualifying for sale accounting

At September 30, 2021, and December 31, 2020, the Firm held $484 million and $598 million, respectively, of financial assets for which the rights have been transferred to third parties; however, the transfers did not qualify as a sale in accordance with U.S. GAAP. These transfers have been recognized as collateralized financing transactions. The transferred assets are recorded in trading assets and loans, and the corresponding liabilities are recorded predominantly in short-term borrowings on the Consolidated balance sheets.

Note 11 – Loans

Loan accounting framework

The accounting for a loan depends on management's strategy for the loan. The Firm accounts for loans based on the following categories:

- Originated or purchased loans held-for-investment (i.e., "retained")
- Loans held-for-sale
- Loans at fair value

Refer to Note 12 of JPMorgan Chase's 2020 Form 10-K for a detailed discussion of loans, including accounting policies. Refer to Note 3 of this Form 10-Q for further information on the Firm's elections of fair value accounting under the fair value option. Refer to Note 2 of this Form 10-Q for information on loans carried at fair value and classified as trading assets.

Loan portfolio

The Firm's loan portfolio is divided into three portfolio segments, which are the same segments used by the Firm to determine the allowance for loan losses: Consumer, excluding credit card; Credit card; and Wholesale. Within each portfolio segment the Firm monitors and assesses the credit risk in the following classes of loans, based on the risk characteristics of each loan class.

Consumer, excluding credit card	Credit card	Wholesale(c)(d)
• Residential real estate(a) • Auto and other(b)	• Credit card loans	• Secured by real estate • Commercial and industrial • Other(e)

(a) Includes scored mortgage and home equity loans held in CCB and AWM, and scored mortgage loans held in CIB and Corporate.
(b) Includes scored auto and business banking loans and overdrafts.
(c) Includes loans held in CIB, CB, AWM, Corporate as well as risk-rated loans held in CCB, including business banking and auto dealer loans for which the wholesale methodology is applied when determining the allowance for loan losses.
(d) The wholesale portfolio segment's classes align with loan classifications as defined by the bank regulatory agencies, based on the loan's collateral, purpose, and type of borrower.
(e) Includes loans to financial institutions, states and political subdivisions, SPEs, nonprofits, personal investment companies and trusts, as well as loans to individuals and individual entities (predominantly Global Private Bank clients within AWM). Refer to Note 14 of JPMorgan Chase's 2020 Form 10-K for more information on SPEs.

The following tables summarize the Firm's loan balances by portfolio segment.

September 30, 2021 (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total(a)(b)
Retained	**$ 298,308**	**$ 143,166**	**$ 532,786**	**$ 974,260**
Held-for-sale	**1,407**	**—**	**8,320**	**9,727**
At fair value	**28,449**	**—**	**32,179**	**60,628**
Total	**$ 328,164**	**$ 143,166**	**$ 573,285**	**$ 1,044,615**

December 31, 2020 (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total(a)(b)
Retained	$ 302,127	$ 143,432	$ 514,947	$ 960,506
Held-for-sale	1,305	784	5,784	7,873
At fair value	15,147	—	29,327	44,474
Total	$ 318,579	$ 144,216	$ 550,058	$ 1,012,853

(a) Excludes $2.7 billion and $2.9 billion of accrued interest receivables at September 30, 2021, and December 31, 2020, respectively. The Firm wrote off accrued interest receivables of $10 million and $34 million for the three months ended September 30, 2021 and 2020, respectively, and $30 million and $82 million for the nine months ended September 30, 2021 and 2020, respectively.
(b) Loans (other than those for which the fair value option has been elected) are presented net of unamortized discounts and premiums and net deferred loan fees or costs. These amounts were not material as of September 30, 2021, and December 31, 2020.

The following tables provide information about the carrying value of retained loans purchased, sold and reclassified to held-for-sale during the periods indicated. Loans that were reclassified to held-for-sale and sold in a subsequent period are excluded from the sales line of this table.

Three months ended September 30, (in millions)	2021 Consumer, excluding credit card	2021 Credit card	2021 Wholesale	2021 Total	2020 Consumer, excluding credit card	2020 Credit card	2020 Wholesale	2020 Total
Purchases	**$ 101** (b)(c)	**$ —**	**$ 245**	**$ 346**	$ 1,780 (b)(c)	$ —	$ 309	$ 2,089
Sales	**—**	**—**	**7,826**	**7,826**	—	—	4,578	4,578
Retained loans reclassified to held-for-sale(a)	**522**	**—**	**397**	**919**	995	787	403	2,185

Nine months ended September 30, (in millions)	2021 Consumer, excluding credit card	2021 Credit card	2021 Wholesale	2021 Total	2020 Consumer, excluding credit card	2020 Credit card	2020 Wholesale	2020 Total
Purchases	**$ 403** (b)(c)	**$ —**	**$ 772**	**$ 1,175**	$ 3,180 (b)(c)	$ —	$ 937	$ 4,117
Sales	**181**	**—**	**22,307**	**22,488**	348	—	13,579	13,927
Retained loans reclassified to held-for-sale(a)	**771**	**—**	**2,061**	**2,832**	1,822	787	1,154	3,763

(a) Reclassifications of loans to held-for-sale are non-cash transactions.
(b) Predominantly includes purchases of residential real estate loans, including the Firm's voluntary repurchases of certain delinquent loans from loan pools as permitted by Government National Mortgage Association ("Ginnie Mae") guidelines for the three and nine months ended September 30, 2021 and 2020. The Firm typically elects to repurchase these delinquent loans as it continues to service them and/or manage the foreclosure process in accordance with applicable requirements of Ginnie Mae, FHA, RHS, and/or VA.
(c) Excludes purchases of retained loans of $7.3 billion and $3.1 billion for the three months ended September 30, 2021 and 2020, respectively, and $19.3 billion and $10.5 billion for the nine months ended September 30, 2021 and 2020, respectively, which are predominantly sourced through the correspondent origination channel and underwritten in accordance with the Firm's standards.

Gains and losses on sales of loans

Net gains/(losses) on sales of loans and lending-related commitments (including adjustments to record loans and lending-related commitments held-for-sale at the lower of cost or fair value) recognized in noninterest revenue for the three and nine months ended September 30, 2021 was $31 million and $225 million, respectively, of which $30 million and $211 million, respectively, related to loans. Net gains/(losses) on sales of loans and lending-related commitments for the three and nine months ended September 30, 2020 was $113 million and $(75) million, respectively, of which $24 million and $(76) million, respectively, related to loans. In addition, the sale of loans may also result in write downs, recoveries or changes in the allowance recognized in the provision for credit losses.

Loan modifications

The Firm has granted various forms of assistance to customers and clients impacted by the COVID-19 pandemic, including payment deferrals and covenant modifications. The majority of the Firm's COVID-19 related loan modifications have not been considered TDRs because:

- they represent short-term or other insignificant modifications, whether under the Firm's regular loan modification assessments or as permitted by regulatory guidance, or
- the Firm has elected to apply the option to suspend the application of accounting guidance for TDRs as provided by the CARES Act and extended by the Consolidated Appropriations Act.

To the extent that certain modifications do not meet any of the above criteria, the Firm accounts for them as TDRs.

As permitted by regulatory guidance, the Firm does not place loans with deferrals granted due to COVID-19 on nonaccrual status where such loans are not otherwise reportable as nonaccrual. The Firm considers expected losses of principal and accrued interest associated with all COVID-19 related loan modifications in its allowance for credit losses.

Assistance provided in response to the COVID-19 pandemic could delay the recognition of delinquencies, nonaccrual status, and net charge-offs for those customers who would have otherwise moved into past due or nonaccrual status.

Consumer, excluding credit card loan portfolio

Consumer loans, excluding credit card loans, consist primarily of scored residential mortgages, home equity loans and lines of credit, auto and business banking loans, with a focus on serving the prime consumer credit market. The portfolio also includes home equity loans secured by junior liens, prime mortgage loans with an interest-only payment period and certain payment-option loans that may result in negative amortization.

The following table provides information about retained consumer loans, excluding credit card, by class.

(in millions)	September 30, 2021	December 31, 2020
Residential real estate	**$ 221,671**	$ 225,302
Auto and other[(a)]	**76,637**	76,825
Total retained loans	**$ 298,308**	$ 302,127

(a) At September 30, 2021 and December 31, 2020, included $11.1 billion and $19.2 billion of loans, respectively, in Business Banking under the PPP.

Delinquency rates are the primary credit quality indicator for consumer loans. Refer to Note 12 of JPMorgan Chase's 2020 Form 10-K for further information on consumer credit quality indicators.

Residential real estate

The following tables provide information on delinquency, which is the primary credit quality indicator for retained residential real estate loans.

	September 30, 2021								
	Term loans by origination year[d]						Revolving loans		
(in millions, except ratios)	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans	Total
Loan delinquency[(a)(b)]									
Current	**$ 50,900**	**$ 51,577**	**$ 21,058**	**$ 8,958**	**$ 13,231**	**$ 54,691**	**$ 6,707**	**$ 12,595**	**$ 219,717**
30–149 days past due	**11**	**13**	**17**	**17**	**10**	**479**	**16**	**172**	**735**
150 or more days past due	**—**	**—**	**7**	**5**	**13**	**927**	**5**	**262**	**1,219**
Total retained loans	**$ 50,911**	**$ 51,590**	**$ 21,082**	**$ 8,980**	**$ 13,254**	**$ 56,097**	**$ 6,728**	**$ 13,029**	**$ 221,671**
% of 30+ days past due to total retained loans[c]	**0.02 %**	**0.03 %**	**0.11 %**	**0.24 %**	**0.17 %**	**2.45 %**	**0.31 %**	**3.33 %**	**0.87 %**

	December 31, 2020								
	Term loans by origination year[d]						Revolving loans		
(in millions, except ratios)	2020	2019	2018	2017	2016	Prior to 2016	Within the revolving period	Converted to term loans	Total
Loan delinquency[(a)(b)]									
Current	$ 56,576 [(e)]	$ 31,820	$ 13,900	$ 20,410	$ 27,978	$ 49,218 [(e)]	$ 7,902 [(e)]	$ 15,260 [(e)]	$ 223,064
30–149 days past due	9	25	20	22	29	674	21	245	1,045
150 or more days past due	3	14	10	18	18	844	22	264	1,193
Total retained loans	$ 56,588	$ 31,859	$ 13,930	$ 20,450	$ 28,025	$ 50,736	$ 7,945	$ 15,769	$ 225,302
% of 30+ days past due to total retained loans[c]	0.02 %	0.12 %	0.22 %	0.20 %	0.17 %	2.91 % [(e)]	0.54 % [(e)]	3.23 % [(e)]	0.98 %

(a) Individual delinquency classifications include mortgage loans insured by U.S. government agencies as follows: current included $41 million and $36 million; 30–149 days past due included $11 million and $16 million; and 150 or more days past due included $20 million and $24 million at September 30, 2021 and December 31, 2020, respectively.
(b) At September 30, 2021 and December 31, 2020, loans under payment deferral programs offered in response to the COVID-19 pandemic which are still within their deferral period and performing according to their modified terms are generally not considered delinquent.
(c) At September 30, 2021 and December 31, 2020, residential real estate loans excluded mortgage loans insured by U.S. government agencies of $31 million and $40 million, respectively, that are 30 or more days past due. These amounts have been excluded based upon the government guarantee.
(d) Purchased loans are included in the year in which they were originated.
(e) Prior-period amounts have been revised to conform with the current presentation.

Approximately 36% of the total revolving loans are senior lien loans; the remaining balance are junior lien loans. The lien position the Firm holds is considered in the Firm's allowance for credit losses. Revolving loans that have been converted to term loans have higher delinquency rates than those that are still within the revolving period. That is primarily because the fully-amortizing payment that is generally required for those products is higher than the minimum payment options available for revolving loans within the revolving period.

Nonaccrual loans and other credit quality indicators

The following table provides information on nonaccrual and other credit quality indicators for retained residential real estate loans.

(in millions, except weighted-average data)		September 30, 2021		December 31, 2020
Nonaccrual loans[(a)(b)(c)(d)]	**$**	**4,794**	$	5,313
90 or more days past due and government guaranteed[(e)]		**25**		33
Current estimated LTV ratios[(f)(g)(h)]				
Greater than 125% and refreshed FICO scores:				
Equal to or greater than 660	**$**	**12**	$	6
Less than 660		**3**		12
101% to 125% and refreshed FICO scores:				
Equal to or greater than 660		**31**		38
Less than 660		**20**		44
80% to 100% and refreshed FICO scores:				
Equal to or greater than 660		**2,146**		2,177
Less than 660		**103**		239
Less than 80% and refreshed FICO scores:				
Equal to or greater than 660		**205,919**		208,238
Less than 660		**10,054**		11,980
No FICO/LTV available		**3,311**		2,492
U.S. government-guaranteed		**72**		76
Total retained loans	**$**	**221,671**	$	225,302
Weighted average LTV ratio[(f)(i)]		**51 %**		54 %
Weighted average FICO[(g)(i)]		**764**		763
Geographic region[(j)]				
California	**$**	**70,719**	$	73,444
New York		**32,221**		32,287
Florida		**15,439**		13,981
Texas		**13,645**		13,773
Illinois		**11,860**		13,130
Colorado		**8,496**		8,235
Washington		**8,071**		7,917
New Jersey		**6,884**		7,227
Massachusetts		**6,009**		5,784
Connecticut		**5,188**		5,024
All other[(k)]		**43,139**		44,500
Total retained loans	**$**	**221,671**	$	225,302

(a) Includes collateral-dependent residential real estate loans that are charged down to the fair value of the underlying collateral less costs to sell. The Firm reports, in accordance with regulatory guidance, residential real estate loans that have been discharged under Chapter 7 bankruptcy and not reaffirmed by the borrower ("Chapter 7 loans") as collateral-dependent nonaccrual TDRs, regardless of their delinquency status. At September 30, 2021, approximately 7% of Chapter 7 residential real estate loans were 30 days or more past due.
(b) Generally, all consumer nonaccrual loans have an allowance. In accordance with regulatory guidance, certain nonaccrual loans that are considered collateral-dependent have been charged down to the lower of amortized cost or the fair value of their underlying collateral less costs to sell. If the value of the underlying collateral has subsequently improved, the related allowance may be negative.
(c) Interest income on nonaccrual loans recognized on a cash basis was $41 million and $39 million and $127 million and $119 million for the three and nine months ended September 30, 2021 and 2020, respectively.
(d) Generally excludes loans under payment deferral programs offered in response to the COVID-19 pandemic. Includes loans to customers that have exited COVID-19 payment related deferral programs and are 90 or more days past due, predominantly all of which were considered collateral-dependent at time of exit.
(e) These balances are excluded from nonaccrual loans as the loans are guaranteed by U.S government agencies. Typically the principal balance of the loans is insured and interest is guaranteed at a specified reimbursement rate subject to meeting agreed-upon servicing guidelines. At September 30, 2021 and December 31, 2020, these balances were no longer accruing interest based on the agreed-upon servicing guidelines. There were no loans that were not guaranteed by U.S. government agencies that are 90 or more days past due and still accruing interest at September 30, 2021 and December 31, 2020.
(f) Represents the aggregate unpaid principal balance of loans divided by the estimated current property value. Current property values are estimated, at a minimum, quarterly, based on home valuation models using nationally recognized home price index valuation estimates incorporating actual data to the extent available and forecasted data where actual data is not available. Current estimated combined LTV for junior lien home equity loans considers all available lien positions, as well as unused lines, related to the property.
(g) Refreshed FICO scores represent each borrower's most recent credit score, which is obtained by the Firm on at least a quarterly basis.
(h) Prior-period amounts have been revised to conform with the current presentation.
(i) Excludes loans with no FICO and/or LTV data available.
(j) The geographic regions presented in the table are ordered based on the magnitude of the corresponding loan balances at September 30, 2021.
(k) At September 30, 2021 and December 31, 2020, included mortgage loans insured by U.S. government agencies of $72 million and $76 million, respectively. These amounts have been excluded from the geographic regions presented based upon the government guarantee.

Loan modifications

Modifications of residential real estate loans where the Firm grants concessions to borrowers who are experiencing financial difficulty are generally accounted for and reported as TDRs. Loans with short-term or other insignificant modifications that are not considered concessions are not TDRs nor are loans for which the Firm has elected to apply the option to suspend the application of accounting guidance for TDRs as provided by the CARES Act and extended by the Consolidated Appropriations Act. The carrying value of new TDRs was $116 million and $199 million for the three months ended September 30, 2021 and 2020, respectively, and $674 million and $537 million for the nine months ended September 30, 2021 and 2020, respectively. There were no additional commitments to lend to borrowers whose residential real estate loans have been modified in TDRs.

Nature and extent of modifications

The Firm's proprietary modification programs as well as government programs, including U.S. GSE programs, generally provide various concessions to financially troubled borrowers including, but not limited to, interest rate reductions, term or payment extensions and delays of principal and/or interest payments that would otherwise have been required under the terms of the original agreement. The following table provides information about how residential real estate loans were modified in TDRs under the Firm's loss mitigation programs described above during the periods presented. This table excludes Chapter 7 loans where the sole concession granted is the discharge of debt, loans with short-term or other insignificant modifications that are not considered concessions, and loans for which the Firm has elected to apply the option to suspend the application of accounting guidance for TDRs as provided by the CARES Act and extended by the Consolidated Appropriations Act.

	Three months ended September 30,		Nine months ended September 30,	
	2021	2020	**2021**	2020
Number of loans approved for a trial modification	**1,448**	1,623	**4,014**	4,468
Number of loans permanently modified	**917**	1,615	**3,817**	5,200
Concession granted:(a)				
Interest rate reduction	**75 %**	40 %	**74 %**	51 %
Term or payment extension	**64**	39	**49**	53
Principal and/or interest deferred	**19**	21	**24**	12
Principal forgiveness	**1**	1	**2**	2
Other(b)	**24**	65	**39**	65

(a) Represents concessions granted in permanent modifications as a percentage of the number of loans permanently modified. The sum of the percentages exceeds 100% because predominantly all of the modifications include more than one type of concession. Concessions offered on trial modifications are generally consistent with those granted on permanent modifications.
(b) Includes variable interest rate to fixed interest rate modifications and payment delays that meet the definition of a TDR.

Financial effects of modifications and redefaults

The following table provides information about the financial effects of the various concessions granted in modifications of residential real estate loans under the loss mitigation programs described above and about redefaults of certain loans modified in TDRs for the periods presented. The following table presents only the financial effects of permanent modifications and do not include temporary concessions offered through trial modifications. This table also excludes Chapter 7 loans where the sole concession granted is the discharge of debt, loans with short-term or other insignificant modifications that are not considered concessions, and loans for which the Firm has elected to apply the option to suspend the application of accounting guidance for TDRs as provided by the CARES Act and extended by the Consolidated Appropriations Act.

	Three months ended September 30,		Nine months ended September 30,	
(in millions, except weighted-average data)	**2021**	2020	**2021**	2020
Weighted-average interest rate of loans with interest rate reductions – before TDR	**4.65 %**	4.99 %	**4.55 %**	5.10 %
Weighted-average interest rate of loans with interest rate reductions – after TDR	**2.89**	3.34	**2.91**	3.40
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	**23**	23	**23**	22
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	**37**	39	**37**	39
Charge-offs recognized upon permanent modification	**$ —**	$ 1	**$ —**	$ 2
Principal deferred	**5**	3	**23**	12
Principal forgiven	**—**	1	**1**	4
Balance of loans that redefaulted within one year of permanent modification(a)	**$ 52**	$ 65	**$ 97**	$ 173

(a) Represents loans permanently modified in TDRs that experienced a payment default in the periods presented, and for which the payment default occurred within one year of the modification. The dollar amounts presented represent the balance of such loans at the end of the reporting period in which such loans defaulted. For residential real estate loans modified in TDRs, payment default is deemed to occur when the loan becomes two contractual payments past due. In the event that a modified loan redefaults, it will generally be liquidated through foreclosure or another similar type of liquidation transaction. Redefaults of loans modified within the last twelve months may not be representative of ultimate redefault levels.

At September 30, 2021, the weighted-average estimated remaining lives of residential real estate loans permanently modified in TDRs were four years. The estimated remaining lives of these loans reflect estimated prepayments, both voluntary and involuntary (i.e., foreclosures and other forced liquidations).

Active and suspended foreclosure

At September 30, 2021 and December 31, 2020, the Firm had residential real estate loans, excluding those insured by U.S. government agencies, with a carrying value of $693 million and $846 million, respectively, that were not included in REO, but were in the process of active or suspended foreclosure.

In response to the COVID-19 pandemic, the Firm has temporarily suspended certain foreclosure activities. This could delay recognition of foreclosed properties until the foreclosure moratoriums are lifted.

Auto and other

The following tables provide information on delinquency, which is the primary credit quality indicator for retained auto and other consumer loans.

	September 30, 2021								
	Term Loans by origination year						Revolving loans		
(in millions, except ratios)	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans	Total
Loan delinquency[a]									
Current	**$ 35,379** [c]	**$ 21,917** [c]	**$ 8,641**	**$ 4,466**	**$ 2,343**	**$ 993**	**$ 2,246**	**$ 129**	**$ 76,114**
30–119 days past due	**110**	**193**	**77**	**49**	**30**	**25**	**12**	**8**	**504**
120 or more days past due	**—**	**4**	**—**	**1**	**—**	**1**	**5**	**8**	**19**
Total retained loans	**$ 35,489**	**$ 22,114**	**$ 8,718**	**$ 4,516**	**$ 2,373**	**$ 1,019**	**$ 2,263**	**$ 145**	**$ 76,637**
% of 30+ days past due to total retained loans[b]	**0.31 %**	**0.32 %**	**0.88 %**	**1.11 %**	**1.26 %**	**2.55 %**	**0.75 %**	**11.03 %**	**0.68 %**

	December 31, 2020								
	Term Loans by origination year						Revolving loans		
(in millions, except ratios)	2020	2019	2018	2017	2016	Prior to 2016	Within the revolving period	Converted to term loans	Total
Loan delinquency[a]									
Current	$ 46,169 [d]	$ 12,829	$ 7,367	$ 4,521	$ 2,058	$ 742	$ 2,517	$ 158	$ 76,361
30–119 days past due	97	107	77	53	42	23	30	17	446
120 or more days past due	—	—	—	1	—	1	8	8	18
Total retained loans	$ 46,266	$ 12,936	$ 7,444	$ 4,575	$ 2,100	$ 766	$ 2,555	$ 183	$ 76,825
% of 30+ days past due to total retained loans	0.21 %	0.83 %	1.03 %	1.18 %	2.00 %	3.13 %	1.49 %	13.66 %	0.60 %

(a) At September 30, 2021 and December 31, 2020, loans under payment deferral programs offered in response to the COVID-19 pandemic which are still within their deferral period and performing according to their modified terms are generally not considered delinquent.

(b) At September 30, 2021, auto and other loans excluded $126 million of PPP loans guaranteed by the SBA that are 30 or more days past due. These amounts have been excluded based upon the SBA guarantee. At December 31, 2020, all PPP loans guaranteed by the SBA were current.

(c) At September 30, 2021, included $9.1 billion of loans originated in 2021 and $2.0 billion of loans originated in 2020 in Business Banking under the PPP. PPP loans are guaranteed by the SBA. Other than in certain limited circumstances, the Firm typically does not recognize charge-offs, classify as nonaccrual nor record an allowance for loan losses on these loans.

(d) At December 31, 2020, included $19.2 billion of loans in Business Banking under the PPP.

Nonaccrual and other credit quality indicators

The following table provides information on nonaccrual and other credit quality indicators for retained auto and other consumer loans.

(in millions, except ratios)	Total Auto and other September 30, 2021	Total Auto and other December 31, 2020
Nonaccrual loans[a][b][c]	**117**	151
Geographic region[d]		
California	**$ 12,137**	$ 12,302
Texas	**8,333**	8,235
New York	**7,511**	8,824
Florida	**5,125**	4,668
Illinois	**3,333**	3,768
New Jersey	**2,580**	2,646
Arizona	**2,103**	2,465
Pennsylvania	**2,076**	1,924
Ohio	**2,029**	2,163
Louisiana	**1,870**	1,808
All other	**29,540**	28,022
Total retained loans	**$ 76,637**	$ 76,825

(a) There were no loans that were 90 or more days past due and still accruing interest at September 30, 2021 and December 31, 2020.
(b) Generally, all consumer nonaccrual loans have an allowance. In accordance with regulatory guidance, certain nonaccrual loans that are considered collateral-dependent have been charged down to the lower of amortized cost or the fair value of their underlying collateral less costs to sell. If the value of the underlying collateral has subsequently improved, the related allowance may be negative.
(c) Interest income on nonaccrual loans recognized on a cash basis was not material for the three and nine months ended months ended September 30, 2021 and 2020.
(d) The geographic regions presented in this table are ordered based on the magnitude of the corresponding loan balances at September 30, 2021.

Loan modifications

Certain auto and other loan modifications are considered to be TDRs as they provide various concessions to borrowers who are experiencing financial difficulty. Loans with short-term or other insignificant modifications that are not considered concessions are not TDRs.

The impact of these modifications, as well as new TDRs, were not material to the Firm for the three and nine months ended September 30, 2021 and 2020. Additional commitments to lend to borrowers whose loans have been modified in TDRs as of September 30, 2021 and December 31, 2020 were not material.

Credit card loan portfolio

The credit card portfolio segment includes credit card loans originated and purchased by the Firm. Delinquency rates are the primary credit quality indicator for credit card loans.

Refer to Note 12 of JPMorgan Chase's 2020 Form 10-K for further information on the credit card loan portfolio, including credit quality indicators.

The following tables provide information on delinquency, which is the primary credit quality indicator for retained credit card loans.

	September 30, 2021		
(in millions, except ratios)	Within the revolving period	Converted to term loans[b]	Total
Loan delinquency[a]			
Current and less than 30 days past due and still accruing	**$ 140,730**	**$ 1,001**	**$ 141,731**
30–89 days past due and still accruing	**679**	**57**	**736**
90 or more days past due and still accruing	**674**	**25**	**699**
Total retained loans	**$ 142,083**	**$ 1,083**	**$ 143,166**
Loan delinquency ratios			
% of 30+ days past due to total retained loans	**0.95 %**	**7.57 %**	**1.00 %**
% of 90+ days past due to total retained loans	**0.47**	**2.31**	**0.49**

	December 31, 2020		
(in millions, except ratios)	Within the revolving period	Converted to term loans[b]	Total
Loan delinquency[a]			
Current and less than 30 days past due and still accruing	$ 139,783	$ 1,239	$ 141,022
30–89 days past due and still accruing	997	94	1,091
90 or more days past due and still accruing	1,277	42	1,319
Total retained loans	$ 142,057	$ 1,375	$ 143,432
Loan delinquency ratios			
% of 30+ days past due to total retained loans	1.60 %	9.89 %	1.68 %
% of 90+ days past due to total retained loans	0.90	3.05	0.92

(a) At September 30, 2021 and December 31, 2020, loans under payment deferral programs offered in response to the COVID-19 pandemic which are still within their deferral period and performing according to their modified terms are generally not considered delinquent.
(b) Represents TDRs.

Other credit quality indicators

The following table provides information on other credit quality indicators for retained credit card loans.

(in millions, except ratios)	September 30, 2021	December 31, 2020
Geographic region[a]		
California	**$ 21,211**	$ 20,921
Texas	**14,752**	14,544
New York	**11,924**	11,919
Florida	**9,514**	9,562
Illinois	**8,004**	8,006
New Jersey	**5,967**	5,927
Ohio	**4,566**	4,673
Pennsylvania	**4,332**	4,476
Colorado	**4,322**	4,092
Michigan	**3,513**	3,553
All other	**55,061**	55,759
Total retained loans	**$ 143,166**	$ 143,432
Percentage of portfolio based on carrying value with estimated refreshed FICO scores		
Equal to or greater than 660	**88.2 %**	85.9 %
Less than 660	**11.6**	13.9
No FICO available	**0.2**	0.2

(a) The geographic regions presented in the table are ordered based on the magnitude of the corresponding loan balances at September 30, 2021.

Loan modifications

The Firm may offer one of a number of loan modification programs granting concessions to credit card borrowers who are experiencing financial difficulty. The Firm grants concessions for most of the credit card loans under long-term programs. These modifications involve placing the customer on a fixed payment plan, generally for 60 months, and typically include reducing the interest rate on the credit card. Substantially all modifications under the Firm's long-term programs are considered to be TDRs. Loans with short-term or other insignificant modifications that are not considered concessions are not TDRs.

If the cardholder does not comply with the modified payment terms, then the credit card loan continues to age and will ultimately be charged-off in accordance with the Firm's standard charge-off policy. In most cases, the Firm does not reinstate the borrower's line of credit.

Financial effects of modifications and redefaults

The following table provides information about the financial effects of the concessions granted on credit card loans modified in TDRs and redefaults for the periods presented. For all periods disclosed, new enrollments were less than 1% of total retained credit card loans.

(in millions, except weighted-average data)	Three months ended September 30,		Nine months ended September 30,	
	2021	2020	**2021**	2020
Balance of new TDRs[(a)]	**$ 82**	$ 220	**$ 315**	$ 648
Weighted-average interest rate of loans – before TDR	**17.75 %**	17.65 %	**17.79 %**	18.21 %
Weighted-average interest rate of loans – after TDR	**5.15**	4.80	**5.19**	4.55
Balance of loans that redefaulted within one year of modification[(b)]	**$ 13**	$ 22	**$ 45**	$ 83

(a) Represents the outstanding balance prior to modification.

(b) Represents loans modified in TDRs that experienced a payment default in the periods presented, and for which the payment default occurred within one year of the modification. The amounts presented represent the balance of such loans as of the end of the quarter in which they defaulted.

For credit card loans modified in TDRs, payment default is deemed to have occurred when the borrower misses two consecutive contractual payments. Defaulted modified credit card loans remain in the modification program and continue to be charged off in accordance with the Firm's standard charge-off policy.

Wholesale loan portfolio

Wholesale loans include loans made to a variety of clients, ranging from large corporate and institutional clients, to small businesses and high-net-worth individuals. The primary credit quality indicator for wholesale loans is the internal risk rating assigned to each loan. Refer to Note 12 of JPMorgan Chase's 2020 Form 10-K for further information on these risk ratings.

The following tables provide information on internal risk rating, which is the primary credit quality indicator for retained wholesale loans.

(in millions, except ratios)	Secured by real estate Sep 30, 2021	Secured by real estate Dec 31, 2020	Commercial and industrial Sep 30, 2021	Commercial and industrial Dec 31, 2020	Other[a] Sep 30, 2021	Other[a] Dec 31, 2020	Total retained loans Sep 30, 2021	Total retained loans Dec 31, 2020
Loans by risk ratings								
Investment-grade	**$ 90,209**	$ 90,147	**$ 68,112**	$ 71,917	**$ 230,185**	$ 217,209	**$ 388,506**	$ 379,273
Noninvestment-grade:								
Noncriticized	**23,661**	26,129	**56,658**	57,870	**49,097**	33,053	**129,416**	117,052
Criticized performing	**3,922**	3,234	**7,712**	10,991	**1,146**	1,079	**12,780**	15,304
Criticized nonaccrual	**375**	483	**994**	1,931	**715**	904	**2,084**	3,318
Total noninvestment- grade	**27,958**	29,846	**65,364**	70,792	**50,958**	35,036	**144,280**	135,674
Total retained loans	**$ 118,167**	$ 119,993	**$ 133,476**	$ 142,709	**$ 281,143**	$ 252,245	**$ 532,786**	$ 514,947
% of investment-grade to total retained loans	**76.34 %**	75.13 %	**51.03 %**	50.39 %	**81.87 %**	86.11 %	**72.92 %**	73.65 %
% of total criticized to total retained loans	**3.64**	3.10	**6.52**	9.05	**0.66**	0.79	**2.79**	3.62
% of criticized nonaccrual to total retained loans	**0.32**	0.40	**0.74**	1.35	**0.25**	0.36	**0.39**	0.64

(a) Includes loans to financial institutions, states and political subdivisions, SPEs, nonprofits, personal investment companies and trusts, as well as loans to individuals and individual entities (predominantly Global Private Bank clients within AWM). Refer to Note 14 of JPMorgan Chase's 2020 Form 10-K for more information on SPEs.

Secured by real estate — **September 30, 2021**

(in millions)	Term loans by origination year: 2021	2020	2019	2018	2017	Prior to 2017	Revolving loans: Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	**$ 15,893**	**$ 16,153**	**$ 18,216**	**$ 9,486**	**$ 8,240**	**$ 21,072**	**$ 1,141**	**$ 8**	**$ 90,209**
Noninvestment-grade	**3,661**	**4,460**	**5,052**	**4,344**	**3,311**	**6,606**	**522**	**2**	**27,958**
Total retained loans	**$ 19,554**	**$ 20,613**	**$ 23,268**	**$ 13,830**	**$ 11,551**	**$ 27,678**	**$ 1,663**	**$ 10**	**$ 118,167**

Secured by real estate — December 31, 2020

(in millions)	Term loans by origination year[a]: 2020	2019	2018	2017	2016	Prior to 2016	Revolving loans: Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	$ 17,004	$ 19,870	$ 12,448	$ 11,218	$ 13,611	$ 14,898	$ 1,098	$ —	$ 90,147
Noninvestment-grade	4,998	6,027	5,886	4,184	3,738	4,523	489	1	29,846
Total retained loans	$ 22,002	$ 25,897	$ 18,334	$ 15,402	$ 17,349	$ 19,421	$ 1,587	$ 1	$ 119,993

(a) Prior-period amounts have been revised to conform with the current presentation.

	Commercial and industrial September 30, 2021								
	Term loans by origination year						Revolving loans		
(in millions)	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	**$ 16,741**	**$ 7,060**	**$ 4,243**	**$ 1,496**	**$ 1,288**	**$ 1,104**	**$ 36,179**	**$ 1**	**$ 68,112** (a)
Noninvestment-grade	**13,286**	**8,498**	**5,493**	**2,733**	**1,141**	**784**	**33,353**	**76**	**65,364**
Total retained loans	**$ 30,027**	**$ 15,558**	**$ 9,736**	**$ 4,229**	**$ 2,429**	**$ 1,888**	**$ 69,532**	**$ 77**	**$ 133,476**

	Commercial and industrial December 31, 2020								
	Term loans by origination year (b)						Revolving loans		
(in millions)	2020	2019	2018	2017	2016	Prior to 2016	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	$ 21,233	$ 7,341	$ 2,950	$ 1,756	$ 1,034	$ 1,178	$ 36,424	$ 1	$ 71,917 (c)
Noninvestment-grade	15,488	9,189	5,470	2,323	611	786	36,852	73	70,792
Total retained loans	$ 36,721	$ 16,530	$ 8,420	$ 4,079	$ 1,645	$ 1,964	$ 73,276	$ 74	$ 142,709

(a) At September 30, 2021, $2.0 billion of the $2.2 billion total PPP loans in the wholesale portfolio were commercial and industrial. Of the $2.0 billion, $1.3 billion were originated in 2021 and $639 million were originated in 2020. PPP loans are guaranteed by the SBA and considered investment-grade. Other than in certain limited circumstances, the Firm typically does not recognize charge-offs, classify as nonaccrual nor record an allowance for loan losses on these loans.
(b) Prior-period amounts have been revised to conform with the current presentation.
(c) At December 31, 2020, $7.4 billion of the $8.0 billion total PPP loans in the wholesale portfolio were commercial and industrial.

	Other(a) September 30, 2021								
	Term loans by origination year						Revolving loans		
(in millions)	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	**$ 22,301**	**$ 20,154**	**$ 7,079**	**$ 3,229**	**$ 4,185**	**$ 8,930**	**$ 163,875**	**$ 432**	**$ 230,185**
Noninvestment-grade	**12,011**	**3,112**	**1,488**	**1,425**	**312**	**1,574**	**31,007**	**29**	**50,958**
Total retained loans	**$ 34,312**	**$ 23,266**	**$ 8,567**	**$ 4,654**	**$ 4,497**	**$ 10,504**	**$ 194,882**	**$ 461**	**$ 281,143**

	Other(a) December 31, 2020								
	Term loans by origination year(b)						Revolving loans		
(in millions)	2020	2019	2018	2017	2016	Prior to 2016	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	$ 33,190	$ 11,116	$ 7,455	$ 6,804	$ 4,089	$ 8,252	$ 145,524	$ 779	$ 217,209
Noninvestment-grade	5,048	2,231	1,660	553	175	535	24,710	124	35,036
Total retained loans	$ 38,238	$ 13,347	$ 9,115	$ 7,357	$ 4,264	$ 8,787	$ 170,234	$ 903	$ 252,245

(a) Includes loans to financial institutions, states and political subdivisions, SPEs, nonprofits, personal investment companies and trusts, as well as loans to individuals and individual entities (predominantly Global Private Bank clients within AWM). Refer to Note 14 of JPMorgan Chase's 2020 Form 10-K for more information on SPEs.
(b) Prior-period amounts have been revised to conform with the current presentation.

The following table presents additional information on retained loans secured by real estate, which consists of loans secured wholly or substantially by a lien or liens on real property at origination.

	Multifamily		Other commercial		Total retained loans secured by real estate	
(in millions, except ratios)	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020
Retained loans secured by real estate	**$ 72,903**	$ 73,078	**$ 45,264**	$ 46,915	**$ 118,167**	$ 119,993
Criticized	**1,710**	1,144	**2,587**	2,573	**4,297**	3,717
% of total criticized to total retained loans secured by real estate	**2.35 %**	1.57 %	**5.72 %**	5.48 %	**3.64 %**	3.10 %
Criticized nonaccrual	**$ 84**	$ 56	**$ 291**	$ 427	**$ 375**	$ 483
% of criticized nonaccrual loans to total retained loans secured by real estate	**0.12 %**	0.08 %	**0.64 %**	0.91 %	**0.32 %**	0.40 %

Geographic distribution and delinquency

The following table provides information on the geographic distribution and delinquency for retained wholesale loans.

	Secured by real estate		Commercial and industrial		Other		Total retained loans	
(in millions, except ratios)	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020
Loans by geographic distribution[a]								
Total U.S.	**$ 115,155**	$ 116,990	**$ 95,657**	$ 109,273	**$ 203,631**	$ 180,583	**$ 414,443**	$ 406,846
Total non-U.S.	**3,012**	3,003	**37,819**	33,436	**77,512**	71,662	**118,343**	108,101
Total retained loans	**$ 118,167**	$ 119,993	**$ 133,476**	$ 142,709	**$ 281,143**	$ 252,245	**$ 532,786**	$ 514,947
Loan delinquency[b]								
Current and less than 30 days past due and still accruing	**$ 117,563**	$ 118,894	**$ 131,863**	$ 140,100	**$ 278,607**	$ 249,713	**$ 528,033**	$ 508,707
30–89 days past due and still accruing	**150**	601	**546**	658	**1,789**	1,606	**2,485**	2,865
90 or more days past due and still accruing[c]	**79**	15	**73**	20	**32**	22	**184**	57
Criticized nonaccrual	**375**	483	**994**	1,931	**715**	904	**2,084**	3,318
Total retained loans	**$ 118,167**	$ 119,993	**$ 133,476**	$ 142,709	**$ 281,143**	$ 252,245	**$ 532,786**	$ 514,947

(a) The U.S. and non-U.S. distribution is determined based predominantly on the domicile of the borrower.
(b) At September 30, 2021 and December 31, 2020, loans under payment deferral programs offered in response to the COVID-19 pandemic which are still within their deferral period and performing according to their modified terms are generally not considered delinquent. The credit quality of wholesale loans is assessed primarily through ongoing review and monitoring of an obligor's ability to meet contractual obligations rather than relying on the past due status, which is generally a lagging indicator of credit quality.
(c) Represents loans that are considered well-collateralized and therefore still accruing interest.

The following tables provide information about net charge-offs on retained wholesale loans.

Wholesale net charge-offs/(recoveries)	Secured by real estate		Commercial and industrial		Other		Total retained loans	
Three months ended September 30, (in millions)	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Net charge-offs/(recoveries)	**$ 9**	$ (3)	**$ 23**	$ 95	**$ 5**	$ —	**$ 37**	$ 92

	Secured by real estate		Commercial and industrial		Other		Total retained loans	
Nine months ended September 30, (in millions)	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Net charge-offs/(recoveries)	**$ 10**	$ 9	**$ 75**	$ 531	**$ 15**	$ 13	**$ 100**	$ 553

Nonaccrual loans

The following table provides information on retained wholesale nonaccrual loans.

	Secured by real estate		Commercial and industrial		Other		Total retained loans	
(in millions)	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020	**Sep 30, 2021**	Dec 31, 2020
Nonaccrual loans[a]								
With an allowance	**$ 309**	$ 351	**$ 722**	$ 1,667	**$ 520**	$ 800	**$ 1,551**	$ 2,818
Without an allowance[b]	**66**	132	**272**	264	**195**	104	**533**	500
Total nonaccrual loans[c]	**$ 375**	$ 483	**$ 994**	$ 1,931	**$ 715**	$ 904	**$ 2,084**	$ 3,318

(a) Loans that were modified in response to the COVID-19 pandemic continue to be risk-rated in accordance with the Firm's overall credit risk management framework. As of September 30, 2021, substantially all of these loans were considered performing.
(b) When the discounted cash flows or collateral value equals or exceeds the amortized cost of the loan, the loan does not require an allowance. This typically occurs when the loans have been partially charged off and/or there have been interest payments received and applied to the loan balance.
(c) Interest income on nonaccrual loans recognized on a cash basis was not material for the three and nine months ended September 30, 2021 and 2020.

Loan modifications

Certain loan modifications are considered to be TDRs as they provide various concessions to borrowers who are experiencing financial difficulty. Loans with short-term or other insignificant modifications that are not considered concessions are not TDRs nor are loans for which the Firm has elected to apply the option to suspend the application of accounting guidance for TDRs as provided by the CARES Act and extended by the Consolidated Appropriations Act.

The carrying value of TDRs was $928 million and $954 million as of September 30, 2021, and December 31, 2020, respectively. The carrying value of new TDRs was $180 million and $188 million for the three months ended September 30, 2021 and 2020, respectively, and $832 million and $352 million for the nine months ended September 30, 2021 and 2020, respectively. New TDRs for the three and nine months ended September 30, 2021 reflected deferral of principal and interest payments, extending maturity dates and the receipt of assets in partial satisfaction of the loan predominantly in Other and Commercial and Industrial loan classes. The impact of these modifications resulting in new TDRs was not material to the Firm for the three and nine months ended September 30, 2021 and 2020.

Note 12 – Allowance for credit losses

The Firm's allowance for credit losses represents management's estimate of expected credit losses over the remaining expected life of the Firm's financial assets measured at amortized cost and certain off-balance sheet lending-related commitments.

Refer to Note 13 of JPMorgan Chase's 2020 Form 10-K for a detailed discussion of the allowance for credit losses and the related accounting policies.

Allowance for credit losses and related information

The table below summarizes information about the allowances for loan losses and lending-related commitments, and includes a breakdown of loans and lending-related commitments by impairment methodology. Refer to Note 10 of JPMorgan Chase's 2020 Form 10-K for further information on the allowance for credit losses on investment securities.

	2021				2020			
Nine months ended September 30, (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Allowance for loan losses								
Beginning balance at January 1,	**$ 3,636**	**$ 17,800**	**$ 6,892**	**$ 28,328**	$ 2,538	$ 5,683	$ 4,902	$ 13,123
Cumulative effect of a change in accounting principle	**NA**	**NA**	**NA**	**NA**	297	5,517	(1,642)	4,172
Gross charge-offs	**452**	**2,957**	**187**	**3,596**	620	4,104	641	5,365
Gross recoveries collected	**(470)**	**(724)**	**(87)**	**(1,281)**	(483)	(585)	(88)	(1,156)
Net charge-offs/(recoveries)	**(18)**	**2,233**	**100**	**2,315**	137	3,519	553	4,209
Provision for loan losses	**(1,778)**	**(3,917)**	**(2,162)**	**(7,857)**	1,803	10,119	5,802	17,724
Other	**(2)**	**—**	**(4)**	**(6)**	1	—	3	4
Ending balance at September 30,	**$ 1,874**	**$ 11,650**	**$ 4,626**	**$ 18,150**	$ 4,502	$ 17,800	$ 8,512	$ 30,814
Allowance for lending-related commitments								
Beginning balance at January 1,	**$ 187**	**$ —**	**$ 2,222**	**$ 2,409**	$ 12	$ —	$ 1,179	$ 1,191
Cumulative effect of a change in accounting principle	**NA**	**NA**	**NA**	**NA**	133	—	(35)	98
Provision for lending-related commitments	**(45)**	**—**	**(61)**	**(106)**	71	—	1,464	1,535
Other	**—**	**—**	**2**	**2**	—	—	(1)	(1)
Ending balance at September 30,	**$ 142**	**$ —**	**$ 2,163**	**$ 2,305**	$ 216	$ —	$ 2,607	$ 2,823
Total allowance for credit losses[a]	**$ 2,016**	**$ 11,650**	**$ 6,789**	**$ 20,455**	$ 4,718	$ 17,800	$ 11,119	$ 33,637
Allowance for loan losses by impairment methodology								
Asset-specific[b]	**$ (571)**	**$ 383**	**$ 357**	**$ 169**	$ 228	$ 652	$ 792	$ 1,672
Portfolio-based	**2,445**	**11,267**	**4,269**	**17,981**	4,274	17,148	7,720	29,142
Total allowance for loan losses	**$ 1,874**	**$ 11,650**	**$ 4,626**	**$ 18,150**	$ 4,502	$ 17,800	$ 8,512	$ 30,814
Loans by impairment methodology								
Asset-specific[b]	**$ 14,464**	**$ 1,083**	**$ 2,330**	**$ 17,877**	$ 16,888	$ 1,432	$ 3,856	$ 22,176
Portfolio-based	**283,844**	**142,083**	**530,456**	**956,383**	288,218	138,158	496,985	923,361
Total retained loans	**$ 298,308**	**$ 143,166**	**$ 532,786**	**$ 974,260**	$ 305,106	$ 139,590	$ 500,841	$ 945,537
Collateral-dependent loans								
Net charge-offs	**$ 26**	**$ —**	**$ 9**	**$ 35**	$ 109	$ —	$ 22	$ 131
Loans measured at fair value of collateral less cost to sell	**4,460**	**—**	**364**	**4,824**	4,517	—	130	4,647
Allowance for lending-related commitments by impairment methodology								
Asset-specific	**$ —**	**$ —**	**$ 129**	**$ 129**	$ —	$ —	$ 109	$ 109
Portfolio-based	**142**	**—**	**2,034**	**2,176**	216	—	2,498	2,714
Total allowance for lending-related commitments[c]	**$ 142**	**$ —**	**$ 2,163**	**$ 2,305**	$ 216	$ —	$ 2,607	$ 2,823
Lending-related commitments by impairment methodology								
Asset-specific	**$ —**	**$ —**	**$ 641**	**$ 641**	$ —	$ —	$ 607	$ 607
Portfolio-based[d]	**36,819**	**—**	**457,548**	**494,367**	35,587	—	416,267 [d]	451,854
Total lending-related commitments	**$ 36,819**	**$ —**	**$ 458,189**	**$ 495,008**	$ 35,587	$ —	$ 416,874	$ 452,461

(a) Excludes the allowance for credit losses on investment securities of $73 million and $120 million as of September 30, 2021 and 2020, respectively.

(b) Includes collateral dependent loans, including those considered TDRs and those for which foreclosure is deemed probable, modified PCD loans and non-collateral dependent loans that have been modified or are reasonably expected to be modified in a TDR. Also includes risk-rated loans that have been placed on nonaccrual status for the wholesale portfolio segment. The asset-specific credit card allowance for loans modified, or reasonably expected to be modified, in a TDR is calculated based on the loans' original contractual interest rates and does not consider any incremental penalty rates.

(c) The allowance for lending-related commitments is reported in accounts payable and other liabilities on the Consolidated balance sheets.

(d) At September 30, 2021 and 2020, lending-related commitments excluded $19.9 billion and $10.8 billion, respectively, for the consumer, excluding credit card portfolio segment; $710.6 billion and $662.9 billion, respectively, for the credit card portfolio segment; and $41.0 billion and $24.4 billion, respectively, for the wholesale portfolio segment, which were not subject to the allowance for lending-related commitments. Prior-period amount for wholesale lending-related commitments, including the amount not subject to allowance, has been revised to conform with the current presentation.

Discussion of changes in the allowance

The allowance for credit losses as of September 30, 2021 was $20.5 billion, a decrease from $30.8 billion at December 31, 2020. The decrease in the allowance for credit losses reflected:

- an $8.0 billion reduction in consumer, predominantly in the credit card portfolio, reflecting improvements in the Firm's macroeconomic outlook; and
- a $2.3 billion net reduction in wholesale, across the LOBs, reflecting improvements in the Firm's macroeconomic outlook.

The COVID-19 pandemic has stressed many MEVs used in the Firm's allowance estimate which has created challenges in the use of modeled credit loss estimates, increased the reliance on management judgment, and resulted in adjustments to appropriately address the economic circumstances. These adjustments continued through the third quarter of 2021, although to a lesser extent than experienced during 2020.

The U.S. economy has continued to improve despite the ongoing impact of the COVID-19 pandemic, with the benefits of vaccination resulting in improvements in the Firm's macroeconomic outlook, particularly in the adverse scenarios. However, uncertainties remain, including the impact that additional waves and variants of COVID-19 may have on the pace of economic growth, the strength of underlying labor markets with the expiration of government assistance programs, and the potential for changes in consumer behavior that could have longer term impacts on certain sectors. As a result of these uncertainties, the Firm retained meaningful weighting on its adverse scenarios in the third quarter of 2021, in line with the second quarter of 2021, but to a lesser extent than the fourth quarter of 2020. These adverse scenarios incorporate more punitive macroeconomic factors than the central case assumptions outlined below, resulting in a weighted average U.S. unemployment rate near 7% into the first quarter of 2022 and falling below 6% in the third quarter of 2022, and a weighted average cumulative change in U.S. GDP of 3.8% in the fourth quarter of 2022.

The Firm’s central case assumptions reflected U.S. unemployment rates and U.S. real GDP as follows:

	Assumptions at September 30, 2021		
	4Q21	2Q22	4Q22
U.S. unemployment rate[(a)]	5.1 %	4.4 %	4.1 %
Cumulative change in U.S. real GDP from 12/31/2019	3.3 %	5.0 %	6.2 %

	Assumptions at December 31, 2020		
	2Q21	4Q21	2Q22
U.S. unemployment rate[(a)]	6.8 %	5.7 %	5.1 %
Cumulative change in U.S. real GDP from 12/31/2019	(1.9)%	0.6 %	2.0 %

(a) Reflects quarterly average of forecasted U.S. unemployment rate.

Subsequent changes to this forecast and related estimates will be reflected in the provision for credit losses in future periods.

Note 13 – Variable interest entities

Refer to Note 1 of JPMorgan Chase's 2020 Form 10-K for a further description of JPMorgan Chase's accounting policies regarding consolidation of VIEs. Refer to Note 14 of JPMorgan Chase's 2020 Form 10-K for a detailed discussion of VIEs, including the Firm's accounting policies regarding securitizations.

The following table summarizes the most significant types of Firm-sponsored VIEs by business segment. The Firm considers a "Firm-sponsored" VIE to include any entity where: (1) JPMorgan Chase is the primary beneficiary of the structure; (2) the VIE is used by JPMorgan Chase to securitize Firm assets; (3) the VIE issues financial instruments with the JPMorgan Chase name; or (4) the entity is a JPMorgan Chase–administered asset-backed commercial paper conduit.

Line of Business	*Transaction Type*	*Activity*	*Form 10-Q page references*
CCB	Credit card securitization trusts	Securitization of originated credit card receivables	155
	Mortgage securitization trusts	Servicing and securitization of both originated and purchased residential mortgages	155-157
CIB	Mortgage and other securitization trusts	Securitization of both originated and purchased residential and commercial mortgages, and other consumer loans	155-157
	Multi-seller conduits	Assist clients in accessing the financial markets in a cost-efficient manner and structures transactions to meet investor needs	157
	Municipal bond vehicles	Financing of municipal bond investments	157

The Firm also invests in and provides financing and other services to VIEs sponsored by third parties. Refer to pages 158–159 of this Note for more information on consolidated VIE assets and liabilities as well as the VIEs sponsored by third parties.

Significant Firm-sponsored VIEs

Credit card securitizations

As a result of the Firm's continuing involvement, the Firm is considered to be the primary beneficiary of its Firm-sponsored credit card securitization trust, the Chase Issuance Trust.

Firm-sponsored mortgage and other securitization trusts

The Firm securitizes (or has securitized) originated and purchased residential mortgages, commercial mortgages and other consumer loans primarily in its CCB and CIB businesses. Depending on the particular transaction, as well as the respective business involved, the Firm may act as the servicer of the loans and/or retain certain beneficial interests in the securitization trusts.

The following tables present the total unpaid principal amount of assets held in Firm-sponsored private-label securitization entities, including those in which the Firm has continuing involvement, and those that are consolidated by the Firm. Continuing involvement includes servicing the loans, holding senior interests or subordinated interests (including amounts required to be held pursuant to credit risk retention rules), recourse or guarantee arrangements, and derivative contracts. In certain instances, the Firm's only continuing involvement is servicing the loans. The Firm's maximum loss exposure from retained and purchased interests is the carrying value of these interests.

	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs[c][d][e]			
September 30, 2021 (in millions)	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	Investment securities	Other financial assets	Total interests held by JPMorgan Chase
Securitization-related[a]							
Residential mortgage:							
Prime/Alt-A and option ARMs	**$ 52,280**	**$ 1,057**	**$ 43,700**	**$ 561**	**$ 572**	**$ 100**	**$ 1,233**
Subprime	**11,430**	**29**	**10,537**	**3**	**—**	**—**	**3**
Commercial and other[b]	**135,904**	**—**	**110,012**	**861**	**2,443**	**324**	**3,628**
Total	**$ 199,614**	**$ 1,086**	**$ 164,249**	**$ 1,425**	**$ 3,015**	**$ 424**	**$ 4,864**

	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs[c][d][e]			
December 31, 2020 (in millions)	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	Investment securities	Other financial assets	Total interests held by JPMorgan Chase
Securitization-related[a]							
Residential mortgage:							
Prime/Alt-A and option ARMs	$ 49,644	$ 1,693	$ 41,265	$ 574	$ 724	$ —	$ 1,298
Subprime	12,896	46	12,154	9	—	—	9
Commercial and other[b]	119,732	—	92,351	955	1,549	262	2,766
Total	$ 182,272	$ 1,739	$ 145,770	$ 1,538	$ 2,273	$ 262	$ 4,073

(a) Excludes U.S. GSEs and government agency securitizations and re-securitizations, which are not Firm-sponsored.
(b) Consists of securities backed by commercial real estate loans and non-mortgage-related consumer receivables purchased from third parties.
(c) Excludes the following: retained servicing; securities retained from loan sales and securitization activity related to U.S. GSEs and government agencies; interest rate and foreign exchange derivatives primarily used to manage interest rate and foreign exchange risks of securitization entities; senior and subordinated securities of $167 million and $72 million, respectively, at September 30, 2021, and $105 million and $40 million, respectively, at December 31, 2020, which the Firm purchased in connection with CIB's secondary market-making activities.
(d) Includes interests held in re-securitization transactions.
(e) As of both September 30, 2021 and December 31, 2020, 73% of the Firm's retained securitization interests, which are predominantly carried at fair value and include amounts required to be held pursuant to credit risk retention rules, were risk-rated "A" or better, on an S&P-equivalent basis. The retained interests in prime residential mortgages consisted of $1.1 billion and $1.3 billion of investment-grade retained interests, and $131 million and $41 million of noninvestment-grade retained interests at September 30, 2021, and December 31, 2020, respectively. The retained interests in commercial and other securitization trusts consisted of $2.8 billion and $2.0 billion of investment-grade retained interests, and $854 million and $753 million of noninvestment-grade retained interests at September 30, 2021 and December 31, 2020, respectively.

Residential mortgage
The Firm securitizes residential mortgage loans originated by CCB, as well as residential mortgage loans purchased from third parties by either CCB or CIB.

Commercial mortgages and other consumer securitizations
CIB originates and securitizes commercial mortgage loans, and engages in underwriting and trading activities involving the securities issued by securitization trusts.

Re-securitizations
The following table presents the principal amount of securities transferred to re-securitization VIEs.

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Transfers of securities to VIEs				
U.S. GSEs and government agencies	**$ 11,258**	$ 12,488	**$ 43,157**	$ 27,710

The Firm did not transfer any private label securities to re-securitization VIEs during the three and nine months ended September 30, 2021 and 2020, and retained interests in any such Firm-sponsored VIEs as of September 30, 2021 and December 31, 2020 were immaterial.

The following table presents information on the Firm's interests in nonconsolidated re-securitization VIEs.

	Nonconsolidated re-securitization VIEs	
(in millions)	**September 30, 2021**	December 31, 2020
U.S. GSEs and government agencies		
Interest in VIEs	**$ 2,074**	$ 2,631

As of September 30, 2021, and December 31, 2020, the Firm did not consolidate any U.S. GSE and government agency re-securitization VIEs or any Firm-sponsored private-label re-securitization VIEs.

Multi-seller conduits
In the normal course of business, JPMorgan Chase makes markets in and invests in commercial paper issued by the Firm-administered multi-seller conduits. The Firm held $12.5 billion and $13.5 billion of the commercial paper issued by the Firm-administered multi-seller conduits at September 30, 2021, and December 31, 2020, respectively, which have been eliminated in consolidation. The Firm's investments reflect the Firm's funding needs and capacity and were not driven by market illiquidity. Other than the amounts required to be held pursuant to credit risk retention rules, the Firm is not obligated under any agreement to purchase the commercial paper issued by the Firm-administered multi-seller conduits.

Deal-specific liquidity facilities, program-wide liquidity and credit enhancement provided by the Firm have been eliminated in consolidation. The Firm or the Firm-administered multi-seller conduits provide lending-related commitments to certain clients of the Firm-administered multi-seller conduits. The unfunded commitments were $12.5 billion and $12.2 billion at September 30, 2021, and December 31, 2020, respectively, and are reported as off-balance sheet lending-related commitments in other unfunded commitments to extend credit. Refer to Note 22 for more information on off-balance sheet lending-related commitments.

Municipal bond vehicles
Municipal bond vehicles or tender option bond ("TOB") trusts allow institutions to finance their municipal bond investments at short-term rates. TOB transactions are known as customer TOB trusts and non-customer TOB trusts. Customer TOB trusts are sponsored by a third party. The Firm serves as sponsor for all non-customer TOB transactions.

Consolidated VIE assets and liabilities

The following table presents information on assets and liabilities related to VIEs consolidated by the Firm as of September 30, 2021, and December 31, 2020.

	Assets				Liabilities		
September 30, 2021 (in millions)	Trading assets	Loans	Other[c]	Total assets[d]	Beneficial interests in VIE assets[e]	Other[f]	Total liabilities
VIE program type							
Firm-sponsored credit card trusts	$ —	$ 10,606	$ 97	$ 10,703	$ 2,396	$ 1	$ 2,397
Firm-administered multi-seller conduits	2	21,077	76	21,155	8,612	37	8,649
Municipal bond vehicles	2,009	—	4	2,013	1,976	—	1,976
Mortgage securitization entities[a]	—	1,091	47	1,138	216	90	306
Other	—	2,578 (b)	292	2,870	57	106	163
Total	$ 2,011	$ 35,352	$ 516	$ 37,879	$ 13,257	$ 234	$ 13,491

	Assets				Liabilities		
December 31, 2020 (in millions)	Trading assets	Loans	Other[c]	Total assets[d]	Beneficial interests in VIE assets[e]	Other[f]	Total liabilities
VIE program type							
Firm-sponsored credit card trusts	$ —	$ 11,962	$ 148	$ 12,110	$ 4,943	$ 3	$ 4,946
Firm-administered multi-seller conduits	2	23,787	188	23,977	10,523	33	10,556
Municipal bond vehicles	1,930	—	2	1,932	1,902	—	1,902
Mortgage securitization entities[a]	—	1,694	94	1,788	210	108	318
Other	2	176	249	427	—	89	89
Total	$ 1,934	$ 37,619	$ 681	$ 40,234	$ 17,578	$ 233	$ 17,811

(a) Includes residential and commercial mortgage securitizations.
(b) Predominantly includes purchased supply chain finance receivables and purchased auto loan securitizations in CIB.
(c) Includes assets classified as cash and other assets on the Consolidated balance sheets.
(d) The assets of the consolidated VIEs included in the program types above are used to settle the liabilities of those entities. The assets and liabilities include third-party assets and liabilities of consolidated VIEs and exclude intercompany balances that eliminate in consolidation.
(e) The interest-bearing beneficial interest liabilities issued by consolidated VIEs are classified in the line item on the Consolidated balance sheets titled, "Beneficial interests issued by consolidated VIEs". The holders of these beneficial interests generally do not have recourse to the general credit of JPMorgan Chase. Included in beneficial interests in VIE assets are long-term beneficial interests of $2.7 billion and $5.2 billion at September 30, 2021, and December 31, 2020, respectively.
(f) Includes liabilities classified as accounts payable and other liabilities on the Consolidated balance sheets.

VIEs sponsored by third parties

The Firm enters into transactions with VIEs structured by other parties. These include, for example, acting as a derivative counterparty, liquidity provider, investor, underwriter, placement agent, remarketing agent, trustee or custodian. These transactions are conducted at arm's-length, and individual credit decisions are based on the analysis of the specific VIE, taking into consideration the quality of the underlying assets. Where the Firm does not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance, or a variable interest that could potentially be significant, the Firm generally does not consolidate the VIE, but it records and reports these positions on its Consolidated balance sheets in the same manner it would record and report positions in respect of any other third-party transaction.

Tax credit vehicles

The Firm holds investments in unconsolidated tax credit vehicles, which are limited partnerships and similar entities that own and operate affordable housing, energy, and other projects. These entities are primarily considered VIEs. A third party is typically the general partner or managing member and has control over the significant activities of the tax credit vehicles, and accordingly the Firm does not consolidate tax credit vehicles. The Firm generally invests in these partnerships as a limited partner and earns a return primarily through the receipt of tax credits allocated to the projects. The maximum loss exposure, represented by equity investments and funding commitments, was $24.7 billion and $23.6 billion, of which $8.6 billion and $8.7 billion was unfunded at September 30, 2021 and December 31, 2020, respectively. The prior-period maximum loss exposure amount has been revised to conform with the current presentation. The Firm assesses each project and to reduce the risk of loss, may withhold varying amounts of its capital investment until the project qualifies for tax credits. Refer to Note 25 of JPMorgan Chase's 2020 Form 10-K for further information on affordable housing tax credits and Note 22 of this Form 10-Q for more information on off-balance sheet lending-related commitments.

Customer municipal bond vehicles (TOB trusts)
The Firm may provide various services to customer TOB trusts, including remarketing agent, liquidity or tender option provider. In certain customer TOB transactions, the Firm, as liquidity provider, has entered into a reimbursement agreement with the Residual holder.

In those transactions, upon the termination of the vehicle, the Firm has recourse to the third-party Residual holders for any shortfall. The Firm does not have any intent to protect Residual holders from potential losses on any of the underlying municipal bonds. The Firm does not consolidate customer TOB trusts, since the Firm does not have the power to make decisions that significantly impact the economic performance of the municipal bond vehicle.

The Firm's maximum exposure as a liquidity provider to customer TOB trusts at September 30, 2021 and December 31, 2020 was $6.9 billion and $6.7 billion, respectively. The fair value of assets held by such VIEs at September 30, 2021 and December 31, 2020 was $10.6 billion and $10.5 billion, respectively.

Loan securitizations

The Firm has securitized and sold a variety of loans, including residential mortgages, credit card receivables, and commercial mortgages.

Securitization activity

The following table provides information related to the Firm's securitization activities for the three and nine months ended September 30, 2021 and 2020, related to assets held in Firm-sponsored securitization entities that were not consolidated by the Firm, and where sale accounting was achieved at the time of the securitization.

	Three months ended September 30,				Nine months ended September 30,			
	2021		2020		**2021**		2020	
(in millions)	Residential mortgage[d]	Commercial and other[e]	Residential mortgage[d]	Commercial and other[e]	Residential mortgage[d]	Commercial and other[e]	Residential mortgage[d]	Commercial and other[e]
Principal securitized	**$ 8,245**	**$ 4,426**	$ 2,852	$ 1,330	**$ 16,437**	**$ 9,214**	$ 6,450	$ 5,379
All cash flows during the period:[a]								
Proceeds received from loan sales as financial instruments[b][c]	**$ 8,424**	**$ 4,456**	$ 2,955	$ 1,392	**$ 16,876**	**$ 9,335**	$ 6,645	$ 5,577
Servicing fees collected	**39**	**—**	54	1	**121**	**—**	165	1
Cash flows received on interests	**121**	**92**	207	78	**477**	**215**	538	138

(a) Excludes re-securitization transactions.
(b) Predominantly includes Level 2 assets.
(c) The carrying value of the loans accounted for at fair value approximated the proceeds received upon loan sale.
(d) Represents prime mortgages. Excludes loan securitization activity related to U.S. GSEs and government agencies.
(e) Includes commercial mortgage and other consumer loans.

Loans and excess MSRs sold to U.S. government-sponsored enterprises and loans in securitization transactions pursuant to Ginnie Mae guidelines

In addition to the amounts reported in the securitization activity tables above, the Firm, in the normal course of business, sells originated and purchased mortgage loans and certain originated excess MSRs on a nonrecourse basis, predominantly to U.S. GSEs. These loans and excess MSRs are sold primarily for the purpose of securitization by the U.S. GSEs, who provide certain guarantee provisions (e.g., credit enhancement of the loans). The Firm also sells loans into securitization transactions pursuant to Ginnie Mae guidelines; these loans are typically insured or guaranteed by another U.S. government agency. The Firm does not consolidate the securitization vehicles underlying these transactions as it is not the primary beneficiary. For a limited number of loan sales, the Firm is obligated to share a portion of the credit risk associated with the sold loans with the purchaser. Refer to Note 22 of this Form 10-Q for additional information about the Firm's loan sales- and securitization-related indemnifications and Note 14 for additional information about the impact of the Firm's sale of certain excess MSRs.

The following table summarizes the activities related to loans sold to the U.S. GSEs, and loans in securitization transactions pursuant to Ginnie Mae guidelines.

(in millions)	Three months ended September 30, 2021	2020	Nine months ended September 30, 2021	2020
Carrying value of loans sold	**$ 29,033**	$ 18,065	**$ 76,639**	$ 60,447
Proceeds received from loan sales as cash	**70**	5	**110**	27
Proceeds from loan sales as securities[(a)(b)]	**28,549**	17,858	**75,331**	59,795
Total proceeds received from loan sales[(c)]	**$ 28,619**	$ 17,863	**$ 75,441**	$ 59,822
Gains/(losses) on loan sales[(d)(e)]	**$ —**	$ —	**$ 4**	$ 6

(a) Includes securities from U.S. GSEs and Ginnie Mae that are generally sold shortly after receipt or retained as part of the Firm's investment securities portfolio.
(b) Included in level 2 assets.
(c) Excludes the value of MSRs retained upon the sale of loans.
(d) Gains/(losses) on loan sales include the value of MSRs.
(e) The carrying value of the loans accounted for at fair value approximated the proceeds received upon loan sale.

Options to repurchase delinquent loans

In addition to the Firm's obligation to repurchase certain loans due to material breaches of representations and warranties as discussed in Note 22, the Firm also has the option to repurchase delinquent loans that it services for Ginnie Mae loan pools, as well as for other U.S. government agencies under certain arrangements. The Firm typically elects to repurchase delinquent loans from Ginnie Mae loan pools as it continues to service them and/or manage the foreclosure process in accordance with the applicable requirements, and such loans continue to be insured or guaranteed. When the Firm's repurchase option becomes exercisable, such loans must be reported on the Consolidated balance sheets as a loan with a corresponding liability. Refer to Note 11 for additional information.

The following table presents loans the Firm repurchased or had an option to repurchase, real estate owned, and foreclosed government-guaranteed residential mortgage loans recognized on the Firm's Consolidated balance sheets as of September 30, 2021 and December 31, 2020. Substantially all of these loans and real estate are insured or guaranteed by U.S. government agencies.

(in millions)	Sep 30, 2021	Dec 31, 2020
Loans repurchased or option to repurchase[(a)]	**$ 1,103**	$ 1,413
Real estate owned	**5**	9
Foreclosed government-guaranteed residential mortgage loans[(b)]	**44**	64

(a) Predominantly all of these amounts relate to loans that have been repurchased from Ginnie Mae loan pools.
(b) Relates to voluntary repurchases of loans, which are included in accrued interest and accounts receivable.

Loan delinquencies and liquidation losses

The table below includes information about components of and delinquencies related to nonconsolidated securitized financial assets held in Firm-sponsored private-label securitization entities, in which the Firm has continuing involvement as of September 30, 2021, and December 31, 2020.

	Securitized assets		90 days past due		Net liquidation losses			
					Three months ended September 30,		Nine months ended September 30,	
(in millions)	Sep 30, 2021	Dec 31, 2020	Sep 30, 2021	Dec 31, 2020	2021	2020	2021	2020
Securitized loans								
Residential mortgage:								
Prime / Alt-A & option ARMs	**$ 43,700**	$ 41,265	**$ 3,160**	$ 4,988	**$ —**	$ 9	**$ 14**	$ 184
Subprime	**10,537**	12,154	**1,808**	2,406	**—**	24	**18**	159
Commercial and other	**110,012**	92,351	**3,254**	5,958	**244**	—	**265**	11
Total loans securitized	**$ 164,249**	$ 145,770	**$ 8,222**	$ 13,352	**$ 244**	$ 33	**$ 297**	$ 354

Note 14 – Goodwill and Mortgage servicing rights

Refer to Note 15 of JPMorgan Chase's 2020 Form 10-K for a discussion of the accounting policies related to goodwill and mortgage servicing rights.

Goodwill

The following table presents goodwill attributed to the reportable business segments and Corporate.

(in millions)		September 30, 2021	December 31, 2020
Consumer & Community Banking	$	**31,472**	$ 31,311
Corporate & Investment Bank		**7,906**	7,913
Commercial Banking		**2,986**	2,985
Asset & Wealth Management		**7,222**	7,039
Corporate		**727**	—
Total goodwill	$	**50,313**	$ 49,248

The following table presents changes in the carrying amount of goodwill.

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Balance at beginning of period	**$ 49,256**	$ 47,811	**$ 49,248**	$ 47,823
Changes during the period from:				
Business combinations[(a)]	**1,065**	—	**1,065**	—
Other[(b)]	**(8)**	8	**—**	(4)
Balance at September 30,	**$ 50,313**	$ 47,819	**$ 50,313**	$ 47,819

(a) For the three and nine months ended September 30, 2021, represents estimated goodwill associated with the acquisitions of Nutmeg in Corporate, OpenInvest and Campbell Global in AWM and Frank in CCB.
(b) Primarily foreign currency adjustments and adjustments to goodwill related to prior period acquisitions.

Goodwill impairment testing

Goodwill is tested for impairment during the fourth quarter of each fiscal year, or more often if events or circumstances, such as adverse changes in the business climate, indicate that there may be an impairment. Refer to Note 15 of JPMorgan Chase's 2020 Form 10-K for a further discussion of the Firm's goodwill impairment testing.

Unanticipated declines in business performance, increases in credit losses, increases in capital requirements, as well as deterioration in economic or market conditions, adverse regulatory or legislative changes or increases in the estimated market cost of equity, could cause the estimated fair values of the Firm's reporting units to decline in the future, which could result in a material impairment charge to earnings in a future period related to some portion of the associated goodwill.

As of September 30, 2021, the Firm reviewed current economic conditions, including the potential impacts of the COVID-19 pandemic on business performance, estimated market cost of equity, as well as actual business results and projections of business performance. The Firm has concluded that goodwill was not impaired as of September 30, 2021, or December 31, 2020, nor was goodwill written off due to impairment during the nine months ended September 30, 2021 or 2020.

Mortgage servicing rights

MSRs represent the fair value of expected future cash flows for performing servicing activities for others. The fair value considers estimated future servicing fees and ancillary revenue, offset by estimated costs to service the loans, and generally declines over time as net servicing cash flows are received, effectively amortizing the MSR asset against contractual servicing and ancillary fee income. MSRs are either purchased from third parties or recognized upon sale or securitization of mortgage loans if servicing is retained. Refer to Notes 2 and 15 of JPMorgan Chase's 2020 Form 10-K for a further description of the MSR asset, interest rate risk management, and the valuation of MSRs.

The following table summarizes MSR activity for the three and nine months ended September 30, 2021 and 2020.

(in millions, except where otherwise noted)	As of or for the three months ended September 30, 2021	As of or for the three months ended September 30, 2020	As of or for the nine months ended September 30, 2021	As of or for the nine months ended September 30, 2020
Fair value at beginning of period	**$ 4,549**	$ 3,080	**$ 3,276**	$ 4,699
MSR activity:				
Originations of MSRs	**429**	204	**1,252**	639
Purchase of MSRs	**584**	17	**1,158**	24
Disposition of MSRs(a)	**1**	(104)	**(23)**	(177)
Net additions/(dispositions)	**1,014**	117	**2,387**	486
Changes due to collection/realization of expected cash flows	**(201)**	(215)	**(570)**	(710)
Changes in valuation due to inputs and assumptions:				
Changes due to market interest rates and other(b)	**133**	(59)	**469**	(1,573)
Changes in valuation due to other inputs and assumptions:				
Projected cash flows (e.g., cost to service)	**119**	(82)	**96**	(80)
Discount rates	**—**	199	**—**	199
Prepayment model changes and other(c)	**(263)**	(24)	**(307)**	(5)
Total changes in valuation due to other inputs and assumptions	**(144)**	93	**(211)**	114
Total changes in valuation due to inputs and assumptions	**(11)**	34	**258**	(1,459)
Fair value at September 30,	**$ 5,351**	$ 3,016	**$ 5,351**	$ 3,016
Changes in unrealized gains/(losses) included in income related to MSRs held at September 30,	**$ (11)**	$ 34	**$ 258**	$ (1,459)
Contractual service fees, late fees and other ancillary fees included in income	**334**	333	**932**	1,026
Third-party mortgage loans serviced at September 30, (in billions)	**510**	456	**510**	456
Servicer advances, net of an allowance for uncollectible amounts, at September 30, (in billions)(d)	**1.7**	1.7	**1.7**	1.7

(a) Includes excess MSRs transferred to agency-sponsored trusts in exchange for stripped mortgage backed securities ("SMBS"). In each transaction, a portion of the SMBS was acquired by third parties at the transaction date; the Firm acquired the remaining balance of those SMBS as trading securities.
(b) Represents both the impact of changes in estimated future prepayments due to changes in market interest rates, and the difference between actual and expected prepayments.
(c) Represents changes in prepayments other than those attributable to changes in market interest rates.
(d) Represents amounts the Firm pays as the servicer (e.g., scheduled principal and interest, taxes and insurance), which will generally be reimbursed within a short period of time after the advance from future cash flows from the trust or the underlying loans. The Firm's credit risk associated with these servicer advances is minimal because reimbursement of the advances is typically senior to all cash payments to investors. In addition, the Firm maintains the right to stop payment to investors if the collateral is insufficient to cover the advance. However, certain of these servicer advances may not be recoverable if they were not made in accordance with applicable rules and agreements.

The following table presents the components of mortgage fees and related income (including the impact of MSR risk management activities) for the three and nine months ended September 30, 2021 and 2020.

(in millions)	Three months ended September 30, 2021	Three months ended September 30, 2020	Nine months ended September 30, 2021	Nine months ended September 30, 2020
CCB mortgage fees and related income				
Production revenue	**$ 614**	$ 765	**$ 1,888**	$ 1,826
Net mortgage servicing revenue:				
Operating revenue:				
Loan servicing revenue	**328**	381	**892**	1,063
Changes in MSR asset fair value due to collection/realization of expected cash flows	**(201)**	(215)	**(570)**	(710)
Total operating revenue	**127**	166	**322**	353
Risk management:				
Changes in MSR asset fair value due to market interest rates and other[(a)]	**133**	(59)	**469**	(1,573)
Other changes in MSR asset fair value due to other inputs and assumptions in model[(b)]	**(144)**	93	**(211)**	114
Changes in derivative fair value and other	**(134)**	111	**(621)**	1,593
Total risk management	**(145)**	145	**(363)**	134
Total net mortgage servicing revenue	**(18)**	311	**(41)**	487
Total CCB mortgage fees and related income	**596**	1,076	**1,847**	2,313
All other	**4**	11	**8**	11
Mortgage fees and related income	**$ 600**	$ 1,087	**$ 1,855**	$ 2,324

(a) Represents both the impact of changes in estimated future prepayments due to changes in market interest rates, and the difference between actual and expected prepayments.
(b) Represents the aggregate impact of changes in model inputs and assumptions such as projected cash flows (e.g., cost to service), discount rates and changes in prepayments other than those attributable to changes in market interest rates (e.g., changes in prepayments due to changes in home prices).

The table below outlines the key economic assumptions used to determine the fair value of the Firm's MSRs at September 30, 2021, and December 31, 2020, and outlines hypothetical sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

(in millions, except rates)	Sep 30, 2021	Dec 31, 2020
Weighted-average prepayment speed assumption (constant prepayment rate)	**10.12 %**	14.90 %
Impact on fair value of 10% adverse change	**$ (220)**	$ (206)
Impact on fair value of 20% adverse change	**(423)**	(392)
Weighted-average option adjusted spread[(a)]	**6.56 %**	7.19 %
Impact on fair value of a 100 basis point adverse change	**$ (226)**	$ (134)
Impact on fair value of a 200 basis point adverse change	**(433)**	(258)

(a) Includes the impact of operational risk and regulatory capital.

Changes in fair value based on variations in assumptions generally cannot be easily extrapolated, because the relationship of the change in the assumptions to the change in fair value are often highly interrelated and may not be linear. In this table, the effect that a change in a particular assumption may have on the fair value is calculated without changing any other assumption. In reality, changes in one factor may result in changes in another, which would either magnify or counteract the impact of the initial change.

Note 15 – Deposits

Refer to Note 17 of JPMorgan Chase's 2020 Form 10-K for further information on deposits.

At September 30, 2021 and December 31, 2020, noninterest-bearing and interest-bearing deposits were as follows.

(in millions)	September 30, 2021	December 31, 2020
U.S. offices		
Noninterest-bearing (included **$9,186** and $9,873 at fair value)[(a)]	**$ 656,438**	$ 572,711
Interest-bearing (included **$630** and $2,567 at fair value)[(a)]	**1,344,092**	1,197,032
Total deposits in U.S. offices	**2,000,530**	1,769,743
Non-U.S. offices		
Noninterest-bearing (included **$1,788** and $1,486 at fair value)[(a)]	**28,589**	23,435
Interest-bearing (included **$204** and $558 at fair value)[(a)]	**373,234**	351,079
Total deposits in non-U.S. offices	**401,823**	374,514
Total deposits	**$ 2,402,353**	$ 2,144,257

(a) Includes structured notes classified as deposits for which the fair value option has been elected. Refer to Note 3 for further information.

Note 16 – Leases

Refer to Note 18 of JPMorgan Chase's 2020 Form 10-K for a further discussion on leases.

Firm as lessee

At September 30, 2021, JPMorgan Chase and its subsidiaries were obligated under a number of noncancellable leases, predominantly operating leases for premises and equipment used primarily for business purposes.

Operating lease liabilities and right-of-use ("ROU") assets are recognized at the lease commencement date based on the present value of the future minimum lease payments over the lease term.

The following table provides information related to the Firm's operating leases:

(in millions)	September 30, 2021	December 31, 2020
Right-of-use assets	**$ 7,837**	$ 8,006
Lease liabilities	**8,262**	8,508

The Firm's net rental expense was $490 million and $474 million for the three months ended September 30, 2021 and 2020, respectively, and $1.5 billion and $1.4 billion for the nine months ended September 30, 2021 and 2020, respectively.

Firm as lessor

The Firm's lease financings are predominantly auto operating leases, and are included in other assets on the Firm's Consolidated balance sheets.

The following table presents the Firm's operating lease income, included within other income, and the related depreciation expense, included within technology, communications and equipment expense, on the Consolidated statements of income:

	Three months ended September 30,		Nine months ended September 30,	
(in millions)	**2021**	2020	**2021**	2020
Operating lease income	**$ 1,190**	$ 1,425	**$ 3,792**	$ 4,236
Depreciation expense	**785**	1,035	**2,595**	3,261

Note 17 - Preferred stock

Refer to Note 21 of JPMorgan Chase's 2020 Form 10-K for a further discussion on preferred stock.

The following is a summary of JPMorgan Chase's non-cumulative preferred stock outstanding as of September 30, 2021 and December 31, 2020, and the quarterly dividend declarations for the three and nine months ended September 30, 2021 and 2020.

	Shares		Carrying value (in millions)						Dividend declared per share				
									Three months ended September 30,		Nine months ended September 30,		
	September 30, 2021	December 31, 2020	**September 30, 2021**	December 31, 2020	Issue date	Contractual rate in effect at September 30, 2021	Earliest redemption date	Floating annualized rate[(a)]	**2021**	2020	**2021**	2020	
Fixed-rate:													
Series Y	**—**	—	**$ —**	$ —	2/12/2015	**— %**	3/1/2020	NA	**$—**	$—	**$—**	$153.13	
Series AA	**—**	142,500	**—**	1,425	6/4/2015	**—**	9/1/2020	NA	**—**	152.50	**305.00**	457.50	
Series BB	**—**	115,000	**—**	1,150	7/29/2015	**—**	9/1/2020	NA	**—**	153.75	**307.50**	461.25	
Series DD	**169,625**	169,625	**1,696**	1,696	9/21/2018	**5.750**	12/1/2023	NA	**143.75**	143.75	**431.25**	431.25	
Series EE	**185,000**	185,000	**1,850**	1,850	1/24/2019	**6.000**	3/1/2024	NA	**150.00**	150.00	**450.00**	450.00	
Series GG	**90,000**	90,000	**900**	900	11/7/2019	**4.750**	12/1/2024	NA	**118.75**	118.75	**356.25**	387.92	(b)
Series JJ	**150,000**	—	**1,500**	—	3/17/2021	**4.550**	6/1/2026	NA	**113.75**	NA	**207.28**	NA	(c)
Series LL	**185,000**	—	**1,850**	—	5/20/2021	**4.625**	6/1/2026	NA	**129.76**	NA	**129.76**	NA	(d)
Series MM	**200,000**	—	**2,000**	—	7/29/2021	**4.200**	9/1/2026	NA	**—**	NA	**—**	NA	(e)
Fixed-to-floating-rate:													
Series I	**293,375**	293,375	**$ 2,934**	$ 2,934	4/23/2008	**LIBOR + 3.47%**	4/30/2018	LIBOR + 3.47%	**$90.96**	$95.53	**$276.42**	$334.90	
Series Q	**150,000**	150,000	**1,500**	1,500	4/23/2013	**5.150**	5/1/2023	LIBOR + 3.25	**128.75**	128.75	**386.25**	386.25	
Series R	**150,000**	150,000	**1,500**	1,500	7/29/2013	**6.000**	8/1/2023	LIBOR + 3.30	**150.00**	150.00	**450.00**	450.00	
Series S	**200,000**	200,000	**2,000**	2,000	1/22/2014	**6.750**	2/1/2024	LIBOR + 3.78	**168.75**	168.75	**506.25**	506.25	
Series U	**100,000**	100,000	**1,000**	1,000	3/10/2014	**6.125**	4/30/2024	LIBOR + 3.33	**153.13**	153.13	**459.38**	459.38	
Series V	**250,000**	250,000	**2,500**	2,500	6/9/2014	**LIBOR + 3.32%**	7/1/2019	LIBOR + 3.32	**88.55**	92.41	**263.54**	343.30	
Series X	**160,000**	160,000	**1,600**	1,600	9/23/2014	**6.100**	10/1/2024	LIBOR + 3.33	**152.50**	152.50	**457.50**	457.50	
Series Z	**200,000**	200,000	**2,000**	2,000	4/21/2015	**LIBOR + 3.80%**	5/1/2020	LIBOR + 3.80	**99.23**	102.40	**300.97**	352.05	(f)
Series CC	**125,750**	125,750	**1,258**	1,258	10/20/2017	**4.625**	11/1/2022	LIBOR + 2.58	**115.63**	115.63	**346.88**	346.88	
Series FF	**225,000**	225,000	**2,250**	2,250	7/31/2019	**5.000**	8/1/2024	SOFR + 3.38	**125.00**	125.00	**375.00**	375.00	
Series HH	**300,000**	300,000	**3,000**	3,000	1/23/2020	**4.600**	2/1/2025	SOFR + 3.125	**115.00**	115.00	**345.00**	355.22	(g)
Series II	**150,000**	150,000	**1,500**	1,500	2/24/2020	**4.000**	4/1/2025	SOFR + 2.745	**100.00**	100.00	**300.00**	241.11	(h)
Series KK	**200,000**	—	**2,000**	—	5/12/2021	**3.650**	6/1/2026	CMT + 2.85	**110.51**	NA	**110.51**	NA	(i)
Total preferred stock	**3,483,750**	3,006,250	**$ 34,838**	$ 30,063									

(a) Floating annualized rate includes three-month LIBOR, three-month term SOFR or five-year Constant Maturity Treasury ("CMT") rate, as applicable, plus the spreads noted above.
(b) Dividends in the amount of $150.42 per share were declared on January 8, 2020 and include dividends from the original issue date of November 7, 2019 through February 29, 2020. Dividends were declared quarterly thereafter at the contractual rate.
(c) Dividends in the amount of $93.53 per share were declared on April 9, 2021 and include dividends from the original issue date of March 17, 2021 though May 31, 2021. Dividends were declared quarterly thereafter at the contractual rate.
(d) Dividends in the amount of $129.76 per share were declared on July 8, 2021 from the original issue date of May 20, 2021 though August 31, 2021.
(e) No dividends were declared for Series MM from the original issue date of July 29,2021 through September 30, 2021.
(f) The dividend rate for Series Z preferred stock became floating and payable quarterly starting on May 1, 2020; prior to which the dividend rate was fixed at 5.3% or $265.00 per share payable semi annually.
(g) Dividends in the amount of $125.22 per share were declared on March 13, 2020 and include dividends from the original issue date of January 23, 2020 through April 30, 2020. Dividends were declared quarterly thereafter at the contractual rate.
(h) Dividends in the amount of $141.11 per share were declared on May 15, 2020 and include dividends from the original issue date of February 24, 2020 through June 30, 2020. Dividends were declared quarterly thereafter at the contractual rate.
(i) Dividends in the amount of $110.51 per share were declared on July 8, 2021 from the original issue date of May 12, 2021 through August 31, 2021.

Each series of preferred stock has a liquidation value and redemption price per share of $10,000, plus accrued but unpaid dividends. The aggregate liquidation value was $35.2 billion at September 30, 2021.

Redemptions

On June 1, 2021, the Firm redeemed all $1.43 billion of its 6.10% non-cumulative preferred stock, Series AA and all $1.15 billion of its 6.15% non-cumulative preferred stock, Series BB.

On March 1, 2020, the Firm redeemed all $1.43 billion of its 6.125% non-cumulative preferred stock, Series Y.

Note 18 – Earnings per share

Refer to Note 23 of JPMorgan Chase's 2020 Form 10-K for a discussion of the computation of basic and diluted earnings per share ("EPS"). The following table presents the calculation of basic and diluted EPS for the three and nine months ended September 30, 2021 and 2020.

(in millions, except per share amounts)	Three months ended September 30, 2021	Three months ended September 30, 2020	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Basic earnings per share				
Net income	**$ 11,687**	$ 9,443	**$ 37,935**	$ 16,995
Less: Preferred stock dividends	**402**	381	**1,174**	1,203
Net income applicable to common equity	**11,285**	9,062	**36,761**	15,792
Less: Dividends and undistributed earnings allocated to participating securities	**56**	47	**185**	80
Net income applicable to common stockholders	**$ 11,229**	$ 9,015	**$ 36,576**	$ 15,712
Total weighted-average basic shares outstanding	**2,999.9**	3,077.8	**3,036.4**	3,083.3
Net income per share	**$ 3.74**	$ 2.93	**$ 12.05**	$ 5.10
Diluted earnings per share				
Net income applicable to common stockholders	**$ 11,229**	$ 9,015	**$ 36,576**	$ 15,712
Total weighted-average basic shares outstanding	**2,999.9**	3,077.8	**3,036.4**	3,083.3
Add: Dilutive impact of SARs and employee stock options, unvested PSUs and nondividend-earning RSUs	**5.2**	5.0	**5.3**	4.8
Total weighted-average diluted shares outstanding	**3,005.1**	3,082.8	**3,041.7**	3,088.1
Net income per share	**$ 3.74**	$ 2.92	**$ 12.02**	$ 5.09

Note 19 – Accumulated other comprehensive income/(loss)

AOCI includes the after-tax change in unrealized gains and losses on investment securities, foreign currency translation adjustments (including the impact of related derivatives), fair value changes of excluded components on fair value hedges, cash flow hedging activities, net loss and prior service costs/(credit) related to the Firm's defined benefit pension and OPEB plans, and fair value option-elected liabilities arising from changes in the Firm's own credit risk (DVA).

As of or for the three months ended September 30, 2021 (in millions)	Unrealized gains/(losses) on investment securities	Translation adjustments, net of hedges	Fair value hedges	Cash flow hedges	Defined benefit pension and OPEB plans	DVA on fair value option elected liabilities	Accumulated other comprehensive income/(loss)
Balance at July 1, 2021	**$ 4,515**	**$ (659)**	**$ (163)**	**$ 725**	**$ (1,055)**	**$ (793)**	**$ 2,570**
Net change	**(434)**	**(187)**	**9**	**(450)**	**6**	**(551)**	**(1,607)**
Balance at September 30, 2021	**$ 4,081** (a)	**$ (846)**	**$ (154)**	**$ 275**	**$ (1,049)**	**$ (1,344)**	**$ 963**

As of or for the three months ended September 30, 2020 (in millions)	Unrealized gains/(losses) on investment securities	Translation adjustments, net of hedges	Fair value hedges	Cash flow hedges	Defined benefit pension and OPEB plans	DVA on fair value option elected liabilities	Accumulated other comprehensive income/(loss)
Balance at July 1, 2020	$ 7,920	$ (895)	$ (27)	$ 2,762	$ (1,318)	$ 347	$ 8,789
Net change	514	127	(69)	(70)	(12)	(339)	151
Balance at September 30, 2020	$ 8,434 (a)	$ (768)	$ (96)	$ 2,692	$ (1,330)	$ 8	$ 8,940

As of or for the nine months ended September 30, 2021 (in millions)	Unrealized gains/(losses) on investment securities	Translation adjustments, net of hedges	Fair value hedges	Cash flow hedges	Defined benefit pension and OPEB plans	DVA on fair value option elected liabilities	Accumulated other comprehensive income/(loss)
Balance at January 1, 2021	**$ 8,180**	**$ (473)**	**$ (112)**	**$ 2,383**	**$ (1,132)**	**$ (860)**	**$ 7,986**
Net change	**(4,099)**	**(373)**	**(42)**	**(2,108)**	**83**	**(484)**	**(7,023)**
Balance at September 30, 2021	**$ 4,081** (a)	**$ (846)**	**$ (154)**	**$ 275**	**$ (1,049)**	**$ (1,344)**	**$ 963**

As of or for the nine months ended September 30, 2020 (in millions)	Unrealized gains/(losses) on investment securities	Translation adjustments, net of hedges	Fair value hedges	Cash flow hedges	Defined benefit pension and OPEB plans	DVA on fair value option elected liabilities	Accumulated other comprehensive income/(loss)
Balance at January 1, 2020	$ 4,057	$ (707)	$ (131)	$ 63	$ (1,344)	$ (369)	$ 1,569
Net change	4,377	(61)	35	2,629	14	377	7,371
Balance at September 30, 2020	$ 8,434 (a)	$ (768)	$ (96)	$ 2,692	$ (1,330)	$ 8	$ 8,940

(a) Includes after-tax net unamortized unrealized gains of $2.7 billion related to AFS securities that have been transferred to HTM at both September 30, 2021 and 2020. Refer to Note 10 of JPMorgan Chase's 2020 Form 10-K for further information.

The following table presents the pre-tax and after-tax changes in the components of OCI.

Three months ended September 30, (in millions)	2021 Pre-tax	2021 Tax effect	2021 After-tax	2020 Pre-tax	2020 Tax effect	2020 After-tax
Unrealized gains/(losses) on investment securities:						
Net unrealized gains/(losses) arising during the period	**$ (826)**	**$ 197**	**$ (629)**	$ 1,143	$ (270)	$ 873
Reclassification adjustment for realized (gains)/losses included in net income[(a)]	**256**	**(61)**	**195**	(473)	114	(359)
Net change	**(570)**	**136**	**(434)**	670	(156)	514
Translation adjustments[(b)]:						
Translation	**(1,030)**	**63**	**(967)**	871	(86)	785
Hedges	**1,028**	**(248)**	**780**	(868)	210	(658)
Net change	**(2)**	**(185)**	**(187)**	3	124	127
Fair value hedges, net change[(c)]:	**12**	**(3)**	**9**	(91)	22	(69)
Cash flow hedges:						
Net unrealized gains/(losses) arising during the period	**(267)**	**65**	**(202)**	134	(32)	102
Reclassification adjustment for realized (gains)/losses included in net income[(d)]	**(326)**	**78**	**(248)**	(227)	55	(172)
Net change	**(593)**	**143**	**(450)**	(93)	23	(70)
Defined benefit pension and OPEB plans, net change:	**8**	**(2)**	**6**	(18)	6	(12)
DVA on fair value option elected liabilities, net change:	**(729)**	**178**	**(551)**	(445)	106	(339)
Total other comprehensive income/(loss)	**$ (1,874)**	**$ 267**	**$ (1,607)**	$ 26	$ 125	$ 151

Nine months ended September 30, (in millions)	2021 Pre-tax	2021 Tax effect	2021 After-tax	2020 Pre-tax	2020 Tax effect	2020 After-tax
Unrealized gains/(losses) on investment securities:						
Net unrealized gains/(losses) arising during the period	**$ (5,792)**	**$ 1,391**	**$ (4,401)**	$ 6,494	$ (1,561)	$ 4,933
Reclassification adjustment for realized (gains)/losses included in net income[(a)]	**397**	**(95)**	**302**	(732)	176	(556)
Net change	**(5,395)**	**1,296**	**(4,099)**	5,762	(1,385)	4,377
Translation adjustments[(b)]:						
Translation	**(1,950)**	**92**	**(1,858)**	(316)	15	(301)
Hedges	**1,958**	**(473)**	**1,485**	316	(76)	240
Net change	**8**	**(381)**	**(373)**	—	(61)	(61)
Fair value hedges, net change[(c)]:	**(56)**	**14**	**(42)**	45	(10)	35
Cash flow hedges:						
Net unrealized gains/(losses) arising during the period	**(1,844)**	**443**	**(1,401)**	3,787	(909)	2,878
Reclassification adjustment for realized (gains)/losses included in net income[(d)]	**(930)**	**223**	**(707)**	(328)	79	(249)
Net change	**(2,774)**	**666**	**(2,108)**	3,459	(830)	2,629
Defined benefit pension and OPEB plans, net change:	**101**	**(18)**	**83**	23	(9)	14
DVA on fair value option elected liabilities, net change:	**(642)**	**158**	**(484)**	496	(119)	377
Total other comprehensive income/(loss)	**$ (8,758)**	**$ 1,735**	**$ (7,023)**	$ 9,785	$ (2,414)	$ 7,371

(a) The pre-tax amount is reported in Investment securities gains/(losses) in the Consolidated statements of income.
(b) Reclassifications of pre-tax realized gains/(losses) on translation adjustments and related hedges are reported in other income/expense in the Consolidated statements of income. The amounts were not material for the three and nine months ended September 30, 2021 and 2020.
(c) Represents changes in fair value of cross-currency swaps attributable to changes in cross-currency basis spreads, which are excluded from the assessment of hedge effectiveness and recorded in other comprehensive income. The initial cost of cross-currency basis spreads is recognized in earnings as part of the accrual of interest on the cross currency swaps.
(d) The pre-tax amounts are primarily recorded in noninterest revenue, net interest income and compensation expense in the Consolidated statements of income.

Note 20 – Restricted cash and other restricted assets

Refer to Note 26 of JPMorgan Chase's 2020 Form 10-K for a detailed discussion of the Firm's restricted cash and other restricted assets.

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.

The Firm is also subject to rules and regulations established by other U.S. and non U.S. regulators. As part of its compliance with the respective regulatory requirements, the Firm's broker-dealer activities are subject to certain restrictions on cash and other assets.

The following table presents the components of the Firm's restricted cash:

(in billions)	September 30, 2021	December 31, 2020
Segregated for the benefit of securities and cleared derivative customers	**16.2**	19.3
Cash reserves at non-U.S. central banks and held for other general purposes	**5.1**	5.1
Total restricted cash[(a)]	**$ 21.3**	$ 24.4

(a) Comprises $20.0 billion and $22.7 billion in deposits with banks, and $1.3 billion and $1.7 billion in cash and due from banks on the Consolidated balance sheet as of September 30, 2021 and December 31, 2020, respectively.

Also, as of September 30, 2021 and December 31, 2020, the Firm had the following other restricted assets:

- Cash and securities pledged with clearing organizations for the benefit of customers of $45.7 billion and $37.2 billion, respectively.
- Securities with a fair value of $24.2 billion and $1.3 billion, respectively, were also restricted in relation to customer activity.

Note 21 – Regulatory capital

Refer to Note 27 of JPMorgan Chase's 2020 Form 10-K for a detailed discussion on regulatory capital.

The Federal Reserve establishes capital requirements, including well-capitalized requirements, for the consolidated financial holding company. The OCC establishes similar minimum capital requirements and standards for the Firm's principal IDI subsidiary, JPMorgan Chase Bank, N.A.

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 established by their respective primary regulators.

The following table presents the minimum and well-capitalized risk-based ratios to which the Firm and its IDI subsidiaries were subject as of September 30, 2021 and December 31, 2020.

	Standardized Minimum capital ratios		Advanced Minimum capital ratios		Well-capitalized ratios	
	BHC(a)	IDI(b)	BHC(a)	IDI(b)	BHC(c)	IDI(d)
Risk-based capital ratios						
CET1 capital	11.3 %	7.0 %	10.5 %	7.0 %	NA	6.5 %
Tier 1 capital	12.8	8.5	12.0	8.5	6.0 %	8.0
Total capital	14.8	10.5	14.0	10.5	10.0	10.0

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. The CET1, Tier 1 and Total capital minimum capital ratios each include a respective minimum requirement plus a GSIB surcharge of 3.5% as calculated under Method 2; plus a 3.3% SCB for Basel III Standardized ratios and a fixed 2.5% capital conservation buffer for Basel III Advanced ratios. The countercyclical buffer is currently set to 0% by the federal banking agencies.

(b) Represents requirements for JPMorgan Chase's IDI subsidiaries. The CET1, Tier 1 and Total capital minimum capital ratios include a fixed 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.

The following table presents the minimum and well-capitalized leverage-based ratios to which the Firm and its IDI subsidiaries were subject as of September 30, 2021 and December 31, 2020.

	Minimum capital ratios(a)		Well-capitalized ratios	
	BHC	IDI	BHC(b)	IDI
Leverage-based capital ratios				
Tier 1 leverage	4.0 %	4.0 %	NA	5.0 %
SLR	5.0	6.0	NA	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 minimum SLR requirement of 3.0%, as well as supplementary leverage buffer requirements of 2.0% and 3.0% for BHC and IDI subsidiaries, respectively.

(b) The Federal Reserve's regulations do not establish well-capitalized thresholds for these measures for BHCs.

CECL regulatory capital transition delay

As part of their response to the impact of the COVID-19 pandemic, the federal banking agencies issued a final rule that provided the option beginning January 1, 2020 to delay the effects of CECL on regulatory capital for two years, followed by a three-year transition period beginning January 1, 2022.

The Firm has elected to apply the CECL capital transition provisions, and accordingly, for the period ended September 30, 2021, the capital metrics of the Firm exclude $3.3 billion, which is the $2.7 billion day 1 impact to retained earnings and 25% of the $1.9 billion increase in the allowance for credit losses from January 1, 2020 (excluding allowances on PCD loans).

The impacts of the CECL capital transition provisions have also been incorporated into Tier 2 capital, adjusted average assets, and total leverage exposure. Refer to Note 27 of JPMorgan Chase's 2020 Form 10-K for further information on CECL capital transition provisions.

The following tables present risk-based capital metrics under both the Basel III Standardized and Basel III Advanced Approaches and leverage-based capital metrics for JPMorgan Chase and JPMorgan Chase Bank, N.A. As of September 30, 2021 and December 31, 2020, JPMorgan Chase and JPMorgan Chase Bank, N.A. were well-capitalized and met all capital requirements to which each was subject.

September 30, 2021 (in millions, except ratios)	Basel III Standardized		Basel III Advanced	
	JPMorgan Chase & Co.[(a)]	JPMorgan Chase Bank, N.A.[(a)]	JPMorgan Chase & Co.[(a)]	JPMorgan Chase Bank, N.A.[(a)]
Risk-based capital metrics:				
CET1 capital	**$ 209,917**	**$ 259,990**	**$ 209,917**	**$ 259,990**
Tier 1 capital	**244,207**	**259,994**	**244,207**	**259,994**
Total capital	**274,994**	**276,303**	**264,469**	**265,403**
Risk-weighted assets	**1,628,406**	**1,562,370**	**1,544,512**	**1,396,725**
CET1 capital ratio	**12.9 %**	**16.6 %**	**13.6 %**	**18.6 %**
Tier 1 capital ratio	**15.0**	**16.6**	**15.8**	**18.6**
Total capital ratio	**16.9**	**17.7**	**17.1**	**19.0**

December 31, 2020 (in millions, except ratios)	Basel III Standardized		Basel III Advanced	
	JPMorgan Chase & Co.[(a)]	JPMorgan Chase Bank, N.A.[(a)]	JPMorgan Chase & Co.[(a)]	JPMorgan Chase Bank, N.A.[(a)]
Risk-based capital metrics:				
CET1 capital	$ 205,078	$ 234,235	$ 205,078	$ 234,235
Tier 1 capital	234,844	234,237	234,844	234,237
Total capital	269,923	252,045	257,228	239,673
Risk-weighted assets	1,560,609	1,492,138	1,484,431	1,343,185
CET1 capital ratio	13.1 %	15.7 %	13.8 %	17.4 %
Tier 1 capital ratio	15.0	15.7	15.8	17.4
Total capital ratio	17.3	16.9	17.3	17.8

(a) The capital metrics reflect the CECL capital transition provisions. Additionally, loans originated under the PPP receive a zero percent risk weight.

(in millions, except ratios)	September 30, 2021		December 31, 2020	
	JPMorgan Chase & Co.[(b)]	JPMorgan Chase Bank, N.A.[(b)]	JPMorgan Chase & Co.[(b)(c)]	JPMorgan Chase Bank, N.A.[(b)(c)]
Leverage-based capital metrics:				
Adjusted average assets[(a)]	**$ 3,675,803**	**$ 3,223,098**	$ 3,353,319	$ 2,970,285
Tier 1 leverage ratio	**6.6 %**	**8.1 %**	7.0 %	7.9 %
Total leverage exposure	**$ 4,463,904**	**$ 4,003,800**	$ 3,401,542	$ 3,688,797
SLR	**5.5 %**	**6.5 %**	6.9 %	6.3 %

(a) 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.
(b) The capital metrics reflect the CECL capital transition provisions.
(c) JPMorgan Chase's total leverage exposure for purposes of calculating the SLR, excludes on-balance sheet amounts of U.S. Treasury securities and deposits at Federal Reserve Banks, as provided by the interim final rule issued by the Federal Reserve which became effective April 1, 2020 and remained in effect through March 31, 2021. On June 1, 2020, the Federal Reserve, OCC and FDIC issued an interim final rule which became effective April 1, 2020 and remained in effect through March 31, 2021 that provides IDI subsidiaries with an option to apply this temporary exclusion subject to certain restrictions. JPMorgan Chase Bank, N.A. did not elect to apply this exclusion.

Note 22 – Off–balance sheet lending-related financial instruments, guarantees, and other commitments

JPMorgan Chase provides lending-related financial instruments (e.g., commitments and guarantees) to address the financing needs of its customers and clients. The contractual amount of these financial instruments represents the maximum possible credit risk to the Firm should the customer or client draw upon the commitment or the Firm be required to fulfill its obligation under the guarantee, and should the customer or client subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees have historically been refinanced, extended, cancelled, or expired without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Firm's view, representative of its expected future credit exposure or funding requirements. Refer to Note 28 of JPMorgan Chase's 2020 Form 10-K for a further discussion of lending-related commitments and guarantees, and the Firm's related accounting policies.

To provide for expected credit losses in wholesale and certain consumer lending-related commitments, an allowance for credit losses on lending-related commitments is maintained. Refer to Note 12 for further information regarding the allowance for credit losses on lending-related commitments.

The following table summarizes the contractual amounts and carrying values of off-balance sheet lending-related financial instruments, guarantees and other commitments at September 30, 2021, and December 31, 2020. The amounts in the table below for credit card, home equity and certain scored business banking lending-related commitments represent the total available credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit for these products will be utilized at the same time. The Firm can reduce or cancel credit card and certain scored business banking lines of credit by providing the borrower notice or, in some cases as permitted by law, without notice. In addition, the Firm typically closes credit card lines when the borrower is 60 days or more past due. The Firm may reduce or close HELOCs when there are significant decreases in the value of the underlying property, or when there has been a demonstrable decline in the creditworthiness of the borrower.

Off–balance sheet lending-related financial instruments, guarantees and other commitments

	Contractual amount						Carrying value[(i)]	
	September 30, 2021					Dec 31, 2020	Sep 30, 2021	Dec 31, 2020
By remaining maturity (in millions)	Expires in 1 year or less	Expires after 1 year through 3 years	Expires after 3 years through 5 years	Expires after 5 years	Total	Total		
Lending-related								
Consumer, excluding credit card:								
Residential real estate[(a)]	$ **26,748**	$ **2,030**	$ **5,313**	$ **10,451**	$ **44,542**	$ 46,047	$ **130**	$ 148
Auto and other	**11,255**	**—**	**—**	**887**	**12,142**	11,272	**—**	—
Total consumer, excluding credit card	**38,003**	**2,030**	**5,313**	**11,338**	**56,684**	57,319	**130**	148
Credit card[(b)]	**710,610**	**—**	**—**	**—**	**710,610**	658,506	**—**	—
Total consumer[(b)(c)]	**748,613**	**2,030**	**5,313**	**11,338**	**767,294**	715,825	**130**	148
Wholesale:								
Other unfunded commitments to extend credit[(d)]	**114,200**	**184,046**	**143,335**	**25,311**	**466,892**	415,828	**2,087**	2,148
Standby letters of credit and other financial guarantees[(d)]	**13,549**	**8,709**	**4,114**	**1,571**	**27,943**	30,982	**614**	443
Other letters of credit[(d)]	**3,936**	**372**	**93**	**—**	**4,401**	3,053	**10**	14
Total wholesale[(c)]	**131,685**	**193,127**	**147,542**	**26,882**	**499,236**	449,863	**2,711**	2,605
Total lending-related	$ **880,298**	$ **195,157**	$ **152,855**	$ **38,220**	$ **1,266,530**	$ 1,165,688	$ **2,841**	$ 2,753
Other guarantees and commitments								
Securities lending indemnification agreements and guarantees[(e)]	$ **306,562**	$ **—**	$ **—**	$ **—**	$ **306,562**	$ 250,418	$ **—**	$ —
Derivatives qualifying as guarantees	**2,828**	**420**	**11,693**	**39,870**	**54,811**	54,415	**390**	322
Unsettled resale and securities borrowed agreements	**150,495**	**6,839**	**—**	**—**	**157,334**	102,355 [(h)]	1	2
Unsettled repurchase and securities loaned agreements	**136,019**	**583**	**—**	**—**	**136,602**	104,901	—	(1)
Loan sale and securitization-related indemnifications:								
Mortgage repurchase liability	**NA**	**NA**	**NA**	**NA**	**NA**	NA	**61**	84
Loans sold with recourse	**NA**	**NA**	**NA**	**NA**	**807**	889	**20**	23
Exchange & clearing house guarantees and commitments[(f)]	**119,331**	**—**	**—**	**—**	**119,331**	142,003	**—**	—
Other guarantees and commitments[(g)]	**6,787**	**2,886**	**323**	**1,747**	**11,743**	9,639 [(h)]	**51**	52

(a) Includes certain commitments to purchase loans from correspondents.
(b) Also includes commercial card lending-related commitments primarily in CB and CIB.
(c) Predominantly all consumer and wholesale lending-related commitments are in the U.S.
(d) At September 30, 2021, and December 31, 2020, reflected the contractual amount net of risk participations totaling $48 million and $72 million, respectively, for other unfunded commitments to extend credit; $7.9 billion and $8.5 billion, respectively, for standby letters of credit and other financial guarantees; and $609 million and $357 million, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.
(e) At September 30, 2021, and December 31, 2020, collateral held by the Firm in support of securities lending indemnification agreements was $324.0 billion and $264.3 billion, respectively. Securities lending collateral primarily consists of cash, G7 government securities, and securities issued by U.S. GSEs and government agencies.
(f) At September 30, 2021, and December 31, 2020, includes guarantees to the Fixed Income Clearing Corporation under the sponsored member repo program and commitments and guarantees associated with the Firm's membership in certain clearing houses.
(g) At September 30, 2021, and December 31, 2020, primarily includes unfunded commitments to purchase secondary market loans, unfunded commitments related to certain tax-oriented equity investments, and other equity investment commitments,
(h) Prior-period amounts have been revised to conform with the current presentation.
(i) For lending-related products, the carrying value represents the allowance for lending-related commitments and the guarantee liability; for derivative-related products, and lending-related commitments for which the fair value option was elected, the carrying value represents the fair value.

Other unfunded commitments to extend credit

Other unfunded commitments to extend credit generally consist of commitments for working capital and general corporate purposes, extensions of credit to support commercial paper facilities and bond financings in the event that those obligations cannot be remarketed to new investors, as well as committed liquidity facilities to clearing organizations. The Firm also issues commitments under multipurpose facilities which could be drawn upon in several forms, including the issuance of a standby letter of credit.

Standby letters of credit and other financial guarantees

Standby letters of credit and other financial guarantees are conditional lending commitments issued by the Firm to guarantee the performance of a client or customer to a third party under certain arrangements, such as commercial paper facilities, bond financings, acquisition financings, trade financings and similar transactions.

The following table summarizes the contractual amount and carrying value of standby letters of credit and other financial guarantees and other letters of credit arrangements as of September 30, 2021, and December 31, 2020.

Standby letters of credit, other financial guarantees and other letters of credit

	September 30, 2021		December 31, 2020	
(in millions)	Standby letters of credit and other financial guarantees	Other letters of credit	Standby letters of credit and other financial guarantees	Other letters of credit
Investment-grade[(a)]	$ 19,823	$ 3,502	$ 22,850	$ 2,263
Noninvestment-grade[(a)]	8,120	899	8,132	790
Total contractual amount	$ 27,943	$ 4,401	$ 30,982	$ 3,053
Allowance for lending-related commitments	$ 78	$ 10	$ 80	$ 14
Guarantee liability	536	—	363	—
Total carrying value	$ 614	$ 10	$ 443	$ 14
Commitments with collateral	$ 15,071	$ 929	$ 17,238	$ 498

(a) The ratings scale is based on the Firm's internal risk ratings. Refer to Note 11 for further information on internal risk ratings.

Derivatives qualifying as guarantees

The Firm transacts in certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. Refer to Note 28 of JPMorgan Chase's 2020 Form 10-K for further information on these derivatives.

The following table summarizes the derivatives qualifying as guarantees as of September 30, 2021, and December 31, 2020.

(in millions)	September 30, 2021	December 31, 2020
Notional amounts		
Derivative guarantees	$ 54,811	$ 54,415
Stable value contracts with contractually limited exposure	29,741	27,752
Maximum exposure of stable value contracts with contractually limited exposure	2,878	2,803
Fair value		
Derivative payables	390	322

In addition to derivative contracts that meet the characteristics of a guarantee, the Firm is both a purchaser and seller of credit protection in the credit derivatives market. Refer to Note 4 for a further discussion of credit derivatives.

Merchant charge-backs

Under the rules of payment networks, the Firm, in its role as a merchant acquirer, retains a contingent liability for disputed processed credit and debit card transactions that result in a charge-back to the merchant. If a dispute is resolved in the cardholder's favor, Merchant Services will (through the cardholder's issuing bank) credit or refund the amount to the cardholder and will charge back the transaction to the merchant. If Merchant Services is unable to collect the amount from the merchant, Merchant Services will bear the loss for the amount credited or refunded to the cardholder. Merchant Services mitigates this risk by withholding future settlements, retaining cash reserve accounts or obtaining other collateral. In addition, Merchant Services recognizes a valuation allowance that covers the payment or performance risk to the Firm related to charge-backs.

Loan sales- and securitization-related indemnifications

In connection with the Firm's mortgage loan sale and securitization activities with GSEs the Firm has made representations and warranties that the loans sold meet certain requirements, and that may require the Firm to repurchase mortgage loans and/or indemnify the loan purchaser if such representations and warranties are breached by the Firm.

The liability related to repurchase demands associated with private label securitizations is separately evaluated by the Firm in establishing its litigation reserves. Refer to Note 24 of this Form 10-Q and Note 30 of JPMorgan Chase's 2020 Form 10-K for additional information regarding litigation.

Sponsored member repo program

The Firm acts as a sponsoring member to clear eligible overnight resale and repurchase agreements through the Government Securities Division of the Fixed Income Clearing Corporation ("FICC") on behalf of clients that become sponsored members under the FICC's rules. The Firm also guarantees to the FICC the prompt and full payment and performance of its sponsored member clients' respective obligations under the FICC's rules. The Firm minimizes its liability under these overnight guarantees by obtaining a security interest in the cash or high-quality securities collateral that the clients place with the clearing house therefore the Firm expects the risk of loss to be remote. The Firm's maximum possible exposure, without taking into consideration the associated collateral, is included in the Exchange & clearing house guarantees and commitments line on page 173. Refer to Note 11 of JPMorgan Chase's 2020 Form 10-K for additional information on credit risk mitigation practices on resale agreements and the types of collateral pledged under repurchase agreements.

Guarantees of subsidiaries

The Parent Company has guaranteed certain long-term debt and structured notes of its subsidiaries, including JPMorgan Chase Financial Company LLC ("JPMFC"), a 100%-owned finance subsidiary. All securities issued by JPMFC are fully and unconditionally guaranteed by the Parent Company and no other subsidiary of the Parent Company guarantees these securities. These guarantees, which rank on a parity with the Firm's unsecured and unsubordinated indebtedness, are not included in the table on page 173 of this Note. Refer to Note 20 of JPMorgan Chase's 2020 Form 10-K for additional information.

Note 23 – Pledged assets and collateral

Refer to Note 29 of JPMorgan Chase's 2020 Form 10-K for a discussion of the Firm's pledged assets and collateral.

Pledged assets

The Firm pledges financial assets that it owns to maintain potential borrowing capacity at discount windows with Federal Reserve banks, various other central banks and FHLBs. Additionally, the Firm pledges assets for other purposes, including to collateralize repurchase and other securities financing agreements, to cover short sales and to collateralize derivative contracts and deposits. Certain of these pledged assets may be sold or repledged or otherwise used by the secured parties and are parenthetically identified on the Consolidated balance sheets as assets pledged.

The following table presents the Firm's pledged assets.

(in billions)	September 30, 2021	December 31, 2020
Assets that may be sold or repledged or otherwise used by secured parties	**$ 122.4**	$ 166.6
Assets that may not be sold or repledged or otherwise used by secured parties	**115.3**	113.9
Assets pledged at Federal Reserve banks and FHLBs	**462.9**	455.3
Total pledged assets	**$ 700.6**	$ 735.8

Total pledged assets do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. Refer to Note 13 for additional information on assets and liabilities of consolidated VIEs. Refer to Note 10 for additional information on the Firm's securities financing activities. Refer to Note 20 of JPMorgan Chase's 2020 Form 10-K for additional information on the Firm's long-term debt.

Collateral

The Firm accepts financial assets as collateral that it is permitted to sell or repledge, deliver or otherwise use. This collateral is generally obtained under resale and other securities financing agreements, prime brokerage-related held-for-investment customer receivables and derivative contracts. Collateral is generally used under repurchase and other securities financing agreements, to cover short sales and to collateralize derivative contracts and deposits.

The following table presents the fair value of collateral accepted.

(in billions)	September 30, 2021	December 31, 2020
Collateral permitted to be sold or repledged, delivered, or otherwise used	**$ 1,417.7**	$ 1,451.7
Collateral sold, repledged, delivered or otherwise used	**1,085.7**	1,038.9

Note 24 – Litigation

Contingencies

As of September 30, 2021, the Firm and its subsidiaries and affiliates are defendants or respondents in numerous legal proceedings, including private, civil litigations, government investigations or regulatory enforcement matters. The litigations range from individual actions involving a single plaintiff to class action lawsuits with potentially millions of class members. Investigations and regulatory enforcement matters involve both formal and informal proceedings, by both governmental agencies and self-regulatory organizations. These legal proceedings are at varying stages of adjudication, arbitration or investigation, and involve each of the Firm's lines of business and several geographies and a wide variety of claims (including common law tort and contract claims and statutory antitrust, securities and consumer protection claims), some of which present novel legal theories.

The Firm believes the estimate of the aggregate range of reasonably possible losses, in excess of reserves established, for its legal proceedings is from $0 to approximately $1.5 billion at September 30, 2021. This estimated aggregate range of reasonably possible losses was based upon information available as of that date for those proceedings in which the Firm believes that an estimate of reasonably possible loss can be made. For certain matters, the Firm does not believe that such an estimate can be made, as of that date. The Firm's estimate of the aggregate range of reasonably possible losses involves significant judgment, given:

- the number, variety and varying stages of the proceedings, including the fact that many are in preliminary stages,
- the existence in many such proceedings of multiple defendants, including the Firm, whose share of liability (if any) has yet to be determined,
- the numerous yet-unresolved issues in many of the proceedings, including issues regarding class certification and the scope of many of the claims, and
- the attendant uncertainty of the various potential outcomes of such proceedings, including where the Firm has made assumptions concerning future rulings by the court or other adjudicator, or about the behavior or incentives of adverse parties or regulatory authorities, and those assumptions prove to be incorrect.

In addition, the outcome of a particular proceeding may be a result which the Firm did not take into account in its estimate because the Firm had deemed the likelihood of that outcome to be remote. Accordingly, the Firm's estimate of the aggregate range of reasonably possible losses will change from time to time, and actual losses may vary significantly.

Set forth below are descriptions of the Firm's material legal proceedings.

Amrapali. India's Enforcement Directorate ("ED") is investigating J.P. Morgan India Private Limited in connection with investments made in 2010 and 2012 by two offshore funds formerly managed by JPMorgan Chase entities into residential housing projects developed by the Amrapali Group ("Amrapali"). In 2017, numerous creditors filed civil claims against Amrapali including petitions brought by home buyers relating to delays in delivering or failure to deliver residential units. The home buyers' petitions have been overseen by the Supreme Court of India and is ongoing. In August 2021, the ED issued an order fining J.P. Morgan India Private Limited approximately $31.5 million. The Firm is appealing the order and the fine. Relatedly, in July 2019, the Supreme Court of India issued an order making preliminary findings that Amrapali and other parties, including unspecified JPMorgan Chase entities and the offshore funds that had invested in the projects, violated certain currency control and money laundering provisions, and ordering the ED to conduct a further inquiry under India's Prevention of Money Laundering Act ("PMLA") and Foreign Exchange Management Act ("FEMA"). In May 2020, the ED attached approximately $25 million from J.P. Morgan India Private Limited in connection with the criminal PMLA investigation. The Firm is responding to and cooperating with the PMLA investigation.

Federal Republic of Nigeria Litigation. JPMorgan Chase Bank, N.A. operated an escrow and depository account for the Federal Government of Nigeria ("FGN") and two major international oil companies. The account held approximately $1.1 billion in connection with a dispute among the clients over rights to an oil field. Following the settlement of the dispute, JPMorgan Chase Bank, N.A. paid out the monies in the account in 2011 and 2013 in accordance with directions received from its clients. In November 2017, the Federal Republic of Nigeria ("FRN") commenced a claim in the English High Court for approximately $875 million in payments made out of the accounts. The FRN, claiming to be the same entity as the FGN, alleges that the payments were instructed as part of a complex fraud not involving JPMorgan Chase Bank, N.A., but that JPMorgan Chase Bank, N.A. was or should have been on notice that the payments may be fraudulent. JPMorgan Chase Bank, N.A. applied for summary judgment and was unsuccessful. The claim is ongoing and a trial has been scheduled to commence in February 2022.

Foreign Exchange Investigations and Litigation. The Firm previously reported settlements with certain government authorities relating to its foreign exchange ("FX") sales and trading activities and controls related to those activities. Among those resolutions, in May 2015, the Firm pleaded guilty to a single violation of federal antitrust law. In January 2017, the Firm was sentenced, with judgment entered thereafter and a term of probation which ended in January 2020, with the Firm remaining in good standing throughout the probation period. The Department of Labor granted the Firm a five-year exemption of disqualification that allows the Firm and its affiliates to continue to rely on the Qualified Professional Asset Manager exemption under the Employee Retirement Income Security Act ("ERISA") until January 2023. The Firm will need the Department of Labor to approve a further exemption to cover the remainder of the ten-year disqualification period. A South Africa Competition Commission matter is the remaining FX-related governmental inquiry, and is currently pending before the South Africa Competition Tribunal.

In August 2018, the United States District Court for the Southern District of New York granted final approval to the Firm's settlement of a consolidated class action brought by U.S.-based plaintiffs, which principally alleged violations of federal antitrust laws based on an alleged conspiracy to manipulate foreign exchange rates and also sought damages on behalf of persons who transacted in FX futures and options on futures. Certain members of the settlement class filed requests to the Court to be excluded from the class, and certain of them filed a complaint against the Firm and other foreign exchange dealers in November 2018. A number of these actions remain pending. Further, a putative class action has been filed against the Firm and other foreign exchange dealers on behalf of certain consumers who purchased foreign currencies at allegedly inflated rates. Another putative class action was brought against the Firm and other foreign exchange dealers on behalf of purported indirect purchasers of FX instruments. In 2020, the Court approved a settlement by the Firm and 11 other defendants of that class action for a total of $10 million. In addition, some FX-related individual and putative class actions based on similar alleged underlying conduct have been filed outside the U.S., including in the U.K., Israel, Brazil and Australia.

Inquiries Concerning Preservation Requirements. The Firm has been responding to requests for information and other material from certain of its regulators concerning its compliance with records preservation requirements in connection with business communications sent over electronic messaging channels that have not been approved by the Firm. The Firm is cooperating with these inquiries and is currently engaged in certain advanced resolution discussions. There is no assurance that the discussions will result in a resolution.

Interchange Litigation. Groups of merchants and retail associations filed a series of class action complaints alleging that Visa and Mastercard, as well as certain banks, conspired to set the price of credit and debit card interchange fees and enacted related rules in violation of antitrust laws. In 2012, the parties initially settled the cases for a cash payment, a temporary reduction of credit card interchange, and modifications to certain credit card network rules. In 2017, after the approval of that settlement was reversed on appeal, the case was remanded to the United States District Court for the Eastern District of New York for further proceedings consistent with the appellate decision.

The original class action was divided into two separate actions, one seeking primarily monetary relief and the other seeking primarily injunctive relief. In September 2018, the parties to the class action seeking monetary relief finalized an agreement which amends and supersedes the prior settlement agreement. Pursuant to this settlement, the defendants collectively contributed an additional $900 million to the approximately $5.3 billion previously held in escrow from the original settlement. In December 2019, the amended agreement was approved by the District Court. Certain merchants appealed the District Court's approval order, and those appeals are pending. Based on the percentage of merchants that opted out of the amended class settlement, $700 million has been returned to the defendants from the settlement escrow in accordance with the settlement agreement. The class action seeking primarily injunctive relief continues separately, and in September 2021, the District Court granted plaintiffs' motion for class certification in part, and denied the motion in part.

In addition, certain merchants have filed individual actions raising similar allegations against Visa and Mastercard, as well as against the Firm and other banks, and some of those actions remain pending.

LIBOR and Other Benchmark Rate Investigations and Litigation. JPMorgan Chase has responded to inquiries from various governmental agencies and entities around the world relating primarily to the British Bankers Association's ("BBA") London Interbank Offered Rate ("LIBOR") for various currencies and the European Banking Federation's Euro Interbank Offered Rate ("EURIBOR"). The Swiss Competition Commission's investigation relating to EURIBOR, to which the Firm and other banks are subject, continues. In December 2016, the European Commission issued a decision against the Firm and other banks finding an infringement of European antitrust rules relating to EURIBOR. The Firm has filed an appeal of that decision with the European General Court, and that appeal is pending.

In addition, the Firm has been named as a defendant along with other banks in various individual and putative class actions related to benchmark rates, including U.S. dollar LIBOR. In actions related to U.S. dollar LIBOR during the period that it was administered by the BBA, the Firm has obtained dismissal of certain actions and resolved certain other actions, and others are in various stages of litigation. The United States District Court for the Southern District of New York has granted class certification of antitrust claims related to bonds and interest rate swaps sold directly by the defendants, including the Firm. In a consolidated putative class action related to the period that U.S. dollar LIBOR was administered by ICE Benchmark Administration, the District Court granted the motion by defendants, including the Firm, to dismiss plaintiffs' complaint, and the plaintiffs have appealed. In addition, in August 2020, a group of individual plaintiffs filed a lawsuit asserting antitrust claims, alleging that the Firm and other defendants were engaged in an unlawful agreement to set U.S. dollar LIBOR and conspired to monopolize the market for LIBOR-based consumer loans and credit cards. In November 2020 and May 2021, plaintiffs filed motions for a preliminary injunction each seeking to enjoin defendants from setting U.S. dollar LIBOR and to prohibit defendants from enforcing any financial instruments that rely on U.S. dollar LIBOR. The court held a hearing to address these motions in September 2021. The Firm's settlements of putative class actions related to Swiss franc LIBOR, the Singapore Interbank Offered Rate and the Singapore Swap Offer Rate, and the Australian Bank Bill Swap Reference Rate remain subject to court approval.

Metals and U.S. Treasuries Investigations and Litigation and Related Inquiries. The Firm previously reported that it and/or certain of its subsidiaries had entered into resolutions with the U.S. Department of Justice ("DOJ"), the U.S. Commodity Futures Trading Commission ("CFTC") and the U.S. Securities and Exchange Commission ("SEC"), which, collectively, resolved those agencies' respective investigations relating to historical trading practices by former employees in the precious metals and U.S. treasuries markets and related conduct from 2008 to 2016.

The Firm entered into a Deferred Prosecution Agreement ("DPA") with the DOJ in which it agreed to the filing of a criminal information charging JPMorgan Chase & Co. with two counts of wire fraud and agreed, along with JPMorgan Chase Bank, N.A. and J.P. Morgan Securities LLC, to certain terms and obligations as set forth therein. Under the terms of the DPA, the criminal information will be dismissed after three years, provided that JPMorgan Chase & Co., JPMorgan Chase Bank, N.A. and J.P. Morgan Securities LLC fully comply with all of their obligations.

Across the three resolutions with the DOJ, CFTC and SEC, JPMorgan Chase & Co., JPMorgan Chase Bank, N.A. and J.P. Morgan Securities LLC agreed to pay a total monetary amount of approximately $920 million. A portion of the total monetary amount includes victim compensation payments.

Several putative class action complaints have been filed in the United States District Court for the Southern District of New York against the Firm and certain former employees, alleging a precious metals futures and options price manipulation scheme in violation of the Commodity Exchange Act. Some of the complaints also allege unjust enrichment and deceptive acts or practices under the General Business Law of the State of New York. The Court consolidated these putative class actions in February 2019, and the consolidated action is stayed through December 2021. In July 2021, the parties informed the Court that they have entered into a settlement to resolve the action. In Canada, plaintiffs have moved to commence putative class action proceedings based on similar alleged underlying conduct for precious metals. In addition, several putative class actions were filed in the United States District Courts for the Northern District of Illinois and Southern District of New York against the Firm, alleging manipulation of U.S. Treasury futures and options, and bringing claims under the Commodity Exchange Act. Some of the complaints also allege unjust enrichment. The actions in the Northern District of Illinois have been transferred to the Southern District of New York. The Court consolidated these putative class actions in October 2020 and plaintiffs filed their consolidated amended complaint in April 2021. In May 2021, the parties informed the Court that they have entered into a settlement to resolve the action.

In October 2020, two putative class action complaints were filed under the Securities Exchange Act of 1934 in the United States District Court for the Eastern District of New York against the Firm and certain individual defendants on behalf of shareholders who acquired shares during the putative class period alleging that certain SEC filings of the Firm were materially false or misleading in that they did not disclose certain information relating to the above-referenced investigations. The Court consolidated these putative class actions in January 2021. Plaintiffs filed their second amended complaint in May 2021, which additionally alleged that certain orders in precious metals futures contracts placed by precious metals futures traders during the putative class period were materially false and misleading. Defendants have moved to dismiss.

Securities Lending Antitrust Litigation. JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC, J.P. Morgan Prime, Inc., and J.P. Morgan Strategic Securities Lending Corp. are named as defendants in a putative class action filed in the United States District Court for the Southern District of New York. The complaint asserts violations of federal antitrust law and New York State common law in connection with an alleged conspiracy to prevent the emergence of anonymous exchange trading for securities lending transactions. Defendants' motion to dismiss the complaint was denied. Plaintiffs have moved to certify a class in this action, which defendants are opposing.

Wendel. Since 2012, the French criminal authorities have been investigating a series of transactions entered into by senior managers of Wendel Investissement ("Wendel") during the period from 2004 through 2007 to restructure their shareholdings in Wendel. JPMorgan Chase Bank, N.A., Paris branch provided financing for the transactions to a number of managers of Wendel in 2007. JPMorgan Chase Bank, N.A. cooperated with the investigation. The investigating judges issued an *ordonnance de renvoi* in November 2016, referring JPMorgan Chase Bank, N.A. to the French *tribunal correctionnel* for alleged complicity in tax fraud. In January 2018, the Paris Court of Appeal issued a decision cancelling the *mise en examen* of JPMorgan Chase Bank, N.A. The Court of Cassation, France's highest court, ruled in September 2018 that a *mise en examen* is a prerequisite for an *ordonnance de renvoi* and in January

2020 ordered the annulment of the *ordonnance de renvoi* referring JPMorgan Chase Bank, N.A. to the French *tribunal correctionnel*. The Court of Appeal found in January 2021 that it had no power to take further action against JPMorgan Chase Bank, N.A. following the Court of Cassation's ruling. At the opening of a trial of the managers of Wendel in January 2021, the *tribunal correctionnel* directed the criminal authorities to clarify whether a further investigation should be opened against JPMorgan Chase Bank, N.A., pending which the trial was postponed. In April 2021, the Court of Cassation declined to hear JPMorgan Chase Bank, N.A.'s appeal of the January 2021 decision of the *tribunal correctionnel* at this stage of the proceedings. In August 2021, JPMorgan Chase Bank, N.A. entered into a *Convention Judicaire d'Intérêt Public* with the French criminal authorities, under which it agreed to pay a fine of €25 million to resolve the potential legal proceedings. The resolution, which did not contain any admissions, was approved by the Presiding Judge of the *tribunal judiciaire*, and JPMorgan Chase Bank, N.A. paid the fine in September 2021. In addition, a number of the managers have commenced civil proceedings against JPMorgan Chase Bank, N.A. The claims are separate, involve different allegations and are at various stages of proceedings.

* * *

In addition to the various legal proceedings discussed above, JPMorgan Chase and its subsidiaries are named as defendants or are otherwise involved in a substantial number of other legal proceedings. The Firm believes it has meritorious defenses to the claims asserted against it in its currently outstanding legal proceedings and it intends to defend itself vigorously. Additional legal proceedings may be initiated from time to time in the future.

The Firm has established reserves for several hundred of its currently outstanding legal proceedings. In accordance with the provisions of U.S. GAAP for contingencies, the Firm accrues for a litigation-related liability when it is probable that such a liability has been incurred and the amount of the loss can be reasonably estimated. The Firm evaluates its outstanding legal proceedings each quarter to assess its litigation reserves, and makes adjustments in such reserves, upward or downward, as appropriate, based on management's best judgment after consultation with counsel. The Firm's legal expense was $76 million and $524 million for the three months ended September 30, 2021 and 2020, respectively, and $289 million and $839 million for the nine months ended September 30, 2021 and 2020. There is no assurance that the Firm's litigation reserves will not need to be adjusted in the future.

In view of the inherent difficulty of predicting the outcome of legal proceedings, particularly where the claimants seek very large or indeterminate damages, or where the matters present novel legal theories, involve a large number of parties or are in early stages of discovery, the Firm cannot state with confidence what will be the eventual outcomes of the currently pending matters, the timing of their ultimate resolution or the eventual losses, fines, penalties or consequences related to those matters. JPMorgan Chase believes, based upon its current knowledge and after consultation with counsel, consideration of the material legal proceedings described above and after taking into account its current litigation reserves and its estimated aggregate range of possible losses, that the other legal proceedings currently pending against it should not have a material adverse effect on the Firm's consolidated financial condition. The Firm notes, however, that in light of the uncertainties involved in such proceedings, there is no assurance that the ultimate resolution of these matters will not significantly exceed the reserves it has currently accrued or that a matter will not have material reputational consequences. As a result, the outcome of a particular matter may be material to JPMorgan Chase's operating results for a particular period, depending on, among other factors, the size of the loss or liability imposed and the level of JPMorgan Chase's income for that period.

Note 25 – Business segments

The Firm is managed on an LOB basis. There are four major reportable business segments - Consumer & Community Banking, Corporate & Investment Bank, Commercial Banking and Asset & Wealth Management. In addition, there is a Corporate segment. The business segments are determined based on the products and services provided, or the type of customer served, and they reflect the manner in which financial information is currently evaluated by the Firm's Operating Committee. Segment results are presented on a managed basis. Refer to Segment results below, and Note 32 of JPMorgan Chase's 2020 Form 10-K for a further discussion of JPMorgan Chase's business segments.

Segment results

The following table provides a summary of the Firm's segment results as of or for the three and nine months ended September 30, 2021 and 2020, on a managed basis. The Firm's definition of managed basis starts with the reported U.S. GAAP results and includes certain reclassifications to present total net revenue for the Firm (and each of the reportable business segments) on an FTE basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities. Refer to Note 32 of JPMorgan Chase's 2020 Form 10-K for additional information on the Firm's managed basis.

Capital allocation

The amount of capital assigned to each segment is referred to as equity. Periodically, the assumptions and methodologies used to allocate capital are reassessed and as a result, the capital allocated to the LOBs may change. Refer to Line of business equity on page 98 of JPMorgan Chase's 2020 Form 10-K for additional information on capital allocation.

Segment results and reconciliation[(a)]

As of or for the three months ended September 30, (in millions, except ratios)	Consumer & Community Banking		Corporate & Investment Bank		Commercial Banking		Asset & Wealth Management	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020
Noninterest revenue	**$ 4,138**	$ 4,863	**$ 9,061**	$ 8,118	**$ 988**	$ 761	**$ 3,312**	$ 2,739
Net interest income	**8,383**	8,032	**3,335**	3,428	**1,532**	1,524	**988**	815
Total net revenue	**12,521**	12,895	**12,396**	11,546	**2,520**	2,285	**4,300**	3,554
Provision for credit losses	**(459)**	795	**(638)**	(81)	**(363)**	(147)	**(60)**	(52)
Noninterest expense	**7,238**	6,912	**5,871**	5,832	**1,032**	969	**2,762**	2,443
Income/(loss) before income tax expense/(benefit)	**5,742**	5,188	**7,163**	5,795	**1,851**	1,463	**1,598**	1,163
Income tax expense/(benefit)	**1,401**	1,317	**1,601**	1,486	**444**	377	**404**	287
Net income/(loss)	**$ 4,341**	$ 3,871	**$ 5,562**	$ 4,309	**$ 1,407**	$ 1,086	**$ 1,194**	$ 876
Average equity	**$ 50,000**	$ 52,000	**$ 83,000**	$ 80,000	**$ 24,000**	$ 22,000	**$ 14,000**	$ 10,500
Total assets	**493,169**	487,063	**1,355,752**	1,088,282 (b)	**227,670**	228,583	**221,702**	187,858
ROE	**34 %**	29 %	**26 %**	21 %	**22 %**	19 %	**33 %**	32 %
Overhead ratio	**58**	54	**47**	51	**41**	42	**64**	69

As of or for the three months ended September 30, (in millions, except ratios)	Corporate		Reconciling Items[(a)]		Total	
	2021	2020	**2021**	2020	**2021**	2020
Noninterest revenue	**$ (242)**	$ 343	**$ (690)**	$ (582) (b)	**$ 16,567**	$ 16,242 (b)
Net interest income	**(1,054)**	(682)	**(104)**	(104)	**13,080**	13,013
Total net revenue	**(1,296)**	(339)	**(794)**	(686)	**29,647**	29,255
Provision for credit losses	**(7)**	96	**—**	—	**(1,527)**	611
Noninterest expense	**160**	719	**—**	—	**17,063**	16,875
Income/(loss) before income tax expense/(benefit)	**(1,449)**	(1,154)	**(794)**	(686)	**14,111**	11,769
Income tax expense/(benefit)	**(632)**	(455)	**(794)**	(686) (b)	**2,424**	2,326 (b)
Net income/(loss)	**$ (817)**	$ (699)	**$ —**	$ —	**$ 11,687**	$ 9,443
Average equity	**$ 82,556**	$ 72,297	**$ —**	$ —	**$ 253,556**	$ 236,797
Total assets	**1,459,283**	1,253,275	**NA**	NA	**3,757,576**	3,245,061 (b)
ROE	**NM**	NM	**NM**	NM	**18 %**	15 %
Overhead ratio	**NM**	NM	**NM**	NM	**58**	58 (b)

(a) Segment managed results reflect revenue on an FTE basis with the corresponding income tax impact recorded within income tax expense/(benefit). These adjustments are eliminated in reconciling items to arrive at the Firm's reported U.S. GAAP results.
(b) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.

egment results and reconciliation[a]

s of or for the nine months ended September 30, (in millions, except ratios)	Consumer & Community Banking		Corporate & Investment Bank		Commercial Banking		Asset & Wealth Management	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020
oninterest revenue	$ **13,452**	$ 13,182	$ **30,061**	$ 27,318	$ **2,855**	$ 2,192	$ **9,623**	$ 7,843
et interest income	**24,346**	25,358	**10,154**	10,614	**4,541**	4,658	**2,861**	2,530
tal net revenue	**37,798**	38,540	**40,215**	37,932	**7,396**	6,850	**12,484**	10,373
Provision for credit losses	**(5,929)**	12,395	**(1,048)**	3,307	**(858)**	3,294	**(191)**	265
oninterest expense	**21,502**	20,948	**19,498**	18,599	**2,982**	2,848	**7,922**	7,201
Income/(loss) before income tax expense/(benefit)	**22,225**	5,197	**21,765**	16,026	**5,272**	708	**4,753**	2,907
Income tax expense/(benefit)	**5,522**	1,305	**5,478**	4,281	**1,277**	164	**1,162**	701
et income/(loss)	$ **16,703**	$ 3,892	$ **16,287**	$ 11,745	$ **3,995**	$ 544	$ **3,591**	$ 2,206
Average equity	$ **50,000**	$ 52,000	$ **83,000**	$ 80,000	$ **24,000**	$ 22,000	$ **14,000**	$ 10,500
otal assets	**493,169**	487,063	**1,355,752**	1,088,282 [b]	**227,670**	228,583	**221,702**	187,858
ROE	**44 %**	9 %	**25 %**	19 %	**21 %**	2 %	**33 %**	27 %
verhead ratio	**57**	54	**48**	49	**40**	42	**63**	69

s of or for the nine months ended September 30, (in millions, except ratios)	Corporate		Reconciling Items[a]		Total	
	2021	2020	**2021**	2020	**2021**	2020
oninterest revenue	$ **(68)**	$ 607	$ **(2,241)**	$ (1,831) [b]	$ **53,682**	$ 49,311 [b]
et interest income	**(2,870)**	(1,534)	**(322)**	(321)	**38,710**	41,305
tal net revenue	**(2,938)**	(927)	**(2,563)**	(2,152)	**92,392**	90,616
Provision for credit losses	**58**	108	**—**	—	**(7,968)**	19,369
oninterest expense	**1,551**	1,012	**—**	—	**53,455**	50,608
Income/(loss) before income tax expense/(benefit)	**(4,547)**	(2,047)	**(2,563)**	(2,152)	**46,905**	20,639
Income tax expense/(benefit)	**(1,906)**	(655)	**(2,563)**	(2,152) [b]	**8,970**	3,644 [b]
et income/(loss)	$ **(2,641)**	$ (1,392)	$ **—**	$ —	$ **37,935**	$ 16,995
Average equity	$ **79,011**	$ 70,751	$ **—**	$ —	$ **250,011**	$ 235,251
otal assets	**1,459,283**	1,253,275	**NA**	NA	**3,757,576**	3,245,061 [b]
ROE	**NM**	NM	**NM**	NM	**20 %**	9 %
verhead ratio	**NM**	NM	**NM**	NM	**58**	56 [b]

(a) Segment managed results reflect revenue on an FTE basis with the corresponding income tax impact recorded within income tax expense/(benefit). These adjustments are eliminated in reconciling items to arrive at the Firm's reported U.S. GAAP results.
(b) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.

pwc

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of JPMorgan Chase & Co.:

Results of Review of Interim Financial Statements

We have reviewed the accompanying consolidated balance sheet of JPMorgan Chase & Co. and its subsidiaries (the “Firm”) as of September 30, 2021, and the related consolidated statements of income, comprehensive income, and changes in stockholders’ equity for the three-month and nine-month periods ended September 30, 2021 and 2020 and the consolidated statements of cash flows for the nine-month periods ended September 30, 2021 and 2020, including the related notes (collectively referred to as the “interim financial statements”). Based on our reviews, we are not aware of any material modifications that should be made to the accompanying interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of the Firm as of December 31, 2020, and the related consolidated statements of income, comprehensive income, changes in stockholders’ equity and cash flows for the year then ended (not presented herein), and in our report dated February 23, 2021, which included a paragraph describing a change in the manner of accounting for credit losses on certain financial instruments in the 2020 financial statements, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet information as of December 31, 2020, is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

Basis for Review Results

These interim financial statements are the responsibility of the Firm’s management. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Firm in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our review in accordance with the standards of the PCAOB. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

PricewaterhouseCoopers LLP

November 2, 2021

PricewaterhouseCoopers LLP, 300 Madison Avenue, New York, NY 10017

JPMorgan Chase & Co.
Consolidated average balance sheets, interest and rates (unaudited)
(Taxable-equivalent interest and rates; in millions, except rates)

	Three months ended September 30, 2021				Three months ended September 30, 2020			
	Average balance	Interest(g)	Rate (annualized)		Average balance	Interest(g)	Rate (annualized)	
Assets								
Deposits with banks	$ 756,653	$ 174	0.09 %		$ 509,979	$ 69	0.05 %	
Federal funds sold and securities purchased under resale agreements	262,679	231	0.35		277,899	401	0.57	
Securities borrowed	189,418	(73)	(0.15)	(h)	147,184	(128)	(0.35)	(h)
Trading assets – debt instruments	275,860	1,689	2.43		322,321	1,859	2.29	
Taxable securities	534,771	1,553	1.15		515,007	1,816	1.40	
Nontaxable securities(a)	30,573	331	4.30		33,537	358	4.25	
Total investment securities	565,344	1,884	1.32	(i)	548,544	2,174	1.58	(i)
Loans	1,042,591	10,473	3.99		991,241	10,246	4.11	
All other interest-earning assets(b)	127,241	206	0.64		77,806	183	0.94	
Total interest-earning assets	3,219,786	14,584	1.80		2,874,974	14,804	2.05	
Allowance for loan losses	(19,500)				(31,574)			
Cash and due from banks	27,065				21,404			
Trading assets – equity and other instruments	177,315				124,266 (j)			
Trading assets – derivative receivables	65,574				76,939 (j)			
Goodwill, MSRs and other intangible Assets	54,947				51,547			
All other noninterest-earning assets(c)	200,032				171,562			
Total assets	$ 3,725,219				$ 3,289,118			
Liabilities								
Interest-bearing deposits	$ 1,696,850	$ 126	0.03 %		$ 1,434,034	$ 245	0.07 %	
Federal funds purchased and securities loaned or sold under repurchase agreements	240,912	119	0.20		253,779	105	0.17	
Short-term borrowings(d)	43,759	31	0.26		36,697	60	0.65	
Trading liabilities – debt and all other interest-bearing liabilities(e)(f)	241,297	52	0.09	(h)	206,643	(51)	(0.10)	(h)
Beneficial interests issued by consolidated VIEs	14,232	18	0.50		19,838	35	0.71	
Long-term debt	257,593	1,054	1.62		267,175	1,293	1.93	
Total interest-bearing liabilities	2,494,643	1,400	0.22		2,218,166	1,687	0.30	
Noninterest-bearing deposits	672,609				551,565			
Trading liabilities – equity and other instruments(f)	35,505				32,256			
Trading liabilities – derivative payables	55,907				64,599			
All other liabilities, including the allowance for lending-related commitments(c)	178,770				155,672			
Total liabilities	3,437,434				3,022,258			
Stockholders' equity								
Preferred stock	34,229				30,063			
Common stockholders' equity	253,556				236,797			
Total stockholders' equity	287,785				266,860			
Total liabilities and stockholders' equity	$ 3,725,219				$ 3,289,118			
Interest rate spread			1.58 %				1.75 %	
Net interest income and net yield on interest-earning assets		$ 13,184	1.62			$ 13,117	1.82	

(a) Represents securities which are tax-exempt for U.S. federal income tax purposes.
(b) Includes brokerage-related held-for-investment customer receivables, which are classified in accrued interest and accounts receivable, and all other interest-earning assets, which are classified in other assets on the Consolidated Balance Sheets.
(c) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.
(d) Includes commercial paper.
(e) All other interest-bearing liabilities include brokerage-related customer payables.
(f) The combined balance of trading liabilities – debt and equity instruments was $122.5 billion and $105.0 billion for the three months ended September 30, 2021 and 2020, respectively.
(g) Interest includes the effect of certain related hedging derivatives. Taxable-equivalent amounts are used where applicable.
(h) Negative interest income and yield are related to the impact of current interest rates combined with the fees paid on client-driven securities borrowed balances. The negative interest expense related to prime brokerage customer payables is recognized in interest expense and reported within trading liabilities - debt and all other interest-bearing liabilities.
(i) The annualized rate for securities based on amortized cost was 1.34% and 1.61% for the three months ended September 30, 2021 and 2020, respectively, and does not give effect to changes in fair value that are reflected in AOCI.
(j) Prior-period amounts have been revised to conform with the current presentation.

JPMorgan Chase & Co.
Consolidated average balance sheets, interest and rates (unaudited)
(Taxable-equivalent interest and rates; in millions, except rates)

	Nine months ended September 30, 2021			Nine months ended September 30, 2020		
	Average balance	Interest[g]	Rate (annualized)	Average balance	Interest[g]	Rate (annualized)
Assets						
Deposits with banks	$ 703,616	$ 342	0.06 %	$ 422,860	$ 708	0.22 %
Federal funds sold and securities purchased under resale agreements	269,324	639	0.32	258,607	2,097	1.08
Securities borrowed	185,127	(240)	(0.17) [h]	141,567	(151)	(0.14) [h]
Trading assets – debt instruments	291,673	5,198	2.38	324,061	6,008	2.48
Taxable securities	546,258	4,735	1.16	456,733	6,203	1.81
Nontaxable securities[a]	31,308	1,018	4.35	33,589	1,096	4.36
Total investment securities	577,566	5,753	1.33 [i]	490,322	7,299	1.99 [i]
Loans	1,027,023	30,867	4.02	1,007,360	33,507	4.44
All other interest-earning assets[b]	120,529	608	0.67	75,859	826	1.46
Total interest-earning assets	3,174,858	43,167	1.82	2,720,636	50,294	2.47
Allowance for loan losses	(23,546)			(24,100)		
Cash and due from banks	26,338			21,745		
Trading assets – equity and other instruments	180,253			113,431 [j]		
Trading assets – derivative receivables	70,139			73,423 [j]		
Goodwill, MSRs and other intangible Assets	54,467			52,006		
All other noninterest-earning assets[c]	206,818			179,009		
Total assets	$ 3,689,327			$ 3,136,150		
Liabilities						
Interest-bearing deposits	$ 1,659,214	$ 404	0.03 %	$ 1,342,270	$ 2,169	0.22 %
Federal funds purchased and securities loaned or sold under repurchase agreements	267,659	194	0.10	258,156	1,023	0.53
Short-term borrowings[d]	43,998	97	0.29	39,749	335	1.13
Trading liabilities – debt and all other interest-bearing liabilities[e][f]	239,666	130	0.07 [h]	202,322	278	0.18 [h]
Beneficial interests issued by consolidated VIEs	15,501	66	0.57	19,407	184	1.27
Long-term debt	248,581	3,244	1.74	260,194	4,679	2.40
Total interest-bearing liabilities	2,474,619	4,135	0.22	2,122,098	8,668	0.55
Noninterest-bearing deposits	647,278			495,704		
Trading liabilities – equity and other instruments[f]	35,312			32,258		
Trading liabilities – derivative payables	62,089			60,936		
All other liabilities, including the allowance for lending-related commitments[c]	187,601			160,059		
Total liabilities	3,406,899			2,871,055		
Stockholders' equity						
Preferred stock	32,417			29,844		
Common stockholders' equity	250,011			235,251		
Total stockholders' equity	282,428			265,095		
Total liabilities and stockholders' equity	$ 3,689,327			$ 3,136,150		
Interest rate spread			1.60 %			1.92 %
Net interest income and net yield on interest-earning assets		$ 39,032	1.64		$ 41,626	2.04

(a) Represents securities which are tax-exempt for U.S. federal income tax purposes.
(b) Includes brokerage-related held-for-investment customer receivables, which are classified in accrued interest and accounts receivable, and all other interest-earning assets, which are classified in other assets on the Consolidated Balance Sheets.
(c) Prior-period amounts have been revised to conform with the current presentation. Refer to Note 1 for further information.
(d) Includes commercial paper.
(e) All other interest-bearing liabilities include brokerage-related customer payables.
(f) The combined balance of trading liabilities – debt and equity instruments was $128.1 billion and $105.0 billion for the nine months ended September 30, 2021 and 2020, respectively.
(g) Interest includes the effect of certain related hedging derivatives. Taxable-equivalent amounts are used where applicable.
(h) Negative interest income and yield are related to the impact of current interest rates combined with the fees paid on client-driven securities borrowed balances. The negative interest expense related to prime brokerage customer payables is recognized in interest expense and reported within trading liabilities - debt and all other interest-bearing liabilities.
(i) The annualized rate for securities based on amortized cost was 1.35% and 2.03% for the nine months ended September 30, 2021 and 2020, respectively, and does not give effect to changes in fair value that are reflected in AOCI.
(j) Prior-period amounts have been revised to conform with the current presentation.

2020 Form 10-K: Annual report on Form 10-K for year ended December 31, 2020, filed with the U.S. Securities and Exchange Commission.

ABS: Asset-backed securities

Active foreclosures: Loans referred to foreclosure where formal foreclosure proceedings are ongoing. Includes both judicial and non-judicial states.

AFS: Available-for-sale

Allowance for loan losses to total retained loans: represents period-end allowance for loan losses divided by retained loans.

Amortized cost: Amount at which a financing receivable or investment is originated or acquired, adjusted for accretion or amortization of premium, discount, and net deferred fees or costs, collection of cash, charge-offs, foreign exchange, and fair value hedge accounting adjustments. For AFS securities, amortized cost is also reduced by any impairment losses recognized in earnings. Amortized cost is not reduced by the allowance for credit losses, except where explicitly presented net.

AOCI: Accumulated other comprehensive income/(loss)

ARM(s): Adjustable rate mortgage(s)

AUC: "Assets under custody": Represents assets held directly or indirectly on behalf of clients under safekeeping, custody and servicing arrangements.

Auto loan and lease origination volume: Dollar amount of auto loans and leases originated.

AWM: Asset & Wealth Management

Beneficial interests issued by consolidated VIEs: represents the interest of third-party holders of debt, equity securities, or other obligations, issued by VIEs that JPMorgan Chase consolidates.

Benefit obligation: refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

BHC: Bank holding company

Bridge Financing Portfolio: A portfolio of held-for-sale unfunded loan commitments and funded loans. The unfunded commitments include both short-term bridge loan commitments that will ultimately be replaced by longer term financing as well as term loan commitments. The funded loans include term loans and funded revolver facilities.

CB: Commercial Banking

CBB: Consumer & Business Banking

CCAR: Comprehensive Capital Analysis and Review

CCB: Consumer & Community Banking

CDS: Credit default swaps

CECL: Current Expected Credit Losses

CEO: Chief Executive Officer

CET1 capital: Common equity Tier 1 capital

CFTC: Commodity Futures Trading Commission

CFO: Chief Financial Officer

CIB: Corporate & Investment Bank

CIO: Chief Investment Office

Client assets: Represent assets under management as well as custody, brokerage, administration and deposit accounts.

Client deposits and other third-party liabilities: Deposits, as well as deposits that are swept to on-balance sheet liabilities (e.g., commercial paper, federal funds purchased and securities loaned or sold under repurchase agreements) as part of client cash management programs.

CLTV: Combined loan-to-value

CMT: Constant Maturity Treasury

Collateral-dependent: A loan is considered to be collateral-dependent when repayment of the loan is expected to be provided substantially through the operation or sale of the-collateral when the borrower is experiencing financial difficulty, including when foreclosure is deemed probable based on borrower delinquency.

Commercial Card: provides a wide range of payment services to corporate and public sector clients worldwide through the commercial card products. Services include procurement, corporate travel and entertainment, expense management services, and business-to-business payment solutions.

Credit derivatives: Financial instruments whose value is derived from the credit risk associated with the debt of a third-party issuer (the reference entity) which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller). Upon the occurrence of a credit event by the reference entity, which may include, among other events, the bankruptcy or failure to pay its obligations, or certain restructurings of the debt of the reference entity, neither party has recourse to the reference entity. The protection purchaser has recourse to the protection seller for the difference between the face value of the CDS contract and the fair value at the time of settling the credit derivative contract. The determination as to whether a credit event has occurred is generally made by the relevant International Swaps and Derivatives Association ("ISDA") Determinations Committee.

Criticized: Criticized loans, lending-related commitments and derivative receivables that are classified as special mention, substandard and doubtful categories for regulatory purposes and are generally consistent with a rating of CCC+/Caa1 and below, as defined by S&P and Moody's.

CRO: Chief Risk Officer

CVA: Credit valuation adjustment

DVA: Debit valuation adjustment

EC: European Commission

Eligible HQLA: Eligible high-quality liquid assets, for purposes of calculating the LCR, is the amount of unencumbered HQLA that satisfy certain operational considerations as defined in the LCR rule.

Eligible LTD: Long-term debt satisfying certain eligibility criteria

Embedded derivatives: are implicit or explicit terms or features of a financial instrument that affect some or all of the cash flows or the value of the instrument in a manner similar to a derivative. An instrument containing such terms or features is referred to as a "hybrid." The component of the hybrid that is the non-derivative instrument is referred to as the "host." For example, callable debt is a hybrid instrument that contains a plain vanilla debt instrument (i.e., the host) and an embedded option that allows the issuer to redeem the debt issue at a specified date for a specified amount (i.e., the embedded derivative). However, a floating rate instrument is not a hybrid composed of a fixed-rate instrument and an interest rate swap.

ERISA: Employee Retirement Income Security Act of 1974

EPS: Earnings per share

ESG: Environmental, Social and Governance

Exchange-traded derivatives: Derivative contracts that are executed on an exchange and settled via a central clearing house.

Expense categories:

- **Volume- and/or revenue-related** expenses generally correlate with changes in the related business/transaction volume or revenue. Examples of volume- and revenue-related expenses include commissions and incentive compensation, depreciation expense related to operating lease assets, and brokerage expense related to equities trading transaction volume.
- **Investments** include expenses associated with supporting medium- to longer-term strategic plans of the Firm. Examples of investments include initiatives in technology (including related compensation), marketing, and compensation for new bankers and client advisors.
- **Structural** expenses are those associated with the day-to-day cost of running the bank and are expenses not covered by the above two categories. Examples of structural expenses include employee salaries and benefits, as well as noncompensation costs such as real estate and all other expenses.

EU: European Union

Fannie Mae: Federal National Mortgage Association

FASB: Financial Accounting Standards Board

FCA: Financial Conduct Authority

FDIC: Federal Deposit Insurance Corporation

Federal Reserve: The Board of the Governors of the Federal Reserve System

FFIEC: Federal Financial Institutions Examination Council

FHA: Federal Housing Administration

FHLB: Federal Home Loan Bank

FICO score: A measure of consumer credit risk based on information in consumer credit reports produced by Fair Isaac Corporation. Because certain aged data is excluded from credit reports based on rules in the Fair Credit Reporting Act, FICO scores may not reflect all historical information about a consumer.

FINRA: Financial Industry Regulatory Authority

Firm: JPMorgan Chase & Co.

Follow-on offering: An issuance of shares following a company's IPO.

Forward points: represents the interest rate differential between two currencies, which is either added to or subtracted from the current exchange rate (i.e., "spot rate") to determine the forward exchange rate.

FRBB: Federal Reserve Bank of Boston

FRBNY: Federal Reserve Bank of New York

Freddie Mac: Federal Home Loan Mortgage Corporation

Free-standing derivatives: is a derivative contract entered into either separate and apart from any of the Firm's other financial instruments or equity transactions. Or, in conjunction with some other transaction and is legally detachable and separately exercisable.

FTE: Fully taxable-equivalent

FVA: Funding valuation adjustment

FX: Foreign exchange

G7: "Group of Seven nations": Countries in the G7 are Canada, France, Germany, Italy, Japan, the U.K. and the U.S.

G7 government securities: Securities issued by the government of one of the G7 nations.

Ginnie Mae: Government National Mortgage Association

GSIB: Global systemically important banks

HELOC: Home equity line of credit

Home equity – senior lien: represents loans and commitments where JPMorgan Chase holds the first security interest on the property.

Home equity – junior lien: represents loans and commitments where JPMorgan Chase holds a security interest that is subordinate in rank to other liens.

HQLA: High-quality liquid assets

HTM: Held-to-maturity

IBOR: Interbank Offered Rate

IDI: Insured depository institutions

IHC: JPMorgan Chase Holdings LLC, an intermediate holding company

IPO: Initial public offering

Investment-grade: An indication of credit quality based on JPMorgan Chase's internal risk assessment system. "Investment grade" generally represents a risk profile similar to a rating of a “BBB-”/“Baa3” or better, as defined by independent rating agencies.

IR: Interest rate

ISDA: International Swaps and Derivatives Association

JPMorgan Chase: JPMorgan Chase & Co.

JPMorgan Chase Bank, N.A.: JPMorgan Chase Bank, National Association

JPMorgan Chase Foundation or Foundation: a not-for-profit organization that makes contributions for charitable and educational purposes.

J.P. Morgan Securities: J.P. Morgan Securities LLC

LCR: Liquidity coverage ratio

LGD: Loss given default

LIBOR: London Interbank Offered Rate

LLC: Limited Liability Company

LOB: Line of business

LTV: “Loan-to-value ratio”: For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral (i.e., residential real estate) securing the loan.

Origination date LTV ratio
The LTV ratio at the origination date of the loan. Origination date LTV ratios are calculated based on the actual appraised values of collateral (i.e., loan-level data) at the origination date.

Current estimated LTV ratio
An estimate of the LTV as of a certain date. The current estimated LTV ratios are calculated using estimated collateral values derived from a nationally recognized home price index measured at the metropolitan statistical area (“MSA”) level. These MSA-level home price indices consist of actual data to the extent available and forecasted data where actual data is not available. As a result, the estimated collateral values used to calculate these ratios do not represent actual appraised loan-level collateral values; as such, the resulting LTV ratios are necessarily imprecise and should therefore be viewed as estimates.

Combined LTV ratio
The LTV ratio considering all available lien positions, as well as unused lines, related to the property. Combined LTV ratios are used for junior lien home equity products.

Managed basis: A non-GAAP presentation of Firmwide financial results that includes reclassifications to present revenue on a fully taxable-equivalent basis. Management also uses this financial measure at the segment level, because it believes this provides information to enable investors to understand the underlying operational performance and trends of the particular business segment and facilitates a comparison of the business segment with the performance of competitors.

Master netting agreement: A single agreement with a counterparty that permits multiple transactions governed by that agreement to be terminated or accelerated and settled through a single payment in a single currency in the event of a default (e.g., bankruptcy, failure to make a required payment or securities transfer or deliver collateral or margin when due).

Measurement alternative: Measures equity securities without readily determinable fair values at cost less impairment (if any), plus or minus observable price changes from an identical or similar investment of the same issuer.

Merchant Services: offers merchants payment processing capabilities, fraud and risk management, data and analytics, and other payments services. Through Merchant Services, merchants of all sizes can accept payments via credit and debit cards and payments in multiple currencies.

MEV: Macroeconomic variable

MBS: Mortgage-backed securities

MD&A: Management’s discussion and analysis

MMLF: Money Market Mutual Fund Liquidity Facility

MMMF: Money market mutual funds

Moody’s: Moody’s Investor Services

Mortgage product types:

Alt-A

Alt-A loans are generally higher in credit quality than subprime loans but have characteristics that would disqualify the borrower from a traditional prime loan. Alt-A lending characteristics may include one or more of the following: (i) limited documentation; (ii) a high CLTV ratio; (iii) loans secured by non-owner occupied properties; or (iv) a debt-to-income ratio above normal limits. A substantial proportion of the Firm’s Alt-A loans are those where a borrower does not provide complete documentation of his or her assets or the amount or source of his or her income.

Option ARMs

The option ARM real estate loan product is an adjustable-rate mortgage loan that provides the borrower with the option each month to make a fully amortizing, interest-only or minimum payment. The minimum payment on an option ARM loan is based on the interest rate charged during the introductory period. This introductory rate is usually significantly below the fully indexed rate. The fully indexed rate is calculated using an index rate plus a margin. Once the introductory period ends, the contractual interest rate charged on the loan increases to the fully indexed rate and adjusts monthly to reflect movements in the index. The minimum payment is typically insufficient to cover interest accrued in the prior month, and any unpaid interest is deferred and added to the principal balance of the loan. Option ARM loans are subject to payment recast, which converts the loan to a variable-rate fully amortizing loan upon meeting specified loan balance and anniversary date triggers.

Prime

Prime mortgage loans are made to borrowers with good credit records who meet specific underwriting requirements, including prescriptive requirements related to income and overall debt levels. New prime mortgage borrowers provide full documentation and generally have reliable payment histories.

Subprime

Subprime loans are loans that, prior to mid-2008, were offered to certain customers with one or more high risk characteristics, including but not limited to: (i) unreliable or poor payment histories; (ii) a high LTV ratio of greater than 80% (without borrower-paid mortgage insurance); (iii) a high debt-to-income ratio; (iv) an occupancy type for the loan is other than the borrower's primary residence; or (v) a history of delinquencies or late payments on the loan.

MSA: Metropolitan statistical areas

MSR: Mortgage servicing rights

NA: Data is not applicable or available for the period presented.

NAV: Net Asset Value

Net Capital Rule: Rule 15c3-1 under the Securities Exchange Act of 1934.

Net charge-off/(recovery) rate: represents net charge-offs/(recoveries) (annualized) divided by average retained loans for the reporting period.

Net interchange income includes the following components:

- **Interchange income:** Fees earned by credit and debit card issuers on sales transactions.
- **Rewards costs:** The cost to the Firm for points earned by cardholders enrolled in credit card rewards programs generally tied to sales transactions.
- **Partner payments:** Payments to co-brand credit card partners based on the cost of loyalty program rewards earned by cardholders on credit card transactions.

Net yield on interest-earning assets: The average rate for interest-earning assets less the average rate paid for all sources of funds.

NFA: National Futures Association

NM: Not meaningful

Nonaccrual loans: Loans for which interest income is not recognized on an accrual basis. Loans (other than credit card loans and certain consumer loans insured by U.S. government agencies) are placed on nonaccrual status when full payment of principal and interest is not expected, regardless of delinquency status, or when principal and interest has been in default for a period of 90 days or more unless the loan is both well-secured and in the process of collection. Collateral-dependent loans are typically maintained on nonaccrual status.

Nonperforming assets: Nonperforming assets include nonaccrual loans, nonperforming derivatives and certain assets acquired in loan satisfactions, predominantly real estate owned and other commercial and personal property.

NSFR: Net Stable Funding Ratio

OCC: Office of the Comptroller of the Currency

OCI: Other comprehensive income/(loss)

OPEB: Other postretirement employee benefit

OTC: "Over-the-counter derivatives": Derivative contracts that are negotiated, executed and settled bilaterally between two derivative counterparties, where one or both counterparties is a derivatives dealer.

OTC cleared: "Over-the-counter cleared derivatives": Derivative contracts that are negotiated and executed bilaterally, but subsequently settled via a central clearing house, such that each derivative counterparty is only exposed to the default of that clearing house.

Overhead ratio: Noninterest expense as a percentage of total net revenue.

Parent Company: JPMorgan Chase & Co.

Participating securities: represents unvested share-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, "dividends"), which are included in the earnings per share calculation using the two-class method. JPMorgan Chase grants restricted stock and RSUs to certain employees under its share-based compensation programs, which entitle the recipients to receive nonforfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock. These unvested awards meet the definition of participating securities. Under the two-class method, all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities, based on their respective rights to receive dividends.

PCD: "Purchased credit deteriorated" assets represent acquired financial assets that as of the date of acquisition have experienced a more-than-insignificant deterioration in credit quality since origination, as determined by the Firm.

PD: Probability of default

Phishing: a type of social engineering cyberattack received through email or online messages.

PPP: Paycheck Protection Program under the Small Business Association ("SBA")

PRA: Prudential Regulation Authority

Pre-provision profit/(loss): represents total net revenue less noninterest expense. The Firm believes that this financial measure is useful in assessing the ability of a lending institution to generate income in excess of its provision for credit losses.

Principal transactions revenue: Principal transactions revenue is driven by many factors, including the bid-offer spread, which is the difference between the price at which the Firm is willing to buy a financial or other instrument and the price at which the Firm is willing to sell that instrument. It also consists of realized (as a result of closing out or termination of transactions, or interim cash payments) and unrealized (as a result of changes in valuation) gains and losses on financial and other instruments (including those accounted for under the fair value option) primarily used in client-driven market-making activities and on private equity investments. In connection with its client-driven market-making activities, the Firm transacts in debt and equity instruments, derivatives and commodities (including physical commodities inventories and financial instruments that reference commodities). Principal transactions revenue also includes certain realized and unrealized gains and losses related to hedge accounting and specified risk-management activities, including: (a) certain derivatives designated in qualifying hedge accounting relationships (primarily fair value hedges of commodity and foreign exchange risk), (b) certain derivatives used for specific risk management purposes, primarily to mitigate credit risk and foreign exchange risk, and (c) other derivatives.

PSU(s): Performance share units

Regulatory VaR: Daily aggregated VaR calculated in accordance with regulatory rules.

REO: Real estate owned

Reported basis: Financial statements prepared under U.S. GAAP, which excludes the impact of taxable-equivalent adjustments.

Retained loans: Loans that are held-for-investment (i.e. excludes loans held-for-sale and loans at fair value).

Revenue wallet: Total fee revenue based on estimates of investment banking fees generated across the industry (i.e., the revenue wallet) from investment banking transactions in M&A, equity and debt underwriting, and loan syndications. Source: Dealogic, a third-party provider of investment banking competitive analysis and volume based league tables for the above noted industry products.

RHS: Rural Housing Service of the U.S. Department of Agriculture

ROE: Return on equity

ROTCE: Return on tangible common equity

ROU assets: Right-of-use assets

RSU(s): Restricted stock units

RWA: "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.

S&P: Standard and Poors

SAR(s): Stock appreciation rights

SCB: Stress capital buffer

Scored portfolios: Consumer loan portfolios that predominantly include residential real estate loans, credit card loans, auto loans to individuals and certain small business loans.

SEC: U.S. Securities and Exchange Commission

Seed capital: Initial JPMorgan capital invested in products, such as mutual funds, with the intention of ensuring the fund is of sufficient size to represent a viable offering to clients, enabling pricing of its shares, and allowing the manager to develop a track record. After these goals are achieved, the intent is to remove the Firm's capital from the investment.

Shelf securities: Securities registered with the SEC under a shelf registration statement that have not been issued, offered or sold. These securities are not included in league tables until they have actually been issued**.**

Single-name: Single reference-entities

SLR: Supplementary leverage ratio

SMBS: Stripped mortgage-backed securities

SOFR: Secured Overnight Financing Rate

SPEs: Special purpose entities

SPV: Special purpose vehicle

Structural interest rate risk: represents interest rate risk of the non-trading assets and liabilities of the Firm.

Structured notes: Structured notes are financial instruments whose cash flows are linked to the movement in one or more indexes, interest rates, foreign exchange rates, commodities prices, prepayment rates, underlying reference pool of loans or other market variables. The notes typically contain embedded (but not separable or detachable) derivatives. Contractual cash flows for principal, interest, or both can vary in amount and timing throughout the life of the note based on non-traditional indexes or non-traditional uses of traditional interest rates or indexes.

Suspended foreclosures: Loans referred to foreclosure where formal foreclosure proceedings have started but are currently on hold, which could be due to bankruptcy or loss mitigation. Includes both judicial and non-judicial states.

Taxable-equivalent basis: In presenting managed results, the total net revenue for each of the business segments and the Firm is presented on a tax-equivalent basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities; the corresponding income tax impact related to tax-exempt items is recorded within income tax expense.

TBVPS: Tangible book value per share

TCE: Tangible common equity

TDR: "Troubled debt restructuring" is deemed to occur when the Firm modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty. Loans with short-term and other insignificant modifications that are not considered concessions are not TDRs.

TLAC: Total Loss Absorbing Capacity

U.K.: United Kingdom

Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.

U.S.: United States of America

U.S. government agencies: U.S. government agencies include, but are not limited to, agencies such as Ginnie Mae and FHA, and do not include Fannie Mae and Freddie Mac which are U.S. government-sponsored enterprises ("U.S. GSEs"). In general, obligations of U.S. government agencies are fully and explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government in the event of a default.

U.S. GAAP: Accounting principles generally accepted in the United States of America.

U.S. GSE(s): "U.S. government-sponsored enterprises" are quasi-governmental, privately-held entities established or chartered by the U.S. government to serve public purposes as specified by the U.S. Congress to improve the flow of credit to specific sectors of the economy and provide certain essential services to the public. U.S. GSEs include Fannie Mae and Freddie Mac, but do not include Ginnie Mae or FHA. U.S. GSE obligations are not explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government.

U.S. Treasury: U.S. Department of the Treasury

VA: U.S. Department of Veterans Affairs

VaR: "Value-at-risk" is a measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.

VIEs: Variable interest entities

Warehouse loans: consist of prime mortgages originated with the intent to sell that are accounted for at fair value and classified as loans.

CONSUMER & COMMUNITY BANKING ("CCB")

Debit and credit card sales volume: Dollar amount of card member purchases, net of returns.

Deposit margin/deposit spread: Represents net interest income expressed as a percentage of average deposits.

Home Lending Production and Home Lending Servicing revenue comprises the following:

Net mortgage servicing revenue: Includes operating revenue earned from servicing third-party mortgage loans, which is recognized over the period in which the service is provided; changes in the fair value of MSRs; the impact of risk management activities associated with MSRs; and gains and losses on securitization of excess mortgage servicing. Net mortgage servicing revenue also includes gains and losses on sales and lower of cost or fair value adjustments of certain repurchased loans insured by U.S. government agencies.

Production revenue: Includes fees and income recognized as earned on mortgage loans originated with the intent to sell, and the impact of risk management activities associated with the mortgage pipeline and warehouse loans. Production revenue also includes gains and losses on sales and lower of cost or fair value adjustments on mortgage loans held-for-sale (excluding certain repurchased loans insured by U.S. government agencies), and changes in the fair value of financial instruments measured under the fair value option.

Mortgage origination channels comprise the following:

Retail: Borrowers who buy or refinance a home through direct contact with a mortgage banker employed by the Firm using a branch office, the Internet or by phone. Borrowers are frequently referred to a mortgage banker by a banker in a Chase branch, real estate brokers, home builders or other third parties.

Correspondent: Banks, thrifts, other mortgage banks and other financial institutions that sell closed loans to the Firm.

Credit Card: is a business that primarily issues credit cards to consumers and small businesses.

Net revenue rate: represents Credit Card net revenue (annualized) expressed as a percentage of average loans for the period.

Auto loan and lease origination volume: Dollar amount of auto loans and leases originated.

CORPORATE & INVESTMENT BANK ("CIB")

Definition of selected CIB revenue:

Investment Banking: incorporates all revenue associated with investment banking activities, and is reported net of investment banking revenue shared with other LOBs.

Wholesale Payments includes the following:

- **Treasury Services:** offers a broad range of products and services that enable clients to manage payments and receipts, as well as invest and manage funds. Products include U.S. dollar and multi-currency clearing, automated clearing house, lockbox, disbursement and reconciliation services, check deposits, and currency-related services;
- **Merchant Services:** primarily processes transactions for merchants; and
- **Trade Finance:** which includes loans tied directly to goods crossing borders, export/import loans, commercial letters of credit, standby letters of credit, and supply chain finance.

Lending: includes net interest income, fees, gains or losses on loan sale activity, gains or losses on securities received as part of a loan restructuring, and the risk management results related to the credit portfolio.

Fixed Income Markets: primarily includes revenue related to market-making across global fixed income markets, including foreign exchange, interest rate, credit and commodities markets.

Equity Markets: primarily includes revenue related to market-making across global equity products, including cash instruments, derivatives, convertibles and prime brokerage.

Securities Services: primarily includes custody, fund accounting and administration, and securities lending products sold principally to asset managers, insurance companies and public and private investment funds. Also includes collateral management and depositary receipts businesses which provide collateral management products, and depositary bank services for American and global depositary receipt programs.

Description *of certain business metrics:*

Assets under custody ("AUC"): represents activities associated with the safekeeping and servicing of assets on which Securities Services earns fees.

Investment banking fees: represents advisory, equity underwriting, bond underwriting and loan syndication fees.

COMMERCIAL BANKING ("CB")

Commercial Banking provides comprehensive financial solutions, including lending, wholesale payments, investment banking and asset management products across three primary client segments: Middle Market Banking, Corporate Client Banking and Commercial Real Estate Banking. Other includes amounts not aligned with a primary client segment.

Middle Market Banking: covers small and midsized companies, local governments and nonprofit clients.

Corporate Client Banking: covers large corporations.

Commercial Real Estate Banking: covers investors, developers, and owners of multifamily, office, retail, industrial and affordable housing properties.

CB product revenue comprises the following:

Lending: includes a variety of financing alternatives, which are primarily provided on a secured basis; collateral includes receivables, inventory, equipment, real estate or other assets. Products include term loans, revolving lines of credit, bridge financing, asset-based structures, leases, and standby letters of credit.

Wholesale payments: includes revenue from a broad range of products and services that enable CB clients to manage payments and receipts, as well as invest and manage funds.

Investment banking: includes revenue from a range of products providing CB clients with sophisticated capital-raising alternatives, as well as balance sheet and risk management tools through advisory, equity underwriting, and loan syndications. Revenue from fixed income and equity market products used by CB clients is also included.

Other: product revenue primarily includes tax-equivalent adjustments generated from Community Development Banking activity and certain income derived from principal transactions.

ASSET & WEALTH MANAGEMENT ("AWM")

Assets under management ("AUM"): represent assets managed by AWM on behalf of its Private Banking, Global Institutional and Global Funds clients. Includes "Committed capital not Called."

Client assets: represent assets under management, as well as custody, brokerage, administration and deposit accounts.

Multi-asset: Any fund or account that allocates assets under management to more than one asset class.

Alternative assets: The following types of assets constitute alternative investments – hedge funds, currency, real estate, private equity and other investment funds designed to focus on nontraditional strategies.

AWM's lines of business consist of the following:

Asset Management: offers multi-asset investment management solutions across equities, fixed income, alternatives and money market funds to institutional and retail investors providing for a broad range of clients' investment needs.

Global Private Bank: provides retirement products and services, brokerage, custody, trusts and estates, loans, mortgages, deposits and investment management to high net worth clients.

AWM's client segments consist of the following:

Private Banking: clients include high- and ultra-high-net-worth individuals, families, money managers and business owners.

Global Institutional: clients include both corporate and public institutions, endowments, foundations, nonprofit organizations and governments worldwide.

Global Funds: clients include financial intermediaries and individual investors.

Asset Management has two high-level measures of its overall fund performance:

Percentage of mutual fund assets under management in funds rated 4- or 5-star: Mutual fund rating services rank funds based on their risk-adjusted performance over various periods. A 5-star rating is the best rating and represents the top 10% of industry-wide ranked funds. A 4-star rating represents the next 22.5% of industry-wide ranked funds. A 3-star rating represents the next 35% of industry-wide ranked funds. A 2-star rating represents the next 22.5% of industry-wide ranked funds. A 1-star rating is the worst rating and represents the bottom 10% of industry-wide ranked funds. An overall Morningstar rating is derived from a weighted average of the performance associated with a fund's three-, five- and ten- year (if applicable) Morningstar Rating metrics. For U.S.-domiciled funds, separate star ratings are provided at the individual share class level. The Nomura "star rating" is based on three-year risk-adjusted performance only. Funds with fewer than three years of history are not rated and hence excluded from these rankings. All ratings, the assigned peer categories and the asset values used to derive these rankings are sourced from the applicable fund rating provider. Where applicable, the fund rating providers redenominate asset values into U.S. dollars. The percentage of AUM is based on star ratings at the share class level for U.S.-domiciled funds, and at a “primary share class” level to represent the star rating of all other funds, except for Japan, for which Nomura provides ratings at the fund level. The performance data may have been different if all share classes had been included. Past performance is not indicative of future results.

Percentage of mutual fund assets under management in funds ranked in the 1st or 2nd quartile (one, three, and five years): All quartile rankings, the assigned peer categories and the asset values used to derive these rankings are sourced from the fund rating providers. Quartile rankings are based on the net-of-fee absolute return of each fund. Where applicable, the fund rating providers redenominate asset values into U.S. dollars. The percentage of AUM is based on fund performance and associated peer rankings at the share class level for U.S.-domiciled funds, at a “primary share class” level to represent the quartile ranking for U.K., Luxembourg and Hong Kong funds and at the fund level for all other funds. The performance data may have been different if all share classes had been included. Past performance is not indicative of future results.

“**Primary share class**” means the C share class for European funds and Acc share class for Hong Kong and Taiwan funds. If these share classes are not available, the oldest share class is used as the primary share class.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Refer to the Market Risk Management section of Management's discussion and analysis and pages 135–142 of JPMorgan Chase's 2020 Form 10-K for a discussion of the quantitative and qualitative disclosures about market risk.

Item 4. Controls and Procedures.

As of the end of the period covered by this report, an evaluation was carried out under the supervision and with the participation of the Firm's management, including its Chairman and Chief Executive Officer and its Chief Financial Officer, of the effectiveness of its disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934). Based on that evaluation, the Chairman and Chief Executive Officer and the Chief Financial Officer concluded that these disclosure controls and procedures were effective. Refer to Exhibits 31.1 and 31.2 for the Certifications furnished by the Chairman and Chief Executive Officer and Chief Financial Officer, respectively.

The Firm is committed to maintaining high standards of internal control over financial reporting. Nevertheless, because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Deficiencies or lapses in internal controls may occur from time to time, and there can be no assurance that any such deficiencies will not result in significant deficiencies or material weaknesses in internal control in the future and collateral consequences therefrom. Refer to "Management's report on internal control over financial reporting" on page 158 of JPMorgan Chase's 2020 Form 10-K for further information. There was no change in the Firm's internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) that occurred during the three months ended September 30, 2021, that has materially affected, or is reasonably likely to materially affect, the Firm's internal control over financial reporting.

Part II – Other Information

Item 1. Legal Proceedings.

Refer to the discussion of the Firm's material legal proceedings in Note 24 of this Form 10-Q for information that updates the disclosures set forth under Part I, Item 3: Legal Proceedings, in JPMorgan Chase's 2020 Form 10-K.

Item 1A. Risk Factors.

The following discussion supplements the discussion of risk factors affecting the Firm as set forth in Part I, Item 1A: Risk Factors on pages 8-32 of JPMorgan Chase's 2020 Form 10-K. The discussion of risk factors, as so supplemented, sets forth the material risk factors that could affect JPMorgan Chase's financial condition and operations. Readers should not consider any descriptions of such factors to be a complete set of all potential risks that could affect the Firm.

Ongoing effects of the COVID-19 pandemic could harm the global economy and negatively affect JPMorgan Chase's businesses.

On March 11, 2020, the World Health Organization declared the outbreak of a strain of novel coronavirus disease, COVID-19, to be a global pandemic. The COVID-19 pandemic and governmental responses to the pandemic, which included the institution of social distancing and shelter-in-place requirements in certain areas of the U.S. and other countries, have resulted in adverse impacts on global economic conditions, including:

- significant disruption and volatility in the financial markets
- significant disruption of global supply chains, and
- closures of many businesses, leading to loss of revenues and increased unemployment.

The adverse economic conditions caused by the pandemic have had a negative impact on certain of JPMorgan Chase's businesses and results of operations, including:

- reduction in demand for certain products and services from JPMorgan Chase's clients and customers, resulting in lower revenue, and
- increases in the allowance for credit losses.

Certain models used by JPMorgan Chase in connection with the determination of the allowance for credit losses have experienced heightened performance risk in the economic environment precipitated by the effects of the COVID-19 pandemic and government stimulus. There can be no assurance that, even after adjustments have been made to model outputs, JPMorgan Chase will not recognize unexpected losses arising from the model uncertainty that has resulted from these developments.

Although global economic conditions have been improving despite the continuation of the COVID-19 pandemic, any ongoing negative economic impacts arising from the pandemic or any prolongation or worsening of the pandemic, including as a result of additional waves or variants of the COVID-19 disease or the emergence of other diseases that have similar outcomes, could have significant adverse effects on JPMorgan Chase's businesses, results of operations and financial condition, including:

- recognition of charge-offs and increases in the allowance for credit losses, including any delayed recognition of charge-offs due to the impact of government stimulus actions or payment assistance provided to clients and customers
- material impacts on the value of securities, derivatives and other financial instruments which JPMorgan Chase owns or in which it makes markets
- downgrades in JPMorgan Chase's credit ratings
- constraints on liquidity or capital due to elevated levels of deposits, increases in risk-weighted assets ("RWA") related to supporting client activities, downgrades in client credit ratings, regulatory actions or other factors, any or all of which could require JPMorgan Chase to take or refrain from taking actions that it otherwise would under its liquidity and capital management strategies, and
- the possibility that significant portions of JPMorgan Chase's workforce are unable to work effectively, including because of illness, quarantines, shelter-in-place arrangements, government actions or other restrictions in connection with the pandemic.

The extent to which the COVID-19 pandemic negatively affects JPMorgan Chase's businesses, results of operations and financial condition, as well as its regulatory capital and liquidity ratios, will depend on future developments that are uncertain and cannot be fully predicted, including:

- the ultimate scope and duration of the pandemic
- the availability, effectiveness and acceptance of vaccines
- actions taken by governmental authorities and other third parties in response to the pandemic, and
- the effect that the pandemic or any prolongation or worsening of the pandemic may have on the pace of economic growth, the strength of labor markets, particularly in light of the expiration of government assistance programs, and the potential for changes in consumer behavior that could have longer-term impacts on certain sectors.

In addition, JPMorgan Chase's participation directly or indirectly, including on behalf of customers and clients or by affiliated entities, in U.S. government programs designed to support individuals, households and businesses impacted by the economic disruptions caused by the COVID-19 pandemic could be criticized and subject JPMorgan Chase to:

- increased governmental and regulatory scrutiny
- negative publicity, and
- increased exposure to litigation,

any or all of which could increase JPMorgan Chase's operational, legal and compliance costs and damage its reputation. To the extent that the COVID-19 pandemic adversely affects JPMorgan Chase's business, results of operations and financial condition, it may also have the effect of heightening many of the other risks described in Risk Factors in the 2020 Form 10-K.

Supervision and regulation

Refer to the Supervision and regulation section on pages 3–7 of JPMorgan Chase's 2020 Form 10-K for information on Supervision and Regulation.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

The Firm did not have any unregistered sale of equity securities during the three months ended September 30, 2021.

Repurchases under the common share repurchase program

Refer to Capital Risk Management on pages 48-53 of this Form 10-Q and pages 91-101 of JPMorgan Chase's 2020 Form 10-K for information regarding repurchases under the Firm's common share repurchase program.

On December 18, 2020, the Federal Reserve announced that all large banks, including the Firm, could resume share repurchases commencing in the first quarter of 2021. Subsequently, the Firm announced that its Board of Directors authorized a new common share repurchase program for up to $30 billion. As directed by the Federal Reserve, total net repurchases and common stock dividends in the first and second quarters of 2021 were restricted and could not exceed the average of the Firm's net income for the four preceding calendar quarters.

On June 24, 2021, the Federal Reserve announced that the temporary restrictions on capital distributions would expire on June 30, 2021 as a result of the Firm remaining above its minimum risk-based capital requirements under the 2021 CCAR stress test. Effective July 1, 2021, the Firm became subject to the normal capital distribution restrictions provided under the regulatory capital framework. The Firm continues to be authorized to repurchase common shares under its existing common share repurchase program previously approved by the Board of Directors.

Shares repurchased pursuant to the common share repurchase program during the nine months ended September 30, 2021, were as follows.

Nine months ended September 30, 2021	Total number of shares of common stock repurchased	Average price paid per share of common stock[(a)]	Aggregate purchase price of common stock repurchases (in millions)[(a)]	Dollar value of remaining authorized repurchase (in millions)[(a)(b)]
First quarter	34,652,594	$ 144.25	$ 4,999	$ 25,001
Second quarter	39,544,940	156.83	6,201	18,800
July	11,553,877	153.44	1,773	17,027
August	11,306,308	157.60	1,782	15,245
September	10,540,632	159.85	1,685	13,560
Third quarter	33,400,817	156.87	5,240	13,560
Year-to-date	107,598,351	$ 152.79	$ 16,440	$ 13,560

(a) Excludes commissions cost.
(b) Represents the amount remaining under the $30 billion repurchase program.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

Exhibit No.	Description of Exhibit
15	Letter re: Unaudited Interim Financial Information.[(a)]
22	Subsidiary Guarantors and Issuers of Guaranteed Securities (incorporated by reference to Exhibit 22.2 to the Annual Report on Form 10-K of JPMorgan Chase & Co. (File No. 1-5805) for the year ended December 31, 2020.)
31.1	Certification.[(a)]
31.2	Certification.[(a)]
32	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.[(b)]
101.INS	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.[(c)]
101.SCH	XBRL Taxonomy Extension Schema Document.[(a)]
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.[(a)]
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.[(a)]
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.[(a)]
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.[(a)]
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and included in Exhibit 101).

(a) Filed herewith.
(b) Furnished herewith. This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section. Such exhibit shall not be deemed incorporated into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.
(c) Pursuant to Rule 405 of Regulation S-T, includes the following financial information included in the Firm's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2021, formatted in XBRL (eXtensible Business Reporting Language) interactive data files: (i) the Consolidated statements of income (unaudited) for the three and nine months ended September 30, 2021 and 2020, (ii) the Consolidated statements of comprehensive income (unaudited) for the three and nine months ended September 30, 2021 and 2020, (iii) the Consolidated balance sheets (unaudited) as of September 30, 2021, and December 31, 2020, (iv) the Consolidated statements of changes in stockholders' equity (unaudited) for the three and nine months ended September 30, 2021 and 2020, (v) the Consolidated statements of cash flows (unaudited) for the three and nine months ended September 30, 2021 and 2020, and (vi) the Notes to Consolidated Financial Statements (unaudited).

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

JPMorgan Chase & Co.
(Registrant)

By: /s/ Elena Korablina
Elena Korablina
Managing Director and Firmwide Controller
(Principal Accounting Officer)

Date: November 2, 2021