

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
June 30, 2022

Commission file
number 1-5805

JPMorgan Chase & Co.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

13-2624428
(I.R.S. employer
identification no.)

383 Madison Avenue,
New York, New York
(Address of principal executive offices)

10179
(Zip Code)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common stock	JPM	The New York Stock Exchange
Depository 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
Depository 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
Depository 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
Depository 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
Depository 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
Depository 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 June 30, 2022: 2,932,572,390

FORM 10-Q
TABLE OF CONTENTS

	Page
<u>Part I – Financial information</u>	
Item 1.	<u>Financial Statements.</u>
	<u>Consolidated Financial Statements – JPMorgan Chase & Co.:</u>
	<u>Consolidated statements of income (unaudited) for the three and six months ended June 30, 2022 and 2021</u>
	88
	<u>Consolidated statements of comprehensive income (unaudited) for the three and six months ended June 30, 2022 and 2021</u>
	89
	<u>Consolidated balance sheets (unaudited) at June 30, 2022 and December 31, 2021</u>
	90
	<u>Consolidated statements of changes in stockholders' equity (unaudited) for the three and six months ended June 30, 2022 and 2021</u>
	91
	<u>Consolidated statements of cash flows (unaudited) for the six months ended June 30, 2022 and 2021</u>
	92
	<u>Notes to Consolidated Financial Statements (unaudited)</u>
	93
	<u>Report of Independent Registered Public Accounting Firm</u>
	179
	<u>Consolidated Average Balance Sheets, Interest and Rates (unaudited) for the three months ended June 30, 2022 and 2021</u>
	180
	<u>Glossary of Terms and Acronyms and Line of Business Metrics</u>
	182
Item 2.	<u>Management's Discussion and Analysis of Financial Condition and Results of Operations.</u>
	<u>Consolidated Financial Highlights</u>
	3
	<u>Introduction</u>
	4
	<u>Executive Overview</u>
	5
	<u>Consolidated Results of Operations</u>
	10
	<u>Consolidated Balance Sheets and Cash Flows Analysis</u>
	15
	<u>Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures</u>
	18
	<u>Business Segment Results</u>
	20
	<u>Firmwide Risk Management</u>
	43
	<u>Capital Risk Management</u>
	44
	<u>Liquidity Risk Management</u>
	50
	<u>Consumer Credit Portfolio</u>
	57
	<u>Wholesale Credit Portfolio</u>
	62
	<u>Investment Portfolio Risk Management</u>
	74
	<u>Market Risk Management</u>
	75
	<u>Country Risk Management</u>
	80
	<u>Operational Risk Management</u>
	82
	<u>Critical Accounting Estimates Used by the Firm</u>
	83
	<u>Accounting and Reporting Developments</u>
	86
	<u>Forward-Looking Statements</u>
	87
Item 3.	<u>Quantitative and Qualitative Disclosures About Market Risk.</u>
	191
Item 4.	<u>Controls and Procedures.</u>
	191
<u>Part II – Other information</u>	
Item 1.	<u>Legal Proceedings.</u>
	191
Item 1A.	<u>Risk Factors.</u>
	191
Item 2.	<u>Unregistered Sales of Equity Securities and Use of Proceeds.</u>
	191
Item 3.	<u>Defaults Upon Senior Securities.</u>
	192
Item 4.	<u>Mine Safety Disclosures.</u>
	192
Item 5.	<u>Other Information.</u>
	192
Item 6.	<u>Exhibits.</u>
	192

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)

						Six months ended June 30,	
	2Q22	1Q22	4Q21	3Q21	2Q21	2022	2021
Selected income statement data							
Total net revenue	\$ 30,715	\$ 30,717	\$ 29,257	\$ 29,647	\$ 30,479	\$ 61,432	\$ 62,745
Total noninterest expense	18,749	19,191	17,888	17,063	17,667	37,940	36,392
Pre-provision profit^(a)	11,966	11,526	11,369	12,584	12,812	23,492	26,353
Provision for credit losses	1,101	1,463	(1,288)	(1,527)	(2,285)	2,564	(6,441)
Income before income tax expense	10,865	10,063	12,657	14,111	15,097	20,928	32,794
Income tax expense	2,216	1,781	2,258	2,424	3,149	3,997	6,546
Net income	\$ 8,649	\$ 8,282	\$ 10,399	\$ 11,687	\$ 11,948	\$ 16,931	\$ 26,248
Earnings per share data							
Net income: Basic	\$ 2.77	\$ 2.64	\$ 3.33	\$ 3.74	\$ 3.79	\$ 5.40	\$ 8.30
Diluted	2.76	2.63	3.33	3.74	3.78	5.39	8.28
Average shares: Basic	2,962.2	2,977.0	2,977.3	2,999.9	3,036.6	2,969.6	3,054.9
Diluted	2,966.3	2,981.0	2,981.8	3,005.1	3,041.9	2,973.7	3,060.3
Market and per common share data							
Market capitalization	330,237	400,379	466,206	483,748	464,778	330,237	464,778
Common shares at period-end	2,932.6	2,937.1	2,944.1	2,955.3	2,988.2	2,932.6	2,988.2
Book value per share	86.38	86.16	88.07	86.36	84.85	86.38	84.85
Tangible book value per share ("TBVPS") ^(a)	69.53	69.58	71.53	69.87	68.91	69.53	68.91
Cash dividends declared per share	1.00	1.00	1.00	1.00	0.90	2.00	1.80
Selected ratios and metrics							
Return on common equity ("ROE") ^(b)	13 %	13 %	16 %	18 %	18 %	13 %	21 %
Return on tangible common equity ("ROTCE") ^{(a)(b)}	17	16	19	22	23	16	26
Return on assets ^(b)	0.89	0.86	1.08	1.24	1.29	0.87	1.44
Overhead ratio	61	62	61	58	58	62	58
Loans-to-deposits ratio	45	42	44	43	45	45	45
Firm Liquidity coverage ratio ("LCR") (average) ^(c)	110	110	111	112	111	110	111
JPMorgan Chase Bank, N.A. LCR (average) ^(c)	169	181	178	174	171	169	171
Common equity Tier 1 ("CET1") capital ratio ^(d)	12.2	11.9	13.1	12.9	13.0	12.2	13.0
Tier 1 capital ratio ^(d)	14.1	13.7	15.0	15.0	15.1	14.1	15.1
Total capital ratio ^(d)	15.7	15.4	16.8	16.9	17.1	15.7	17.1
Tier 1 leverage ratio ^{(c)(d)}	6.2	6.2	6.5	6.6	6.6	6.2	6.6
Supplementary leverage ratio ("SLR") ^{(c)(d)}	5.3	5.2	5.4	5.5	5.4	5.3	5.4
Selected balance sheet data (period-end)							
Trading assets	\$ 465,577	\$ 511,528	\$ 433,575	\$ 515,901	\$ 520,588	\$ 465,577	\$ 520,588
Investment securities, net of allowance for credit losses	663,718	679,460	672,232	595,132	573,637	663,718	573,637
Loans	1,104,155	1,073,285	1,077,714	1,044,615	1,040,954	1,104,155	1,040,954
Total assets	3,841,314	3,954,687	3,743,567	3,757,576	3,684,256	3,841,314	3,684,256
Deposits	2,471,544	2,561,207	2,462,303	2,402,353	2,305,217	2,471,544	2,305,217
Long-term debt	288,212	293,239	301,005	298,465	299,926	288,212	299,926
Common stockholders' equity	253,305	253,061	259,289	255,203	253,548	253,305	253,548
Total stockholders' equity	286,143	285,899	294,127	290,041	286,386	286,143	286,386
Headcount	278,494	273,948	271,025	265,790	260,110	278,494	260,110
Credit quality metrics							
Allowances for credit losses	\$ 20,019	\$ 19,591	\$ 18,689	\$ 20,528	\$ 22,585	\$ 20,019	\$ 22,585
Allowance for loan losses to total retained loans	1.69 %	1.69 %	1.62 %	1.86 %	2.02 %	1.69 %	2.02 %
Nonperforming assets	\$ 7,845	\$ 8,605	\$ 8,346	\$ 8,882	\$ 9,802	\$ 7,845	\$ 9,802
Net charge-offs	657	582	550	524	734	1,239	1,791
Net charge-off rate	0.25 %	0.24 %	0.22 %	0.21 %	0.31 %	0.24 %	0.38 %

(a) 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 18-19 for a further discussion of these measures.

(b) Quarterly ratios are based upon annualized amounts.

(c) For the six months ended June 30, 2022 and 2021, the percentage represents average ratios for the three months ended June 30, 2022 and 2021.

(d) 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. Refer to Capital Risk Management on pages 44-49 of this Form 10-Q and pages 86-96 of JPMorgan Chase's 2021 Form 10-K for additional information.

INTRODUCTION

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 second quarter of 2022.

This Quarterly Report on Form 10-Q for the second quarter of 2022 ("Form 10-Q") should be read together with JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2021 ("2021 Form 10-K"). Refer to the Glossary of terms and acronyms and line of business ("LOB") metrics on pages 182-190 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 87 of this Form 10-Q and Part I, Item 1A, Risk Factors, on pages 9-33 of the 2021 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 \$286.1 billion in stockholders' equity as of June 30, 2022. 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 predominantly 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 June 30, 2022. 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 subsidiaries outside the U.S. are J.P. Morgan Securities plc and J.P. Morgan SE ("JPMSE"), which are subsidiaries of JPMorgan Chase Bank, N.A. and are based in the United Kingdom ("U.K.") and Germany, respectively.

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 2021 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 new and 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>. Information on the Firm's website is not incorporated by reference into this Form 10-Q or the Firm's other filings with the SEC.

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 2021 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 June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Selected income statement data						
Noninterest revenue	\$ 15,587	\$ 17,738	(12)%	\$ 32,432	\$ 37,115	(13)%
Net interest income	15,128	12,741	19	29,000	25,630	13
Total net revenue	\$ 30,715	\$ 30,479	1	\$ 61,432	\$ 62,745	(2)
Total noninterest expense	18,749	17,667	6	37,940	36,392	4
Pre-provision profit	11,966	12,812	(7)	23,492	26,353	(11)
Provision for credit losses	1,101	(2,285)	NM	2,564	(6,441)	NM
Net income	8,649	11,948	(28)	16,931	26,248	(35)
Diluted earnings per share	\$ 2.76	\$ 3.78	(27)	\$ 5.39	\$ 8.28	(35)
Selected ratios and metrics						
Return on common equity	13%	18%		13%	21%	
Return on tangible common equity	17	23		16	26	
Book value per share	\$ 86.38	\$ 84.85	2	\$ 86.38	\$ 84.85	2
Tangible book value per share	69.53	68.91	1	69.53	68.91	1
Capital ratios^(a)						
CET1 capital	12.2%	13.0%		12.2%	13.0%	
Tier 1 capital	14.1	15.1		14.1	15.1	
Total capital	15.7	17.1		15.7	17.1	
Memo:						
NII excluding Markets ^(b)	\$ 13,682	\$ 10,863	26	\$ 25,434	\$ 21,638	18
NIR excluding Markets ^(b)	10,158	13,745	(26)	21,243	27,039	(21)
Markets ^(b)	7,790	6,787	15	16,543	15,837	4
Total net revenue - managed basis	\$ 31,630	\$ 31,395	1	\$ 63,220	\$ 64,514	(2)

(a) 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. Refer to Capital Risk Management on pages 44-49 of this Form 10-Q and pages 86-96 of JPMorgan Chase's 2021 Form 10-K for additional information.

(b) NII and NIR refer to net interest income and noninterest revenue, respectively. Markets consists of CIB's Fixed Income Markets and Equity Markets businesses.

Comparisons noted in the sections below are for the second quarter of 2022 versus the second quarter of 2021, unless otherwise specified.

Firmwide overview

For the second quarter of 2022, JPMorgan Chase reported net income of \$8.6 billion, down 28%, earnings per share of \$2.76, an ROE of 13% and ROTCE of 17%.

- Total net revenue was up 1%, and reflected:
 - Net interest income of \$15.1 billion, up 19%. Net interest income excluding Markets was \$13.7 billion, up 26%, driven by higher rates and balance sheet growth.
 - Noninterest revenue was \$15.6 billion, down 12%, predominantly driven by:
 - lower Investment Banking fees, a loss in Credit Adjustments & Other compared to a gain in the prior year, and net losses on equity investments in CIB

- lower Card income in CCB, and
- \$337 million of markdowns on held-for-sale positions, primarily unfunded commitments, in the bridge financing portfolio in CIB and CB, partially offset by
- higher CIB Markets revenue.
- Noninterest expense was up 6%, driven by continued investments in the business, including technology and marketing, and higher structural expense, primarily compensation, partially offset by lower revenue-related compensation.
- The provision for credit losses was \$1.1 billion, driven by:
 - a net addition of \$428 million to the allowance for credit losses, primarily reflecting loan growth, as well as a modest deterioration in the Firm's macroeconomic forecast, and

– \$657 million of net charge-offs, down \$77 million, driven by Card.

The prior year provision was a net benefit of \$2.3 billion, reflecting a net reduction in the allowance for credit losses of \$3.0 billion.

- The total allowance for credit losses was \$20.0 billion at June 30, 2022. The Firm had an allowance for loan losses to retained loans coverage ratio of 1.69%, compared with 2.02% in the prior year.
- The Firm's nonperforming assets totaled \$7.8 billion at June 30, 2022, a net decrease of \$2.0 billion from the prior year, driven by lower nonaccrual loans, reflecting improved credit performance in consumer and net portfolio activity in wholesale.
- Firmwide average loans of \$1.1 trillion were up 7%, driven by higher loans across the LOBs.
- Firmwide average deposits of \$2.5 trillion were up 9%, reflecting the residual impact associated with government actions in the prior year. In CCB, the increase was also driven by growth from new and existing accounts across both consumer and small business customers. However, during the second quarter of 2022, there was a decline in deposits, including in CB due to migration of non-operating deposits into higher-yielding alternatives, and in CCB as consumer spending continued to grow.

Selected capital-related metrics

- The Firm's CET1 capital was \$207 billion, and the Standardized and Advanced CET1 ratios were 12.2% and 12.9%, respectively.
- The Firm's SLR was 5.3%.
- The Firm grew TBVPS, ending the second quarter of 2022 at \$69.53, up 1% versus the prior year.

Pre-provision profit, ROTCE, TCE, TBVPS, NII and NIR excluding Markets, and total net revenue on a managed basis are non-GAAP financial measures. Refer to Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 18-19 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 second quarter of 2022.

CCB ROE 24%	<ul style="list-style-type: none"> Average deposits up 13%; client investment assets down 7% Average loans up 2% year-over-year ("YoY") and up 2% quarter-over-quarter ("QoQ"); Card net charge-off rate of 1.47% Debit and credit card sales volume^(a) up 15% Active mobile customers^(b) up 11%
CIB ROE 14%	<ul style="list-style-type: none"> #1 ranking for Global Investment Banking fees with 8.1% wallet share year-to-date Total Markets revenue of \$7.8 billion, up 15%, with Fixed Income Markets up 15% and Equity Markets up 15%
CB ROE 15%	<ul style="list-style-type: none"> Gross Investment Banking revenue of \$788 million, down 32% Average loans up 7% YoY and up 4% QoQ; average deposits up 4%
AWM ROE 23%	<ul style="list-style-type: none"> Assets under management ("AUM") of \$2.7 trillion, down 8% Average loans up 11% YoY and 1% QoQ; average deposits up 22%

(a) Excludes Commercial Card.

(b) Users of all mobile platforms who have logged in within the past 90 days.

Refer to the Business Segment Results on pages 20-42 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 six months of 2022, consisting of:

\$1.4 trillion	Total credit provided and capital raised (including loans and commitments) ^(a)
\$138 billion	Credit for consumers
\$16 billion	Credit for U.S. small businesses
\$553 billion	Credit for corporations
\$609 billion	Capital raised for corporate clients and non-U.S. government entities
\$36 billion	Credit and capital raised for nonprofit and U.S. government entities ^(a)

(a) Includes states, municipalities, hospitals and universities.

Recent events

- On July 19, 2022, JPMorgan Chase announced that Alex Gorsky had been elected as a member of the Firm's Board of Directors, effective immediately. Mr. Gorsky serves as the Executive Chairman of Johnson & Johnson.

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 87 and page 155 of JPMorgan Chase's 2021 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 2022 should be viewed against the backdrop of the global and U.S. economies, 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. 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 2022

- Management expects net interest income excluding Markets to be in excess of \$58 billion, market dependent.
- Management expects adjusted expense to be approximately \$77 billion, which includes increased investments in technology, distribution and marketing, and higher structural expense.
- Management expects the net charge-off rate in Card to be less than 2%.

Net interest income excluding Markets 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 18-19.

Business Developments

War in Ukraine

The duration and potential outcomes of the war in Ukraine remain uncertain. The Firm has taken steps to close positions and reduce exposures connected with the war, and continues to assist clients with fulfilling or terminating pre-existing obligations and managing their Russia-related risks.

The Firm's exposure to Russia and Russia-associated clients and counterparties is not material to its financial condition or results of operations. However, the secondary impacts of the war in Ukraine, including increased market volatility, inflationary pressures and the effects of financial and economic sanctions imposed by various governments, could have adverse effects on the Firm's businesses.

The Firm also continues to monitor and manage the operational risks associated with the war, including compliance with the financial and economic sanctions and the increased risk of cyber attacks.

Refer to Wholesale Credit Portfolio on pages 62-70, Allowance for Credit Losses on pages 71-73, Market Risk Management on pages 75-79, Country Risk Management on pages 80-81 and Operational Risk Management on page 82 for additional information.

For purposes of this Form 10-Q, "Russia" refers to exposure to clients and counterparties of the Firm for which the largest proportion of their assets is located, or the largest proportion of their revenue is derived, in Russia, based on the Firm's internal country risk management framework; and "Russia-associated" refers to exposure to clients and counterparties of the Firm with respect to which economic or financial sanctions relating to the war in Ukraine have been imposed or which have close association with Russia.

Interbank Offered Rate ("IBOR") transition

JPMorgan Chase and other market participants continue to make progress with respect to the transition from the use of the London Interbank Offered Rate ("LIBOR") and other IBORs to comply with the International Organization of Securities Commission's standards for transaction-based benchmark rates. The cessation of the publication of the principal tenors of the U.S. dollar LIBOR (i.e., overnight, one-month, three-month, six-month and 12-month LIBOR) is scheduled for June 30, 2023.

The Firm continues its client outreach with respect to U.S. dollar LIBOR-linked loans and continues to monitor and evaluate client, industry, market, regulatory and legislative developments. Refer to Business Developments on pages 50-51 of JPMorgan Chase's 2021 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 six months ended June 30, 2022 and 2021, 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 83-85 of this Form 10-Q and pages 150-153 of JPMorgan Chase's 2021 Form 10-K for a discussion of the Critical Accounting Estimates Used by the Firm that affect the Consolidated Results of Operations.

Revenue

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Investment banking fees	\$ 1,586	\$ 3,470	(54)%	\$ 3,594	\$ 6,440	(44)%
Principal transactions	4,990	4,076	22	10,095	10,576	(5)
Lending- and deposit-related fees	1,873	1,760	6	3,712	3,447	8
Asset management, administration and commissions	5,240	5,194	1	10,602	10,223	4
Investment securities losses	(153)	(155)	1	(547)	(141)	(288)
Mortgage fees and related income	378	551	(31)	838	1,255	(33)
Card income	1,133	1,647	(31)	2,108	2,997	(30)
Other income ^(a)	540	1,195	(55)	2,030	2,318	(12)
Noninterest revenue	15,587	17,738	(12)	32,432	37,115	(13)
Net interest income	15,128	12,741	19	29,000	25,630	13
Total net revenue	\$30,715	\$30,479	1%	\$61,432	\$62,745	(2)%

(a) Included operating lease income of \$945 million and \$1.3 billion for the three months ended June 30, 2022 and 2021, respectively and \$2.0 billion and \$2.6 billion for the six months ended June 30, 2022 and 2021, respectively.

Quarterly results

Investment banking fees decreased in CIB, reflecting:

- lower debt and equity underwriting fees as volatile market conditions resulted in lower issuance activity, and
- lower advisory fees driven by a lower level of announced deals, starting in the first quarter of 2022.

Refer to CIB segment results on pages 27-32 and Note 5 for additional information.

Principal transactions revenue increased primarily in CIB, reflecting:

- higher revenue in Fixed Income Markets, driven by a strong performance in macro businesses amid a volatile market, particularly in Currencies & Emerging Markets, partially offset by lower revenue in Credit and Securitized Products, and
- higher revenue in Equity Markets predominantly driven by a strong performance in derivatives amid a volatile market, partially offset by
- a \$218 million loss in Credit Adjustments & Other, largely driven by funding spread widening, compared with a gain of \$233 million in the prior year, and
- \$337 million of markdowns on held-for-sale positions, primarily unfunded commitments, in the bridge financing portfolio in CIB and CB.

The increase in Principal transactions revenue also reflected net gains on certain legacy private equity investments in Corporate, compared with net losses in the prior year.

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, CB and Corporate segment results on pages 27-32, pages 33-36 and pages 41-42, and Note 5 for additional information.

Lending- and deposit-related fees increased as a result of higher deposit-related fees in CCB.

Refer to CCB segment results on pages 22-26 and Note 5 for additional information.

Asset management, administration and commissions revenue was relatively flat, reflecting higher asset management fees in AWM resulting from the removal of most money market fund fee waivers, offset by lower market levels and performance fees. Refer to AWM segment results on pages 22-26 and Note 5 for additional information.

Investment securities losses were relatively flat, and reflected losses in both periods from repositioning the investment securities portfolios in Treasury and CIO. Refer to Corporate segment results on pages 41-42 and Note 9 for additional information.

Mortgage fees and related income decreased due to:

- lower production revenue from lower margins and volume, largely offset by
- higher net mortgage servicing revenue resulting from
 - an increase in MSR risk management results primarily driven by changes in prepayment expectations, and
 - higher operating revenue on a higher level of third-party loans serviced.

Refer to CCB segment results on pages 22-26 Note 5 and 14 for additional information.

Card income decreased reflecting:

- higher amortization related to new account origination costs in Card, and
- lower net interchange income due to the impact from the renegotiation of a co-brand partner contract in Card in the fourth quarter of 2021.

Refer to CCB segment results on pages 22-26 and Note 5 for additional information.

Other income decreased reflecting:

- net losses on equity investments in CIB compared with net gains in the prior year, and

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

partially offset by

- a gain on an equity-method investment received in partial satisfaction of a loan in CB, and

- higher net gains related to certain other Corporate investments.

Net interest income increased driven by higher rates and balance sheet growth, partially offset by lower Markets NII, as well as lower NII from PPP loans.

The Firm's average interest-earning assets were \$3.4 trillion, up \$209 billion, and the yield was 2.22%, up 43 basis points ("bps"). The net yield on these assets, on an FTE basis, was 1.80%, an increase of 18 bps. The net yield excluding Markets was 2.26%, up 36 bps.

Refer to the Consolidated average balance sheets, interest and rates schedule on page 180 for further details. Net yield excluding Markets is a non-GAAP financial measure. Refer to Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 18-19 for a further discussion of Net interest yield excluding Markets.

Year-to-date results

Investment banking fees decreased in CIB, reflecting:

- lower equity and debt underwriting fees as volatile market conditions resulted in lower issuance activity, and

- lower advisory fees driven by a lower level of announced deals.

Principal transactions revenue decreased reflecting:

- a loss of \$742 million in Credit Adjustments & Other in CIB, largely driven by funding spread widening and, to a lesser extent, losses on exposures relating to commodities and Russia and Russia-associated counterparties, compared with a gain of \$230 million in the prior year,

- \$337 million of markdowns in the second quarter of 2022 on held-for-sale positions, primarily unfunded commitments, in the bridge financing portfolio in CIB and CB, and

- net losses on certain legacy private equity investments in Corporate compared with net gains in the prior year,

partially offset by

- an increase in Markets, reflecting

- higher revenue in Fixed Income Markets, predominantly driven by higher revenue in the macro businesses, particularly in Currencies & Emerging Markets, partially offset by lower revenue in Securitized Products and Credit, and

- higher revenue in Equity Markets, driven by a strong performance in prime brokerage and derivatives, partially offset by lower revenue in Cash Equities.

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

- higher deposit-related fees in CCB, and

- higher cash management fees in CIB and CB driven by growth in transaction volume.

Refer to CCB, CIB and CB segment results on pages 22-26, pages 27-32 and pages 33-36, respectively, and Note 5 for additional information.

Asset management, administration and commissions revenue increased, predominantly driven by higher asset management fees in AWM, reflecting strong cumulative net inflows into long-term products, and the removal of most money market fund fee waivers in the second quarter of 2022, and net inflows in CCB. Refer to CCB and AWM segment results on pages 22-26, pages 37-40, respectively, and Note 5 for additional information.

Investment securities losses reflected higher net losses on sales of U.S. Treasuries and U.S. GSE and government agency MBS, associated with repositioning the investment securities portfolios in both periods in Treasury and CIO.

Mortgage fees and related income decreased due to:

- lower production revenue from lower margins and volume, largely offset by

- higher net mortgage servicing revenue resulting from
 - an increase in MSR risk management results primarily driven by changes in prepayment expectations, and
 - higher operating revenue on a higher level of third-party loans serviced.

Card income decreased due to higher amortization related to new account origination costs in Card.

Other income decreased reflecting:

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

- net losses on several investments in AWM and CIB compared with net gains in the prior year,

partially offset by

- proceeds from an insurance settlement in the first quarter of 2022 in Corporate,

- higher net gains related to certain other Corporate investments in,

- a gain on an equity-method investment received in partial satisfaction of a loan in CB, and

- the absence of weather-related write-downs recorded in the prior year on certain renewable energy investments in CIB.

Net interest income increased driven by higher rates and balance sheet growth, partially offset by lower NII from PPP loans, as well as lower Markets NII.

The Firm's average interest-earning assets were \$3.4 trillion, up \$242 billion, and the yield was 2.04%, up 21 basis points ("bps"). The net yield on these assets, on an FTE basis, was 1.74%, an increase of 9 bps. The net yield excluding Markets was 2.11%, up 19 bps.

Provision for credit losses

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Consumer, excluding credit card	\$ 62	\$ (808)	NM	\$ 235	\$ (1,792)	NM
Credit card	730	(1,045)	NM	1,236	(3,562)	NM
Total consumer	792	(1,853)	NM	1,471	(5,354)	NM
Wholesale	303	(425)	NM	1,088	(1,096)	NM
Investment securities	6	(7)	NM	5	9	NM
Total provision for credit losses	\$ 1,101	\$(2,285)	NM	\$ 2,564	\$(6,441)	NM

Quarterly results

The provision for credit losses was \$1.1 billion, reflecting \$657 million of net charge-offs and a net addition of \$428 million to the allowance for credit losses, consisting of:

- \$238 million in **wholesale** driven by a modest deterioration in the Firm's macroeconomic forecast, and loan growth largely in CB, partially offset by client-specific reductions in the allowance for credit losses, and
- \$184 million in **consumer** predominantly driven by loan growth in Card.

Net charge-offs decreased \$77 million driven by Card, reflecting the financial strength of U.S. consumers.

The prior year included a \$3.0 billion net reduction in the allowance for credit losses and net charge-offs of \$734 million.

Refer to CCB segment results on pages 22-26, CIB on pages 27-32, CB on pages 33-36, AWM on pages 37-40, the Allowance for Credit Losses on pages 71-73, 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 was \$2.6 billion, reflecting a net addition of \$1.3 billion to the allowance for credit losses and \$1.2 billion of net charge-offs. The addition to the allowance primarily consisted of:

- \$1.0 billion in **wholesale** reflecting the increased weight placed on the adverse scenarios in the current year due to the ongoing effects associated with higher inflation, changes in monetary policy, and geopolitical risks, including the war in Ukraine, and a modest deterioration in the Firm's macroeconomic forecast. The increase in the allowance was also driven by loan growth in CB in the second quarter of 2022, and client-specific Russia and Russia-associated downgrades in CIB and AWM in the first quarter of 2022, and
- \$311 million in **consumer** primarily driven by Card, related to loan growth, and Home Lending due to the increased weight placed on the adverse scenarios in the first quarter of 2022.

Net charge-offs decreased \$552 million driven by Card, reflecting the financial strength of U.S. consumers.

The prior year included an \$8.2 billion net reduction in the allowance for credit losses and net charge-offs of \$1.8 billion.

Noninterest expense

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Compensation expense	\$10,301	\$ 9,814	5 %	\$21,088	\$20,415	3 %
Noncompensation expense:						
Occupancy	1,129	1,090	4	2,263	2,205	3
Technology, communications and equipment ^(a)	2,376	2,488	(5)	4,736	5,007	(5)
Professional and outside services	2,469	2,385	4	5,041	4,588	10
Marketing	881	626	41	1,801	1,377	31
Other expense ^(b)	1,593	1,264	26	3,011	2,800	8
Total noncompensation expense	8,448	7,853	8	16,852	15,977	5
Total noninterest expense	\$18,749	\$17,667	6 %	\$37,940	\$36,392	4 %

(a) Includes depreciation expense associated with auto operating lease assets.

(b) Included Firmwide legal expense of \$73 million and \$185 million for the three months ended June 30, 2022 and 2021, respectively and \$192 million and \$213 million for the six months ended June 30, 2022 and 2021, respectively.

Quarterly results

Compensation expense increased driven by investments and higher structural expense across the LOBs, partially offset by lower revenue-related compensation in CIB.

Noncompensation expense increased as a result of:

- higher investments across the Firm, including marketing and technology, and
- higher structural expense, including travel and entertainment, partially offset by
- lower volume-related expense, primarily depreciation expense in CCB on lower auto lease assets, and
- lower legal expense.

Income tax expense

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Income before income tax expense	\$ 10,865	\$ 15,097	(28)%	\$ 20,928	\$ 32,794	(36)%
Income tax expense	2,216	3,149	(30)	3,997	6,546	(39)
Effective tax rate	20.4 %	20.9 %		19.1 %	20.0 %	

Quarterly results

The **effective tax rate** decreased driven by the impact of benefits related to tax audit settlements, partially offset by the change in the level and mix of income and expenses subject to U.S. federal and state and local taxes. The prior year included expenses related to tax audit settlements.

Year-to-date results

Compensation expense increased driven by investments and higher structural expense across the LOBs, largely offset by lower revenue-related compensation in CIB.

Noncompensation expense increased as a result of:

- higher investments across the Firm, including marketing and technology, and
- higher structural expense, including travel and entertainment and regulatory assessments. The prior year included a \$550 million contribution to the Firm's Foundation, partially offset by
- lower volume-related expense, reflecting a net decrease related to lower depreciation expense on lower auto lease assets and higher operating losses, both in CCB.

Year-to-date results

The **effective tax rate** decreased for the six months ended June 30, 2022, driven by benefits from tax audit settlements, as well as the relative net impact of certain tax benefits and expenses on a lower level of pretax income, partially offset by the change in the level and mix of income and expenses subject to U.S. federal and state and local taxes. The prior year included expenses related to tax audit settlements.

CONSOLIDATED BALANCE SHEETS AND CASH FLOWS ANALYSIS

Consolidated balance sheets analysis

The following is a discussion of the significant changes between June 30, 2022, and December 31, 2021.

Selected Consolidated balance sheets data

(in millions)	June 30, 2022	December 31, 2021	Change
Assets			
Cash and due from banks	\$ 27,215	\$ 26,438	3 %
Deposits with banks	642,045	714,396	(10)
Federal funds sold and securities purchased under resale agreements	322,156	261,698	23
Securities borrowed	202,393	206,071	(2)
Trading assets	465,577	433,575	7
Available-for-sale securities	222,069	308,525	(28)
Held-to-maturity securities, net of allowance for credit losses	441,649	363,707	21
Investment securities, net of allowance for credit losses	663,718	672,232	(1)
Loans	1,104,155	1,077,714	2
Allowance for loan losses	(17,750)	(16,386)	8
Loans, net of allowance for loan losses	1,086,405	1,061,328	2
Accrued interest and accounts receivable	145,442	102,570	42
Premises and equipment	26,770	27,070	(1)
Goodwill, MSRs and other intangible assets	59,360	56,691	5
Other assets	200,233	181,498	10
Total assets	\$ 3,841,314	\$ 3,743,567	3 %

Cash and due from banks and deposits with banks decreased primarily as a result of Markets activities and loan growth. 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 increased driven by Markets, reflecting:

- higher collateral requirements, higher demand for securities to cover short positions, and
- the impact of netting on client-driven market-making activities.

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

Trading assets increased driven by:

- higher foreign exchange and commodity derivative receivables as a result of market movements, as well as higher levels of debt instruments, partially offset by lower equity instruments, related to client-driven market-making activities in Markets, and
- higher deployment of funds in Treasury and CIO.

Refer to Notes 2 and 4 for additional information.

Investment securities included the transfer of \$73.2 billion of securities from the available-for-sale ("AFS") to the held-to-maturity ("HTM") portfolio.

- The decrease in AFS securities was also due to paydowns, and unrealized losses, recognized in accumulated other comprehensive income ("AOCI"), predominantly offset by net purchases.
- The increase in HTM securities was also due to purchases predominantly offset by paydowns.

Refer to Corporate segment results on pages 41-42, Investment Portfolio Risk Management on page 74, and Notes 2 and 9 for additional information.

Loans increased, reflecting:

- higher loans in CB as a result of higher revolver utilization and originations,
 - higher retained residential real estate loans in AWM and Home Lending as a result of originations, net of paydowns,
 - higher balances in Card on higher consumer spending, and
 - higher wholesale loans in CIB,
- partially offset by
- lower mortgage warehouse loans in Home Lending as sales outpaced originations due to higher interest rates, and
 - a decline in CBB due to the impact of PPP loan forgiveness.

The **allowance for loan losses** increased as a result of a net addition of \$1.4 billion to the allowance for loan losses, consisting of \$1.1 billion in **wholesale** and \$314 million in **consumer**. The addition reflects the increased weight placed on the adverse scenarios in the current year, due to the ongoing effects associated with higher inflation, changes in monetary policy, and geopolitical risks, including the war in Ukraine, and a modest deterioration in the Firm's macroeconomic forecast. The increase in the allowance for loan losses was also driven by loan growth in Card and CB in the second quarter of 2022, and client-specific Russia and Russia-associated downgrades in CIB and AWM in the first quarter of 2022.

There was a \$39 million reduction in the allowance for lending-related commitments recognized in other liabilities on the Consolidated balance sheets.

Refer to Credit and Investment Risk Management on pages 55-74, 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 in Markets, including prime brokerage.

Goodwill, MSRs and other intangibles increased, reflecting:

- higher MSRs as a result of changes in market interest rates and net additions, partially offset by the realization of expected cash flows, and
- higher goodwill associated with the acquisitions of Frosch Travel Group, LLC in CCB and Volkswagen Payments S.A. in CIB.

Refer to Note 14 for additional information.

Other assets increased largely due to the higher cash collateral placed with counterparties, as well as higher securities financing transactions in Markets.

Selected Consolidated balance sheets data (continued)

(in millions)	June 30, 2022	December 31, 2021	Change
Liabilities			
Deposits	\$ 2,471,544	\$ 2,462,303	— %
Federal funds purchased and securities loaned or sold under repurchase agreements	222,719	194,340	15
Short-term borrowings	58,422	53,594	9
Trading liabilities	190,308	164,693	16
Accounts payable and other liabilities	313,326	262,755	19
Beneficial interests issued by consolidated variable interest entities ("VIEs")	10,640	10,750	(1)
Long-term debt	288,212	301,005	(4)
Total liabilities	3,555,171	3,449,440	3
Stockholders' equity	286,143	294,127	(3)
Total liabilities and stockholders' equity	\$ 3,841,314	\$ 3,743,567	3 %

Deposits were relatively flat, reflecting:

- growth in new accounts in CCB that more than offset the decline in deposits in existing accounts across consumer and small business customers, as consumer spending continued to grow, and
- higher deposits in Securities Services and Payments primarily driven by client activities,

offset by

- a decline in CB due to the migration of non-operating deposits into higher-yielding alternatives; and additionally, in AWM and CB reflecting seasonality.

Refer to Liquidity Risk Management on pages 50-54 and Notes 2 and 15 for additional information.

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

- higher secured financing of trading assets and the impact of netting on client-driven market-making activities in Markets, partially offset by
- lower secured financing of AFS investment securities in Treasury and CIO. Refer to Liquidity Risk Management on pages 50-54 and Note 10 for additional information.

Short-term borrowings increased as a result of higher net issuance of commercial paper primarily for short-term liquidity management in Treasury and CIO. Refer to Liquidity Risk Management on pages 50-54 for additional information.

Trading liabilities increased due to client-driven market-making activities in Fixed Income Markets, which resulted in higher levels of short positions in debt instruments. Refer to Notes 2 and 4 for additional information.

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

Refer to Liquidity Risk Management on pages 50-54 and Notes 13 and 22 for additional information on **Beneficial interests issued by consolidated VIEs**, specifically Firm-sponsored VIEs and loan securitization trusts.

Long-term debt decreased driven by fair value hedge accounting adjustments in Treasury and CIO related to higher rates, and a decline in the fair value of structured notes in CIB. These were largely offset by net issuances in Treasury and CIO and CIB. Refer to Liquidity Risk Management on pages 50-54 for additional information.

Stockholders' equity decreased as a result of a net unrealized loss in AOCI, which was predominantly driven by the impact of higher rates on the AFS portfolio and cash flow hedges in Treasury and CIO. Refer to Capital actions on page 48, Consolidated statements of changes in stockholders' equity on page 91, and Note 19 for additional information.

Consolidated cash flows analysis

The following is a discussion of cash flow activities during the six months ended June 30, 2022 and 2021.

(in millions)	Six months ended June 30,	
	2022	2021
Net cash provided by/(used in)		
Operating activities	\$ 24,101	\$ (30,342)
Investing activities	(125,811)	33,089
Financing activities	48,970	180,968
Effect of exchange rate changes on cash	(18,834)	(5,903)
Net increase/(decrease) in cash and due from banks and deposits with banks	\$ (71,574)	\$ 177,812

Operating activities

- In 2022, cash provided reflected higher accounts payable and other liabilities, trading liabilities, and net proceeds from loans held-for-sale, predominantly offset by higher trading assets and accrued interest and accounts receivable.
- In 2021, cash used resulted from higher accrued interest and accounts receivable and securities borrowed, partially offset by higher accounts payable and other liabilities.

Investing activities

- In 2022, cash used resulted from higher securities purchased under resale agreements, net originations of loans, and net purchases of investment securities.
- In 2021, cash provided reflected lower securities purchased under resale agreements, partially offset by net originations of loans.

Financing activities

- In 2022, cash provided reflected higher securities loaned or sold under repurchase agreements and net proceeds from long- and short-term borrowings.
- In 2021, cash provided reflected higher deposits and securities loaned or sold under repurchase agreements, and net proceeds from 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 15-16, Capital Risk Management on pages 44-49, and Liquidity Risk Management on pages 50-54 of this Form 10-Q, and pages 97-104 of JPMorgan Chase's 2021 Form 10-K for a further discussion of the activities affecting the Firm's cash flows.

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 page 88-92.

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, net yield, and noninterest revenue excluding Markets;
- TCE, ROTCE, and TBVPS;
- Adjusted expense, which represents noninterest expense excluding Firmwide legal expense; and
- 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 58-60 of JPMorgan Chase's 2021 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.

(in millions, except ratios)	Three months ended June 30,					
	2022			2021		
	Reported	Fully taxable-equivalent adjustments ^(a)	Managed basis	Reported	Fully taxable-equivalent adjustments ^(a)	Managed basis
Other income	\$ 540	\$ 812	\$ 1,352	\$ 1,195	\$ 807	\$ 2,002
Total noninterest revenue	15,587	812	16,399	17,738	807	18,545
Net interest income	15,128	103	15,231	12,741	109	12,850
Total net revenue	30,715	915	31,630	30,479	916	31,395
Total noninterest expense	18,749	NA	18,749	17,667	NA	17,667
Pre-provision profit	11,966	915	12,881	12,812	916	13,728
Provision for credit losses	1,101	NA	1,101	(2,285)	NA	(2,285)
Income before income tax expense	10,865	915	11,780	15,097	916	16,013
Income tax expense	2,216	915	3,131	3,149	916	4,065
Net income	\$ 8,649	NA	\$ 8,649	\$ 11,948	NA	\$ 11,948
Overhead ratio	61 %	NM	59 %	58 %	NM	56 %

(in millions, except ratios)	Six months ended June 30,					
	2022			2021		
	Reported	Fully taxable-equivalent adjustments ^(a)	Managed basis	Reported	Fully taxable-equivalent adjustments ^(a)	Managed basis
Other income	\$ 2,030	\$ 1,587	\$ 3,617	\$ 2,318	\$ 1,551	\$ 3,869
Total noninterest revenue	32,432	1,587	34,019	37,115	1,551	38,666
Net interest income	29,000	201	29,201	25,630	218	25,848
Total net revenue	61,432	1,788	63,220	62,745	1,769	64,514
Total noninterest expense	37,940	NA	37,940	36,392	NA	36,392
Pre-provision profit	23,492	1,788	25,280	26,353	1,769	28,122
Provision for credit losses	2,564	NA	2,564	(6,441)	NA	(6,441)
Income before income tax expense	20,928	1,788	22,716	32,794	1,769	34,563
Income tax expense	3,997	1,788	5,785	6,546	1,769	8,315
Net income	\$ 16,931	NA	\$ 16,931	\$ 26,248	NA	\$ 26,248
Overhead ratio	62 %	NM	60 %	58 %	NM	56 %

(a) Predominantly recognized in CIB, CB and Corporate.

The following table provides information on net interest income, net yield, and noninterest revenue excluding Markets.

(in millions, except rates)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Net interest income – reported	\$ 15,128	\$ 12,741	19 %	\$ 29,000	\$ 25,630	13 %
Fully taxable-equivalent adjustments	103	109	(6)	201	218	(8)
Net interest income – managed basis^(a)	\$ 15,231	\$ 12,850	19	\$ 29,201	\$ 25,848	13
Less: Markets net interest income ^(b)	1,549	1,987	(22)	3,767	4,210	(11)
Net interest income excluding Markets^(a)	\$ 13,682	\$ 10,863	26	\$ 25,434	\$ 21,638	18
Average interest-earning assets	\$ 3,385,894	\$ 3,177,195	7	\$ 3,393,879	\$ 3,152,022	8
Less: Average Markets interest-earning assets ^(b)	957,304	882,848	8	960,556	874,764	10
Average interest-earning assets excluding Markets	\$ 2,428,590	\$ 2,294,347	6 %	\$ 2,433,323	\$ 2,277,258	7 %
Net yield on average interest-earning assets – managed basis	1.80 %	1.62 %		1.74 %	1.65 %	
Net yield on average Markets interest-earning assets ^(b)	0.65	0.90		0.79	0.97	
Net yield on average interest-earning assets excluding Markets	2.26 %	1.90 %		2.11 %	1.92 %	
Noninterest revenue – reported	\$ 15,587	\$ 17,738	(12)%	\$ 32,432	\$ 37,115	(13)%
Fully taxable-equivalent adjustments	812	807	1	1,587	1,551	2
Noninterest revenue – managed basis	\$ 16,399	\$ 18,545	(12)	\$ 34,019	\$ 38,666	(12)
Less: Markets noninterest revenue ^(b)	6,241	4,800	30	12,776	11,627	10
Noninterest revenue excluding Markets	\$ 10,158	\$ 13,745	(26)	\$ 21,243	\$ 27,039	(21)
Memo: Total Markets net revenue^(b)	\$ 7,790	\$ 6,787	15	\$ 16,543	\$ 15,837	4

(a) Interest includes the effect of related hedges. Taxable-equivalent amounts are used where applicable.

(b) Refer to page 31 for further information on 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		Average			
	Jun 30, 2022	Dec 31, 2021	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021	2022	2021
Common stockholders' equity	\$ 253,305	\$ 259,289	\$ 247,986	\$ 250,849	\$ 250,234	\$ 248,209
Less: Goodwill	50,697	50,315	50,575	49,260	50,442	49,254
Less: Other intangible assets	1,224	882	1,119	864	1,007	877
Add: Certain deferred tax liabilities ^(a)	2,509	2,499	2,503	2,459	2,500	2,457
Tangible common equity	\$ 203,893	\$ 210,591	\$ 198,795	\$ 203,184	\$ 201,285	\$ 200,535
Return on tangible common equity	NA	NA	17 %	23 %	16 %	26 %
Tangible book value per share	\$ 69.53	\$ 71.53	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.

BUSINESS SEGMENT RESULTS

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 18-19 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 ("FTP") is the process by which the Firm allocates interest income and expense to the LOBs and Other Corporate and transfers the primary interest rate risk and liquidity risk to Treasury and CIO.

The funds transfer pricing process considers the interest rate risk and liquidity risk characteristics of assets and liabilities and off-balance sheet products. Periodically the methodology and assumptions utilized in the FTP process are adjusted to reflect economic conditions and other factors, which may impact the allocation of net interest income to the segments.

Foreign exchange risk

Foreign exchange risk is transferred from the LOBs and Other Corporate to Treasury and CIO for certain revenues and expenses. Treasury and CIO manages these risks centrally and reports the impact of foreign exchange rate movements related to the transferred risk in its results.

Capital allocation

The amount of capital assigned to each business 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 47, and page 93 of JPMorgan Chase's 2021 Form 10-K for additional information on capital allocation.

Refer to Business Segment Results – Description of business segment reporting methodology on pages 61-62 of JPMorgan Chase's 2021 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 June 30, (in millions, except ratios)	Consumer & Community Banking			Corporate & Investment Bank			Commercial Banking		
	2022	2021	Change	2022	2021	Change	2022	2021	Change
Total net revenue	\$ 12,614	\$ 12,760	(1)%	\$ 11,947	\$ 13,214	(10)%	\$ 2,683	\$ 2,483	8%
Total noninterest expense	7,723	7,062	9	6,745	6,523	3	1,156	981	18
Pre-provision profit/(loss)	4,891	5,698	(14)	5,202	6,691	(22)	1,527	1,502	2
Provision for credit losses	761	(1,868)	NM	59	(79)	NM	209	(377)	NM
Net income/(loss)	3,100	5,645 ^(a)	(45)	3,725	5,020 ^(a)	(26)	994	1,422 ^(a)	(30)
Return on equity ("ROE")	24%	44%		14 %	23%		15 %	23%	

Three months ended June 30, (in millions, except ratios)	Asset & Wealth Management			Corporate			Total		
	2022	2021	Change	2022	2021	Change	2022	2021	Change
Total net revenue	\$ 4,306	\$ 4,107	5%	\$ 80	\$ (1,169)	NM	\$ 31,630	\$ 31,395	1%
Total noninterest expense	2,919	2,586	13	206	515	(60)	18,749	17,667	6
Pre-provision profit/(loss)	1,387	1,521	(9)	(126)	(1,684)	93	12,881	13,728	(6)
Provision for credit losses	44	(10)	NM	28	49	(43)	1,101	(2,285)	NM
Net income/(loss)	1,004	1,156 ^(a)	(13)	(174)	(1,295) ^(a)	87	8,649	11,948	(28)
ROE	23 %	32%		NM	NM		13 %	18%	

Six months ended June 30, (in millions, except ratios)	Consumer & Community Banking			Corporate & Investment Bank			Commercial Banking		
	2022	2021	Change	2022	2021	Change	2022	2021	Change
Total net revenue	\$ 24,843	\$ 25,277	(2)%	\$ 25,476	\$ 27,819	(8)%	\$ 5,081	\$ 4,876	4%
Total noninterest expense	15,443	14,264	8	14,043	13,627	3	2,285	1,950	17
Pre-provision profit/(loss)	9,400	11,013	(15)	11,433	14,192	(19)	2,796	2,926	(4)
Provision for credit losses	1,439	(5,470)	NM	504	(410)	NM	366	(495)	NM
Net income/(loss)	5,995	12,432 ^(a)	(52)	8,110	10,944 ^(a)	(26)	1,844	2,603 ^(a)	(29)
ROE	23%	49%		15 %	26% ^(a)		14 %	21%	

Six months ended June 30, (in millions, except ratios)	Asset & Wealth Management			Corporate			Total		
	2022	2021	Change	2022	2021	Change	2022	2021	Change
Total net revenue	\$ 8,621	\$ 8,184	5%	\$ (801)	\$ (1,642)	51%	\$ 63,220	\$ 64,514	(2)%
Total noninterest expense	5,779	5,160	12	390	1,391	(72)	37,940	36,392	4
Pre-provision profit/(loss)	2,842	3,024	(6)	(1,191)	(3,033)	61	25,280	28,122	(10)
Provision for credit losses	198	(131)	NM	57	65	(12)	2,564	(6,441)	NM
Net income/(loss)	2,012	2,416 ^(a)	(17)	(1,030)	(2,147) ^(a)	52	16,931	26,248	(35)
ROE	23 %	34%		NM	NM		13 %	21%	

(a) In the first quarter of 2022, the Firm changed its methodology for allocating income taxes to the LOBs, with no impact to Firmwide net income. Prior-period amounts have been revised to conform with the current presentation.

The following sections provide a comparative discussion of the Firm's results by segment as of or for the three and six months ended June 30, 2022 versus the corresponding period in the prior year, unless otherwise specified.

CONSUMER & COMMUNITY BANKING

Refer to pages 63-66 of JPMorgan Chase's 2021 Form 10-K and Line of Business Metrics on page 188 for a further discussion of the business profile of CCB.

Selected income statement data

(in millions, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Revenue						
Lending- and deposit-related fees	\$ 855	\$ 753	14%	\$ 1,660	\$ 1,495	11 %
Asset management, administration and commissions	947	866	9	1,876	1,671	12
Mortgage fees and related income	377	548	(31)	833	1,251	(33)
Card income	678	1,238	(45)	1,268	2,237	(43)
All other income	1,049	1,321	(21)	2,171	2,660	(18)
Noninterest revenue	3,906	4,726	(17)	7,808	9,314	(16)
Net interest income	8,708	8,034	8	17,035	15,963	7
Total net revenue	12,614	12,760	(1)	24,843	25,277	(2)
Provision for credit losses	761	(1,868)	NM	1,439	(5,470)	NM
Noninterest expense						
Compensation expense	3,237	2,977	9	6,408	5,953	8
Noncompensation expense ^(a)	4,486	4,085	10	9,035	8,311	9
Total noninterest expense	7,723	7,062	9	15,443	14,264	8
Income before income tax expense	4,130	7,566	(45)	7,961	16,483	(52)
Income tax expense	1,030	1,921 ^(c)	(46)	1,966	4,051 ^(c)	(51)
Net income	\$ 3,100	\$ 5,645^(c)	(45)	\$ 5,995	\$ 12,432^(c)	(52)
Revenue by line of business						
Consumer & Business Banking	\$ 6,558	\$ 6,016	9	\$ 12,620	\$ 11,651	8
Home Lending	1,001	1,349	(26)	2,170	2,807	(23)
Card & Auto	5,055	5,395	(6)	10,053	10,819	(7)
Mortgage fees and related income details:						
Production revenue	150	517	(71)	361	1,274	(72)
Net mortgage servicing revenue ^(b)	227	31	NM	472	(23)	NM
Mortgage fees and related income	\$ 377	\$ 548	(31)%	\$ 833	\$ 1,251	(33)%
Financial ratios						
Return on equity	24 %	44 %		23 %	49 %	
Overhead ratio	61	55		62	56	

(a) Included depreciation expense on leased assets of \$652 million and \$856 million for the three months ended June 30, 2022 and 2021, respectively, and \$1.3 billion and \$1.8 billion for the six months ended June 30, 2022 and 2021, respectively.

(b) Included MSR risk management results of \$28 million and \$(103) million for the three months ended June 30, 2022 and 2021, respectively, and \$137 million and \$(218) million for the six months ended June 30, 2022 and 2021, respectively.

(c) In the first quarter of 2022, the Firm changed its methodology for allocating income taxes to the LOBs, with no impact to Firmwide net income. Prior-period amounts have been revised to conform with the current presentation.

Quarterly results

Net income was \$3.1 billion, down 45%, reflecting an increase in the provision for credit losses compared with a net benefit in the prior year.

Net revenue was \$12.6 billion, a decrease of 1%.

Net interest income was \$8.7 billion, up 8%, driven by:

- growth in deposits in CBB, and higher revolving loans in Card, partially offset by
- a reduction associated with PPP loan forgiveness in CBB, and lower NII in Home Lending primarily due to tighter loan spreads.

Noninterest revenue was \$3.9 billion, down 17%, driven by:

- lower card income reflecting higher amortization related to new account origination costs and lower net interchange income due to the impact from the renegotiation of a co-brand partner contract in the fourth quarter of 2021,
- lower production revenue from lower margins and volume in Home Lending, and
- lower auto operating lease income as a result of a decline in volume, partially offset by
- higher net mortgage servicing revenue from an increase in MSR risk management results primarily driven by changes in prepayment expectations, and higher operating revenue on a higher level of third-party loans serviced, and
- higher deposit-related fees.

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 Note 5 for additional information on card income.

Noninterest expense was \$7.7 billion, up 9%, reflecting:

- investments in the business and increased structural expenses, predominantly driven by compensation, technology and marketing,

partially offset by

- lower volume- and revenue-related expenses primarily due to depreciation expense on lower auto lease assets.

The provision for credit losses was \$761 million, reflecting:

- net charge-offs of \$611 million, down \$121 million, driven by Card reflecting the financial strength of U.S. consumers, and
- a \$150 million addition to the allowance for credit losses in Card driven by loan growth.

The prior year included a \$2.6 billion reduction in the allowance for credit losses across CCB.

Refer to Credit and Investment Risk Management on pages 55-74 and Allowance for Credit Losses on pages 71-73 for a further discussion of the credit portfolios and the allowance for credit losses.

Year-to-date results

Net income was \$6.0 billion, down 52%, reflecting an increase in the provision for credit losses compared with a net benefit in the prior year.

Net revenue was \$24.8 billion, a decrease of 2%.

Net interest income was \$17.0 billion, up 7%, driven by:

- growth in deposits net of margin compression in CBB, and higher revolving loans in Card,

partially offset by

- a reduction associated with PPP loan forgiveness in CBB, and lower NII in Home Lending primarily due to tighter loan spreads.

Noninterest revenue was \$7.8 billion, down 16%, driven by:

- lower production revenue from lower margins and volume in Home Lending,
- higher amortization related to new account origination costs in Card, and
- lower auto operating lease income as a result of a decline in volume, partially offset by
- higher net mortgage servicing revenue from an increase in MSR risk management results primarily driven by changes in prepayment expectations, and higher operating revenue on a higher level of third-party loans serviced,
- higher commissions largely on travel, and higher asset management fees as a result of net inflows, and
- higher deposit-related fees.

Noninterest expense was \$15.4 billion, up 8%, reflecting:

- investments in the business and increased structural expenses, predominantly driven by compensation, technology and marketing,

partially offset by

- lower volume- and revenue-related expenses, reflecting a net decrease related to lower depreciation expense on lower auto lease assets and higher operating losses.

The provision for credit losses was \$1.4 billion, reflecting:

- net charge-offs of \$1.2 billion, down \$591 million, driven by Card reflecting the financial strength of U.S. consumers, and
- a \$275 million addition to the allowance for credit losses in Card and Home Lending.

The prior year included a \$7.2 billion reduction in the allowance for credit losses across CCB.

Selected metrics

(in millions, except headcount)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Selected balance sheet data (period-end)						
Total assets	\$ 500,219	\$ 494,305	1%	\$ 500,219	\$ 494,305	1 %
Loans:						
Consumer & Business Banking ^(a)	31,494	46,228	(32)	31,494	46,228	(32)
Home Lending ^(b)	176,939	179,371	(1)	176,939	179,371	(1)
Card	165,494	141,802	17	165,494	141,802	17
Auto	67,842	67,598	—	67,842	67,598	—
Total loans	441,769	434,999	2	441,769	434,999	2
Deposits	1,178,825	1,056,507	12	1,178,825	1,056,507	12
Equity	50,000	50,000	—	50,000	50,000	—
Selected balance sheet data (average)						
Total assets	\$ 496,177	\$ 485,209	2	\$ 492,592	\$ 484,868	2
Loans:						
Consumer & Business Banking	32,294	49,356	(35)	33,014	49,611	(33)
Home Lending ^(c)	177,330	177,444	—	176,911	179,832	(2)
Card	158,434	136,149	16	153,941	135,520	14
Auto	68,569	67,183	2	68,908	67,072	3
Total loans	436,627	430,132	2	432,774	432,035	—
Deposits	1,180,453	1,047,771	13	1,167,057	1,013,917	15
Equity	50,000	50,000	—	50,000	50,000	—
Headcount	130,907	125,300	4%	130,907	125,300	4 %

(a) At June 30, 2022 and 2021, included \$1.5 billion and \$16.7 billion of loans, respectively, in Business Banking under the PPP. Refer to Credit Portfolio on page 109 of JPMorgan Chase's 2021 Form 10-K for a further discussion on the PPP.

(b) At June 30, 2022 and 2021, Home Lending loans held-for-sale and loans at fair value were \$5.2 billion and \$16.5 billion, respectively.

(c) Average Home Lending loans held-for sale and loans at fair value were \$8.1 billion and \$14.2 billion for the three months ended June 30, 2022 and 2021, respectively, and \$9.5 billion and \$13.3 billion for the six months ended June 30, 2022 and 2021, respectively.

Selected metrics

(in millions, except ratio data)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Credit data and quality statistics						
Nonaccrual loans ^{(a)(b)(c)}	\$ 4,217	\$ 5,256	(20)%	\$ 4,217	\$ 5,256	(20)%
Net charge-offs/(recoveries)						
Consumer & Business Banking	81	72	13	170	137	24
Home Lending	(68)	(79)	14	(137)	(130)	(5)
Card	580	755	(23)	1,086	1,738	(38)
Auto	18	(16)	NM	45	10	350
Total net charge-offs/(recoveries)	\$ 611	\$ 732	(17)	\$ 1,164	\$ 1,755	(34)
Net charge-off/(recovery) rate						
Consumer & Business Banking ^(d)	1.01 %	0.59 %		1.04 %	0.56 %	
Home Lending	(0.16)	(0.19)		(0.16)	(0.16)	
Card	1.47	2.24		1.42	2.60	
Auto	0.11	(0.10)		0.13	0.03	
Total net charge-off/(recovery) rate	0.57 %	0.71 %		0.55 %	0.85 %	
30+ day delinquency rate						
Home Lending ^{(e)(f)}	0.85 %	1.08 %		0.85 %	1.08 %	
Card	1.05	1.01		1.05	1.01	
Auto	0.69	0.42		0.69	0.42	
90+ day delinquency rate - Card	0.51 %	0.54 %		0.51 %	0.54 %	
Allowance for loan losses						
Consumer & Business Banking	\$ 697	\$ 897	(22)	\$ 697	\$ 897	(22)
Home Lending	785	630	25	785	630	25
Card	10,400	12,500	(17)	10,400	12,500	(17)
Auto	740	817	(9)	740	817	(9)
Total allowance for loan losses	\$ 12,622	\$ 14,844	(15)%	\$ 12,622	\$ 14,844	(15)%

- (a) At June 30, 2022 and 2021, nonaccrual loans excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of \$257 million and \$397 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.
- (b) At June 30, 2022 and 2021, generally excludes loans that were under payment deferral programs offered in response to the COVID-19 pandemic. Refer to Consumer Credit Portfolio on pages 110-116 of JPMorgan Chase's 2021 Form 10-K 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) At June 30, 2022, nonaccrual loans excluded \$86 million of PPP loans 90 or more days past due and guaranteed by the SBA.
- (d) At June 30, 2022 and 2021, included \$1.5 billion and \$16.7 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 109 of JPMorgan Chase's 2021 Form 10-K for a further discussion of the PPP.
- (e) At June 30, 2022 and 2021, the principal balance of loans under payment deferral programs offered in response to the COVID-19 pandemic was \$513 million and \$5.2 billion in Home Lending, respectively. Loans that are performing according to their modified terms are generally not considered delinquent. Refer to Consumer Credit Portfolio on pages 110-116 of JPMorgan Chase's 2021 Form 10-K for further information on consumer payment assistance activity.
- (f) At June 30, 2022 and 2021, excluded mortgage loans insured by U.S. government agencies of \$315 million and \$483 million, 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 June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Business Metrics						
Number of branches	4,822	4,869	(1)%	4,822	4,869	(1)%
Active digital customers (in thousands) ^(a)	60,735	56,915	7	60,735	56,915	7
Active mobile customers (in thousands) ^(b)	47,436	42,896	11	47,436	42,896	11
Debit and credit card sales volume	\$ 397.0	\$ 344.3	15	\$ 748.5	\$ 634.6	18
Consumer & Business Banking						
Average deposits	\$ 1,163.4	\$ 1,028.5	13	\$ 1,149.8	\$ 994.7	16
Deposit margin	1.31 %	1.28 %		1.27 %	1.29 %	
Business banking origination volume ^(c)	\$ 1.2	\$ 2.2	(45)	\$ 2.2	\$ 12.2	(82)
Client investment assets ^(d)	628.5	673.7	(7)	628.5	673.7	(7)
Number of client advisors	4,890	4,571	7	4,890	4,571	7
Home Lending						
Mortgage origination volume by channel						
Retail	\$ 11.0	\$ 22.7	(52)	\$ 26.1	\$ 45.7	(43)
Correspondent	10.9	16.9	(36)	20.5	33.2	(38)
Total mortgage origination volume^(e)	\$ 21.9	\$ 39.6	(45)	\$ 46.6	\$ 78.9	(41)
Third-party mortgage loans serviced (period-end)	\$ 575.6	\$ 463.9	24	575.6	463.9	24
MSR carrying value (period-end)	7.4	4.5	64	7.4	4.5	64
Ratio of MSR carrying value (period-end) to third-party mortgage loans serviced (period-end)	1.29 %	0.97 %		1.29 %	0.97 %	
MSR revenue multiple ^(f)	4.45 x	3.59 x		4.61 x	3.59 x	
Credit Card						
Credit card sales volume, excluding commercial card	\$ 271.2	\$ 223.7	21	\$ 507.6	\$ 407.4	25
Net revenue rate	9.59 %	11.32 %		9.72 %	11.43 %	
Auto						
Loan and lease origination volume	\$ 7.0	\$ 12.4	(44)	\$ 15.4	\$ 23.6	(35)
Average auto operating lease assets	14.9	19.6	(24)%	15.6	20.0	(22)%

(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 \$1.3 billion and \$10.6 billion for the three and six months ended June 30, 2021, respectively. The program ended on May 31, 2021 for new applications.

(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 37-40 for additional information.

(e) Firmwide mortgage origination volume was \$27.9 billion and \$44.9 billion for the three months ended June 30, 2022 and 2021, respectively, and \$58.1 billion and \$88.1 billion for the six months ended June 30, 2022 and 2021, 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).

CORPORATE & INVESTMENT BANK

Refer to pages 67-72 of JPMorgan Chase's 2021 Form 10-K and Line of Business Metrics on page 188 for a further discussion of the business profile of CIB.

Selected income statement data

(in millions, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Revenue						
Investment banking fees	\$ 1,650	\$ 3,572	(54)%	\$ 3,700	\$ 6,560	(44)%
Principal transactions	5,048	4,026	25	10,271	10,071	2
Lending- and deposit-related fees	641	633	1	1,282	1,226	5
Asset management, administration and commissions	1,330	1,246	7	2,669	2,532	5
All other income	80	435	(82)	784	611	28
Noninterest revenue	8,749	9,912	(12)	18,706	21,000	(11)
Net interest income	3,198	3,302	(3)	6,770	6,819	(1)
Total net revenue^(a)	11,947	13,214	(10)	25,476	27,819	(8)
Provision for credit losses	59	(79)	NM	504	(410)	NM
Noninterest expense						
Compensation expense	3,510	3,582	(2)	7,516	7,911	(5)
Noncompensation expense	3,235	2,941	10	6,527	5,716	14
Total noninterest expense	6,745	6,523	3	14,043	13,627	3
Income before income tax expense	5,143	6,770	(24)	10,929	14,602	(25)
Income tax expense	1,418	1,750 ^(b)	(19)	2,819	3,658 ^(b)	(23)
Net income	\$ 3,725	\$ 5,020^(b)	(26)%	\$ 8,110	\$ 10,944^(b)	(26)%
Financial ratios						
Return on equity	14 %	23 %		15 %	26 % ^(b)	
Overhead ratio	56	49		55	49	
Compensation expense as percentage of total net revenue	29	27		30	28	

(a) Includes tax-equivalent adjustments, predominantly due to income tax credits and other tax benefits 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 \$772 million and \$763 million for the three months ended June 30, 2022 and 2021, respectively, and \$1.5 billion for both the six months ended June 30, 2022 and 2021.

(b) In the first quarter of 2022, the Firm changed its methodology for allocating income taxes to the LOBs, with no impact to Firmwide net income. Prior-period amounts have been revised to conform with the current presentation.

Selected income statement data

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Revenue by business						
Investment Banking	\$ 1,351	\$ 3,424	(61)%	\$ 3,408	\$ 6,275	(46)%
Payments	1,463	1,453	1	3,317	2,845	17
Lending	410	229	79	731	494	48
Total Banking	3,224	5,106	(37)	7,456	9,614	(22)
Fixed Income Markets	4,711	4,098	15	10,409	9,859	6
Equity Markets	3,079	2,689	15	6,134	5,978	3
Securities Services	1,151	1,088	6	2,219	2,138	4
Credit Adjustments & Other ^(a)	(218)	233	NM	(742)	230	NM
Total Markets & Securities Services	8,723	8,108	8	18,020	18,205	(1)
Total net revenue	\$ 11,947	\$ 13,214	(10)%	\$ 25,476	\$ 27,819	(8)%

(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 \$3.7 billion, down 26%.

Net revenue was \$11.9 billion, down 10%.

Banking revenue was \$3.2 billion, down 37%.

- Investment Banking revenue was \$1.4 billion, down 61%, driven by lower Investment Banking fees, down 54%, reflecting lower fees across products, and \$257 million of markdowns on held-for-sale positions, primarily unfunded commitments, in the bridge financing portfolio.
 - Debt underwriting fees were \$741 million, down 53%, and Equity underwriting fees were \$245 million, down 77%, as volatile market conditions resulted in lower issuance activity.
 - Advisory fees were \$664 million, down 28%, driven by a lower level of announced deals starting in the first quarter of 2022.
- Payments revenue was \$1.5 billion, up 1%, and included markdowns on equity investments. Excluding these markdowns, revenue was \$1.8 billion, up 25%, predominantly driven by improved deposit margins and fees.
- Lending revenue was \$410 million, up 79%, driven by fair value gains on hedges of accrual loans, compared to losses in the prior year, and higher net interest income on higher loans.

Markets & Securities Services revenue was \$8.7 billion, up 8%. Markets revenue was \$7.8 billion, up 15%.

- Fixed Income Markets revenue was \$4.7 billion, up 15%, driven by a strong performance in macro businesses amid a volatile market, particularly in Currencies & Emerging Markets, partially offset by lower revenue in Credit and Securitized Products.
- Equity Markets revenue was \$3.1 billion, up 15%, driven by a strong performance in derivatives amid a volatile market.
- Securities Services revenue was \$1.2 billion, up 6%, predominantly driven by growth in fees, and to a lesser extent improved deposit margins, partially offset by lower market levels.
- Credit Adjustments & Other was a loss of \$218 million, largely driven by funding spread widening, compared with a gain of \$233 million in the prior year.

Noninterest expense was \$6.7 billion, up 3%, reflecting higher structural expense and investments in the business, largely offset by lower revenue-related compensation.

The provision for credit losses was \$59 million, driven by an addition to the allowance for credit losses, associated with a modest deterioration in the Firm's macroeconomic forecast, predominantly offset by client-specific reductions in the allowance for credit losses.

The prior year was a net benefit of \$79 million.

Refer to Credit and Investment Risk Management on pages 55-74 and Allowance for Credit Losses on pages 71-73 for further discussions of the credit portfolios and the allowance for credit losses.

Year-to-date results

Net income was \$8.1 billion, down 26%.

Net revenue was \$25.5 billion, down 8%.

Banking revenue was \$7.5 billion, down 22%.

- Investment Banking revenue was \$3.4 billion, down 46%, driven by lower Investment Banking fees, down 44%, reflecting lower fees across products, and \$257 million of markdowns on held-for-sale positions, primarily unfunded commitments, in the bridge financing portfolio in the second quarter of 2022. The Firm ranked #1 for Global Investment Banking fees, according to Dealogic.
 - Equity underwriting fees were \$494 million, down 77%, and Debt underwriting fees were \$1.7 billion, down 39%, as volatile market conditions resulted in lower issuance activity.
 - Advisory fees were \$1.5 billion, down 8%, driven by a lower level of announced deals.
- Payments revenue was \$3.3 billion, up 17%, driven by improved deposit margins, as well as higher fees and deposits.
- Lending revenue was \$731 million, up 48%, driven by fair value gains on hedges of accrual loans, compared to losses in the prior year, and higher net interest income on higher loans.

Markets & Securities Services revenue was \$18.0 billion, down 1%. Markets revenue was \$16.5 billion, up 4%.

- Fixed Income Markets revenue was \$10.4 billion, up 6%, driven by higher revenue in macro businesses particularly in Currencies & Emerging Markets, largely offset by lower revenue in Securitized Products and Credit.
- Equity Markets revenue was \$6.1 billion, up 3%, predominantly driven by a strong performance in derivatives and prime brokerage, partially offset by lower revenue in Cash Equities.
- Securities Services revenue was \$2.2 billion, up 4%, predominantly driven by growth in fees and improved deposit margins, partially offset by lower market levels.
- Credit Adjustments & Other was a loss of \$742 million, predominantly driven by funding spread widening, and to a lesser extent losses on exposure relating to commodities and Russia and Russia-associated counterparties, compared with a gain of \$230 million in the prior year.

Noninterest expense was \$14.0 billion, up 3%, predominantly driven by higher structural expense, investments in the business and legal expense, largely offset by lower volume- and revenue-related expense including revenue-related compensation.

The provision for credit losses was \$504 million, predominantly driven by a net addition to the allowance for credit losses, reflecting the increased weight placed on the adverse scenarios and a modest deterioration in the Firm's macroeconomic forecast. The increase in the allowance also included client-specific Russia and Russia-associated downgrades in the first quarter of 2022.

The prior year was a net benefit of \$410 million, driven by a net reduction in the allowance for credit losses.

Selected metrics

(in millions, except headcount)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Selected balance sheet data (period-end)						
Total assets	\$1,403,558	\$1,363,992	3 %	\$1,403,558	\$1,363,992	3 %
Loans:						
Loans retained ^(a)	171,219	144,764	18	171,219	144,764	18
Loans held-for-sale and loans at fair value ^(b)	46,032	56,668	(19)	46,032	56,668	(19)
Total loans	217,251	201,432	8	217,251	201,432	8
Equity	103,000	83,000	24	103,000	83,000	24
Selected balance sheet data (average)						
Total assets	\$1,429,953	\$1,371,218	4	\$1,418,955	\$1,332,755	6
Trading assets-debt and equity instruments	411,079	473,875	(13)	415,190	471,439	(12)
Trading assets-derivative receivables	83,582	69,392	20	75,184	71,411	5
Loans:						
Loans retained ^(a)	\$ 169,909	\$ 140,096	21	\$ 165,467	\$ 138,454	20
Loans held-for-sale and loans at fair value ^(b)	48,048	52,376	(8)	49,714	49,042	1
Total loans	\$ 217,957	\$ 192,472	13	\$ 215,181	\$ 187,496	15
Equity	103,000	83,000	24	103,000	83,000	24
Headcount	69,447	64,261	8 %	69,447	64,261	8 %

(a) 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.

(b) 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.

Selected metrics

(in millions, except ratios)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Credit data and quality statistics						
Net charge-offs/(recoveries)	\$ 38	\$ (12)	NM	\$ 58	\$ (19)	NM
Nonperforming assets:						
Nonaccrual loans:						
Nonaccrual loans retained ^(a)	\$ 697	\$ 783	(11)	\$ 697	\$ 783	(11)
Nonaccrual loans held-for-sale and loans at fair value ^(b)	840	1,187	(29)	840	1,187	(29)
Total nonaccrual loans	1,537	1,970	(22)	1,537	1,970	(22)
Derivative receivables	447	481	(7)	447	481	(7)
Assets acquired in loan satisfactions	84	95	(12)	84	95	(12)
Total nonperforming assets	\$ 2,068	\$ 2,546	(19)	\$ 2,068	\$ 2,546	(19)
Allowance for credit losses:						
Allowance for loan losses	\$ 1,809	\$ 1,607	13	\$ 1,809	\$ 1,607	13
Allowance for lending-related commitments	1,358	1,902	(29)	1,358	1,902	(29)
Total allowance for credit losses	\$ 3,167	\$ 3,509	(10)%	\$ 3,167	\$ 3,509	(10)%
Net charge-off/(recovery) rate ^(c)	0.09 %	(0.03)%		0.07 %	(0.03)%	
Allowance for loan losses to period-end loans retained	1.06	1.11		1.06	1.11	
Allowance for loan losses to period-end loans retained, excluding trade finance and conduits ^(d)	1.38	1.53		1.38	1.53	
Allowance for loan losses to nonaccrual loans retained ^(a)	260	205		260	205	
Nonaccrual loans to total period-end loans	0.71 %	0.98 %		0.71 %	0.98 %	

(a) Allowance for loan losses of \$130 million and \$180 million were held against these nonaccrual loans at June 30, 2022 and 2021, respectively.

(b) At June 30, 2022 and 2021, nonaccrual loans excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of \$196 million and \$316 million, respectively. These amounts have been excluded based upon the government guarantee.

(c) Loans held-for-sale and loans at fair value were excluded when calculating the net charge-off/(recovery) rate.

(d) 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 June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Advisory	\$ 664	\$ 916	(28)%	\$ 1,465	\$ 1,596	(8)%
Equity underwriting	245	1,063	(77)	494	2,119	(77)
Debt underwriting ^(a)	741	1,593	(53)	1,741	2,845	(39)
Total investment banking fees	\$ 1,650	\$ 3,572	(54)%	\$ 3,700	\$ 6,560	(44)%

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

League table results – wallet share

	Three months ended June 30,				Six months ended June 30,				Full-year 2021	
	2022		2021		2022		2021		Rank	Share
	Rank	Share	Rank	Share	Rank	Share	Rank	Share	Rank	Share
Based on fees ^(a)										
M&A^(b)										
Global	# 2	8.3 %	# 2	9.5 %	# 2	8.0 %	# 2	8.8 %	# 2	9.6 %
U.S.	2	8.9	2	10.2	2	8.8	2	9.5	2	10.8
Equity and equity-related^(c)										
Global	1	6.2	2	10.6	1	5.8	3	9.2	2	8.8
U.S.	1	15.1	1	14.3	1	13.1	2	11.4	2	11.7
Long-term debt^(d)										
Global	1	7.8	1	9.3	1	8.0	1	9.2	1	8.4
U.S.	1	12.8	1	14.0	1	12.5	1	13.3	1	12.1
Loan syndications										
Global	1	11.2	1	11.8	1	10.8	1	12.5	1	10.7
U.S.	1	12.0	1	13.6	2	10.6	1	14.5	1	12.4
Global investment banking fees^(e)	# 2	8.4 %	# 1	10.1 %	# 1	8.1 %	# 1	9.6 %	# 1	9.3 %

(a) Source: Dealogic as of July 1, 2022. 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 selected income statement data for the Markets businesses. Markets includes both Fixed Income Markets and Equity Markets. Markets revenue consists of 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 70 of JPMorgan Chase's 2021 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.

(in millions)	Three months ended June 30,			Three months ended June 30,		
	2022			2021		
	Fixed Income Markets	Equity Markets	Total Markets	Fixed Income Markets	Equity Markets	Total Markets
Principal transactions	\$ 2,934	\$ 2,448	\$ 5,382	\$ 1,925	\$ 1,879	\$ 3,804
Lending- and deposit-related fees	76	4	80	82	4	86
Asset management, administration and commissions	128	526	654	121	485	606
All other income	166	(41)	125	293	11	304
Noninterest revenue	3,304	2,937	6,241	2,421	2,379	4,800
Net interest income	1,407	142	1,549	1,677	310	1,987
Total net revenue	\$ 4,711	\$ 3,079	\$ 7,790	\$ 4,098	\$ 2,689	\$ 6,787

(in millions)	Six months ended June 30,			Six months ended June 30,		
	2022			2021		
	Fixed Income Markets	Equity Markets	Total Markets	Fixed Income Markets	Equity Markets	Total Markets
Principal transactions	\$ 6,323	\$ 4,732	\$ 11,055	\$ 5,489	\$ 4,361	\$ 9,850
Lending- and deposit-related fees	154	8	162	151	8	159
Asset management, administration and commissions	284	1,077	1,361	250	1,029	1,279
All other income	283	(85)	198	359	(20)	339
Noninterest revenue	7,044	5,732	12,776	6,249	5,378	11,627
Net interest income	3,365	402	3,767	3,610	600	4,210
Total net revenue	\$ 10,409	\$ 6,134	\$ 16,543	\$ 9,859	\$ 5,978	\$ 15,837

Selected metrics

(in millions, except where otherwise noted)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
	Assets under custody ("AUC") by asset class (period-end) (in billions):					
Fixed Income	\$ 14,720	\$ 15,720	(6)%	\$ 14,720	\$ 15,720	(6)%
Equity	10,359	12,505	(17)	10,359	12,505	(17)
Other ^(a)	3,500	3,897	(10)	3,500	3,897	(10)
Total AUC	\$ 28,579	\$ 32,122	(11)	\$ 28,579	\$ 32,122	(11)
Merchant processing volume (in billions) ^(b)	\$ 539.6	\$ 475.2	14	\$ 1,029.8	\$ 900.9	14
Client deposits and other third-party liabilities (average) ^(c)	\$ 722,388	\$ 721,882	—%	\$ 715,791	\$ 713,868	—%

(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 Payments and Securities Services businesses.

International metrics

(in millions, except where otherwise noted)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Total net revenue^(a)						
Europe/Middle East/Africa	\$ 4,280	\$ 3,784	13 %	\$ 8,972	\$ 7,844	14 %
Asia-Pacific	2,023	1,792	13	4,008	4,053	(1)
Latin America/Caribbean	464	460	1	1,141	954	20
Total international net revenue	6,767	6,036	12	14,121	12,851	10
North America	5,180	7,178	(28)	11,355	14,968	(24)
Total net revenue	\$ 11,947	\$ 13,214	(10)	\$ 25,476	\$ 27,819	(8)
Loans retained (period-end)^(a)						
Europe/Middle East/Africa	\$ 35,524	\$ 31,534	13	\$ 35,524	\$ 31,534	13
Asia-Pacific	16,427	14,262	15	16,427	14,262	15
Latin America/Caribbean	7,961	5,456	46	7,961	5,456	46
Total international loans	59,912	51,252	17	59,912	51,252	17
North America	111,307	93,512	19	111,307	93,512	19
Total loans retained	\$ 171,219	\$ 144,764	18	\$ 171,219	\$ 144,764	18
Client deposits and other third-party liabilities (average)^(b)						
Europe/Middle East/Africa	\$ 272,919	\$ 246,949	11	\$ 259,781	\$ 241,593	8
Asia-Pacific	129,514	132,438	(2)	132,126	132,284	—
Latin America/Caribbean	41,785	47,502	(12)	42,720	45,891	(7)
Total international	\$ 444,218	\$ 426,889	4	\$ 434,627	\$ 419,768	4
North America	278,170	294,993	(6)	281,164	294,100	(4)
Total client deposits and other third-party liabilities	\$ 722,388	\$ 721,882	—	\$ 715,791	\$ 713,868	—
AUC (period-end)^(b) (in billions)						
North America	\$ 18,816	\$ 20,864	(10)	\$ 18,816	\$ 20,864	(10)
All other regions	9,763	11,258	(13)	9,763	11,258	(13)
Total AUC	\$ 28,579	\$ 32,122	(11)%	\$ 28,579	\$ 32,122	(11)%

(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 Payments and Securities Services businesses, and AUC, are based on the domicile of the client.

COMMERCIAL BANKING

Refer to pages 73-75 of JPMorgan Chase's 2021 Form 10-K and Line of Business Metrics on page 189 for a discussion of the business profile of CB.

Selected income statement data

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Revenue						
Lending- and deposit-related fees	\$ 348	\$ 350	(1)%	\$ 712	\$ 681	5 %
All other income	556	600	(7)	1,059	1,186	(11)
Noninterest revenue	904	950	(5)	1,771	1,867	(5)
Net interest income	1,779	1,533	16	3,310	3,009	10
Total net revenue^(a)	2,683	2,483	8	5,081	4,876	4
Provision for credit losses	209	(377)	NM	366	(495)	NM
Noninterest expense						
Compensation expense	559	484	15	1,112	966	15
Noncompensation expense	597	497	20	1,173	984	19
Total noninterest expense	1,156	981	18	2,285	1,950	17
Income before income tax expense	1,318	1,879	(30)	2,430	3,421	(29)
Income tax expense	324	457 ^(b)	(29)	586	818 ^(b)	(28)
Net income	\$ 994	\$ 1,422^(b)	(30)%	\$ 1,844	\$ 2,603^(b)	(29)%

(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 \$73 million and \$78 million for the three months ended June 30, 2022 and 2021, respectively and \$142 million and \$151 million for the six months ended June 30, 2022 and 2021, respectively.

(b) In the first quarter of 2022, the Firm changed its methodology for allocating income taxes to the LOBs, with no impact to Firmwide net income. Prior-period amounts have been revised to conform with the current presentation.

Selected income statement data (continued)

(in millions, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Revenue by product						
Lending	\$ 1,058	\$ 1,172	(10)%	\$ 2,163	\$ 2,340	(8)%
Payments	1,205	914	32	2,186	1,757	24
Investment banking ^(a)	282	370	(24)	542	720	(25)
Other	138	27	411	190	59	222
Total net revenue	\$ 2,683	\$ 2,483	8	\$ 5,081	\$ 4,876	4
Investment banking revenue, gross ^(b)	\$ 788	\$ 1,164	(32)	\$ 1,517	\$ 2,293	(34)
Revenue by client segments						
Middle Market Banking	\$ 1,169	\$ 1,009	16	\$ 2,149	\$ 1,925	12
Corporate Client Banking	927	851	9	1,757	1,702	3
Commercial Real Estate Banking	590	599	(2)	1,171	1,203	(3)
Other	(3)	24	NM	4	46	(91)
Total net revenue	\$ 2,683	\$ 2,483	8 %	\$ 5,081	\$ 4,876	4 %
Financial ratios						
Return on equity	15 %	23 %		14 %	21 %	
Overhead ratio	43	40		45	40	

(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 20 for discussion of revenue sharing.

Quarterly results

Net income was \$994 million, down 30%, reflecting a net increase in the provision for credit losses compared with a net benefit in the prior year.

Net revenue was \$2.7 billion, up 8% compared to the prior year. Net interest income was \$1.8 billion, up 16%, driven by the impact of higher deposit margins and growth in loans, largely offset by the impact of higher funding costs.

Noninterest revenue was \$904 million, down 5%, driven by:

- lower investment banking revenue and markdowns on held-for-sale positions, primarily unfunded commitments, in the bridge financing portfolio, predominantly offset by
- a gain on an equity method investment received in partial satisfaction of a loan and higher payments revenue.

Noninterest expense was \$1.2 billion, up 18%, predominantly driven by higher structural and volume- and revenue-related expense.

The provision for credit losses was \$209 million, reflecting a net addition to the allowance for credit losses, largely driven by loan growth, compared with a net benefit of \$377 million in the prior year.

Refer to Credit and Investment Risk Management on pages 55-74 and Allowance for Credit Losses on pages 71-73 for further discussions of the credit portfolios and the allowance for credit losses.

Year-to-date results

Net income was \$1.8 billion, down 29%, reflecting a net increase in the provision for credit losses compared with a net benefit in the prior year.

Net revenue was \$5.1 billion, up 4% compared to the prior year. Net interest income was \$3.3 billion, up 10%, driven by the impact of higher deposit margins and growth in loans, partially offset by the impact of higher funding costs.

Noninterest revenue was \$1.8 billion, down 5%, driven by:

- lower investment banking revenue and markdowns on held-for-sale positions, primarily unfunded commitments, in the bridge financing portfolio, predominantly offset by
- a gain on an equity method investment received in partial satisfaction of a loan and higher payments revenue.

Noninterest expense was \$2.3 billion, up 17%, predominantly driven by higher structural and volume- and revenue-related expense.

The provision for credit losses was \$366 million, reflecting a net addition to the allowance for credit losses, predominantly driven by loan growth, compared with a net benefit of \$495 million in the prior year.

Selected metrics

(in millions, except headcount)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Selected balance sheet data (period-end)						
Total assets	\$ 242,456	\$ 226,022	7 %	\$ 242,456	\$ 226,022	7 %
Loans:						
Loans retained	223,541	200,929	11	223,541	200,929	11
Loans held-for-sale and loans at fair value	566	3,381	(83)	566	3,381	(83)
Total loans	\$ 224,107	\$ 204,310	10	\$ 224,107	\$ 204,310	10
Equity	25,000	24,000	4	25,000	24,000	4
Period-end loans by client segment						
Middle Market Banking ^(a)	\$ 68,535	\$ 59,314	16	\$ 68,535	\$ 59,314	16
Corporate Client Banking	49,503	44,866	10	49,503	44,866	10
Commercial Real Estate Banking	105,982	99,858	6	105,982	99,858	6
Other	87	272	(68)	87	272	(68)
Total loans^(a)	\$ 224,107	\$ 204,310	10	\$ 224,107	\$ 204,310	10
Selected balance sheet data (average)						
Total assets	\$ 239,381	\$ 226,562	6	\$ 236,444	\$ 226,071	5
Loans:						
Loans retained	218,478	202,102	8	213,536	203,127	5
Loans held-for-sale and loans at fair value	1,004	3,150	(68)	1,572	2,866	(45)
Total loans	\$ 219,482	\$ 205,252	7	\$ 215,108	\$ 205,993	4
Average loans by client segment						
Middle Market Banking	\$ 66,640	\$ 61,698	8	\$ 64,550	\$ 60,859	6
Corporate Client Banking	47,832	43,440	10	46,720	44,573	5
Commercial Real Estate Banking	104,890	99,864	5	103,701	100,260	3
Other	120	250	(52)	137	301	(54)
Total loans	\$ 219,482	\$ 205,252	7	\$ 215,108	\$ 205,993	4
Client deposits and other third-party liabilities	\$ 300,425	\$ 290,250	4	\$ 308,627	\$ 290,619	6
Equity	25,000	24,000	4	25,000	24,000	4
Headcount	13,811	12,163	14 %	13,811	12,163	14 %

(a) At June 30, 2022 and 2021, total loans included \$335 million and \$5.0 billion of loans, respectively, under the PPP, of which \$306 million and \$4.9 billion were in Middle Market Banking, respectively. Refer to Credit Portfolio on page 109 of JPMorgan Chase's 2021 Form 10-K for a further discussion of the PPP.

Selected metrics (continued)

(in millions, except ratios)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Credit data and quality statistics						
Net charge-offs/(recoveries)	\$ 1	\$ 3	(67)%	\$ 7	\$ 32	(78)%
Nonperforming assets						
Nonaccrual loans:						
Nonaccrual loans retained ^(a)	\$ 761 ^(c)	\$ 1,006	(24)%	\$ 761	\$ 1,006	(24)%
Nonaccrual loans held-for-sale and loans at fair value	—	2	NM	—	2	NM
Total nonaccrual loans	\$ 761	\$ 1,008	(25)	\$ 761	\$ 1,008	(25)
Assets acquired in loan satisfactions	8	17	(53)	8	17	(53)
Total nonperforming assets	\$ 769	\$ 1,025	(25)	\$ 769	\$ 1,025	(25)
Allowance for credit losses:						
Allowance for loan losses	\$ 2,602	\$ 2,589	1	\$ 2,602	\$ 2,589	1
Allowance for lending-related commitments	725	870	(17)	725	870	(17)
Total allowance for credit losses	\$ 3,327	\$ 3,459	(4)%	\$ 3,327	\$ 3,459	(4)%
Net charge-off/(recovery) rate ^(b)	— %	0.01 %		0.01 %	0.03 %	
Allowance for loan losses to period-end loans retained	1.16	1.29		1.16	1.29	
Allowance for loan losses to nonaccrual loans retained ^(a)	342	257		342	257	
Nonaccrual loans to period-end total loans	0.34	0.49		0.34	0.49	

(a) Allowance for loan losses of \$74 million and \$188 million was held against nonaccrual loans retained at June 30, 2022 and 2021, respectively.

(b) Loans held-for-sale and loans at fair value were excluded when calculating the net charge-off/(recovery) rate.

(c) At June 30, 2022, nonaccrual loans excluded \$32 million of PPP loans 90 or more days past due and guaranteed by the SBA.

ASSET & WEALTH MANAGEMENT

Refer to pages 76-78 of JPMorgan Chase's 2021 Form 10-K and Line of Business Metrics on pages 189-190 for a discussion of the business profile of AWM.

Selected income statement data

(in millions, except ratios)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Revenue						
Asset management, administration and commissions	\$ 3,037	\$ 3,019	1 %	\$ 6,152	\$ 5,907	4 %
All other income	47	146	(68)	171	404	(58)
Noninterest revenue	3,084	3,165	(3)	6,323	6,311	—
Net interest income	1,222	942	30	2,298	1,873	23
Total net revenue	4,306	4,107	5	8,621	8,184	5
Provision for credit losses	44	(10)	NM	198	(131)	NM
Noninterest expense						
Compensation expense	1,508	1,356	11	3,038	2,745	11
Noncompensation expense	1,411	1,230	15	2,741	2,415	13
Total noninterest expense	2,919	2,586	13	5,779	5,160	12
Income before income tax expense	1,343	1,531	(12)	2,644	3,155	(16)
Income tax expense	339	375 ^(a)	(10)	632	739 ^(a)	(14)
Net income	\$ 1,004	\$ 1,156^(a)	(13)	\$ 2,012	\$ 2,416^(a)	(17)
Revenue by line of business						
Asset Management	\$ 2,137	\$ 2,236	(4)	\$ 4,451	\$ 4,421	1
Global Private Bank	2,169	1,871	16	4,170	3,763	11
Total net revenue	\$ 4,306	\$ 4,107	5 %	\$ 8,621	\$ 8,184	5 %
Financial ratios						
Return on equity	23 %	32 %		23 %	34 %	
Overhead ratio	68	63		67	63	
Pre-tax margin ratio:						
Asset Management	29	37		31	36	
Global Private Bank	33	38		30	41	
Asset & Wealth Management	31	37		31	39	

(a) In the first quarter of 2022, the Firm changed its methodology for allocating income taxes to the LOBs, with no impact to Firmwide net income. Prior-period amounts have been revised to conform with the current presentation.

Quarterly results

Net income was \$1.0 billion, down 13%.

Net revenue was \$4.3 billion, up 5%. Net interest income was \$1.2 billion, up 30%. Noninterest revenue was \$3.1 billion, down 3%.

Revenue from Asset Management was \$2.1 billion, down 4% predominantly driven by:

- investment valuation net losses compared to net gains in the prior year and lower performance fees,

partially offset by

- higher asset management fees reflecting the removal of most money market fund fee waivers, partially offset by the decline in market levels.

Revenue from Global Private Bank was \$2.2 billion, up 16% predominantly driven by:

- growth in deposits and loans as well as improved margins,

partially offset by

- lower placement fees.

Noninterest expense was \$2.9 billion, up 13%, driven by higher structural expense and investments in the business, including compensation, and higher volume- and revenue-related expense.

The provision for credit losses was \$44 million.

Refer to Credit and Investment Risk Management on pages 55-74 and Allowance for Credit Losses on pages 71-73 for further discussions of the credit portfolios and the allowance for credit losses.

Year-to-date results

Net income was \$2.0 billion, down 17%.

Net revenue was \$8.6 billion, up 5%. Net interest income was \$2.3 billion, up 23%. Noninterest revenue was flat at \$6.3 billion.

Revenue from Asset Management was \$4.5 billion, up 1%, driven by:

- higher asset management fees reflecting the removal of most money market fund fee waivers in the second quarter of 2022, and strong cumulative net inflows into

long-term products, partially offset by the decline in market levels, and

- higher performance fees,

predominantly offset by

- investment valuation net losses compared to net gains in the prior year.

Revenue from Global Private Bank was \$4.2 billion, up 11%, driven by:

- higher loans and wider spreads, and
- growth in deposits, net of margin compression,

partially offset by

- lower brokerage fees on reduced volume, and
- lower performance fees.

Noninterest expense was \$5.8 billion, up 12%, driven by higher structural expense and investments in the business, including compensation, and higher volume- and revenue-related expense.

The provision for credit losses was \$198 million, driven by a net addition to the allowance for credit losses, compared with a net benefit of \$131 million in the prior year.

Selected metrics

(in millions, except ranking data, headcount and ratios)	As of or for the three months ended June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
% of JPM mutual fund assets rated as 4- or 5-star ^(a)	72 %	68 %		72 %	68 %	
% of JPM mutual fund assets ranked in 1 st or 2 nd quartile: ^(b)						
1 year	64	69		64	69	
3 years	73	78		73	78	
5 years	79	79		79	79	
Selected balance sheet data (period-end)^(c)						
Total assets	\$ 235,553	\$ 217,284	8 %	\$ 235,553	\$ 217,284	8 %
Loans	218,841	198,683	10	218,841	198,683	10
Deposits	257,437	217,488	18	257,437	217,488	18
Equity	17,000	14,000	21	17,000	14,000	21
Selected balance sheet data (average)^(c)						
Total assets	\$ 234,565	\$ 214,384	9	\$ 233,444	\$ 210,963	11
Loans	216,846	195,171	11	215,735	191,966	12
Deposits	268,861	219,699	22	278,256	213,167	31
Equity	17,000	14,000	21	17,000	14,000	21
Headcount	23,981	20,866	15	23,981	20,866	15
Number of Global Private Bank client advisors	2,866	2,435	18	2,866	2,435	18
Credit data and quality statistics^(c)						
Net charge-offs/(recoveries)	\$ 9	\$ 12	(25)	\$ 8	\$ 23	(65)
Nonaccrual loans	620	792	(22)	620	792	(22)
Allowance for credit losses:						
Allowance for loan losses	\$ 547	\$ 458	19	\$ 547	\$ 458	19
Allowance for lending-related commitments	22	25	(12)	22	25	(12)
Total allowance for credit losses	\$ 569	\$ 483	18%	\$ 569	\$ 483	18 %
Net charge-off/(recovery) rate	0.02 %	0.02 %		0.01 %	0.02 %	
Allowance for loan losses to period-end loans	0.25	0.23		0.25	0.23	
Allowance for loan losses to nonaccrual loans	88	58		88	58	
Nonaccrual loans to period-end loans	0.28	0.40		0.28	0.40	

(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 \$3.8 trillion and assets under management of \$2.7 trillion were down 6% and 8%, respectively, driven by lower market levels, partially offset by cumulative net inflows.

Client assets

(in billions)	As of June 30,		
	2022	2021	Change
Assets by asset class			
Liquidity	\$ 654	\$ 698	(6)%
Fixed income	624	688	(9)
Equity	641	725	(12)
Multi-asset	615	702	(12)
Alternatives	209	174	20
Total assets under management	2,743	2,987	(8)
Custody/brokerage/administration/deposits	1,055	1,057	—
Total client assets^(a)	\$ 3,798	\$ 4,044	(6)
Assets by client segment			
Private Banking	\$ 712	\$ 752	(5)
Global Institutional	1,294	1,383	(6)
Global Funds	737	852	(13)
Total assets under management	\$ 2,743	\$ 2,987	(8)
Private Banking	\$ 1,715	\$ 1,755	(2)
Global Institutional	1,339	1,430	(6)
Global Funds	744	859	(13)
Total client assets^(a)	\$ 3,798	\$ 4,044	(6)%

(a) Includes CCB client investment assets invested in managed accounts and J.P. Morgan mutual funds where AWM is the investment manager.

Client assets (continued)

(in billions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Assets under management rollforward				
Beginning balance	\$ 2,960	\$ 2,833	\$ 3,113	\$ 2,716
Net asset flows:				
Liquidity	—	15	(52)	59
Fixed income	(1)	17	(4)	25
Equity	9	20	20	51
Multi-asset	(3)	2	3	8
Alternatives	1	10	6	13
Market/performance/other impacts	(223)	90	(343)	115
Ending balance, June 30	\$ 2,743	\$ 2,987	\$ 2,743	\$ 2,987
Client assets rollforward				
Beginning balance	\$ 4,116	\$ 3,828	\$ 4,295	\$ 3,652
Net asset flows	(1)	75	(6)	205
Market/performance/other impacts	(317)	141	(491)	187
Ending balance, June 30	\$ 3,798	\$ 4,044	\$ 3,798	\$ 4,044

International

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Total net revenue^(a)						
Europe/Middle East/Africa	\$ 719	\$ 888	(19)%	\$ 1,489	\$ 1,722	(14)%
Asia-Pacific	452	496	(9)	912	1,010	(10)
Latin America/Caribbean	248	216	15	499	430	16
Total international net revenue	1,419	1,600	(11)	2,900	3,162	(8)
North America	2,887	2,507	15	5,721	5,022	14
Total net revenue^(a)	\$ 4,306	\$ 4,107	5 %	\$ 8,621	\$ 8,184	5 %

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

(in billions)	As of June 30,			As of June 30,		
	2022	2021	Change	2022	2021	Change
Assets under management						
Europe/Middle East/Africa	\$ 481	\$ 558	(14)%	\$ 481	\$ 558	(14)%
Asia-Pacific	214	245	(13)	214	245	(13)
Latin America/Caribbean	68	75	(9)	68	75	(9)
Total international assets under management	763	878	(13)	763	878	(13)
North America	1,980	2,109	(6)	1,980	2,109	(6)
Total assets under management	\$ 2,743	\$ 2,987	(8)	\$ 2,743	\$ 2,987	(8)
Client assets						
Europe/Middle East/Africa	\$ 595	\$ 674	(12)	\$ 595	\$ 674	(12)
Asia-Pacific	324	363	(11)	324	363	(11)
Latin America/Caribbean	184	176	5	184	176	5
Total international client assets	1,103	1,213	(9)	1,103	1,213	(9)
North America	2,695	2,831	(5)	2,695	2,831	(5)
Total client assets	\$ 3,798	\$ 4,044	(6)%	\$ 3,798	\$ 4,044	(6)%

CORPORATE

Refer to pages 79-80 of JPMorgan Chase's 2021 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 June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Revenue						
Principal transactions	\$ 17	\$ (8)	NM	\$ (144)	\$ 264	NM
Investment securities losses	(153)	(155)	1 %	(547)	(141)	(288)%
All other income	(108)	(45)	(140)	102	51	100
Noninterest revenue	(244)	(208)	(17)	(589)	174	NM
Net interest income	324	(961)	NM	(212)	(1,816)	88
Total net revenue^(a)	80	(1,169)	NM	(801)	(1,642)	51
Provision for credit losses	28	49	(43)	57	65	(12)
Noninterest expense	206	515	(60)	390	1,391	(72)
Income/(loss) before income tax expense/(benefit)	(154)	(1,733)	91	(1,248)	(3,098)	60
Income tax expense/(benefit)	20	(438) ^(c)	NM	(218)	(951) ^(c)	77
Net income/(loss)	\$ (174)	\$ (1,295)^(c)	87	\$ (1,030)	\$ (2,147)^(c)	52
Total net revenue						
Treasury and CIO	\$ 82	\$ (1,081)	NM	\$ (862)	\$ (1,786)	52
Other Corporate	(2)	(88)	98	61	144	(58)
Total net revenue	\$ 80	\$ (1,169)	NM	\$ (801)	\$ (1,642)	51
Net income/(loss)						
Treasury and CIO	\$ 88	\$ (956)	NM	\$ (660)	\$ (1,631)	60
Other Corporate	(262)	(339) ^(c)	23	(370)	(516) ^(c)	28
Total net income/(loss)	\$ (174)	\$ (1,295)^(c)	87	\$ (1,030)	\$ (2,147)^(c)	52
Total assets (period-end)	\$ 1,459,528	\$ 1,382,653	6	\$ 1,459,528	\$ 1,382,653	6
Loans (period-end)	2,187	1,530	43	2,187	1,530	43
Deposits (period-end)	13,191 ^(b)	372	NM	13,191 ^(b)	372	NM
Headcount	40,348	37,520	8 %	40,348	37,520	8 %

(a) Included tax-equivalent adjustments, driven by tax-exempt income from municipal bonds, of \$60 million and \$66 million for the three months ended June 30, 2022 and 2021, respectively, and \$118 million and \$133 million for the six months ended June 30, 2022 and 2021, respectively.

(b) Predominantly relates to the Firm's international consumer growth initiatives.

(c) In the first quarter of 2022, the Firm changed its methodology for allocating income taxes to the LOBs, with no impact to Firmwide net income. Prior-period amounts have been revised to conform with the current presentation.

Quarterly results

Net loss was \$174 million, compared with a net loss of \$1.3 billion in the prior year.

Net revenue was \$80 million, compared with a loss of \$1.2 billion in the prior year, driven by higher net interest income predominantly due to higher rates, including the impact of slower prepayments.

Noninterest revenue decreased driven by:

- the impact of movements in foreign exchange rates on certain revenues, primarily as a result of the U.S. dollar strengthening, and
- net losses, including hedging costs on an equity method investment related to the Firm's international consumer growth initiatives,

largely offset by

- net gains on certain legacy private equity investments, compared with net losses in the prior year, and

- higher net gains related to certain other Corporate investments.
- Noninterest expense of \$206 million was down \$309 million driven by:
- lower structural expense, including the impact of movements in foreign exchange rates on certain expenses, primarily as a result of the U.S. dollar strengthening, as well as lower technology expense, and
 - lower legal expense,
- partially offset by
- higher investments, including the costs associated with the Firm's international consumer growth initiatives.

The net impact of movements in foreign exchange rates associated with the foreign exchange risk that is transferred to Treasury and CIO on certain revenues and expenses was not material to net income.

The current period income tax expense was driven by the change in the level and mix of income and expenses subject to U.S. federal and state and local taxes that also impacted the Firm's tax reserves, largely offset by the resolution of tax audits.

Year-to-date results

Net loss was \$1.0 billion, compared with a net loss of \$2.1 billion in the prior year.

Net revenue was a loss of \$801 million, compared with a loss of \$1.6 billion in the prior year, driven by higher net interest income due to higher rates, including the impact of slower prepayments.

Noninterest revenue decreased driven by:

- higher net investment securities losses related to the sales of U.S. Treasuries and U.S. GSE and government agency MBS, associated with repositioning the investment securities portfolios in both periods,
- the impact of movements in foreign exchange on certain revenues, primarily as result of the U.S. dollar strengthening,
- net losses on certain legacy private equity investments compared with net gains in prior year, and
- net losses, including hedging costs on an equity method investment related to the Firm's international consumer growth initiatives,

partially offset by

- proceeds from an insurance settlement in the first quarter of 2022, and

Treasury and CIO overview

At June 30, 2022, 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 50-54 for further information on liquidity and funding risk. Refer to Market Risk Management on pages 75-79 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 June 30,			As of or for the six months ended June 30,		
	2022	2021	Change	2022	2021	Change
Investment securities losses	\$ (153)	\$ (155)	1 %	\$ (547)	\$ (141)	(288)%
Available-for-sale securities (average)	\$ 252,121	\$ 342,338	(26)	\$ 278,073	\$ 357,307	(22)
Held-to-maturity securities (average) ^(a)	418,843	240,696	74	391,978	224,417	75
Investment securities portfolio (average)	\$ 670,964	\$ 583,034	15	\$ 670,051	\$ 581,724	15
Available-for-sale securities (period-end)	\$ 220,213	\$ 230,127	(4)	\$ 220,213	\$ 230,127	(4)
Held-to-maturity securities, net of allowance for credit losses (period-end) ^(a)	441,649	341,476	29	441,649	341,476	29
Investment securities portfolio, net of allowance for credit losses (period-end) ^(b)	\$ 661,862	\$ 571,603	16 %	\$ 661,862	\$ 571,603	16 %

(a) During the second quarter of 2022 and 2021, the Firm transferred \$73.2 billion and \$104.5 billion of investment securities, respectively, from AFS to HTM for capital management purposes.

(b) At June 30, 2022 and 2021, the allowance for credit losses on investment securities was \$47 million and \$87 million, respectively.

- higher net gains related to certain other Corporate investments.

Noninterest expense of \$390 million was down \$1.0 billion driven by:

- lower structural expense reflecting the absence of the contribution to the Firm's Foundation recorded in the prior year, the impact of movements in foreign exchange on certain expenses primarily as a result of the U.S. dollar strengthening, as well as lower technology expense, and
 - lower legal expense,
- partially offset by
- higher investments, including the costs associated with the Firm's international consumer growth initiatives.

The net impact of movements in foreign exchange rates associated with the foreign exchange risk that is transferred to Treasury and CIO on certain revenues and expenses was not material to net income.

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 and the resolution of tax audits.

Other Corporate also reflects the Firm's international consumer growth initiatives, which includes Chase U.K., the Firm's digital retail bank in the U.K.; Nutmeg, a digital wealth manager in the U.K.; and a 40% ownership stake in C6 Bank, a digital bank in Brazil, which closed in the first quarter of 2022.

FIRMWIDE RISK MANAGEMENT

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 81-84 of JPMorgan Chase's 2021 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 2021 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		85
Capital risk	44-49	86-96
Liquidity risk	50-54	97-104
Reputation risk		105
Consumer credit risk	57-61	110-116
Wholesale credit risk	62-70	117-128
Investment portfolio risk	74	132
Market risk	75-79	133-140
Country risk	80-81	141-142
Operational risk	82	143-149
Compliance risk		146
Conduct risk		147
Legal risk		148
Estimations and Model risk		149

CAPITAL RISK MANAGEMENT

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.

Refer to pages 86-96 of JPMorgan Chase's 2021 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.

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 regulatory capital ratio requirements. 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 Approaches 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 47 for additional information.

Key Regulatory Developments

CECL regulatory capital transition. On December 31, 2021, the CECL capital transition provisions, which delayed the effects of CECL on regulatory capital for two years, expired. Beginning January 1, 2022, the \$2.9 billion CECL capital benefit recognized as of December 31, 2021, is being phased out at 25% per year over a three-year period. As of June 30, 2022, CET1 capital reflected the remaining \$2.2 billion, benefit associated with the CECL capital transition provisions.

Additionally, effective January 1, 2022, the Firm phased out 25% of the other relevant CECL capital transition provisions recognized as of December 31, 2021, from Tier 2 capital, adjusted average assets, and total leverage exposure.

Refer to Capital Risk Management on pages 86-96 and Note 1 of JPMorgan Chase's 2021 Form 10-K for further information on CECL capital transition provisions and the CECL accounting guidance.

Standardized Approach for Counterparty Credit Risk. On January 1, 2022, the Firm adopted "Standardized Approach for Counterparty Credit Risk" ("SA-CCR"), which replaced the Current Exposure Method used to measure derivatives counterparty exposure under the Standardized and Advanced approach RWA where internal models are not used, as well as leverage exposure used to calculate the SLR in the regulatory capital framework. The rule issued by the U.S. banking regulators in November 2019 applies to Basel III Advanced Approaches banking organizations, such as the Firm and JPMorgan Chase Bank, N.A.

The adoption of SA-CCR on January 1, 2022 increased the Firm's Standardized RWA by approximately \$40 billion based on the Firm's derivatives exposure as of December 31, 2021, which resulted in a decrease of approximately 30 bps to the Firm's CET1 capital ratio and a modest decrease in its total leverage exposure. In addition, the adoption of SA-CCR increased the Firm's Advanced RWA, but to a lesser extent than Standardized.

Risk-based Capital Regulatory Requirements

The Firm's current target for its Basel III Standardized CET1 capital ratio is 12.5% by the end of the fourth quarter of 2022. This target is based on the Basel III capital rules currently in effect, and taking into account the expected increase in the Firm's Stress Capital Buffer ("SCB") requirement.

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 86-96 of JPMorgan Chase's 2021 Form 10-K for a further discussion of these capital metrics. Refer to Note 21 for JPMorgan Chase Bank, N.A.'s risk-based and leverage-based capital metrics.

(in millions, except ratios)	Standardized			Advanced		
	June 30, 2022	December 31, 2021	Capital ratio requirements ^(b)	June 30, 2022	December 31, 2021	Capital ratio requirements ^(b)
Risk-based capital metrics:^(a)						
CET1 capital	\$ 207,436	\$ 213,942		\$ 207,436	\$ 213,942	
Tier 1 capital	239,705	246,162		239,705	246,162	
Total capital	268,339	274,900		257,329	265,796	
Risk-weighted assets	1,704,893	1,638,900		1,613,210	1,547,920	
CET1 capital ratio	12.2 %	13.1 %	11.2 %	12.9 %	13.8 %	10.5 %
Tier 1 capital ratio	14.1	15.0	12.7	14.9	15.9	12.0
Total capital ratio	15.7	16.8	14.7	16.0	17.2	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.

Three months ended (in millions, except ratios)	June 30, 2022	December 31, 2021	Capital ratio requirements ^(c)
Leverage-based capital metrics:^(a)			
Adjusted average assets ^(b)	\$ 3,861,979	\$ 3,782,035	
Tier 1 leverage ratio	6.2 %	6.5 %	4.0 %
Total leverage exposure	\$ 4,563,099	\$ 4,571,789	
SLR	5.3 %	5.4 %	5.0 %

- (a) The capital metrics reflect the CECL capital transition provisions.
(b) Adjusted average assets, for purposes of calculating the leverage ratios, includes quarterly average assets adjusted for on-balance sheet assets that are subject to deduction from Tier 1 capital, predominantly goodwill, inclusive of estimated equity method goodwill, and other intangible assets.
(c) 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 June 30, 2022 and December 31, 2021.

(in millions)	June 30, 2022	December 31, 2021
Total stockholders' equity	\$ 286,143	\$ 294,127
Less: Preferred stock	32,838	34,838
Common stockholders' equity	253,305	259,289
Add:		
Certain deferred tax liabilities ^(a)	2,509	2,499
Other CET1 capital adjustments ^(b)	4,702	3,351
Less:		
Goodwill	51,856	50,315
Other intangible assets	1,224	882
Standardized/Advanced CET1 capital	\$ 207,436	\$ 213,942
Preferred stock	32,838	34,838
Less: Other Tier 1 adjustments	569	2,618
Standardized/Advanced Tier 1 capital	\$ 239,705	\$ 246,162
Long-term debt and other instruments qualifying as Tier 2 capital	\$ 12,176	\$ 14,106
Qualifying allowance for credit losses ^(c)	17,093	15,012
Other	(635)	(380)
Standardized Tier 2 capital	\$ 28,634	\$ 28,738
Standardized Total capital	\$ 268,339	\$ 274,900
Adjustment in qualifying allowance for credit losses for Advanced Tier 2 capital ^(d)	(11,010)	(9,104)
Advanced Tier 2 capital	\$ 17,624	\$ 19,634
Advanced Total capital	\$ 257,329	\$ 265,796

- (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 June 30, 2022 and December 31, 2021, the impact of the CECL capital transition provision was a benefit to CET1 capital of \$2.2 billion and \$2.9 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.
- (e) Includes estimated equity method goodwill related to the Firm's investment in C6 Bank.
- (f) Other Tier 1 Capital adjustments included \$2.0 billion of Series Z preferred stock called for redemption on December 31, 2021 and subsequently redeemed on February 1, 2022.

Capital rollforward

The following table presents the changes in Basel III CET1 capital, Tier 1 capital and Tier 2 capital for the six months ended June 30, 2022.

Six months ended June 30, (in millions)	2022
Standardized/Advanced CET1 capital at December 31, 2021	\$ 213,942
Net income applicable to common equity	16,124
Dividends declared on common stock	(5,947)
Net purchase of treasury stock	(2,075)
Changes in additional paid-in capital	199
Changes related to AOCI	(14,285)
Adjustment related to AOCI ^(a)	2,308
Changes related to other CET1 capital adjustments ^(b)	(2,830)
Change in Standardized/Advanced CET1 capital	(6,506)
Standardized/Advanced CET1 capital at June 30, 2022	\$ 207,436
Standardized/Advanced Tier 1 capital at December 31, 2021	\$ 246,162
Change in CET1 capital ^(b)	(6,506)
Net issuance of noncumulative perpetual preferred stock	—
Other	49
Change in Standardized/Advanced Tier 1 capital	(6,457)
Standardized/Advanced Tier 1 capital at June 30, 2022	\$ 239,705
Standardized Tier 2 capital at December 31, 2021	\$ 28,738
Change in long-term debt and other instruments qualifying as Tier 2	(1,930)
Change in qualifying allowance for credit losses ^(b)	2,081
Other	(255)
Change in Standardized Tier 2 capital	(104)
Standardized Tier 2 capital at June 30, 2022	\$ 28,634
Standardized Total capital at June 30, 2022	\$ 268,339
Advanced Tier 2 capital at December 31, 2021	\$ 19,634
Change in long-term debt and other instruments qualifying as Tier 2	(1,930)
Change in qualifying allowance for credit losses ^(b)	175
Other	(255)
Change in Advanced Tier 2 capital	(2,010)
Advanced Tier 2 capital at June 30, 2022	\$ 17,624
Advanced Total capital at June 30, 2022	\$ 257,329

Advanced Tier 2 capital at December 31, 2021	\$ 19,634
Change in long-term debt and other instruments qualifying as Tier 2	(1,930)
Change in qualifying allowance for credit losses ^(b)	175
Other	(255)
Change in Advanced Tier 2 capital	(2,010)
Advanced Tier 2 capital at June 30, 2022	\$ 17,624
Advanced Total capital at June 30, 2022	\$ 257,329

- (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 six months ended June 30, 2022. The amounts in the rollforward categories are estimates, based on the predominant driver of the change.

Six months ended June 30, 2022 (in millions)	Standardized			Advanced			
	Credit risk RWA ^(c)	Market risk RWA	Total RWA	Credit risk RWA ^(c)	Market risk RWA	Operational risk RWA	Total RWA
December 31, 2021	\$ 1,543,452	\$ 95,448	\$ 1,638,900	\$ 1,047,042	\$ 95,506	\$ 405,372	\$ 1,547,920
Model & data changes ^(a)	(9,114)	(1,382)	(10,496)	(603)	(1,382)	—	(1,985)
Movement in portfolio levels ^(b)	62,440	14,049	76,489	33,354	14,168	19,753	67,275
Changes in RWA	53,326	12,667	65,993	32,751	12,786	19,753	65,290
June 30, 2022	\$ 1,596,778	\$ 108,115	\$ 1,704,893	\$ 1,079,793	\$ 108,292	\$ 425,125	\$ 1,613,210

- (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) Movement in portfolio levels (inclusive of rule changes) refers to: for Credit risk RWA, impact of SA-CCR adoption on January 1, 2022, changes in book size including position rollofs in legacy portfolios in Home Lending, changes in composition and credit quality, market movements, and deductions for excess eligible credit reserves not eligible for inclusion in Tier 2 capital; for Market risk RWA, changes in position and market movements; and for Operational risk RWA, updates to cumulative losses and macroeconomic model inputs.
(c) As of June 30, 2022 and December 31, 2021, the Basel III Standardized Credit risk RWA included wholesale and retail off balance-sheet RWA of \$212.4 billion and \$218.5 billion, respectively; and the Basel III Advanced Credit risk RWA included wholesale and retail off balance-sheet RWA of \$181.6 billion and \$188.5 billion, respectively.

Refer to the Firm's Pillar 3 Regulatory Capital Disclosures reports, which are available on the Firm's website, for further information on Credit risk RWA, Market risk RWA and Operational risk RWA.

Supplementary leverage ratio

Refer to Supplementary Leverage Ratio on page 90 of JPMorgan Chase's 2021 Form 10-K for additional information.

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

Three months ended (in millions, except ratio)	June 30, 2022	December 31, 2021
Tier 1 capital	\$ 239,705	\$ 246,162
Total average assets	3,911,643	3,831,655
Less: Regulatory capital adjustments ^(a)	49,664	49,620
Total adjusted average assets ^(b)	3,861,979	3,782,035
Add: Off-balance sheet exposures ^(c)	701,120	789,754
Total leverage exposure	\$ 4,563,099	\$ 4,571,789
SLR	5.3 %	5.4 %

- (a) For purposes of calculating the SLR, includes quarterly average assets adjusted for on-balance sheet assets that are subject to deduction from Tier 1 capital, predominantly goodwill, inclusive of estimated equity method 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 on applicable regulatory exposures during the reporting quarter. Effective January 1, 2022, includes the impact of the SA-CCR adoption. Refer to the Firm's Pillar 3 Regulatory Capital Disclosures reports for additional information.

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 93 of JPMorgan Chase's 2021 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)	June 30, 2022	December 31, 2021
Consumer & Community Banking	\$ 50.0	\$ 50.0
Corporate & Investment Bank	103.0	83.0
Commercial Banking	25.0	24.0
Asset & Wealth Management	17.0	14.0
Corporate	58.3	88.3
Total common stockholders' equity	\$ 253.3	\$ 259.3

Capital actions

Common stock dividends

The Firm's quarterly common stock dividend is currently \$1.00 per share. The Firm's dividends are subject to approval by the Board of Directors on a quarterly basis.

Common stock

Through April 30, 2022, the Firm was authorized to repurchase up to \$30 billion of common shares under its previously approved common share repurchase program, that was announced on December 18, 2020. Effective May 1, 2022, the Firm is authorized to purchase up to \$30 billion of common shares under a new equity repurchase program.

As a result of the expected increase in the SCB in the fourth quarter of 2022 and GSIB surcharge in the first quarter of 2023, the Firm has temporarily suspended share repurchases.

The following table sets forth the Firm's repurchases of common stock for the three and six months ended June 30, 2022 and 2021.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021 ^(a)	2022	2021 ^(a)
Total number of shares of common stock repurchased	5.0	39.5	23.1	74.2
Aggregate purchase price of common stock repurchases	\$ 622	\$ 6,201	\$ 3,122	\$ 11,200

(a) As directed by the Federal Reserve, total net repurchases and common stock dividends in the first and second quarter of 2021 were restricted and could not exceed the average of the Firm's net income for the four preceding calendar quarters.

Refer to Capital actions on page 94 of JPMorgan Chase's 2021 Form 10-K for additional information.

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 191-192 of this Form 10-Q and page 35 of JPMorgan Chase's 2021 Form 10-K, respectively, for additional information regarding repurchases of the Firm's equity securities.

Preferred stock

Preferred stock dividends declared were \$410 million and \$393 million, and \$807 million and \$772 million for the three and six months ended June 30, 2022 and 2021, respectively.

Refer to Note 17 of this Form 10-Q and Note 21 of JPMorgan Chase's 2021 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 April 5, 2022, the Firm submitted its 2022 Capital Plan to the Federal Reserve. On June 27, 2022, the Firm announced that it had completed the Federal Reserve's 2022 Comprehensive Capital Analysis and Review ("CCAR") stress test process. The Firm's indicative SCB requirement is 4.0% (up from the current 3.2%), which will result in a Standardized CET1 capital ratio requirement, including regulatory buffers, of 12.0% (up from the current 11.2%). The Federal Reserve will provide the Firm with its final SCB requirement by August 31, 2022, and that requirement will become effective on October 1, 2022, and will remain in effect until September 30, 2023.

Refer to Capital planning and stress testing on pages 86-87 of JPMorgan Chase's 2021 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 95 of JPMorgan Chase's 2021 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 June 30, 2022 and December 31, 2021.

(in billions, except ratio)	June 30, 2022		December 31, 2021	
	External TLAC	LTD	External TLAC	LTD
Total eligible amount	\$ 466.7	\$ 218.9	\$ 464.6	\$ 210.4
% of RWA	27.4 %	12.8 %	28.4 %	12.8 %
Regulatory requirements	22.5	9.5	22.5	9.5
Surplus/(shortfall)	\$ 83.1	\$ 56.9	\$ 95.9	\$ 54.7
% of total leverage exposure	10.2 %	4.8 %	10.2 %	4.6 %
Regulatory requirements	9.5	4.5	9.5	4.5
Surplus/(shortfall)	\$ 33.2	\$ 13.5	\$ 30.3	\$ 4.6

Refer to Liquidity Risk Management on pages 50-54 for further information on long-term debt issued by the Parent Company.

Refer to Part I, Item 1A: Risk Factors on pages 9-33 of JPMorgan Chase's 2021 Form 10-K for information on the financial consequences to holders of the Firm's debt and equity securities in a resolution scenario.

U.S. 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 96 of JPMorgan Chase's 2021 Form 10-K for a discussion on J.P. Morgan Securities' capital requirements.

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

June 30, 2022 (in millions)	Actual	Minimum
Net Capital	\$ 20,481	\$ 6,007

Non-U.S. subsidiary regulatory capital

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 ("EU") Capital Requirements Regulation ("CRR"), 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 96 of JPMorgan Chase's 2021 Form 10-K for a further discussion on J.P. Morgan Securities plc.

The Bank of England requires that U.K. banks, including U.K. regulated subsidiaries of overseas groups, maintain minimum requirements for own funds and eligible liabilities ("MREL"). As of June 30, 2022, J.P. Morgan Securities plc was compliant with the MREL requirements, that became fully phased-in on January 1, 2022.

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

June 30, 2022 (in millions, except ratios)	Estimated	Regulatory Minimum ratios ^(a)
Total capital	\$ 53,979	
CET1 ratio	21.9 %	4.5 %
Total capital ratio	28.1 %	8.0 %

(a) Represents minimum Pillar 1 requirements specified by the PRA. J.P. Morgan Securities plc's capital ratios as of June 30, 2022 exceeded the minimum requirements, including the additional capital requirements specified by the PRA.

J.P. Morgan SE

JPMSE is a wholly-owned subsidiary of JPMorgan Chase Bank, N.A. and has authority to engage in banking, investment banking and markets activities. JPMSE is regulated by the European Central Bank as well as the local regulators in each of the countries in which it operates, and it is subject to EU capital requirements under Basel III.

JPMSE is required by the EU Single Resolution Board to maintain MREL. As of June 30, 2022, JPMSE was compliant with the MREL requirements.

The following table presents JPMSE's capital metrics:

June 30, 2022 (in millions, except ratios)	Estimated	Regulatory Minimum ratios ^(a)
Total capital	\$ 35,630	
CET1 ratio	18.2 %	4.5 %
Total capital ratio	29.1 %	8.0 %

(a) Represents minimum Pillar 1 requirements specified by the EU CRR. J.P. Morgan SE's capital ratios as of June 30, 2022 exceeded the minimum requirements, including the additional capital requirements specified by the European Banking Authority.

LIQUIDITY RISK MANAGEMENT

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 97-104 of JPMorgan Chase's 2021 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.

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 98 of JPMorgan Chase's 2021 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 June 30, 2022, March 31, 2022 and June 30, 2021 based on the Firm's interpretation of the LCR framework.

Average amount (in millions)	Three months ended		
	June 30, 2022	March 31, 2022	June 30, 2021
JPMorgan Chase & Co.:			
HQLA			
Eligible cash ^(a)	\$ 634,480	\$ 680,003	\$ 673,724
Eligible securities ^{(b)(c)}	107,473	42,512	42,832
Total HQLA^(d)	\$ 741,953	\$ 722,515	\$ 716,556
Net cash outflows	\$ 676,234	\$ 658,998	\$ 647,757
LCR	110 %	110 %	111 %
Net excess eligible HQLA^(d)	\$ 65,719	\$ 63,517	\$ 68,799
JPMorgan Chase Bank N.A.:			
LCR	169 %	181 %	171 %
Net excess eligible HQLA	\$ 487,867	\$ 560,987	\$ 489,311

- (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.

JPMorgan Chase Bank, N.A.'s average LCR decreased during the three months ended June 30, 2022, compared with the three-month period ended March 31, 2022 due to a decrease in JPMorgan Chase Bank, N.A.'s HQLA primarily from a reduction in cash from loan growth and a decline in the market value of HQLA-eligible investment securities in

Treasury and CIO. Refer to Note 9 for additional information regarding gross unrealized gains and losses on the investment securities portfolio.

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 discussed 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 \$826 billion and \$914 billion as of June 30, 2022 and December 31, 2021, respectively, although the amount of liquidity that could be raised at any particular time would be dependent on prevailing market conditions. The fair value decreased compared to December 31, 2021, primarily due to a decrease in excess eligible HQLA at JPMorgan Chase Bank, N.A., as noted above.

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 \$308 billion as of June 30, 2022 and December 31, 2021. 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") rule requires that the Firm and JPMorgan Chase Bank, N.A. maintain an amount of "available" stable funding that is sufficient to meet their "required" amounts of stable funding over a one-year horizon.

As of June 30, 2022, the Firm and JPMorgan Chase Bank, N.A. were compliant with the 100% minimum NSFR requirement, based on the Firm's current understanding of the final rule. The Firm will be required to publicly disclose its quarterly average NSFR semi annually beginning in 2023.

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, which includes both short- and long-term cash requirements.

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 access funding through short- or long-term secured borrowings, through the issuance of unsecured

long-term debt, or from borrowings from 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.

Refer to Note 22 for additional information on off-balance sheet obligations.

Deposits

The table below summarizes, by LOB and Corporate, the period-end deposit balances as of June 30, 2022, and December 31, 2021, and the average deposit balances for the three and six months ended June 30, 2022 and 2021, respectively.

Deposits (in millions)			Three months ended June 30,		Six months ended June 30,	
			Average		Average	
	June 30, 2022	December 31, 2021	2022	2021	2022	2021
Consumer & Community Banking	\$ 1,178,825	\$ 1,148,110	\$ 1,180,453	\$ 1,047,771	\$ 1,167,057	\$ 1,013,917
Corporate & Investment Bank	738,795	707,791	773,664	765,807	765,200	756,499
Commercial Banking	283,296	323,954	300,339	290,095	308,518	290,455
Asset & Wealth Management	257,437	282,052	268,861	219,699	278,256	213,167
Corporate	13,191	396	8,995	423	4,948	450
Total Firm	\$ 2,471,544	\$ 2,462,303	\$ 2,532,312	\$ 2,323,795	\$ 2,523,979	\$ 2,274,488

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 June 30, 2022 and December 31, 2021.

(in billions except ratios)	June 30, 2022	December 31, 2021
Deposits	\$ 2,471.5	\$ 2,462.3
Deposits as a % of total liabilities	70 %	71 %
Loans	\$ 1,104.2	\$ 1,077.7
Loans-to-deposits ratio	45 %	44 %

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 months ended June 30, 2022 compared to the three months ended June 30, 2021, reflecting the residual impact associated with government actions in the prior year. In CCB, the increase was also driven by growth from new and existing accounts across both consumer and small business customers. However, during the second quarter of 2022, there was a decline in deposits, including in CB due to migration of non-operating deposits into higher-yielding alternatives, and in CCB as consumer spending continued to grow.

Average deposits increased for the six months ended June 30, 2022 compared to the six months ended June 30, 2021, reflecting inflows across the LOBs resulting from the residual effect of certain government actions in the prior year. In CCB, the increase was also driven by growth from new and existing accounts across both consumer and small business customers.

Increases in Corporate predominantly relate to the Firm's international consumer growth initiatives.

Refer to the discussion of the Firm's Consolidated Balance Sheets Analysis and the Business Segment Results on pages 15-16 and pages 20-42, respectively, for further information on deposit and liability balance trends.

The following table summarizes short-term and long-term funding, excluding deposits, as of June 30, 2022, and December 31, 2021, and average balances for the three and six months ended June 30, 2022 and 2021, respectively. Refer to the Consolidated Balance Sheets Analysis on pages 15-16 and Note 10 for additional information.

Sources of funds (excluding deposits) (in millions)			Three months ended June 30,		Six months ended June 30,	
	June 30, 2022	December 31, 2021	Average		Average	
			2022	2021	2022	2021
Commercial paper	\$ 21,670	\$ 15,108	\$ 19,589	\$ 13,696	\$ 17,097	\$ 13,277
Other borrowed funds	10,708	9,999	12,533	13,888	13,061	12,574
Federal Funds purchased	1,339	1,769	1,241	2,378	1,467	2,398
Total short-term unsecured funding	\$ 33,717	\$ 26,876	\$ 33,363	\$ 29,962	\$ 31,625	\$ 28,249
Securities sold under agreements to repurchase ^(a)	\$ 218,237	\$ 189,806	\$ 227,075	\$ 251,455	\$ 235,300	\$ 271,320
Securities loaned ^(a)	3,143	2,765	5,060	7,510	4,982	7,536
Other borrowed funds	26,044	28,487	26,376	28,291	27,152	27,131
Obligations of Firm-administered multi-seller conduits ^(b)	6,993	6,198	6,779	9,863	6,625	10,036
Total short-term secured funding	\$ 254,417	\$ 227,256	\$ 265,290	\$ 297,119	\$ 274,059	\$ 316,023
Senior notes	\$ 189,248	\$ 191,488	\$ 187,143	\$ 179,838	\$ 188,779	\$ 173,680
Subordinated debt	18,848	20,531	19,139	20,659	19,688	20,953
Structured notes ^(c)	65,288	73,956	66,025	75,351	68,584	75,196
Total long-term unsecured funding	\$ 273,384	\$ 285,975	\$ 272,307	\$ 275,848	\$ 277,051	\$ 269,829
Credit card securitization ^(b)	\$ 1,749	\$ 2,397	\$ 1,748	\$ 3,043	\$ 2,010	\$ 3,929
FHLB advances	11,103	11,110	11,106	12,174	11,107	12,949
Other long-term secured funding ^(d)	3,725	3,920	3,807	4,459	3,858	4,542
Total long-term secured funding	\$ 16,577	\$ 17,427	\$ 16,661	\$ 19,676	\$ 16,975	\$ 21,420
Preferred stock^(e)	\$ 32,838	\$ 34,838	\$ 32,838	\$ 32,666	\$ 33,180	\$ 31,496
Common stockholders' equity^(e)	\$ 253,305	\$ 259,289	\$ 247,986	\$ 250,849	\$ 250,234	\$ 248,209

(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 44-49 and Consolidated statements of changes in stockholders' equity on page 91 of this Form 10-Q, and Note 21 and Note 22 of JPMorgan Chase's 2021 Form 10-K for additional information on preferred stock and common stockholders' equity.

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 June 30, 2022, compared with December 31, 2021, due to higher secured financing of trading assets and the impact of netting on client-driven market-making activities in 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 primarily consist of issuances of wholesale commercial paper and other borrowed funds. The increase in commercial paper at June 30, 2022, from December 31, 2021, and for the average three and six months ended June 30, 2022 compared to the prior year period, was due to higher net issuance primarily for short-term liquidity management.

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 six months ended June 30, 2022 and 2021. Refer to Liquidity Risk Management on pages 97-104 and Note 20 of JPMorgan Chase's 2021 Form 10-K for additional information on the IHC and long-term debt.

Long-term unsecured funding

(Notional in millions)	Three months ended June 30,		Six months ended June 30,		Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021	2022	2021	2022	2021
	Parent Company				Subsidiaries			
Issuance								
Senior notes issued in the U.S. market	\$ 13,000	\$ 20,000	\$ 21,100	\$ 29,250	\$ —	\$ —	\$ —	\$ —
Senior notes issued in non-U.S. markets	—	2,789	2,752	5,581	—	—	—	—
Total senior notes	13,000	22,789	23,852	34,831	—	—	—	—
Structured notes ^(a)	918	1,439	2,074	2,935	11,230	7,285	19,679	17,780
Total long-term unsecured funding – issuance	\$ 13,918	\$ 24,228	\$ 25,926	\$ 37,766	\$ 11,230	\$ 7,285	\$ 19,679	\$ 17,780
Maturities/redemptions								
Senior notes	\$ 5,000	\$ 4,617	\$ 8,693	\$ 7,317	\$ —	\$ —	\$ 64	\$ 66
Structured notes	415	1,191	1,392	3,161	7,428	9,659	15,075	18,173
Total long-term unsecured funding – maturities/redemptions	\$ 5,415	\$ 5,808	\$ 10,085	\$ 10,478	\$ 7,428	\$ 9,659	\$ 15,139	\$ 18,239

(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 six months ended June 30, 2022 and 2021, respectively.

Long-term secured funding

(in millions)	Three months ended June 30,				Six months ended June 30,			
	Issuance		Maturities/Redemptions		Issuance		Maturities/Redemptions	
	2022	2021	2022	2021	2022	2021	2022	2021
Credit card securitization	\$ —	\$ —	\$ —	\$ 1,925	\$ —	\$ —	\$ 650	\$ 2,550
FHLB advances	—	—	4	1,005	—	—	6	2,006
Other long-term secured funding ^(a)	82	103	31	84	284	241	92	192
Total long-term secured funding	\$ 82	\$ 103	\$ 35	\$ 3,014	\$ 284	\$ 241	\$ 748	\$ 4,748

(a) Includes long-term structured notes that 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 2021 Form 10-K for a further description of 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 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 June 30, 2022, were as follows:

June 30, 2022	JPMorgan Chase & Co.			JPMorgan Chase Bank, N.A.			J.P. Morgan Securities LLC J.P. Morgan Securities plc J.P. Morgan SE ^(b)		
	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	A-	A-2	Positive	A+	A-1	Positive	A+	A-1	Positive
Fitch Ratings	AA-	F1+	Stable	AA	F1+	Stable	AA	F1+	Stable

(a) Moody's outlook for the Parent Company's long-term and short-term issuer rating is positive and stable, respectively.

(b) In January 2022, the three rating agencies affirmed the credit ratings of J.P. Morgan SE, which are equivalent to the ratings previously assigned to J.P. Morgan SE's predecessors, J.P. Morgan Bank Luxembourg S.A. and J.P. Morgan AG.

Refer to page 104 of JPMorgan Chase's 2021 Form 10-K for a discussion of the factors that could affect the 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 57-73 for a further discussion of Credit Risk.

Refer to page 74 for a further discussion of Investment Portfolio Risk. Refer to Credit and Investment Risk Management on pages 106-132 of JPMorgan Chase's 2021 Form 10-K for a further discussion of the Firm's Credit and Investment Risk Management framework.

CREDIT PORTFOLIO

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 total 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 57-61 and Note 11 for further discussions of the consumer credit environment and consumer loans. Refer to Wholesale Credit Portfolio on pages 62-70 and Note 11 for further discussions of the wholesale credit environment and wholesale loans.

Total credit portfolio

(in millions)	Credit exposure		Nonperforming ^{(c)(d)}	
	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021
Loans retained	\$ 1,052,390	\$ 1,010,206	\$ 6,269	\$ 6,932
Loans held-for-sale	4,709	8,688	80	48
Loans at fair value	47,056	58,820	813	815
Total loans	1,104,155	1,077,714	7,162	7,795
Derivative receivables	81,317	57,081	447	316
Receivables from customers ^(a)	58,349	59,645	—	—
Total credit-related assets	1,243,821	1,194,440	7,609	8,111
Assets acquired in loan satisfactions				
Real estate owned	NA	NA	211	213
Other	NA	NA	25	22
Total assets acquired in loan satisfactions	NA	NA	236	235
Lending-related commitments	1,302,005	1,262,313	397	764
Total credit portfolio	\$ 2,545,826	\$ 2,456,753	\$ 8,242	\$ 9,110
Credit derivatives and credit-related notes used in credit portfolio management activities ^(b)	\$ (16,939)	(20,739) ^(e)	\$ —	\$ —
Liquid securities and other cash collateral held against derivatives	(19,801)	(10,102)	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 credit exposures.

(c) At June 30, 2022, and December 31, 2021, nonperforming assets excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of \$453 million and \$623 million, respectively, and real estate owned ("REO") insured by U.S. government agencies of \$8 million and \$5 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.

(d) At June 30, 2022 and December 31, 2021, nonaccrual loans excluded \$119 million and \$633 million, respectively, of PPP loans 90 or more days past due and guaranteed by the SBA.

(e) Prior-period amount has been revised to conform with the current presentation.

The following table provides information about the Firm's net charge-offs and recoveries.

(in millions, except ratios)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Net charge-offs	\$ 657	\$ 734	\$ 1,239	\$ 1,791
Average retained loans	1,035,933	954,155	1,020,180	953,118
Net charge-off rates	0.25 %	0.31 %	0.24 %	0.38 %

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. Refer to Note 11 of this Form 10-Q; and Consumer Credit Portfolio on pages 110-116 and Note 12 of JPMorgan Chase's 2021 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 2021 Form 10-K for further information on lending-related commitments.

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

Consumer credit portfolio

(in millions)	Credit exposure		Nonaccrual loans ^{(a)(b)}	
	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021
Consumer, excluding credit card				
Residential real estate ^(a)	\$ 237,142	\$ 224,795	\$ 4,076	\$ 4,759
Auto and other ^{(b)(c)(d)}	65,489	70,761	110	119
Total loans - retained	302,631	295,556	4,186	4,878
Loans held-for-sale	740	1,287	44	—
Loans at fair value ^(e)	13,841	26,463	442	472
Total consumer, excluding credit card loans	317,212	323,306	4,672	5,350
Lending-related commitments ^(f)	40,484	45,334		
Total consumer exposure, excluding credit card	357,696	368,640		
Credit card				
Loans retained ^(g)	165,494	154,296	NA	NA
Total credit card loans	165,494	154,296	NA	NA
Lending-related commitments ^(h)	774,021	730,534		
Total credit card exposure^(h)	939,515	884,830		
Total consumer credit portfolio^(h)	\$ 1,297,211	\$ 1,253,470	\$ 4,672	\$ 5,350
Credit-related notes used in credit portfolio management activities ⁽ⁱ⁾	\$ (1,560)	\$ (2,028)		

(in millions, except ratios)	Three months ended June 30,					
	Net charge-offs/(recoveries)		Average loans - retained		Net charge-off/(recovery) rate ^(m)	
	2022	2021	2022	2021	2022	2021
Consumer, excluding credit card						
Residential real estate	\$ (67)	\$ (80)	\$ 232,770	\$ 217,553	(0.12)%	(0.15)%
Auto and other	94	49	66,879	81,270	0.56	0.24
Total consumer, excluding credit card - retained	27	(31)	299,649	298,823	0.04	(0.04)
Credit card - retained	580	755	158,434	135,430	1.47	2.24
Total consumer - retained	\$ 607	\$ 724	\$ 458,083	\$ 434,253	0.53 %	0.67 %

(in millions, except ratios)	Six months ended June 30,					
	Net charge-offs/(recoveries)		Average loans - retained		Net charge-off/(recovery) rate ^(m)	
	2022	2021	2022	2021	2022	2021
Consumer, excluding credit card						
Residential real estate	\$ (134)	\$ (131)	\$ 229,369	\$ 220,247	(0.12)%	(0.12)%
Auto and other	207	121	68,197	80,183	0.61	0.30
Total consumer, excluding credit card - retained	73	(10)	297,566	300,430	0.05	(0.01)
Credit card - retained	1,086	1,738	153,941	134,796	1.42	2.60
Total consumer - retained	\$ 1,159	\$ 1,728	\$ 451,507	\$ 435,226	0.52 %	0.80 %

- (a) Includes scored mortgage and home equity loans held in CCB and AWM, and scored mortgage loans held in Corporate.
(b) At June 30, 2022 and December 31, 2021, excluded operating lease assets of \$14.2 billion and \$17.1 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 June 30, 2022 and December 31, 2021, included \$1.5 billion and \$5.4 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 109 of JPMorgan Chase's 2021 Form 10-K 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 June 30, 2022 and December 31, 2021, nonaccrual loans excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of \$453 million and \$623 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.
- (l) At June 30, 2022 and December 31, 2021, nonaccrual loans excluded \$86 million and \$506 million, respectively, of PPP loans 90 or more days past due and guaranteed by the SBA.
- (m) Average consumer loans held-for-sale and loans at fair value were \$18.2 billion and \$27.0 billion for the three months ended June 30, 2022 and 2021, respectively, and were \$21.0 billion and \$24.2 billion for the six months ended June 30, 2022 and 2021, respectively. These amounts were excluded when calculating net charge-off/(recovery) rates.

Consumer, excluding credit card

Portfolio analysis

Loans decreased from December 31, 2021 driven by residential real estate loans at fair value and auto and other loans, largely offset by higher 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 increased compared to December 31, 2021, reflecting originations, net of paydowns. Retained nonaccrual loans decreased from December 31, 2021 reflecting improved credit performance. Net recoveries for the three months ended June 30, 2022 were lower when compared with the same period in the prior year as the current year recoveries were impacted by lower prepayments due to higher interest rates. Net recoveries for the six months ended June 30, 2022 were relatively flat compared with the same period in the prior year.

Loans at fair value decreased from December 31, 2021, as Home Lending warehouse loan sales outpaced originations due to higher interest rates and lower loan purchase activity in CIB. Nonaccrual loans at fair value decreased from December 31, 2021 driven by CIB.

The carrying value of home equity lines of credit outstanding was \$16.9 billion at June 30, 2022. This amount included \$5.5 billion of HELOCs that have recast from interest-only to fully amortizing payments or have been modified and \$5.5 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 June 30, 2022 and December 31, 2021, the carrying value of interest-only residential mortgage loans were \$34.4 billion and \$30.0 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. The interest-only residential mortgage loan portfolio reflected net charge-offs for the three months ended June 30, 2022 on a loan sale and net recoveries for the six months ended June 30, 2022. The credit performance of this portfolio is comparable 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)		June 30, 2022	December 31, 2021
Current	\$	584	\$ 689
30-89 days past due		121	135
90 or more days past due		453	623
Total government guaranteed loans	\$	1,158	\$ 1,447

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 purchased credit deteriorated ("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. Refer to Note 11 for further information on modifications for the three and six months ended June 30, 2022 and 2021.

(in millions)		June 30, 2022	December 31, 2021
Retained loans	\$	12,185	\$ 13,251
Nonaccrual retained loans ^(a)	\$	3,543	\$ 3,938

(a) At June 30, 2022 and December 31, 2021, nonaccrual loans included \$2.8 billion and \$2.7 billion, respectively, of TDRs for which the borrowers were less than 90 days past due. Refer to Note 12 of JPMorgan Chase's 2021 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 decreased when compared with December 31, 2021 predominantly due to a decrease in business banking loans driven by PPP loan forgiveness. Scored auto portfolio loans decreased driven by paydowns predominantly offset by loan originations. Net charge-offs for the three and six months ended June 30, 2022 increased when compared to the same period in the prior year due to higher overdraft and scored auto charge-offs partially offset by lower scored business banking charge-offs. The scored auto portfolio net charge-off and net recovery rates were 0.12% and (0.11)% for the three months ended June 30, 2022 and 2021, respectively, and net charge-off rates of 0.15% and 0.00% for the six months ended June 30, 2022 and 2021, respectively, as the net recovery for the three months ended June 30, 2021 and net charge-offs for the six months ended June 30, 2021 benefited from government stimulus and payment assistance programs.

Nonperforming assets

The following table presents information as of June 30, 2022 and December 31, 2021, about consumer, excluding credit card, nonperforming assets.

Nonperforming assets^(a)

(in millions)	June 30, 2022	December 31, 2021
Nonaccrual loans		
Residential real estate ^(b)	\$ 4,562	\$ 5,231
Auto and other ^(c)	110	119
Total nonaccrual loans	4,672	5,350
Assets acquired in loan satisfactions		
Real estate owned	129	112
Other	25	22
Total assets acquired in loan satisfactions	154	134
Total nonperforming assets	\$ 4,826	\$ 5,484

(a) At June 30, 2022 and December 31, 2021, nonperforming assets excluded mortgage loans 90 or more days past due and insured by U.S. government agencies of \$453 million and \$623 million, respectively, and REO insured by U.S. government agencies of \$8 million and \$5 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.

(c) At June 30, 2022 and December 31, 2021, nonaccrual loans excluded \$86 million and \$506 million, respectively, of PPP loans 90 or more days past due and guaranteed by the SBA.

Nonaccrual loans

The following table presents changes in consumer, excluding credit card, nonaccrual loans for the six months ended June 30, 2022 and 2021.

Nonaccrual loan activity

Six months ended June 30, (in millions)	2022	2021
Beginning balance	\$ 5,350	\$ 6,467
Additions	1,149	1,422
Reductions:		
Principal payments and other ^(a)	789	1,215
Charge-offs	117	122
Returned to performing status	824	853
Foreclosures and other liquidations	97	41
Total reductions	1,827	2,231
Net changes	(678)	(809)
Ending balance	\$ 4,672	\$ 5,658

(a) Other reductions include loan sales.

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)	June 30, 2022	December 31, 2021
Loan delinquency^(a)		
Current	\$ 11,664	\$ 12,746
30-149 days past due	319	331
150 or more days past due	365	664
Total PCD loans	\$ 12,348	\$ 13,741
% of 30+ days past due to total retained PCD loans	5.54 %	7.24 %
Nonaccrual loans	\$ 1,327	\$ 1,616

(in millions, except ratios)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Net charge-offs/(recoveries)	\$ (5)	\$ 3	\$ (6)	\$ 16
Net charge-off/(recovery) rate	(0.16)%	0.08 %	(0.09)%	0.20 %

(a) At June 30, 2022 and December 31, 2021, 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.

Credit card

Total credit card loans increased from December 31, 2021 reflecting higher consumer spending. The June 30, 2022 30+ and 90+ day delinquency rates of 1.05% and 0.51%, respectively, were relatively flat compared to the December 31, 2021 30+ and 90+ day delinquency rates of 1.04% and 0.50%. Net charge-offs decreased for the three and six months ended June 30, 2022 compared with the same period in the prior year. Delinquency and net charge-off rates continue to benefit from the financial strength of U.S. consumers.

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 June 30, 2022, the Firm had \$827 million 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 \$1.0 billion at December 31, 2021. Refer to Note 11 for additional information about loan modification programs to borrowers.

WHOLESALE CREDIT PORTFOLIO

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 64-67 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 six months ended June 30, 2022, credit continued to perform well with charge-offs at historically low levels. As of June 30, 2022, the decrease in nonperforming exposure was driven by a decline in lending related commitments as a result of net portfolio activity, predominantly in CIB, partially offset by an increase in nonperforming derivatives. Nonperforming loans were relatively flat and included paydowns on exposures to certain Russia and Russia-associated clients that were downgraded in the first quarter of 2022. Refer to Business Developments on page 9 and Country Risk on pages 80-81 for additional information.

As of June 30, 2022, retained loans increased \$23.9 billion driven by CB and CIB, partially offset by decreases in AWM.

Wholesale credit portfolio

(in millions)	Credit exposure		Nonperforming	
	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021
Loans retained	\$ 584,265	\$ 560,354	\$ 2,083	\$ 2,054
Loans held-for-sale	3,969	7,401	36	48
Loans at fair value	33,215	32,357	371	343
Loans	621,449	600,112	2,490	2,445
Derivative receivables	81,317	57,081	447	316
Receivables from customers ^(a)	58,349	59,645	—	—
Total wholesale credit-related assets	761,115	716,838	2,937	2,761
Assets acquired in loan satisfactions				
Real estate owned	NA	NA	82	101
Other	NA	NA	—	—
Total assets acquired in loan satisfactions	NA	NA	82	101
Lending-related commitments	487,500	486,445	397	764
Total wholesale credit portfolio	\$ 1,248,615	\$ 1,203,283	\$ 3,416	\$ 3,626
Credit derivatives and credit-related notes used in credit portfolio management activities ^(b)	\$ (15,379)	(18,711) ^(c)	\$ —	\$ —
Liquid securities and other cash collateral held against derivatives	(19,801)	(10,102)	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 70 and Note 4 for additional information.

(c) Prior-period amount has been revised to conform with the current presentation.

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 June 30, 2022, and December 31, 2021. 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 2021 Form 10-K for further information on internal risk ratings.

June 30, 2022 (in millions, except ratios)	Maturity profile ^(e)				Ratings profile			
	1 year or less	1 year through 5 years	After 5 years	Total	Investment-grade	Noninvestment-grade	Total	Total % of IG
Loans retained	\$ 215,425	\$ 231,814	\$ 137,026	\$ 584,265	\$ 419,945	\$ 164,320	\$ 584,265	72 %
Derivative receivables				81,317			81,317	
Less: Liquid securities and other cash collateral held against derivatives				(19,801)			(19,801)	
Total derivative receivables, net of collateral	24,639	16,088	20,789	61,516	44,538	16,978	61,516	72
Lending-related commitments	130,180	332,947	24,373	487,500	332,471	155,029	487,500	68
Subtotal	370,244	580,849	182,188	1,133,281	796,954	336,327	1,133,281	70
Loans held-for-sale and loans at fair value ^(a)				37,184			37,184	
Receivables from customers				58,349			58,349	
Total exposure – net of liquid securities and other cash collateral held against derivatives				\$ 1,228,814			\$ 1,228,814	
Credit derivatives and credit-related notes used in credit portfolio management activities ^{(b)(c)}	\$ (3,586)	\$ (10,032)	\$ (1,761)	\$ (15,379)	\$ (12,698)	\$ (2,681)	\$ (15,379)	83 %

December 31, 2021 (in millions, except ratios)	Maturity profile ^(e)				Ratings profile			
	1 year or less	1 year through 5 years	After 5 years	Total	Investment-grade	Noninvestment-grade	Total	Total % of IG
Loans retained	\$ 214,064	\$ 218,176	\$ 128,114	\$ 560,354	\$ 410,011	\$ 150,343	\$ 560,354	73 %
Derivative receivables				57,081			57,081	
Less: Liquid securities and other cash collateral held against derivatives				(10,102)			(10,102)	
Total derivative receivables, net of collateral	13,648	12,814	20,517	46,979	31,934	15,045	46,979	68
Lending-related commitments	120,929	340,308	25,208	486,445	331,116	155,329	486,445	68
Subtotal	348,641	571,298	173,839	1,093,778	773,061	320,717	1,093,778	71
Loans held-for-sale and loans at fair value ^(a)				39,758			39,758	
Receivables from customers				59,645			59,645	
Total exposure – net of liquid securities and other cash collateral held against derivatives				\$ 1,193,181			\$ 1,193,181	
Credit derivatives and credit-related notes used in credit portfolio management activities ^{(b)(c)(d)}	\$ (7,472)	\$ (9,750)	\$ (1,489)	\$ (18,711)	\$ (15,012)	\$ (3,699)	\$ (18,711)	80 %

(a) Loans held-for-sale are primarily related to syndicated loans and loans transferred from the retained portfolio.

(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.

(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 June 30, 2022, 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 \$31.3 billion and \$38.2 billion at June 30, 2022 and December 31, 2021, representing approximately 2.7% and 3.5% of total wholesale credit exposure, respectively. The decrease in criticized exposure was driven by net portfolio activity and client-specific upgrades, partially offset by client-specific downgrades, with the largest decreases in Consumer & Retail and Technology, Media & Telecommunications. Of the \$31.3 billion of criticized exposure at June 30, 2022, approximately half was undrawn and \$28.3 billion was performing.

The table below summarizes by industry the Firm's exposures as of June 30, 2022, and December 31, 2021. 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 2021 Form 10-K for additional information on industry concentrations.

Wholesale credit exposure – industries^(a)

As of or for the six months ended	Noninvestment-grade						Selected metrics			
	Credit exposure ^(b)	Investment-grade	Noncriticized	Criticized performing	Criticized nonperforming	30 days or more past due and accruing loans	Net charge-offs/(recoveries)	Credit derivative hedges and credit-related notes ^(c)	Liquid securities and other cash collateral held against derivative receivables	
June 30, 2022										
(in millions)										
Real Estate	\$ 165,475	\$ 126,523	\$ 34,612	\$ 3,948	\$ 392	\$ 745	\$ 6	\$ (550)	\$ —	
Individuals and Individual Entities ^(b)	138,215	119,730	17,631	418	436	1,636	10	—	—	
Consumer & Retail	119,319	60,466	51,947	6,566	340	243	2	(566)	—	
Asset Managers	97,670	80,566	17,099	—	5	308	(1)	—	(8,679)	
Technology, Media & Telecommunications	77,831	44,080	27,277	6,136	338	125	36	(1,068)	—	
Industrials	71,675	38,366	30,336	2,782	191	227	—	(611)	—	
Healthcare	57,690	41,127	14,896	1,591	76	189	14	(609)	(92)	
Banks & Finance Cos	55,920	29,960	25,179	743	38	65	—	(323)	(807)	
Oil & Gas	46,548	22,906	22,664	825	153	65	5	(656)	(31)	
Utilities	35,781	26,128	8,607	876	170	6	28	(514)	—	
State & Municipal Govt ^(c)	34,729	33,901	702	124	2	14	—	—	(54)	
Automotive	34,246	24,881	8,932	311	122	45	—	(402)	—	
Chemicals & Plastics	22,732	15,104	7,210	369	49	8	3	(141)	—	
Insurance	19,348	14,568	4,641	139	—	6	—	(198)	(5,685)	
Metals & Mining	16,655	8,763	7,216	603	73	14	(1)	(67)	(29)	
Transportation	15,650	5,541	7,229	2,709	171	20	—	(261)	—	
Central Govt	14,167	13,913	243	—	11	—	—	(5,401)	(179)	
Securities Firms	6,806	3,632	3,173	1	—	—	(13)	(15)	(1,573)	
Financial Markets Infrastructure	5,455	5,399	56	—	—	—	—	—	(8)	
All other ^(d)	117,170	99,814	16,799	197	360	61	(9)	(3,997)	(2,664)	
Subtotal	\$ 1,153,082	\$ 815,368	\$ 306,449	\$ 28,338	\$ 2,927	\$ 3,777	\$ 80	\$ (15,379)	\$ (19,801)	
Loans held-for-sale and loans at fair value	37,184									
Receivables from customers	58,349									
Total^(a)	\$ 1,248,615									

(continued from previous page)

As of or for the year ended December 31, 2021 (in millions)	Noninvestment-grade					Selected metrics			
	Credit exposure ^(f)	Investment-grade	Noncriticized	Criticized performing	Criticized nonperforming	30 days or more past due and accruing loans	Net charge-offs/(recoveries)	Credit derivative hedges and credit-related notes ^(h)	Liquid securities and other cash collateral held against derivative receivables
Real Estate	\$ 155,069	\$ 120,174	\$ 29,642	\$ 4,636	\$ 617	\$ 394	\$ 6	\$(185) ⁽ⁱ⁾	\$ —
Individuals and Individual Entities ^(b)	141,973	122,606	18,797	99	471	1,450	32	—	(1)
Consumer & Retail	122,789	59,622	53,317	9,445	405	288	2	\$(352) ⁽ⁱ⁾	—
Asset Managers	81,228	68,593	12,630	—	5	8	—	—	(3,900)
Technology, Media & Telecommunications	84,070	49,610	25,540	8,595	325	58	(1)	\$(900) ⁽ⁱ⁾	(12)
Industrials	66,974	36,953	26,957	2,895	169	428	13	\$(586) ⁽ⁱ⁾	(1)
Healthcare	59,014	42,133	15,136	1,686	59	204	(4)	\$(490)	(174)
Banks & Finance Cos	54,684	29,732	23,809	1,138	5	9	9	\$(503) ⁽ⁱ⁾	(810)
Oil & Gas	42,606	20,698	20,222	1,558	128	4	60	\$(564) ⁽ⁱ⁾	—
Utilities	33,203	25,069	7,011	914	209	11	6	\$(367) ⁽ⁱ⁾	(4)
State & Municipal Govt ^(c)	33,216	32,522	586	101	7	74	—	—	(14)
Automotive	34,573	24,606	9,446	399	122	95	(3)	\$(463)	—
Chemicals & Plastics	17,660	11,319	5,817	518	6	7	—	\$(89) ⁽ⁱ⁾	—
Insurance	13,926	9,943	3,887	96	—	—	—	\$(25)	(2,366)
Metals & Mining	16,696	7,848	8,491	294	63	27	7	\$(15)	(4)
Transportation	14,635	6,010	5,983	2,470	172	21	20	\$(100) ⁽ⁱ⁾	(24)
Central Govt	11,317	11,067	250	—	—	—	—	\$(6,961) ⁽ⁱ⁾	(72)
Securities Firms	4,180	2,599	1,578	—	3	—	—	\$(47)	(217)
Financial Markets Infrastructure	4,377	3,987	390	—	—	—	—	—	—
All other ^(d)	111,690	97,537	13,580	205	368	242	(5)	\$(7,064) ⁽ⁱ⁾	(2,503)
Subtotal	\$ 1,103,880	\$ 782,628	\$ 283,069	\$ 35,049	\$ 3,134	\$ 3,320	\$ 142	\$(18,711)	\$ (10,102)
Loans held-for-sale and loans at fair value	39,758								
Receivables from customers	59,645								
Total^(e)	\$ 1,203,283								

- (a) The industry rankings presented in the table as of December 31, 2021, are based on the industry rankings of the corresponding exposures at June 30, 2022, not actual rankings of such exposures at December 31, 2021.
- (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.) noted above, the Firm held \$6.9 billion and \$7.1 billion of trading assets at June 30, 2022, and December 31, 2021, respectively; \$10.1 billion and \$15.9 billion, respectively, of AFS securities; and \$19.2 billion and \$14.0 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 94% and 6% at both June 30, 2022 and December 31, 2021.
- (e) Excludes cash placed with banks of \$658.6 billion and \$729.6 billion, at June 30, 2022, and December 31, 2021, 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) 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.
- (i) Prior-period amounts have been revised to conform with the current presentation.

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

Real Estate

Real Estate exposure was \$165.5 billion as of June 30, 2022, of which \$95.2 billion was multifamily lending as shown in the table below. Criticized exposure decreased by \$913 million from \$5.3 billion at December 31, 2021 to \$4.3 billion at June 30, 2022, driven by client-specific upgrades and net portfolio activity largely offset by client-specific downgrades.

	June 30, 2022				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn ^(d)
Multifamily ^(a)	\$ 95,167	\$ 27	\$ 95,194	83 %	88 %
Office	15,794	20	15,815	76	73
Industrial	14,191	15	14,206	77	67
Services and Non Income Producing	13,356	15	13,371	64	50
Other Income Producing Properties ^(b)	12,743	166	12,909	72	58
Retail	9,768	25	9,792	66	67
Lodging	4,175	13	4,188	3	23
Total Real Estate Exposure^(c)	\$ 165,194	\$ 281	\$ 165,475	76 %	77 %

	December 31, 2021				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn ^(d)
Multifamily ^(a)	\$ 89,032	\$ 122	\$ 89,154	84 %	89 %
Office	16,409	234	16,643	75	71
Industrial	11,546	66	11,612	75	64
Services and Non Income Producing	11,512	24	11,536	63	50
Other Income Producing Properties ^(b)	13,018	498	13,516	77	55
Retail	9,580	106	9,686	61	69
Lodging	2,859	63	2,922	5	33
Total Real Estate Exposure	\$ 153,956	\$ 1,113	\$ 155,069	77 %	77 %

(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 78% secured; unsecured exposure is approximately 76% investment-grade.

(d) Represents drawn exposure as a percentage of credit exposure.

Consumer & Retail

Consumer & Retail exposure was \$119.3 billion as of June 30, 2022, and predominantly included Food and Beverage, Retail, and Business and Consumer Services as shown in the table below. Criticized exposure decreased by \$2.9 billion from \$9.9 billion at December 31, 2021 to \$6.9 billion at June 30, 2022, driven by net portfolio activity and client-specific upgrades partially offset by client-specific downgrades.

June 30, 2022					
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn ^(d)
Food and Beverage	\$ 32,755	\$ 678	\$ 33,433	59 %	36 %
Retail ^(a)	32,530	637	33,167	50	34
Business and Consumer Services	30,855	476	31,331	49	38
Consumer Hard Goods	13,331	146	13,477	55	40
Leisure ^(b)	7,849	62	7,911	20	39
Total Consumer & Retail^(c)	\$ 117,320	\$ 1,999	\$ 119,319	51 %	37 %

December 31, 2021					
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn ^(d)
Food and Beverage	\$ 30,434	\$ 957	\$ 31,391	59 %	33 %
Retail ^(a)	32,872	1,152	34,024	50	31
Business and Consumer Services	32,159	347	32,506	46	33
Consumer Hard Goods	17,035	111	17,146	46	30
Leisure ^(b)	7,620	102	7,722	17	34
Total Consumer & Retail	\$ 120,120	\$ 2,669	\$ 122,789	49 %	32 %

(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 June 30, 2022 approximately 86% of the noninvestment-grade Leisure portfolio is secured.

(c) Consumer & Retail exposure is approximately 56% secured; unsecured exposure is approximately 77% investment-grade.

(d) Represents drawn exposure as a percent of credit exposure.

Oil & Gas

Oil & Gas exposure was \$46.5 billion as of June 30, 2022, including \$27.4 billion of Exploration & Production and Oil field Services as shown in the table below. The increase in derivative receivables reflects market movements related to Oil & Gas prices. Criticized exposure decreased by \$708 million from \$1.7 billion at December 31, 2021 to \$978 million at June 30, 2022, driven by net portfolio activity and client-specific upgrades partially offset by client-specific downgrades.

June 30, 2022					
(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	\$ 16,612	\$ 10,837	\$ 27,449	47 %	19 %
Other Oil & Gas ^(a)	17,510	1,589	19,099	52	23
Total Oil & Gas^(b)	\$ 34,122	\$ 12,426	\$ 46,548	49 %	21 %

December 31, 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	\$ 17,631	\$ 5,452	\$ 23,083	39 %	26 %
Other Oil & Gas ^(a)	18,941	582	19,523	60	26
Total Oil & Gas	\$ 36,572	\$ 6,034	\$ 42,606	49 %	26 %

(a) Other Oil & Gas includes Integrated Oil & Gas companies, Midstream/Oil Pipeline companies and refineries.

(b) Oil & Gas exposure is approximately 48% secured, over half of which is reserve-based lending to the Exploration & Production sub-sector; unsecured exposure is approximately 57% 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 six months ended June 30, 2022 and 2021. Since June 30, 2021, nonaccrual loan exposure decreased \$924 million driven by net portfolio activity, largely in Real Estate and Oil & Gas, partially offset by client-specific downgrades, including downgrades to certain Russia and Russia-associated clients in the first quarter of 2022, some of which paid down their loans in the second quarter of 2022.

Wholesale nonaccrual loan activity

Six month ended June 30, 2022, (in millions)	2022	2021
Beginning balance	\$ 2,445	\$ 4,106
Additions	1,239	1,654
Reductions:		
Paydowns and other	776	1,367
Gross charge-offs	83	129
Returned to performing status	326	605
Sales	9	245
Total reductions	1,194	2,346
Net changes	45	(692)
Ending balance	\$ 2,490	\$ 3,414

The following table presents net charge-offs/recoveries, which are defined as gross charge-offs less recoveries, for the three and six months ended June 30, 2022 and 2021. 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)

(in millions, except ratios)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Loans				
Average loans retained	\$ 577,850	\$ 519,902	\$ 568,673	\$ 517,892
Gross charge-offs	71	47	123	135
Gross recoveries collected	(21)	(37)	(43)	(72)
Net charge-offs/(recoveries)	50	10	80	63
Net charge-off/(recovery) rate	0.03 %	0.01 %	0.03 %	0.02 %

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 and equities and commodities prices. 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 central counterparty clearing house ("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 87% and 88% at June 30, 2022, and December 31, 2021, respectively. Refer to Note 4 for additional information on the Firm's use of collateral agreements and for a further discussion of derivative contracts, counterparties and settlement types.

The fair value of derivative receivables reported on the Consolidated balance sheets were \$81.3 billion and \$57.1 billion at June 30, 2022, and December 31, 2021, respectively. The increase was driven by higher foreign exchange and commodity derivative receivables as a result of market movements. 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 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.

The benefits of these additional collateral amounts for each counterparty are subject to a legally enforceable master netting agreement and limited to the net amount of the derivative receivables for each 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)		June 30, 2022	December 31, 2021
Total, net of cash collateral	\$	81,317	\$ 57,081
Liquid securities and other cash collateral held against derivative receivables		(19,801)	(10,102)
Total, net of liquid securities and other cash collateral	\$	61,516	\$ 46,979
Other collateral held against derivative receivables		(1,692)	(1,544)
Total, net of collateral	\$	59,824	\$ 45,435

Ratings profile of derivative receivables

(in millions, except ratios)	June 30, 2022		December 31, 2021	
	Exposure net of collateral	% of exposure net of collateral	Exposure net of collateral	% of exposure net of collateral
Investment-grade	\$ 43,139	72 %	\$ 30,278	67 %
Noninvestment-grade	16,685	28	15,157 (a)	33
Total	\$ 59,824	100 %	\$ 45,435	100 %

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

(in millions)	Notional amount of protection purchased and sold ^(a)	
	June 30, 2022	December 31, 2021
Credit derivatives and credit-related notes used to manage:		
Loans and lending-related commitments	\$ 4,590	\$ 4,138
Derivative receivables	10,789	14,573 (b)
Credit derivatives and credit-related notes used in credit portfolio management activities	\$ 15,379	\$ 18,711

(a) Amounts are presented net, considering the Firm's net protection purchased or sold with respect to each underlying reference entity or index.

(b) Prior-period amount has 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 2021 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 is reflected in investment securities on the Consolidated balance sheets.

Discussion of changes in the allowance

The allowance for credit losses as of June 30, 2022 was \$20.0 billion, an increase of \$1.3 billion from December 31, 2021, consisting of: \$1.0 billion in wholesale and \$311 million in consumer.

The change in allowance reflects the increased weight placed on the adverse scenarios in the current year, due to the ongoing effects associated with higher inflation, changes in monetary policy, and geopolitical risks, including the war in Ukraine, and a modest deterioration in the Firm's macroeconomic forecast. The increase in the allowance was also driven by loan growth in Card and CB in the second quarter of 2022, and client-specific Russia and Russia-associated downgrades in CIB and AWM in the first quarter of 2022.

The Firm's allowance for credit losses is estimated using a weighted average of five internally developed macroeconomic scenarios. The adverse scenarios incorporate more punitive macroeconomic factors than the central case assumptions provided in the table below, resulting in weighted average U.S. unemployment rates above 4% through the fourth quarter of 2023, and a 1.1% lower U.S. real GDP level exiting the fourth quarter of 2023.

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

	Assumptions at June 30, 2022		
	4Q22	2Q23	4Q23
U.S. unemployment rate ^(a)	3.6 %	3.6 %	3.7 %
YoY growth in U.S. real GDP ^(b)	1.3 %	1.7 %	1.2 %

	Assumptions at December 31, 2021		
	2Q22	4Q22	2Q23
U.S. unemployment rate ^(a)	4.2 %	4.0 %	3.9 %
YoY growth in U.S. real GDP ^(b)	3.1 %	2.8 %	2.1 %

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

(b) As of June 30, 2022, the year over year growth in U.S. real GDP in the forecast horizon of the central scenario is calculated as the percent change in U.S. real GDP levels from the prior year.

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 2021 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 Consumer Credit Portfolio on pages 57-61, Wholesale Credit Portfolio on pages 62-70 and Note 11 for additional information on the consumer and wholesale credit portfolios.

Refer to Critical Accounting Estimates Used by the Firm on pages 83-85 for further information on the allowance for credit losses and related management judgments.

Allowance for credit losses and related information

Six months ended June 30, (in millions, except ratios)	2022				2021			
	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,	\$ 1,765	\$ 10,250	\$ 4,371	\$ 16,386	\$ 3,636	\$ 17,800	\$ 6,892	\$ 28,328
Gross charge-offs	384	1,505	123	2,012	308	2,213	135	2,656
Gross recoveries collected	(311)	(419)	(43)	(773)	(318)	(475)	(72)	(865)
Net charge-offs/(recoveries)	73	1,086	80	1,239	(10)	1,738	63	1,791
Provision for loan losses	237	1,236	1,125	2,598	(1,746)	(3,562)	(1,730)	(7,038)
Other	—	—	5	5	(2)	—	3	1
Ending balance at June 30,	\$ 1,929	\$ 10,400	\$ 5,421	\$ 17,750	\$ 1,898	\$ 12,500	\$ 5,102	\$ 19,500
Allowance for lending-related commitments								
Beginning balance at January 1,	\$ 113	\$ —	\$ 2,148	\$ 2,261	\$ 187	\$ —	\$ 2,222	\$ 2,409
Provision for lending-related commitments	(2)	—	(37)	(39)	(46)	—	634	588
Other	(1)	—	1	—	1	—	—	1
Ending balance at June 30,	\$ 110	\$ —	\$ 2,112	\$ 2,222	\$ 142	\$ —	\$ 2,856	\$ 2,998
Impairment methodology								
Asset-specific ^(a)	\$ (676)	\$ 227	\$ 332	\$ (117)	\$ (557)	\$ 443	\$ 488	\$ 374
Portfolio-based	2,605	10,173	5,089	17,867	2,455	12,057	4,614	19,126
Total allowance for loan losses	\$ 1,929	\$ 10,400	\$ 5,421	\$ 17,750	\$ 1,898	\$ 12,500	\$ 5,102	\$ 19,500
Impairment methodology								
Asset-specific	\$ —	\$ —	\$ 78	\$ 78	\$ —	\$ —	\$ 150	\$ 150
Portfolio-based	110	—	2,034	2,144	142	—	2,706	2,848
Total allowance for lending-related commitments	\$ 110	\$ —	\$ 2,112	\$ 2,222	\$ 142	\$ —	\$ 2,856	\$ 2,998
Total allowance for investment securities	NA	NA	NA	\$ 47	NA	NA	NA	\$ 87
Total allowance for credit losses	\$ 2,039	\$ 10,400	\$ 7,533	\$ 20,019	\$ 2,040	\$ 12,500	\$ 7,958	\$ 22,585
Memo:								
Retained loans, end of period	\$ 302,631	\$ 165,494	\$ 584,265	\$ 1,052,390	\$ 297,731	\$ 141,079	\$ 524,855	\$ 963,665
Retained loans, average	297,566	153,941	568,673	1,020,180	300,430	134,796	517,892	953,118
Credit ratios								
Allowance for loan losses to retained loans	0.64 %	6.28 %	0.93 %	1.69 %	0.64 %	8.86 %	0.97 %	2.02 %
Allowance for loan losses to retained nonaccrual loans ^(b)	46	NM	260	283	37	NM	189	247
Allowance for loan losses to retained nonaccrual loans excluding credit card	46	NM	260	117	37	NM	189	89
Net charge-off/(recovery) rates	0.05	1.42	0.03	0.24	(0.01)	2.60	0.02	0.38

(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 allowance for credit card 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.

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

Allocation of allowance for loan losses

The table below presents a breakdown of the allowance for loan losses by loan class. Refer to Note 11 for further information on loan classes.

(in millions, except ratios)	June 30, 2022		December 31, 2021	
	Allowance for loan losses	Percent of retained loans to total retained loans	Allowance for loan losses	Percent of retained loans to total retained loans
Residential real estate	\$ 974	23 %	\$ 817	22 %
Auto and other	955	6	948	7
Consumer, excluding credit card	1,929	29	1,765	29
Credit card	10,400	16	10,250	15
Total consumer	12,329	44	12,015	45
Secured by real estate	1,531	12	1,495	12
Commercial and industrial	2,691	15	1,881	14
Other	1,199	29	995	29
Total wholesale	5,421	56	4,371	55
Total	\$ 17,750	100 %	\$ 16,386	100 %

INVESTMENT PORTFOLIO RISK MANAGEMENT

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 and asset-liability management objectives. Principal investments are predominantly privately-held 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 predominantly consists of high-quality securities. At June 30, 2022, the Treasury and CIO investment securities portfolio, net of allowance for credit losses, was \$661.9 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 41-42 and Note 9 for further information on the investment securities portfolio and internal risk ratings. Refer to Liquidity Risk Management on pages 50-54 for further information on related liquidity risk. Refer to Market Risk Management on pages 75-79 for further information on the market risk inherent in the portfolio.

Principal investment risk

Principal investments are typically privately-held financial instruments representing ownership interests or other forms of junior capital. 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. These investments are made by dedicated investing businesses or as part of a broader business strategy. The Firm's principal investments are managed by the LOBs and Corporate and are reflected within their respective financial results. 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 table below presents the aggregate carrying values of the principal investment portfolios as June 30, 2022 and December 31, 2021.

(in billions)	June 30, 2022	December 31, 2021
Tax-oriented investments, primarily in alternative energy and affordable housing	\$ 23.7	\$ 23.2
Private equity, various debt and equity instruments, and real assets	9.6 ^(a)	7.3
Total carrying value	\$ 33.3	\$ 30.5

(a) Includes the Firm's 40% ownership stake in C6 Bank.

Refer to page 132 of JPMorgan Chase's 2021 Form 10-K for a discussion of the Firm's Investment Portfolio Risk Management governance and oversight.

MARKET RISK MANAGEMENT

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 133-140 of JPMorgan Chase's 2021 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.

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 149 of JPMorgan Chase's 2021 Form 10-K.

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 149 of JPMorgan Chase's 2021 Form 10-K for information regarding model reviews and approvals.

Refer to page 135 of JPMorgan Chase's 2021 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 138-140 of JPMorgan Chase's 2021 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

(in millions)	Three months ended								
	June 30, 2022			March 31, 2022			June 30, 2021		
	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max
CIB trading VaR by risk type									
Fixed income	\$ 60	\$ 48	\$ 79	\$ 47	\$ 33	\$ 64	\$ 39	\$ 33	\$ 44
Foreign exchange	8	4	13	4	3	7	6	4	9
Equities	11	7	15	12	9	18	18	11	23
Commodities and other	14	12	17	15	10	23	22	12	35
Diversification benefit to CIB trading VaR	(43) ^(a)	NM ^(e)	NM ^(e)	(33) ^(a)	NM ^(e)	NM ^(e)	(44) ^(a)	NM ^(e)	NM ^(e)
CIB trading VaR	50	38	66	45	34	59	41	34	51
Credit Portfolio VaR	17 ^{(b)(c)}	6 ^(b)	31 ^{(b)(c)}	29 ^{(b)(c)}	4 ^(b)	235 ^{(b)(c)}	6	4	9
Diversification benefit to CIB VaR	(15) ^(a)	NM ^(e)	NM ^(e)	(10) ^(a)	NM ^(e)	NM ^(e)	(6) ^(a)	NM ^(e)	NM ^(e)
CIB VaR	52	38	70	64	35	240	41	34	52
CCB VaR	5	4	6	4	2	5	5	4	7
Corporate and other LOB VaR	10 ^(d)	9	11	13	10	16	20 ^(d)	18	22
Diversification benefit to other VaR	(3) ^(a)	NM ^(e)	NM ^(e)	(4) ^(a)	NM ^(e)	NM ^(e)	(5) ^(a)	NM ^(e)	NM ^(e)
Other VaR	12	10	14	13	10	17	20	19	22
Diversification benefit to CIB and other VaR	(10) ^(a)	NM ^(e)	NM ^(e)	(14) ^(a)	NM ^(e)	NM ^(e)	(18) ^(a)	NM ^(e)	NM ^(e)
Total VaR	\$ 54	\$ 41	\$ 71	\$ 63	\$ 34	\$ 242	\$ 43	\$ 35	\$ 52

- (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) In the first quarter of 2022, in line with the Firm's internal model governance, the credit risk component of CVA related to certain counterparties was removed from Credit Portfolio VaR due to the widening of the credit spreads for those counterparties to elevated levels. The related hedges were also removed to maintain consistency. This exposure is now reflected in other sensitivity-based measures.
- (c) During the period ended March 31, 2022, the effects of nickel price increases and the associated volatility in the nickel market resulted in elevated average and maximum Credit Portfolio VaR. During the period ended June 30, 2022, average and maximum Credit Portfolio VaR decreased driven by a reduction in nickel-related exposure, although average and maximum Credit Portfolio VaR remained elevated when compared to the prior year period.
- (d) The decrease in Corporate and other LOB VaR was driven by lower market values for a legacy private equity position which is publicly traded.
- (e) 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

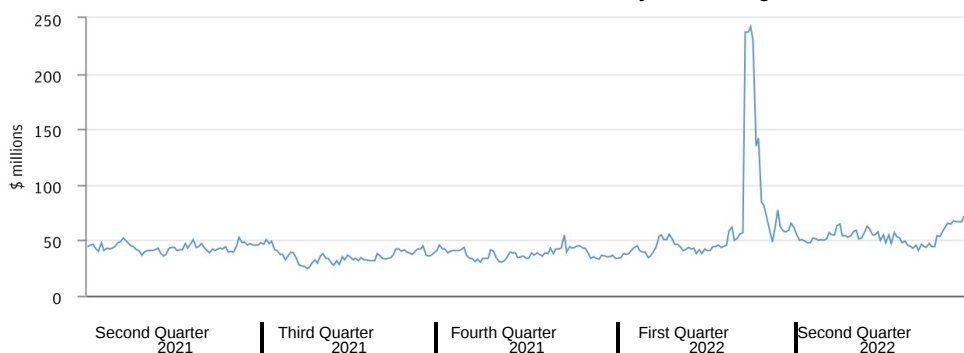
Average total VaR decreased by \$9 million for the three months ended June 30, 2022 when compared with March 31, 2022 due to decreases in Credit Portfolio VaR predominantly driven by changes in nickel-related counterparty exposure, largely offset by increased market volatility impacting Fixed income.

Year over year results

Average total VaR increased by \$11 million for the three months ended June 30, 2022, compared with the same period in the prior year. This increase was largely driven by market volatility impacting Fixed income as well as increases in Credit Portfolio VaR due to the effects of nickel price increases and the associated volatility in the nickel market observed in March 2022.

The following graph presents daily Risk Management VaR for the five trailing quarters. The movement in VaR in March 2022 was driven by changes in nickel-related counterparty exposure in the Firm's Credit portfolio.

Daily Risk Management VaR



VaR backtesting

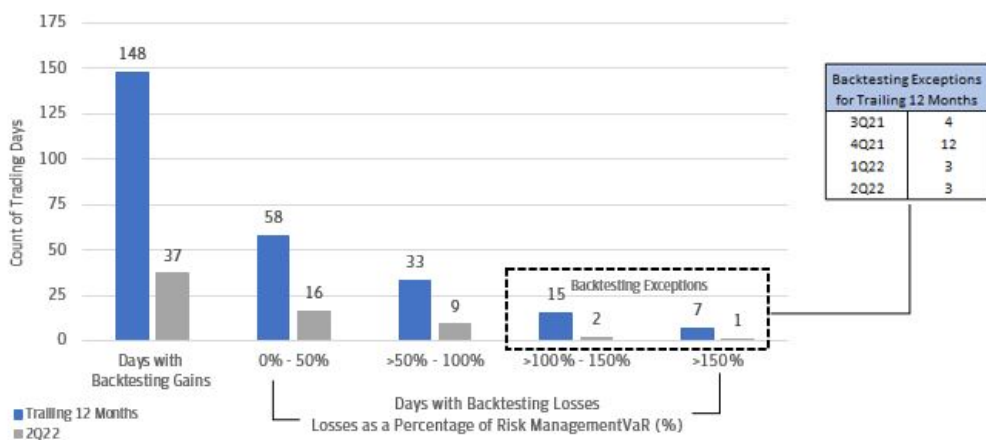
The Firm performs daily VaR model backtesting, which compares the daily Risk Management VaR results with the daily gains and losses that are utilized for VaR backtesting purposes. The gains and losses depicted in the chart below do not reflect the Firm's reported revenue as they exclude select components 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 the backtesting gain or loss on a particular day. The definition of backtesting gains and losses above is consistent with the requirements for backtesting under Basel III capital rules.

A backtesting exception occurs when the daily backtesting loss exceeds the daily Risk Management VaR for the prior day. Under the Firm's Risk Management VaR methodology, assuming current changes in market values are consistent with the historical changes used in the simulation, the Firm would expect to incur VaR backtesting exceptions on average five times every 100 trading days. The number of VaR backtesting exceptions observed can differ from the statistically expected number of backtesting exceptions if the current level of market volatility is materially different from the level of market volatility during the 12 months of historical data used in the VaR calculation.

For the 12 months ended June 30, 2022, the Firm posted backtesting gains on 148 of the 261 days, and observed 22 VaR backtesting exceptions. For the three months ended June 30, 2022, the Firm posted backtesting gains on 37 of the 65 days, and observed three 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 June 30, 2022. 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. 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, issuing debt and the investment securities portfolio. Refer to the table on page 134 of JPMorgan Chase's 2021 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 134 of JPMorgan Chase's 2021 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 or holding short-term rates constant and decreasing long-term rates. 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 excluding 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 used in the baseline and scenarios include certain assumptions relating to the reversal of Quantitative Easing.
- 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 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)	June 30, 2022	December 31, 2021
Parallel shift:		
+100 bps shift in rates	\$ (1.4)	\$ 5.0 (a)
-100 bps shift in rates	(1.0)	NM
Steeper yield curve:		
+100 bps shift in long-term rates	0.5	1.8 (a)
-100 bps shift in short-term rates	(0.4)	NM
Flatter yield curve:		
+100 bps shift in short-term rates	(1.8)	3.2 (a)
-100 bps shift in long-term rates	(0.6)	NM

(a) Given the level of market interest rates, these scenarios were not considered to be meaningful as of December 31, 2021.

The change in the Firm's U.S. dollar sensitivities as of June 30, 2022 compared to December 31, 2021 reflected updates to the Firm's baseline for higher rates as well as the impact of changes in the Firm's balance sheet.

As of June 30, 2022, the Firm's sensitivity to the +100 basis points parallel and short-term shift in rates is primarily the result of a greater impact from liabilities repricing compared to the impact of assets repricing, while a +100 basis points shift in long-term rates and the -100 basis points shift in rates are primarily the result of a greater impact from assets repricing compared to the impact of liabilities repricing.

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

(in billions)	June 30, 2022	December 31, 2021
Parallel shift:		
+100 bps shift in rates	\$ 0.9	\$ 0.8 (a)
-100 bps shift in rates	(0.8)	NM
Steeper yield curve:		
-100 bps shift in short-term rates	(0.8)	NM (a)
Flatter yield curve:		
+100 bps shift in short-term rates	0.8	0.8

(a) Given the level of market interest rates, these scenarios were not considered to be meaningful as of December 31, 2021.

The results of the non-U.S. dollar interest rate scenario involving a steeper/flatter yield curve with long-term rates increasing/decreasing by 100 basis points and short-term rates staying at current levels were not material to the Firm's earnings-at-risk at June 30, 2022 and December 31, 2021.

Other sensitivity-based measures

The Firm quantifies the market risk of certain debt and equity and credit and funding-related exposures 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 140 of JPMorgan Chase's 2021 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 June 30, 2022 and December 31, 2021, 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	June 30, 2022	December 31, 2021
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	\$ (50)	\$ (69)
Other debt and equity	Consists of certain real estate-related fair value option elected loans, privately held equity and other investments held at fair value ^(e)	10% decline in market value	(1,098)	(971)
Credit- and funding-related exposures				
Non-USD LTD cross-currency basis	Represents the basis risk on derivatives used to hedge the foreign exchange risk on the non-USD LTD ^(b)	1 basis point parallel tightening of cross currency basis	(14)	(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	(5)	15
Derivatives – funding spread risk	Impact of changes in the spread related to derivatives FVA ^(c)	1 basis point parallel increase in spread	(5)	(7)
CVA - counterparty credit risk ^(b)	Credit risk component of CVA and associated hedges	10% credit spread widening	(1)	N/A
Fair value option elected liabilities – funding spread risk	Impact of changes in the spread related to fair value option elected liabilities DVA ^(e)	1 basis point parallel increase in spread	44	41
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	—	(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	—	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) In the first quarter of 2022, in line with the Firm's internal model governance, the credit risk component of CVA related to certain counterparties was removed from Credit Portfolio VaR due to the widening of the credit spreads for those counterparties to elevated levels. The related hedges were also removed to maintain consistency. This exposure is now reflected in other sensitivity-based measures.

(c) Impact recognized through net revenue.

(d) Impact recognized through noninterest expense.

(e) Impact recognized through OCI.

COUNTRY RISK MANAGEMENT

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.

Refer to pages 141-142 of JPMorgan Chase's 2021 Form 10-K for a further discussion of the Firm's country risk management.

Sources and measurement

The Firm is exposed to country risk through its lending and deposits, investing, and market-making activities, whether cross-border or locally funded. Country exposure includes activity with both government and private-sector entities in a country.

Under the Firm's internal country risk management approach, attribution of exposure to an individual country is based on the country where the largest proportion of the assets of the counterparty, issuer, obligor or guarantor are located or where the largest proportion of its revenue is derived, which may be different than the domicile (i.e. legal residence) or country of incorporation.

Individual country exposures reflect an aggregation of the Firm's risk to an immediate default, with zero recovery, of the counterparties, issuers, obligors or guarantors attributed to that country. Activities which result in contingent or indirect exposure to a country are not included in the country exposure measure (for example, providing clearing services or secondary exposure to collateral on securities financing receivables).

Assumptions are sometimes required in determining the measurement and allocation of country exposure, particularly in the case of certain non-linear or index products, or where the nature of the counterparty, issuer, obligor or guarantor is not suitable for attribution to an individual country. The use of different measurement approaches or assumptions could affect the amount of reported country exposure.

Under the Firm's internal country risk measurement framework:

- Lending exposures are measured at the total committed amount (funded and unfunded), net of the allowance for credit losses and eligible cash and marketable securities collateral received
- Deposits are measured as the cash balances placed with central and commercial banks
- Securities financing exposures are measured at their receivable balance, net of eligible collateral received
- Debt and equity securities are measured at the fair value of all positions, including both long and short positions
- Counterparty exposure on derivative receivables is measured at the derivative's fair value, net of the fair value of the eligible collateral received
- Credit derivatives exposure is measured at the net notional amount of protection purchased or sold for the same underlying reference entity, inclusive of the fair value of the derivative receivable or payable; reflecting the manner in which the Firm manages these exposures

The Firm's internal country risk reporting differs from the reporting provided under the FFIEC bank regulatory requirements.

Risk Reporting

The following table presents the Firm's top 20 exposures by country (excluding the U.S.) as of June 30, 2022 and their comparative exposures as of December 31, 2021. 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 Germany and the decrease in exposure to the U.K. were primarily due to changes in cash placements with the central banks of those countries driven by balance sheet and liquidity management activities.

The decrease in exposure to Australia was driven by a reduction in cash placed with the central bank of Australia, largely due to client-driven market-making activities and lower client cash deposits following recent interest rate increases.

As of June 30, 2022, exposure to Russia, based on the Firm's internal country risk measurement framework, was approximately \$600 million.

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

(in billions)	June 30, 2022				December 31, 2021 ^(e)	
	Lending and deposits ^(b)	Trading and investing ^(c)	Other ^(d)	Total exposure	Total exposure	
Germany	\$ 95.0	\$ (0.2)	\$ 0.4	\$ 95.2	\$	61.7
United Kingdom	63.1	9.8	2.3	75.2		96.4
Japan	39.1	9.7	0.3	49.1		45.5
Australia	12.0	7.2	0.1	19.3		39.1
France	12.3	0.8	5.8	18.9		14.0
Switzerland	10.7	1.3	5.1	17.1		20.9
China	9.8	6.4	0.8	17.0		18.6
Canada	13.9	2.3	0.2	16.4		16.9
Brazil	8.1	8.2	—	16.3		12.0
Singapore	7.3	3.6	0.7	11.6		12.3
Luxembourg	10.1	1.3	—	11.4		11.5
Spain	9.8	0.4	—	10.2		10.1
Netherlands	9.4	—	0.6	10.0		6.8
Belgium	8.8	1.2	—	10.0		6.8
India	5.3	3.8	0.2	9.3		14.7
South Korea	4.8	4.1	0.3	9.2		8.7
Saudi Arabia	6.4	2.6	—	9.0		9.1
Hong Kong SAR	3.5	1.5	0.5	5.5		5.9
Ireland	4.2	0.9	—	5.1		2.7
Mexico	4.6	0.5	—	5.1		4.9

(a) Country exposures presented in the table reflect 88% and 87% of total Firmwide non-U.S. exposure, where exposure is attributed to an individual country, at June 30, 2022 and December 31, 2021, 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 risk 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, 2021, are based on the country rankings of the corresponding exposures at June 30, 2022, not actual rankings of such exposures at December 31, 2021.

OPERATIONAL RISK MANAGEMENT

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 disruptions (including those caused by extraordinary events beyond the Firm's control), cyberattacks, inappropriate employee behavior, failure to comply with applicable laws, rules and regulations or failure of vendors or other third party providers 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 143-149 of JPMorgan Chase's 2021 Form 10-K for a discussion of the Firm's Operational Risk Management. Details on other select examples of operational risks are provided below.

In response to the war in Ukraine, numerous sanctions have been imposed on Russia and Russia-associated entities and individuals by various governments around the world, including the authorities in the U.S., the U.K. and the EU. These sanctions are complex and continue to evolve. The Firm continues to face increased operational risk associated with interpreting and maintaining these complex compliance programs. To manage this increased risk, the Firm implemented additional controls reasonably designed to mitigate the risk of non-compliance and to prevent dealing with sanctioned persons or in property subject to sanctions, as well as to block or restrict payments as required by the applicable regulations.

Business and technology resiliency risk

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, failure of a third party to provide expected services, cyberattacks and terrorism. The Firmwide Business Resiliency Program is designed to enable the Firm to prepare for, adapt to, withstand and recover from business disruptions including occurrence of an extraordinary event beyond its control that may impact critical business functions and supporting assets (i.e., staff, technology, facilities and third parties). The program includes governance, awareness training, planning and testing of recovery strategies, as well as strategic and tactical initiatives to identify, assess, and manage business interruption and public safety risks.

Cybersecurity Risk

The Firm continues to face increased risk of cyber attacks due to potential retaliation for the sanctions imposed as a result of the war in Ukraine. The Firm implemented additional precautionary measures and controls reasonably designed to address this increased risk, such as enhanced threat monitoring. There can be no assurance that the measures taken by the Firm to protect against cybersecurity breaches will provide absolute security against cyber attacks.

CRITICAL ACCOUNTING ESTIMATES USED BY THE FIRM

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.

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 2021 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 71-73 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.

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 71 and in Note 12, the Firm's relative adverse scenario assumes an elevated U.S. unemployment rate, averaging approximately 2.2% higher over the eight-quarter forecast, with a peak difference of approximately 3.7% in the second quarter of 2023; lower U.S. real GDP with a slower recovery, remaining nearly 2.9% lower at the end of the eight-quarter forecast, with a peak difference of approximately 5.8% in the second quarter of 2023; and lower national HPI with a peak difference of 17.6% in the first quarter of 2024.

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

- The allowance as of June 30, 2022, reflects credit losses beyond those estimated under the central scenario due to the weight placed on the adverse scenarios.
- 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.

- Expectations of future changes in portfolio composition and borrower behavior can significantly affect the allowance for credit losses.

To demonstrate the sensitivity of credit loss estimates to macroeconomic forecasts as of June 30, 2022, the Firm compared the modeled estimates under its relative adverse scenario to its central scenario. Without considering offsetting or correlated effects in other qualitative components of the Firm's allowance for credit losses, the comparison between these two scenarios for the exposures below reflect the following differences:

- An increase of approximately \$600 million for residential real estate loans and lending-related commitments
- An increase of approximately \$2.0 billion for credit card loans
- An increase of approximately \$3.0 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 June 30, 2022.

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 fair value hierarchy. Refer to Note 2 for further information.

June 30, 2022 (in billions, except ratios)	Total assets at fair value	Total level 3 assets
Federal funds sold and securities purchased under resale agreements	\$ 319.2	\$ —
Securities borrowed	74.0	—
Trading assets:		
Trading—debt and equity instruments	384.2	3.3
Derivative receivables ^(a)	81.3	8.9
Total trading assets	465.5	12.2
AFS securities	222.1	0.2
Loans	47.1	2.0
MSRs	7.4	7.4
Other	18.1	0.5
Total assets measured at fair value on a recurring basis	1,153.4	22.3
Total assets measured at fair value on a nonrecurring basis	3.3	1.7
Total assets measured at fair value	\$ 1,156.7	\$ 24.0
Total Firm assets	\$ 3,841.3	
Level 3 assets at fair value as a percentage of total Firm assets ^(a)		0.6 %
Level 3 assets at fair value as a percentage of total Firm assets at fair value ^(a)		2.1 %

- (a) For purposes of the table above, the derivative receivables total reflects the impact of netting adjustments; however, the \$8.9 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 fair value 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 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.

Credit card rewards liability

The credit card rewards liability was \$10.6 billion and \$9.8 billion at June 30, 2022 and December 31, 2021, respectively, and is recorded in accounts payable and other liabilities on the Consolidated balance sheets. Refer to page 152 of JPMorgan Chase's 2021 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 152-153 of JPMorgan Chase's 2021 Form 10-K for a description of the significant assumptions, judgments and interpretations associated with the accounting for income taxes.

Goodwill impairment

Management applies significant judgment when testing goodwill for impairment. Refer to Goodwill impairment on page 152 of JPMorgan Chase's 2021 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 June 30, 2022.

Litigation reserves

Refer to Note 24 of this Form 10-Q, and Note 30 of JPMorgan Chase's 2021 Form 10-K for a description of the significant estimates and judgments associated with establishing litigation reserves.

ACCOUNTING AND REPORTING DEVELOPMENTS

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

Standard	Summary of guidance	Effects on financial statements
Reference Rate Reform <i>Issued March 2020 and updated January 2021</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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.

FASB Standards Issued but not yet Adopted

Standard	Summary of guidance	Effects on financial statements
Derivatives and Hedging: Fair Value Hedging – Portfolio Layer Method <i>Issued March 2022</i>	<ul style="list-style-type: none"> Expands the current ability to hedge a portfolio of prepayable assets to allow more of the portfolio to be hedged. Non-prepayable assets can also be included in the same portfolio, thus increasing the size of the portfolio and the amount available to be hedged. Clarifies the types of derivatives that can be used as hedges, and the balance sheet presentation and updates the disclosure guidance for the hedge accounting adjustments. 	<ul style="list-style-type: none"> Required effective date: January 1, 2023. ^(a) The Firm is currently evaluating the potential impact on the Consolidated Financial Statements, as well as the Firm’s planned date of adoption.
Financial Instruments – Credit Losses: Troubled Debt Restructurings and Vintage Disclosures <i>Issued March 2022</i>	<ul style="list-style-type: none"> Eliminates existing accounting and disclosure requirements for Troubled Debt Restructurings, including the requirement to measure the allowance using a discounted cash flow methodology. Requires disclosure of loan modifications for borrowers experiencing financial difficulty involving principal forgiveness, interest rate reduction, other-than-insignificant payment delay, term extension or a combination of these modifications. Requires disclosure of current period loan charge-off information by origination year. May be adopted prospectively, or by using a modified retrospective method wherein the effect of adoption is reflected as an adjustment to retained earnings at the effective date. 	<ul style="list-style-type: none"> Required effective date: January 1, 2023. ^(a) The Firm is currently evaluating the potential impact on the Consolidated Financial Statements. The Firm plans to adopt the new guidance on January 1, 2023.

(a) Early adoption is permitted.

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:

- Local, regional and global business, economic and political conditions and geopolitical events, including the war in Ukraine;
- Changes in laws, rules 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, rules 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;
- 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, epidemics or pandemics, an outbreak or escalation of hostilities or other geopolitical instabilities, the effects of climate change or extraordinary events beyond the Firm’s control, 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 cyberattacks and other attempts by unauthorized parties to access information of the Firm or its customers or to disrupt the Firm’s systems;
- Economic, financial, reputational and other impacts of the COVID-19 pandemic; and
- The other risks and uncertainties detailed in Part I, Item 1A: Risk Factors in JPMorgan Chase’s 2021 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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Revenue				
Investment banking fees	\$ 1,586	\$ 3,470	\$ 3,594	\$ 6,440
Principal transactions	4,990	4,076	10,095	10,576
Lending- and deposit-related fees	1,873	1,760	3,712	3,447
Asset management, administration and commissions	5,240	5,194	10,602	10,223
Investment securities losses	(153)	(155)	(547)	(141)
Mortgage fees and related income	378	551	838	1,255
Card income	1,133	1,647	2,108	2,997
Other income	540	1,195	2,030	2,318
Noninterest revenue	15,587	17,738	32,432	37,115
Interest income	18,646	14,094	34,142	28,365
Interest expense	3,518	1,353	5,142	2,735
Net interest income	15,128	12,741	29,000	25,630
Total net revenue	30,715	30,479	61,432	62,745
Provision for credit losses	1,101	(2,285)	2,564	(6,441)
Noninterest expense				
Compensation expense	10,301	9,814	21,088	20,415
Occupancy expense	1,129	1,090	2,263	2,205
Technology, communications and equipment expense	2,376	2,488	4,736	5,007
Professional and outside services	2,469	2,385	5,041	4,588
Marketing	881	626	1,801	1,377
Other expense	1,593	1,264	3,011	2,800
Total noninterest expense	18,749	17,667	37,940	36,392
Income before income tax expense	10,865	15,097	20,928	32,794
Income tax expense	2,216	3,149	3,997	6,546
Net income	\$ 8,649	\$ 11,948	\$ 16,931	\$ 26,248
Net income applicable to common stockholders	\$ 8,195	\$ 11,496	\$ 16,039	\$ 25,346
Net income per common share data				
Basic earnings per share	\$ 2.77	\$ 3.79	\$ 5.40	\$ 8.30
Diluted earnings per share	2.76	3.78	5.39	8.28
Weighted-average basic shares	2,962.2	3,036.6	2,969.6	3,054.9
Weighted-average diluted shares	2,966.3	3,041.9	2,973.7	3,060.3

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Net income	\$ 8,649	\$ 11,948	\$ 16,931	\$ 26,248
Other comprehensive income/(loss), after-tax				
Unrealized gains/(losses) on investment securities	(4,031)	674	(11,484)	(3,665)
Translation adjustments, net of hedges	(679)	64	(741)	(186)
Fair value hedges	51	(23)	161	(51)
Cash flow hedges	(1,348)	591	(4,139)	(1,658)
Defined benefit pension and OPEB plans	20	9	87	77
DVA on fair value option elected liabilities	1,185	214	1,831	67
Total other comprehensive income/(loss), after-tax	(4,802)	1,529	(14,285)	(5,416)
Comprehensive income	\$ 3,847	\$ 13,477	\$ 2,646	\$ 20,832

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)	June 30, 2022	December 31, 2021
Assets		
Cash and due from banks	\$ 27,215	\$ 26,438
Deposits with banks	642,045	714,396
Federal funds sold and securities purchased under resale agreements (included \$319,188 and \$252,720 at fair value)	322,156	261,698
Securities borrowed (included \$73,995 and \$81,463 at fair value)	202,393	206,071
Trading assets (included assets pledged of \$98,070 and \$102,710)	465,577	433,575
Available-for-sale securities (amortized cost of \$231,904 and \$308,254, net of allowance for credit losses; included assets pledged of \$15,162 and \$18,268)	222,069	308,525
Held-to-maturity securities (net of allowance for credit losses)	441,649	363,707
Investment securities, net of allowance for credit losses	663,718	672,232
Loans (included \$47,056 and \$58,820 at fair value)	1,104,155	1,077,714
Allowance for loan losses	(17,750)	(16,386)
Loans, net of allowance for loan losses	1,086,405	1,061,328
Accrued interest and accounts receivable	145,442	102,570
Premises and equipment	26,770	27,070
Goodwill, MSRs and other intangible assets	59,360	56,691
Other assets (included \$18,940 and \$14,753 at fair value and assets pledged of \$10,267 and \$5,298)	200,233	181,498
Total assets^(a)	\$ 3,841,314	\$ 3,743,567
Liabilities		
Deposits (included \$13,270 and \$11,333 at fair value)	\$ 2,471,544	\$ 2,462,303
Federal funds purchased and securities loaned or sold under repurchase agreements (included \$156,340 and \$126,435 at fair value)	222,719	194,340
Short-term borrowings (included \$16,879 and \$20,015 at fair value)	58,422	53,594
Trading liabilities	190,308	164,693
Accounts payable and other liabilities (included \$9,753 and \$5,651 at fair value)	313,326	262,755
Beneficial interests issued by consolidated VIEs (included \$5 and \$12 at fair value)	10,640	10,750
Long-term debt (included \$66,062 and \$74,934 at fair value)	288,212	301,005
Total liabilities^(a)	3,555,171	3,449,440
Commitments and contingencies (refer to Notes 22, 23 and 24)		
Stockholders' equity		
Preferred stock (\$1 par value; authorized 200,000,000 shares; issued 3,283,750 and 3,483,750 shares)	32,838	34,838
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	88,614	88,415
Retained earnings	282,445	272,268
Accumulated other comprehensive income/(loss)	(14,369)	(84)
Treasury stock, at cost (1,172,361,505 and 1,160,784,750 shares)	(107,490)	(105,415)
Total stockholders' equity	286,143	294,127
Total liabilities and stockholders' equity	\$ 3,841,314	\$ 3,743,567

(a) The following table presents information on assets and liabilities related to VIEs that are consolidated by the Firm at June 30, 2022, and December 31, 2021. 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)	June 30, 2022	December 31, 2021
Assets		
Trading assets	\$ 2,012	\$ 2,010
Loans	31,677	33,024
All other assets	567	490
Total assets	\$ 34,256	\$ 35,524
Liabilities		
Beneficial interests issued by consolidated VIEs	\$ 10,640	\$ 10,750
All other liabilities	267	245
Total liabilities	\$ 10,907	\$ 10,995

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)

(in millions, except per share data)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Preferred stock				
Balance at the beginning of the period	\$ 32,838	\$ 31,563	\$ 34,838	\$ 30,063
Issuance	—	3,850	—	5,350
Redemption	—	(2,575)	(2,000)	(2,575)
Balance at June 30	32,838	32,838	32,838	32,838
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	88,260	88,005	88,415	88,394
Shares issued and commitments to issue common stock for employee share-based compensation awards, and related tax effects	354	229	199	(134)
Other	—	(40)	—	(66)
Balance at June 30	88,614	88,194	88,614	88,194
Retained earnings				
Balance at the beginning of the period	277,177	248,151	272,268	236,990
Net income	8,649	11,948	16,931	26,248
Dividends declared:				
Preferred stock	(410)	(393)	(807)	(772)
Common stock (\$1.00 and \$0.90 per share and \$2.00 and \$1.80 per share, respectively)	(2,971)	(2,723)	(5,947)	(5,483)
Balance at June 30	282,445	256,983	282,445	256,983
Accumulated other comprehensive income/(loss)				
Balance at the beginning of the period	(9,567)	1,041	(84)	7,986
Other comprehensive income/(loss), after-tax	(4,802)	1,529	(14,285)	(5,416)
Balance at June 30	(14,369)	2,570	(14,369)	2,570
Treasury stock, at cost				
Balance at the beginning of the period	(106,914)	(92,151)	(105,415)	(88,184)
Repurchase	(622)	(6,201)	(3,122)	(11,200)
Reissuance	46	48	1,047	1,080
Balance at June 30	(107,490)	(98,304)	(107,490)	(98,304)
Total stockholders' equity	\$ 286,143	\$ 286,386	\$ 286,143	\$ 286,386

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)	Six months ended June 30,	
	2022	2021
Operating activities		
Net income	\$ 16,931	\$ 26,248
Adjustments to reconcile net income to net cash used in operating activities:		
Provision for credit losses	2,564	(6,441)
Depreciation and amortization	3,609	4,073
Deferred tax (benefit)/expense	(2,086)	1,027
Other	2,172	1,788
Originations and purchases of loans held-for-sale	(102,857)	(184,866)
Proceeds from sales, securitizations and paydowns of loans held-for-sale	116,764	161,030
Net change in:		
Trading assets	(53,816)	(2,004)
Securities borrowed	3,379	(25,838)
Accrued interest and accounts receivable	(43,051)	(34,929)
Other assets	(14,930)	2,709
Trading liabilities	23,646	(3,521)
Accounts payable and other liabilities	70,976	30,772
Other operating adjustments	800	(390)
Net cash provided by/(used in) operating activities	24,101	(30,342)
Investing activities		
Net change in:		
Federal funds sold and securities purchased under resale agreements	(60,833)	35,283
Held-to-maturity securities:		
Proceeds from paydowns and maturities	20,952	26,224
Purchases	(27,490)	(63,072)
Available-for-sale securities:		
Proceeds from paydowns and maturities	21,913	28,727
Proceeds from sales	36,217	125,192
Purchases	(66,200)	(109,944)
Proceeds from sales and securitizations of loans held-for-investment	22,185	16,165
Other changes in loans, net	(67,802)	(21,980)
All other investing activities, net	(4,753)	(3,506)
Net cash provided by/(used in) investing activities	(125,811)	33,089
Financing activities		
Net change in:		
Deposits	5,841	138,578
Federal funds purchased and securities loaned or sold under repurchase agreements	28,586	30,260
Short-term borrowings	5,622	5,862
Beneficial interests issued by consolidated VIEs	552	(674)
Proceeds from long-term borrowings	45,873	55,767
Payments of long-term borrowings	(25,991)	(33,464)
Proceeds from issuance of preferred stock	—	5,350
Redemption of preferred stock	(2,000)	(2,575)
Treasury stock repurchased	(3,162)	(11,000)
Dividends paid	(6,774)	(6,314)
All other financing activities, net	423	(822)
Net cash provided by financing activities	48,970	180,968
Effect of exchange rate changes on cash and due from banks and deposits with banks	(18,834)	(5,903)
Net increase/(decrease) in cash and due from banks and deposits with banks	(71,574)	177,812
Cash and due from banks and deposits with banks at the beginning of the period	740,834	527,609
Cash and due from banks and deposits with banks at the end of the period	\$ 669,260	\$ 705,421
Cash interest paid	\$ 4,457	\$ 2,461
Cash income taxes paid, net	3,100	13,716

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 2021 Form 10-K.

Certain amounts reported in prior periods have been reclassified to conform with the current presentation.

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 2021 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 where it has determined that the specified conditions are met. Refer to Note 1 of JPMorgan Chase’s 2021 Form 10-K for further information on offsetting assets and liabilities.

Note 2 – Fair value measurement

Refer to Note 2 of JPMorgan Chase's 2021 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 June 30, 2022, and December 31, 2021, by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

June 30, 2022 (in millions)	Fair value hierarchy			Derivative netting adjustments ⁽¹⁾	Total fair value
	Level 1	Level 2	Level 3		
Federal funds sold and securities purchased under resale agreements	\$ —	\$ 319,187	\$ 1	\$ —	\$ 319,188
Securities borrowed	—	73,995	—	—	73,995
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. GSEs and government agencies ⁽⁴⁾	—	50,166	803	—	50,969
Residential – nonagency	—	2,191	14	—	2,205
Commercial – nonagency	—	1,646	10	—	1,656
Total mortgage-backed securities	—	54,003	827	—	54,830
U.S. Treasury, GSEs and government agencies ⁽⁴⁾	64,403	10,013	—	—	74,416
Obligations of U.S. states and municipalities	—	6,938	7	—	6,945
Certificates of deposit, bankers' acceptances and commercial paper	—	677	—	—	677
Non-U.S. government debt securities	33,142	47,976	205	—	81,323
Corporate debt securities	—	25,943	574	—	26,517
Loans	—	6,900	898	—	7,798
Asset-backed securities	—	2,711	20	—	2,731
Total debt instruments	97,545	155,161	2,531	—	255,237
Equity securities	84,045	2,429	661	—	87,135
Physical commodities ⁽⁵⁾	3,413	19,480	2	—	22,895
Other	—	18,861	87	—	18,948
Total debt and equity instruments⁽²⁾	185,003	195,931	3,281	—	384,215
Derivative receivables:					
Interest rate	3,682	246,878	2,584	(231,214)	21,930
Credit	—	12,847	731	(11,971)	1,607
Foreign exchange	254	260,425	1,175	(233,688)	28,166
Equity	—	72,297	3,884	(66,004)	10,177
Commodity	—	48,168	581	(29,312)	19,437
Total derivative receivables	3,936	640,615	8,955	(572,189)	81,317
Total trading assets⁽³⁾	188,939	836,546	12,236	(572,189)	465,532
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. GSEs and government agencies ⁽⁴⁾	—	63,689	—	—	63,689
Residential – nonagency	—	5,475	—	—	5,475
Commercial – nonagency	—	2,153	—	—	2,153
Total mortgage-backed securities	—	71,317	—	—	71,317
U.S. Treasury and government agencies	109,984	—	—	—	109,984
Obligations of U.S. states and municipalities	—	10,133	—	—	10,133
Non-U.S. government debt securities	6,597	9,211	—	—	15,808
Corporate debt securities	—	133	186	—	319
Asset-backed securities:					
Collateralized loan obligations	—	10,972	—	—	10,972
Other	—	3,536	—	—	3,536
Total available-for-sale securities	116,581	105,302	186	—	222,069
Loans ⁽⁴⁾	—	45,036	2,020	—	47,056
Mortgage servicing rights	—	—	7,439	—	7,439
Other assets ⁽⁴⁾	9,969	7,752	408	—	18,129
Total assets measured at fair value on a recurring basis	\$ 315,489	\$ 1,387,818	\$ 22,290	\$ (572,189)	\$ 1,153,408
Deposits	\$ —	\$ 11,238	\$ 2,032	\$ —	\$ 13,270
Federal funds purchased and securities loaned or sold under repurchase agreements	—	156,340	—	—	156,340
Short-term borrowings	—	14,778	2,101	—	16,879
Trading liabilities:					
Debt and equity instruments ⁽²⁾	104,871	32,964	56	—	137,891
Derivative payables:					
Interest rate	2,706	232,342	2,164	(225,687)	11,525
Credit	—	10,841	482	(10,433)	890
Foreign exchange	240	258,116	930	(240,045)	19,241
Equity	—	71,601	5,118	(66,555)	10,164
Commodity	—	42,434	555	(32,392)	10,597
Total derivative payables	2,946	615,334	9,249	(575,112)	52,417
Total trading liabilities	107,817	648,298	9,305	(575,112)	190,308
Accounts payable and other liabilities	6,752	2,928	73	—	9,753
Beneficial interests issued by consolidated VIEs	—	5	—	—	5
Long-term debt	—	42,985	23,077	—	66,062
Total liabilities measured at fair value on a recurring basis	\$ 114,569	\$ 876,572	\$ 36,588	\$ (575,112)	\$ 452,617

December 31, 2021 (in millions)	Fair value hierarchy			Derivative netting adjustments ^(b)	Total fair value
	Level 1	Level 2	Level 3		
Federal funds sold and securities purchased under resale agreements	\$ —	\$ 252,720	\$ —	\$ —	\$ 252,720
Securities borrowed	—	81,463	—	—	81,463
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. GSEs and government agencies ^(a)	—	38,944	265	—	39,209
Residential – nonagency	—	2,358	28	—	2,386
Commercial – nonagency	—	1,506	10	—	1,516
Total mortgage-backed securities	—	42,808	303	—	43,111
U.S. Treasury, GSEs and government agencies ^(a)	68,527	9,181	—	—	77,708
Obligations of U.S. states and municipalities	—	7,068	7	—	7,075
Certificates of deposit, bankers' acceptances and commercial paper	—	852	—	—	852
Non-U.S. government debt securities	26,982	44,581	81	—	71,644
Corporate debt securities	—	24,491	332	—	24,823
Loans	—	7,366	708	—	8,074
Asset-backed securities	—	2,668	26	—	2,694
Total debt instruments	95,509	139,015	1,457	—	235,981
Equity securities	86,904	1,741	662	—	89,307
Physical commodities ^(b)	5,357	20,788	—	—	26,145
Other	—	24,850	160	—	25,010
Total debt and equity instruments^(c)	187,770	186,394	2,279	—	376,443
Derivative receivables:					
Interest rate	1,072	267,493	2,020	(248,611)	21,974
Credit	—	9,321	518	(8,808)	1,031
Foreign exchange	134	168,590	855	(156,954)	12,625
Equity	—	65,139	3,492	(58,650)	9,981
Commodity	—	26,232	421	(15,183)	11,470
Total derivative receivables	1,206	536,775	7,306	(488,206)	57,081
Total trading assets^(d)	188,976	723,169	9,585	(488,206)	433,524
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. GSEs and government agencies ^(a)	4	72,539	—	—	72,543
Residential – nonagency	—	6,070	—	—	6,070
Commercial – nonagency	—	4,949	—	—	4,949
Total mortgage-backed securities	4	83,558	—	—	83,562
U.S. Treasury and government agencies	177,463	—	—	—	177,463
Obligations of U.S. states and municipalities	—	15,860	—	—	15,860
Non-U.S. government debt securities	5,430	10,779	—	—	16,209
Corporate debt securities	—	160	161	—	321
Asset-backed securities:					
Collateralized loan obligations	—	9,662	—	—	9,662
Other	—	5,448	—	—	5,448
Total available-for-sale securities	182,897	125,467	161	—	308,525
Loans ^(e)	—	56,887	1,933	—	58,820
Mortgage servicing rights	—	—	5,494	—	5,494
Other assets ^(f)	9,558	4,139	306	—	14,003
Total assets measured at fair value on a recurring basis	\$ 381,431	\$ 1,243,845	\$ 17,479	\$ (488,206)	\$ 1,154,549
Deposits	\$ —	\$ 9,016	\$ 2,317	\$ —	\$ 11,333
Federal funds purchased and securities loaned or sold under repurchase agreements	—	126,435	—	—	126,435
Short-term borrowings	—	17,534	2,481	—	20,015
Trading liabilities:					
Debt and equity instruments ^(c)	87,831	26,716	30	—	114,577
Derivative payables:					
Interest rate	981	237,714	2,036	(232,537)	8,194
Credit	—	10,468	444	(10,032)	880
Foreign exchange	123	174,349	1,274	(161,649)	14,097
Equity	—	72,609	7,118	(62,494)	17,233
Commodity	—	26,600	1,328	(18,216)	9,712
Total derivative payables	1,104	521,740	12,200	(484,928)	50,116
Total trading liabilities	88,935	548,456	12,230	(484,928)	164,693
Accounts payable and other liabilities	5,115	467	69	—	5,651
Beneficial interests issued by consolidated VIEs	—	12	—	—	12
Long-term debt	—	50,560	24,374	—	74,934
Total liabilities measured at fair value on a recurring basis	\$ 94,050	\$ 752,480	\$ 41,471	\$ (484,928)	\$ 403,073

(a) At June 30, 2022, and December 31, 2021, included total U.S. GSE obligations of \$70.0 billion and \$73.9 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 June 30, 2022, and December 31, 2021, the fair values of these investments, which include certain hedge funds, private equity funds, real estate and other funds, were \$856 million and \$901 million, respectively. Included in these balances at June 30, 2022, and December 31, 2021, were trading assets of \$45 million and \$51 million, respectively, and other assets of \$811 million and \$750 million, respectively.
- (e) At June 30, 2022, and December 31, 2021, included \$13.5 billion and \$26.2 billion, respectively, of residential first-lien mortgages, and \$7.7 billion and \$8.2 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 \$4.4 billion and \$13.6 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.

Level 3 valuations

Refer to Note 2 of JPMorgan Chase's 2021 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)

June 30, 2022

Product/Instrument	Fair value (in millions)	Principal valuation technique	Unobservable inputs ^(d)	Range of input values		Average ^(d)	
Residential mortgage-backed securities and loans ^(b)	\$ 1,731	Discounted cash flows	Yield	3%	–	18%	6%
			Prepayment speed	2%	–	12%	9%
			Conditional default rate	0%	–	5%	0%
			Loss severity	0%	–	110%	3%
Commercial mortgage-backed securities and loans ^(c)	418	Market comparables	Price	\$0	–	\$103	\$87
Corporate debt securities	760	Market comparables	Price	\$0	–	\$243	\$94
Loans ^(d)	1,596	Market comparables	Price	\$0	–	\$356	\$89
Non-U.S. government debt securities	205	Market comparables	Price	\$6	–	\$109	\$94
Net interest rate derivatives	415	Option pricing	Interest rate volatility	22 bps	–	836 bps	141 bps
			Interest rate spread volatility	11 bps	–	23 bps	15 bps
			Interest rate correlation	(82)%	–	89%	17%
			IR-FX correlation	(35)%	–	65%	6%
	5	Discounted cash flows	Prepayment speed	0%	–	30%	7%
Net credit derivatives	227	Discounted cash flows	Credit correlation	30%	–	60%	47%
			Credit spread	1 bps	–	5,308 bps	656 bps
			Recovery rate	12%	–	67%	45%
	22	Market comparables	Price	\$0	–	\$115	\$79
Net foreign exchange derivatives	338	Option pricing	IR-FX correlation	(40)%	–	65%	18%
	(93)	Discounted cash flows	Prepayment speed		9%		9%
			Interest rate curve	2%	–	42%	11%
Net equity derivatives	(1,234)	Option pricing	Forward equity price ^(h)	80%	–	138%	100%
			Equity volatility	4%	–	127%	36%
			Equity correlation	17%	–	98%	55%
			Equity-FX correlation	(77)%	–	59%	(26)%
			Equity-IR correlation	15%	–	50%	28%
Net commodity derivatives	26	Option pricing	Oil commodity forward	\$128 / BBL	–	\$347 / BBL	\$237 / BBL
			Industrial metals commodity forward	\$1,854 / MT	–	\$3,313 / MT	\$2,583 / MT
			Commodity volatility	4%	–	150%	77%
			Commodity correlation	(30)%	–	98%	34%
MSRs	7,439	Discounted cash flows	Refer to Note 14				
Long-term debt, short-term borrowings, and deposits ^(e)	26,284	Option pricing	Interest rate volatility	22 bps	–	836 bps	141 bps
			Interest rate correlation	(82)%	–	89%	17%
			IR-FX correlation	(35)%	–	65%	6%
			Equity correlation	17%	–	98%	55%
			Equity-FX correlation	(77)%	–	59%	(26)%
			Equity-IR correlation	15%	–	50%	28%
	926	Discounted cash flows	Credit correlation	30%	–	60%	47%
Other level 3 assets and liabilities, net ^(f)	1,057						

- (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 \$803 million, nonagency securities of \$14 million and non-trading loans of \$914 million.
- (c) Comprises nonagency securities of \$10 million, trading loans of \$40 million and non-trading loans of \$368 million.
- (d) Comprises trading loans of \$858 million and non-trading loans of \$738 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 \$918 million including \$257 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 2021 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 six months ended June 30, 2022 and 2021. 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.

Fair value measurements using significant unobservable inputs

Three months ended June 30, 2022 (in millions)	Fair value at April 1, 2022	Total realized/unrealized gains/(losses)	Purchases ^(a)	Sales	Settlements ^(b)	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2022	Change in unrealized gains/(losses) related to financial instruments held at June 30, 2022
Assets: ^(a)									
Federal funds sold and securities purchased under resale agreements	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 1	\$ —	\$ 1	\$ —
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	\$ 286	\$ (1)	\$ 643	\$ (118)	\$ (7)	\$ —	\$ —	\$ 803	\$ (2)
Residential – nonagency	10	—	5	—	(1)	—	—	14	—
Commercial – nonagency	10	—	—	—	—	—	—	10	—
Total mortgage-backed securities	306	(1)	648	(118)	(8)	—	—	827	(2)
Obligations of U.S. states and municipalities	7	—	—	—	—	—	—	7	—
Non-U.S. government debt securities	133	(9)	177	(86)	—	6	(16)	205	(8)
Corporate debt securities	293	(16)	272	(12)	—	57	(20)	574	(16)
Loans	1,049	(33)	122	(164)	(152)	254	(178)	898	(32)
Asset-backed securities	28	—	1	(10)	—	1	—	20	—
Total debt instruments	1,816	(59)	1,220	(390)	(160)	318	(214)	2,531	(58)
Equity securities	663	(99)	98	(61)	—	106	(46)	661	(90)
Physical commodities	—	—	2	—	—	—	—	2	—
Other	175	66	6	—	(158)	—	(2)	87	60
Total trading assets – debt and equity instruments	2,654	(92) ^(c)	1,326	(451)	(318)	424	(262)	3,281	(88) ^(c)
Net derivative receivables: ^(b)									
Interest rate	367	160	99	(135)	105	44	(220)	420	204
Credit	44	264	4	(3)	(65)	1	4	249	255
Foreign exchange	76	193	15	(19)	(38)	24	(6)	245	174
Equity	(2,583)	1,838	162	(466)	(140)	(227)	182	(1,234)	1,788
Commodity	(414)	382	18	(69)	112	(1)	(2)	26	423
Total net derivative receivables	(2,510)	2,837 ^(c)	298	(692)	(26)	(159)	(42)	(294)	2,844 ^(c)
Available-for-sale securities:									
Mortgage-backed securities									
Corporate debt securities	205	(19)	—	—	—	—	—	186	(19)
Total available-for-sale securities	205	(19) ^(d)	—	—	—	—	—	186	(19) ^(d)
Loans	2,072	(82)	273	(95)	(250)	226	(124)	2,020	(80)
Mortgage servicing rights	7,294	654	341	(614)	(236)	—	—	7,439	654
Other assets	341	116	5	(28)	(20)	—	(6)	408	116

Fair value measurements using significant unobservable inputs

Three months ended June 30, 2022 (in millions)	Fair value at April 1, 2022	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements ^(b)	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2022	Change in unrealized gains/(losses) related to financial instruments held at June 30, 2022
Liabilities: ^(a)										
Deposits										
Short-term borrowings	\$ 2,121	\$ (160)	\$ —	\$ —	\$ 138	\$ (21)	\$ —	\$ (46)	\$ 2,032	\$ (160)
Trading liabilities – debt and equity instruments	2,146	14	—	—	963	(1,036)	14	—	2,101	93
Accounts payable and other liabilities	41	1	(20)	4	—	—	30	—	56	1
Beneficial interests issued by consolidated VIEs	108	(2)	(28)	1	—	—	—	(6)	73	(2)
Long-term debt	—	—	—	—	—	—	—	—	—	—
Total	24,394	(2,640) ^{(c)(f)}	—	—	3,470	(2,045)	179	(281)	23,077	(2,613) ^{(c)(f)}

Fair value measurements using significant unobservable inputs

Three months ended June 30, 2021 (in millions)	Fair value at April 1, 2021	Total realized/unrealized gains/(losses)	Purchases ^(a)	Sales	Settlements ^(b)	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2021	Change in unrealized gains/(losses) related to financial instruments held at June 30, 2021
Assets:^(a)									
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	\$ 397	\$ (33)	\$ 1	\$ (8)	\$ (28)	\$ 1	\$ (1)	\$ 329	\$ (34)
Residential – nonagency	32	—	6	(21)	(1)	—	—	16	—
Commercial – nonagency	2	—	11	—	(3)	—	—	10	1
Total mortgage-backed securities	431	(33)	18	(29)	(32)	1	(1)	355	(33)
Obligations of U.S. states and municipalities	8	—	—	—	—	—	—	8	—
Non-U.S. government debt securities	177	1	84	(79)	—	—	—	183	(1)
Corporate debt securities	370	30	228	(154)	—	28	(15)	487	30
Loans	832	(1)	294	(85)	(125)	85	(205)	795	1
Asset-backed securities	54	8	10	(36)	(1)	—	—	35	1
Total debt instruments	1,872	5	634	(383)	(158)	114	(221)	1,863	(2)
Equity securities	688	8	23	(27)	—	24	(26)	690	15
Other	122	7	36	—	(26)	3	(95)	47	19
Total trading assets – debt and equity instruments	2,682	20 ^(c)	693	(410)	(184)	141	(342)	2,600	32 ^(c)
Net derivative receivables: ^(b)									
Interest rate	149	524	18	(9)	(657)	(2)	(45)	(22)	198
Credit	(4)	(34)	1	(2)	17	(6)	11	(17)	(13)
Foreign exchange	(539)	2	37	(48)	(12)	1	(24)	(583)	(104)
Equity	(3,834)	(941)	281	(407)	600	(91)	(544)	(4,936)	(942)
Commodity	(911)	(347)	6	(81)	165	—	1	(1,167)	(198)
Total net derivative receivables	(5,139)	(796) ^(c)	343	(547)	113	(98)	(601)	(6,725)	(1,059) ^(c)
Available-for-sale securities:									
Mortgage-backed securities	—	—	—	—	—	—	—	—	—
Corporate debt securities	—	—	—	—	—	—	—	—	—
Total available-for-sale securities	—	— ^(d)	—	—	—	—	—	—	— ^(d)
Loans	1,823	7	240	(135)	(318)	445	(328)	1,734	(11)
Mortgage servicing rights	4,470	(528)	814	(25)	(182)	—	—	4,549	(528)
Other assets	511	31	4	—	(27)	—	(1)	518	35

Fair value measurements using significant unobservable inputs

Three months ended June 30, 2021 (in millions)	Fair value at April 1, 2021	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements ^(b)	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2021	Change in unrealized (gains)/losses related to financial instruments held at June 30, 2021
Liabilities:^(a)										
Deposits	\$ 2,652	\$ 47	\$ —	\$ —	\$ 150	\$ (93)	\$ 1	\$ (73)	\$ 2,684	\$ 47
Short-term borrowings	3,664	(283)	—	—	1,395	(1,706)	9	(4)	3,075	35
Trading liabilities – debt and equity instruments	60	(1)	(27)	13	—	—	—	(9)	36	—
Accounts payable and other liabilities	61	(9)	—	—	—	—	—	(1)	51	(8)
Beneficial interests issued by consolidated VIEs	—	—	—	—	—	—	—	—	—	—
Long-term debt	22,575	714	—	—	3,469	(3,089)	7	(149)	23,527	708

Fair value measurements using significant unobservable inputs

Six months ended June 30, 2022 (in millions)	Fair value at Jan 1, 2022	Total realized/unrealized gains/(losses)	Purchases ^(a)	Sales	Settlements ^(b)	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2022	Change in unrealized gains/(losses) related to financial instruments held at June 30, 2022
Assets: ^(a)									
Federal funds sold and securities purchased under resale agreements	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 1	\$ —	\$ 1	\$ —
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	\$ 265	\$ 26	\$ 665	\$ (125)	\$ (28)	\$ —	\$ —	\$ 803	\$ 24
Residential – nonagency	28	—	5	—	(12)	—	(7)	14	(1)
Commercial – nonagency	10	—	—	—	—	—	—	10	—
Total mortgage-backed securities	303	26	670	(125)	(40)	—	(7)	827	23
Obligations of U.S. states and municipalities	7	—	—	—	—	—	—	7	—
Non-U.S. government debt securities	81	(42)	405	(266)	—	43	(16)	205	(106)
Corporate debt securities	332	(35)	333	(71)	(37)	98	(46)	574	(44)
Loans	708	(37)	419	(262)	(159)	525	(296)	898	(13)
Asset-backed securities	26	—	2	(10)	—	5	(3)	20	—
Total debt instruments	1,457	(88)	1,829	(734)	(236)	671	(368)	2,531	(140)
Equity securities	662	(912)	321	(301)	—	959	(68)	661	(474)
Physical Commodities	—	—	2	—	—	—	—	2	—
Other	160	67	26	—	(163)	—	(3)	87	70
Total trading assets – debt and equity instruments	2,279	(933) ^(c)	2,178	(1,035)	(399)	1,630	(439)	3,281	(544) ^(c)
Net derivative receivables: ^(b)									
Interest rate	(16)	393	225	(229)	256	17	(226)	420	428
Credit	74	331	8	(7)	(161)	(2)	6	249	330
Foreign exchange	(419)	538	147	(43)	32	18	(28)	245	486
Equity	(3,626)	2,568	660	(1,025)	303	(558)	444	(1,234)	2,975
Commodity	(907)	804	68	(206)	268	(1)	—	26	469
Total net derivative receivables	(4,894)	4,634 ^(c)	1,108	(1,510)	698	(526)	196	(294)	4,688 ^(c)
Available-for-sale securities:									
Mortgage-backed securities	—	—	—	—	—	—	—	—	—
Corporate debt securities	161	8	17	—	—	—	—	186	8
Total available-for-sale securities	161	8 ^(d)	17	—	—	—	—	186	8 ^(d)
Loans	1,933	16	394	(100)	(531)	616	(308)	2,020	(24)
Mortgage servicing rights	5,494	1,613	1,471	(671)	(468)	—	—	7,439	1,613
Other assets	306	125	46	(28)	(37)	2	(6)	408	119

Fair value measurements using significant unobservable inputs

Six months ended June 30, 2022 (in millions)	Fair value at Jan 1, 2022	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements ^(b)	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2022	Change in unrealized (gains)/losses related to financial instruments held at June 30, 2022
Liabilities: ^(a)										
Deposits	\$ 2,317	\$ (302)	\$ —	\$ —	\$ 246	\$ (69)	\$ —	\$ (160)	\$ 2,032	\$ (298)
Short-term borrowings	2,481	(387)	—	—	2,386	(2,383)	15	(11)	2,101	7
Trading liabilities – debt and equity instruments	30	(16)	(34)	34	—	—	44	(2)	56	15
Accounts payable and other liabilities	69	(6)	(28)	43	—	—	1	(6)	73	(6)
Long-term debt	24,374	(4,308)	—	—	7,520	(4,521)	442	(430)	23,077	(4,151)

Fair value measurements using significant unobservable inputs

Six months ended June 30, 2021 (in millions)	Fair value at Jan 1, 2021	Total realized/unrealized gains/(losses)	Purchases ^(a)	Sales	Settlements ^(b)	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2021	Change in unrealized gains/(losses) related to financial instruments held at June 30, 2021
Assets:^(a)									
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	\$ 449	\$ (10)	\$ 7	\$ (56)	\$ (61)	\$ 1	\$ (1)	\$ 329	\$ (12)
Residential – nonagency	28	1	15	(24)	(3)	—	(1)	16	—
Commercial – nonagency	3	—	11	(1)	(3)	—	—	10	—
Total mortgage-backed securities	480	(9)	33	(81)	(67)	1	(2)	355	(12)
Obligations of U.S. states and municipalities	8	—	—	—	—	—	—	8	—
Non-U.S. government debt securities	182	(8)	202	(186)	(7)	—	—	183	(7)
Corporate debt securities	507	15	319	(300)	—	113	(167)	487	14
Loans	893	6	566	(237)	(126)	175	(482)	795	3
Asset-backed securities	28	7	38	(39)	(1)	2	—	35	7
Total debt instruments	2,098	11	1,158	(843)	(201)	291	(651)	1,863	5
Equity securities	476	3	253	(70)	—	78	(50)	690	13
Other	49	48	101	—	(55)	3	(99)	47	28
Total trading assets – debt and equity instruments	2,623	62 ^(c)	1,512	(913)	(256)	372	(800)	2,600	46 ^(c)
Net derivative receivables: ^(b)									
Interest rate	258	969	71	(102)	(1,191)	55	(82)	(22)	233
Credit	(224)	149	2	(4)	44	(9)	25	(17)	134
Foreign exchange	(434)	(198)	39	(54)	99	11	(46)	(583)	32
Equity	(3,862)	(918)	475	(1,245)	726	19	(131)	(4,936)	(1,258)
Commodity	(731)	(593)	10	(294)	444	(1)	(2)	(1,167)	(554)
Total net derivative receivables	(4,993)	(591) ^(c)	597	(1,699)	122	75	(236)	(6,725)	(1,413) ^(c)
Available-for-sale securities:									
Mortgage-backed securities	—	—	—	—	—	—	—	—	—
Corporate debt securities	—	—	—	—	—	—	—	—	—
Total available-for-sale securities	—	— ^(d)	—	—	—	—	—	—	— ^(d)
Loans	2,305	(66) ^(c)	307	(325)	(519)	600	(568)	1,734	(72) ^(c)
Mortgage servicing rights	3,276	269 ^(e)	1,397	(24)	(369)	—	—	4,549	269 ^(e)
Other assets	538	44 ^(c)	7	(18)	(52)	—	(1)	518	63 ^(c)

Fair value measurements using significant unobservable inputs

Six months ended June 30, 2021 (in millions)	Fair value at Jan 1, 2021	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements ^(b)	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2021	Change in unrealized (gains)/losses related to financial instruments held at June 30, 2021
Liabilities:^(a)										
Deposits	\$ 2,913	\$ (56) ^{(c)(f)}	\$ —	\$ —	\$ 219	\$ (188)	\$ 2	\$ (206)	\$ 2,684	\$ (56) ^{(c)(f)}
Short-term borrowings	2,420	(396) ^{(c)(f)}	—	—	4,313	(3,212)	9	(59)	3,075	18 ^{(c)(f)}
Trading liabilities – debt and equity instruments	51	(4) ^(c)	(92)	34	—	—	59	(12)	36	10 ^(c)
Accounts payable and other liabilities	68	(10) ^(c)	—	1	—	—	—	(8)	51	(10) ^(c)
Long-term debt	23,397	406 ^{(c)(f)}	—	—	6,934	(6,738)	18	(490)	23,527	305 ^{(c)(f)}

(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% at both June 30, 2022 and December 31, 2021. 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 10% at June 30, 2022 and December 31, 2021, 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) Realized gains/(losses) on AFS securities are reported in investment securities gains/(losses). Unrealized gains/(losses) are reported in OCI. There were no realized gains/(losses) recorded in income on AFS securities for the three and six months ended June 30, 2022 and 2021, respectively. Unrealized gains/(losses) recorded on AFS securities in OCI were \$(19) million and zero for the three months ended June 30, 2022 and 2021, respectively and \$8 million and zero for the six months ended June 30, 2022 and 2021, respectively.
- (e) Changes in fair value for MSR are reported in mortgage fees and related income.
- (f) 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 six months ended June 30, 2022 and 2021. Unrealized (gains)/losses are reported in OCI, and were \$(344) million and \$5 million for the three months ended June 30, 2022 and 2021, respectively and \$(574) million and \$(17) million for the six months ended June 30, 2022 and 2021, respectively.
- (g) Loan originations are included in purchases.
- (h) 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, 2021, 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 106 for further information on changes impacting items measured at fair value on a nonrecurring basis.

Three and six months ended June 30, 2022

Level 3 assets were \$22.3 billion at June 30, 2022, reflecting an increase of \$329 million from March 31, 2022, and an increase of \$4.8 billion from December 31, 2021.

The increase for the six months ended June 30, 2022 was largely driven by:

- \$1.6 billion increase in gross derivative receivables due to gains and purchases largely offset by net transfers.
- \$1.9 billion increase in MSRs.

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 June 30, 2022, there were no significant transfers from level 2 into level 3.

For the three months ended June 30, 2022, significant transfers from level 3 into level 2 included the following:

- \$930 million of gross interest rate derivative receivables as a result of an increase in observability and a decrease in the significance of unobservable inputs.

For the six months ended June 30, 2022, significant transfers from level 2 into level 3 included the following:

- \$1.6 billion of total debt and equity instruments, largely due to equity securities of \$959 million driven by a decrease in observability predominantly as a result of restricted access to certain markets.
- \$1.3 billion of gross equity derivative payables as a result of a decrease in observability and an increase in the significance of unobservable inputs.

For the six months ended June 30, 2022, significant transfers from level 3 into level 2 included the following:

- \$965 million of gross interest rate derivative receivables as a result of an increase in observability and a decrease in the significance of unobservable inputs.

- \$920 million and \$1.4 billion of gross equity derivative receivables and gross equity derivative payables, respectively, as a result of an increase in observability and a decrease in the significance of unobservable inputs.

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

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

- \$1.0 billion of gross equity derivative receivables as a result of an increase in observability and a decrease in the significance of unobservable inputs.

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

- \$800 million of total debt and equity instruments, largely trading loans, driven by an increase in observability.
- \$1.3 billion and \$1.1 billion of gross equity derivative receivables and gross equity derivative payables, respectively, as a result of an increase in observability and a decrease in the significance of unobservable inputs.

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 99-104 for further information on these instruments.

Three months ended June 30, 2022

- \$3.4 billion of net gains on assets, largely driven by gains in net equity derivative receivables due to market movements and MSRs reflecting lower prepayment speeds on higher rates.
- \$2.8 billion of net gains on liabilities, predominantly driven by gains in long-term debt due to market movements.

Three months ended June 30, 2021

- \$1.3 billion of net losses on assets, driven by losses in net equity derivative receivables due to market movements and losses in MSRs reflecting faster prepayment speeds on lower rates.
- \$468 million of net losses on liabilities, driven by losses in long-term debt partially offset by gains in short-term borrowings, due to market movements.

Six months ended June 30, 2022

- \$5.5 billion of net gains on assets, predominantly driven by gains in net equity derivative receivables due to market movements and MSRs reflecting lower prepayment speeds on higher rates.
- \$5.0 billion of net gains on liabilities, predominantly driven by gains in long-term debt due to market movements.

Six months ended June 30, 2021

- \$282 million of net losses on assets, driven by losses in net derivative receivables due to market movements largely offset by gains in MSRs reflecting lower prepayment speeds on higher rates.

Refer to Note 14 for information on MSRs.

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Credit and funding adjustments:				
Derivatives CVA	\$ 147	\$ 43	\$ (165)	\$ 283
Derivatives FVA	7	(45)	(51)	61

Refer to Note 2 of JPMorgan Chase's 2021 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 June 30, 2022 and 2021, for which nonrecurring fair value adjustments were recorded during the six months ended June 30, 2022 and 2021, by major product category and fair value hierarchy.

June 30, 2022 (in millions)	Fair value hierarchy			Total fair value
	Level 1	Level 2	Level 3	
Loans	\$ —	\$ 1,516	\$ 665 ^(b)	\$ 2,181
Other assets ^(a)	—	22	1,083	1,105
Total assets measured at fair value on a nonrecurring basis	\$ —	\$ 1,538	\$ 1,748	\$ 3,286
Accounts payable and other liabilities	—	—	293	293
Total liabilities measured at fair value on a nonrecurring basis	\$ —	\$ —	\$ 293	\$ 293

June 30, 2021 (in millions)	Fair value hierarchy			Total fair value
	Level 1	Level 2	Level 3	
Loans	\$ —	\$ 2,048	\$ 329	\$ 2,377
Other assets	—	11	831	842
Total assets measured at fair value on a nonrecurring basis	\$ —	\$ 2,059	\$ 1,160	\$ 3,219
Accounts payable and other liabilities	—	—	5	5
Total liabilities measured at fair value on a nonrecurring basis	\$ —	\$ —	\$ 5	\$ 5

(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 \$1.1 billion in level 3 assets measured at fair value on a nonrecurring basis as of June 30, 2022, \$985 million 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 \$665 million in level 3 assets measured at fair value on a nonrecurring basis as of June 30, 2022, \$55 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 56% with a weighted average of 23%.

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 six months ended June 30, 2022 and 2021, related to assets and liabilities held at those dates.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Loans	\$ (80)	\$ (11)	\$ (91)	\$ (32)
Other assets ^(a)	(389)	92	(45)	93
Accounts payable and other liabilities	(269)	7	(288)	6
Total nonrecurring fair value gains/(losses)	\$ (738)	\$ 88	\$ (424)	\$ 67

(a) Included \$(387) million and \$102 million for the three months ended June 30, 2022 and 2021, respectively, and \$(29) million and \$107 million for the six months ended June 30, 2022 and 2021, 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 (i.e., measurement alternative), 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 June 30, 2022 and 2021, 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 June 30		Six months ended June 30	
	2022	2021	2022	2021
Other assets				
Carrying value ^(a)	\$ 4,196	\$ 2,798	\$ 4,196	\$ 2,798
Upward carrying value changes ^(b)	76	109	445	116
Downward carrying value changes/impairment ^(c)	(463)	(7)	(474)	(9)

(a) The carrying value as of December 31, 2021 was \$3.6 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 June 30, 2022 were \$1.5 billion.

(c) The cumulative downward carrying value changes/impairment between January 1, 2018 and June 30, 2022 were \$(844) 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 1.6059 at June 30, 2022, 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 June 30, 2022, and December 31, 2021, 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.

(in billions)	June 30, 2022					December 31, 2021				
	Carrying value	Estimated fair value hierarchy			Total estimated fair value	Carrying value	Estimated fair value hierarchy			Total estimated fair value
		Level 1	Level 2	Level 3			Level 1	Level 2	Level 3	
Financial assets										
Cash and due from banks	\$ 27.2	\$ 27.2	\$ —	\$ —	\$ 27.2	\$ 26.4	\$ 26.4	\$ —	\$ —	\$ 26.4
Deposits with banks	642.0	642.0	—	—	642.0	714.4	714.4	—	—	714.4
Accrued interest and accounts receivable	144.5	—	144.4	0.1	144.5	102.1	—	102.0	0.1	102.1
Federal funds sold and securities purchased under resale agreements	3.0	—	3.0	—	3.0	9.0	—	9.0	—	9.0
Securities borrowed	128.4	—	128.4	—	128.4	124.6	—	124.6	—	124.6
Investment securities, held-to-maturity	441.6	212.9	202.7	—	415.6	363.7	183.3	179.3	—	362.6
Loans, net of allowance for loan losses ^(a)	1,039.3	—	193.1	835.0	1,028.1	1,002.5	—	202.1	821.1	1,023.2
Other	113.2	—	111.8	1.6	113.4	98.7	—	97.4	1.4	98.8
Financial liabilities										
Deposits	\$ 2,458.3	\$ —	\$ 2,458.4	\$ —	\$ 2,458.4	\$ 2,451.0	\$ —	\$ 2,451.0	\$ —	\$ 2,451.0
Federal funds purchased and securities loaned or sold under repurchase agreements	66.4	—	66.4	—	66.4	67.9	—	67.9	—	67.9
Short-term borrowings	41.5	—	41.5	—	41.5	33.6	—	33.6	—	33.6
Accounts payable and other liabilities	272.7	—	266.7	5.3	272.0	217.6	—	212.1	4.9	217.0
Beneficial interests issued by consolidated VIEs	10.6	—	10.6	—	10.6	10.7	—	10.8	—	10.8
Long-term debt	222.1	—	214.9	3.1	218.0	226.0	—	229.5	3.1	232.6

(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.

(in billions)	June 30, 2022					December 31, 2021				
	Carrying value ^(a)	Estimated fair value hierarchy			Total estimated fair value	Carrying value ^(a)	Estimated fair value hierarchy			Total estimated fair value
		Level 1	Level 2	Level 3			Level 1	Level 2	Level 3	
Wholesale lending-related commitments	\$ 2.2	\$ —	\$ —	\$ 3.4	\$ 3.4	\$ 2.1	\$ —	\$ —	\$ 2.9	\$ 2.9

(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 171 of JPMorgan Chase's 2021 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 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 and other hybrid instruments, which are predominantly financial instruments that contain embedded derivatives, that are issued or transacted 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 six months ended June 30, 2022 and 2021, 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.

(in millions)	Three months ended June 30,					
	2022			2021		
	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	\$ (145)	\$ —	\$ (145)	\$ (2)	\$ —	\$ (2)
Securities borrowed	(101)	—	(101)	(27)	—	(27)
Trading assets:						
Debt and equity instruments, excluding loans	(1,255)	—	(1,255)	444 ^(f)	(1) ^(c)	443
Loans reported as trading assets:						
Changes in instrument-specific credit risk	37	—	37	72	—	72
Other changes in fair value	(11)	—	(11)	(7)	—	(7)
Loans:						
Changes in instrument-specific credit risk	(83)	11 ^(c)	(72)	184	(3) ^(c)	181
Other changes in fair value	(501)	(260) ^(c)	(761)	143	784 ^(c)	927
Other assets	(2)	4 ^(d)	2	9	(4) ^(d)	5
Deposits ^(a)	382	—	382	(258)	—	(258)
Federal funds purchased and securities loaned or sold under repurchase agreements	124	—	124	(3)	—	(3)
Short-term borrowings ^(a)	471	—	471	(489)	—	(489)
Trading liabilities	54	—	54	(1)	—	(1)
Beneficial interests issued by consolidated VIEs	—	—	—	—	—	—
Other liabilities	(7)	—	(7)	1	—	1
Long-term debt ^{(a)(b)}	5,405	14 ^{(c)(d)}	5,419	(2,152)	—	(2,152)

(in millions)	Six months ended June 30,					
	2022			2021		
	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	\$ (375)	\$ —	\$ (375)	\$ (14)	\$ —	\$ (14)
Securities borrowed	(299)	—	(299)	(97)	—	(97)
Trading assets:						
Debt and equity instruments, excluding loans	(911)	—	(911)	1,067 ^(f)	(1) ^(c)	1,066
Loans reported as trading assets:						
Changes in instrument-specific credit risk	31	—	31	276	—	276
Other changes in fair value	(22)	—	(22)	(8)	—	(8)
Loans:						
Changes in instrument-specific credit risk	(77)	23 ^(c)	(54)	421	(2) ^(c)	419
Other changes in fair value	(1,220)	(774) ^(c)	(1,994)	(107)	1,124 ^(c)	1,017
Other assets	9	1 ^(d)	10	28	(23) ^(d)	5
Deposits ^(a)	784	—	784	(91)	—	(91)
Federal funds purchased and securities loaned or sold under repurchase agreements	206	—	206	31	—	31
Short-term borrowings ^(a)	773	—	773	(611)	—	(611)
Trading liabilities	(12)	—	(12)	(1)	—	(1)
Beneficial interests issued by consolidated VIEs	(1)	—	(1)	—	—	—
Other liabilities	(4)	—	(4)	2	—	2
Long-term debt ^{(a)(b)}	9,365	33 ^{(c)(d)}	9,398	(905)	(5) ^{(c)(d)}	(910)

(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 not material for the three months ended June 30, 2022 and 2021, respectively, and \$(9) million and \$(2) million for the six months ended June 30, 2022 and 2021, 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 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 June 30, 2022, and December 31, 2021, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

(in millions)	June 30, 2022			December 31, 2021		
	Contractual principal outstanding	Fair value	Fair value over/(under) contractual principal outstanding	Contractual principal outstanding	Fair value	Fair value over/(under) contractual principal outstanding
Loans						
Nonaccrual loans						
Loans reported as trading assets	\$ 2,912	\$ 391	\$ (2,521)	\$ 3,263	\$ 546	\$ (2,717)
Loans	942	833	(109)	918	797	(121)
Subtotal	3,854	1,224	(2,630)	4,181	1,343	(2,838)
90 or more days past due and government guaranteed						
Loans ^(a)	220	209	(11)	293	281	(12)
All other performing loans^(b)						
Loans reported as trading assets	8,883	7,407	(1,476)	8,594	7,528	(1,066)
Loans	47,343	46,014	(1,329)	57,695	57,742	47
Subtotal	56,226	53,421	(2,805)	66,289	65,270	(1,019)
Total loans	\$ 60,300	\$ 54,854	\$ (5,446)	\$ 70,763	\$ 66,894	\$ (3,869)
Long-term debt						
Principal-protected debt	\$ 35,906 ^(d)	\$ 27,591	\$ (8,315)	\$ 35,957 ^(d)	\$ 33,799	\$ (2,158)
Nonprincipal-protected debt ^(c)	NA	38,471	NA	NA	41,135	NA
Total long-term debt	NA	\$ 66,062	NA	NA	\$ 74,934	NA
Long-term beneficial interests						
Nonprincipal-protected debt ^(c)	NA	\$ 5	NA	NA	\$ 12	NA
Total long-term beneficial interests	NA	\$ 5	NA	NA	\$ 12	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 June 30, 2022, and December 31, 2021, 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 June 30, 2022, and December 31, 2021, the contractual amount of lending-related commitments for which the fair value option was elected was \$10.0 billion and \$11.9 billion, respectively, with a corresponding fair value of \$30 million and \$10 million, respectively. Refer to Note 28 of JPMorgan Chase's 2021 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)	June 30, 2022				December 31, 2021			
	Long-term debt	Short-term borrowings	Deposits	Total	Long-term debt	Short-term borrowings	Deposits	Total
Risk exposure								
Interest rate	\$ 29,428	\$ 21	\$ 8,929	\$ 38,378	\$ 34,127	\$ 1	\$ 4,860	\$ 38,988
Credit	4,211	532	—	4,743	6,352	858	—	7,210
Foreign exchange	2,670	696	—	3,366	3,386	315	1,066	4,767
Equity	27,716	6,228	3,932	37,876	29,317	6,827	5,125	41,269
Commodity	779	13	3 ^(a)	795	405	—	3 ^(a)	408
Total structured notes	\$ 64,804	\$ 7,490	\$ 12,864	\$ 85,158	\$ 73,587	\$ 8,001	\$ 11,054	\$ 92,642

(a) Excludes deposits linked to precious metals for which the fair value option has not been elected of \$583 million and \$692 million for the periods ended June 30, 2022 and December 31, 2021, 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 2021 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	119-120
• Interest rate	Hedge floating-rate assets and liabilities	Cash flow hedge	Corporate	121
• Foreign exchange	Hedge foreign currency-denominated assets and liabilities	Fair value hedge	Corporate	119-120
• Foreign exchange	Hedge foreign currency-denominated forecasted revenue and expense	Cash flow hedge	Corporate	121
• Foreign exchange	Hedge the value of the Firm's investments in non-U.S. dollar functional currency entities	Net investment hedge	Corporate	122
• Commodity	Hedge commodity inventory	Fair value hedge	CIB, AWM	119-120
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	123
• Credit	Manage the credit risk associated with wholesale lending exposures	Specified risk management	CIB	123
• Interest rate and foreign exchange	Manage the risk associated with certain other specified assets and liabilities	Specified risk management	Corporate	123
Market-making derivatives and other activities:				
• Various	Market-making and related risk management	Market-making and other	CIB	123
• Various	Other derivatives	Market-making and other	CIB, AWM, Corporate	123

Notional amount of derivative contracts

The following table summarizes the notional amount of free-standing derivative contracts outstanding as of June 30, 2022, and December 31, 2021.

(in billions)	Notional amounts ^(b)	
	June 30, 2022	December 31, 2021
Interest rate contracts		
Swaps	\$ 29,009	\$ 24,075
Futures and forwards	3,631	2,520
Written options	3,024	3,018
Purchased options	2,959	3,188
Total interest rate contracts	38,623	32,801
Credit derivatives^(a)	1,097	1,053
Foreign exchange contracts		
Cross-currency swaps	3,942	4,112
Spot, futures and forwards	8,242	7,679
Written options	874	741
Purchased options	869	727
Total foreign exchange contracts	13,927	13,259
Equity contracts		
Swaps	594	612
Futures and forwards	147	139
Written options	677	654
Purchased options	623	598
Total equity contracts	2,041	2,003
Commodity contracts		
Swaps	193	185
Spot, futures and forwards	197	188
Written options	126	135
Purchased options	115	111
Total commodity contracts	631	619
Total derivative notional amounts	\$ 56,319	\$ 49,735

(a) Refer to the Credit derivatives discussion on page 124 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.

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 June 30, 2022, and December 31, 2021, 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)

June 30, 2022 (in millions)	Gross derivative receivables				Gross derivative payables			
	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	\$ 253,143	\$ 1	\$ 253,144	\$ 21,930	\$ 237,212	\$ —	\$ 237,212	\$ 11,525
Credit	13,578	—	13,578	1,607	11,323	—	11,323	890
Foreign exchange	260,546	1,308	261,854	28,166	258,320	966	259,286	19,241
Equity	76,181	—	76,181	10,177	76,719	—	76,719	10,164
Commodity	42,017	6,732	48,749	19,437	35,218	7,771	42,989	10,597
Total fair value of trading assets and liabilities	\$ 645,465	\$ 8,041	\$ 653,506	\$ 81,317	\$ 618,792	\$ 8,737	\$ 627,529	\$ 52,417

December 31, 2021 (in millions)	Gross derivative receivables				Gross derivative payables			
	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	\$ 270,562	\$ 23	\$ 270,585	\$ 21,974	\$ 240,731	\$ —	\$ 240,731	\$ 8,194
Credit	9,839	—	9,839	1,031	10,912	—	10,912	880
Foreign exchange	169,186	393	169,579	12,625	174,622	1,124	175,746	14,097
Equity	68,631	—	68,631	9,981	79,727	—	79,727	17,233
Commodity	21,233	5,420	26,653	11,470	20,837	7,091	27,928	9,712
Total fair value of trading assets and liabilities	\$ 539,451	\$ 5,836	\$ 545,287	\$ 57,081	\$ 526,829	\$ 8,215	\$ 535,044	\$ 50,116

(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.

Derivatives netting

The following tables present, as of June 30, 2022, and December 31, 2021, 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.

(in millions)	June 30, 2022			December 31, 2021		
	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")	\$ 196,673	\$ (178,520)	\$ 18,153	\$ 251,953	\$ (234,283)	\$ 17,670
OTC-cleared	52,486	(51,603)	883	14,144	(13,839)	305
Exchange-traded ^(a)	1,124	(1,091)	33	498	(489)	9
Total interest rate contracts	250,283	(231,214)	19,069	266,595	(248,611)	17,984
Credit contracts:						
OTC	11,731	(10,326)	1,405	8,035	(7,177)	858
OTC-cleared	1,720	(1,645)	75	1,671	(1,631)	40
Total credit contracts	13,451	(11,971)	1,480	9,706	(8,808)	898
Foreign exchange contracts:						
OTC	256,164	(232,544)	23,620	166,185	(156,251)	9,934
OTC-cleared	1,144	(1,142)	2	789	(703)	86
Exchange-traded ^(a)	9	(2)	7	6	—	6
Total foreign exchange contracts	257,317	(233,688)	23,629	166,980	(156,954)	10,026
Equity contracts:						
OTC	37,384	(33,060)	4,324	25,704	(23,977)	1,727
Exchange-traded ^(a)	34,647	(32,944)	1,703	36,095	(34,673)	1,422
Total equity contracts	72,031	(66,004)	6,027	61,799	(58,650)	3,149
Commodity contracts:						
OTC	28,208	(11,932)	16,276	15,063	(6,868)	8,195
OTC-cleared	121	(121)	—	49	(49)	—
Exchange-traded ^(a)	17,291	(17,259)	32	8,279	(8,266)	13
Total commodity contracts	45,620	(29,312)	16,308	23,391	(15,183)	8,208
Derivative receivables with appropriate legal opinion	638,702	(572,189)	66,513^(d)	528,471	(488,206)	40,265^(d)
Derivative receivables where an appropriate legal opinion has not been either sought or obtained	14,804		14,804	16,816		16,816
Total derivative receivables recognized on the Consolidated balance sheets	\$ 653,506		\$ 81,317	\$ 545,287		\$ 57,081
Collateral not nettable on the Consolidated balance sheets^{(b)(c)}			(19,801)			(10,102)
Net amounts			\$ 61,516			\$ 46,979

(in millions)	June 30, 2022			December 31, 2021		
	Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables	Gross derivative payables	Amounts netted on the Consolidated balance sheets	Net derivative payables
U.S. GAAP nettable derivative payables						
Interest rate contracts:						
OTC	\$ 179,008	\$ (169,819)	\$ 9,189	\$ 223,576	\$ (216,757)	\$ 6,819
OTC-cleared	55,401	(55,313)	88	15,695	(15,492)	203
Exchange-traded ^(a)	564	(555)	9	292	(288)	4
Total interest rate contracts	234,973	(225,687)	9,286	239,563	(232,537)	7,026
Credit contracts:						
OTC	9,320	(8,781)	539	9,021	(8,421)	600
OTC-cleared	1,748	(1,652)	96	1,679	(1,611)	68
Total credit contracts	11,068	(10,433)	635	10,700	(10,032)	668
Foreign exchange contracts:						
OTC	252,909	(238,853)	14,056	171,610	(160,946)	10,664
OTC-cleared	1,245	(1,190)	55	706	(703)	3
Exchange-traded ^(a)	14	(2)	12	7	—	7
Total foreign exchange contracts	254,168	(240,045)	14,123	172,323	(161,649)	10,674
Equity contracts:						
OTC	36,948	(33,598)	3,350	31,379	(27,830)	3,549
Exchange-traded ^(a)	34,800	(32,957)	1,843	40,621	(34,664)	5,957
Total equity contracts	71,748	(66,555)	5,193	72,000	(62,494)	9,506
Commodity contracts:						
OTC	20,702	(14,470)	6,232	14,874	(9,667)	5,207
OTC-cleared	140	(140)	—	73	(73)	—
Exchange-traded ^(a)	18,848	(17,782)	1,066	8,954	(8,476)	478
Total commodity contracts	39,690	(32,392)	7,298	23,901	(18,216)	5,685
Derivative payables with appropriate legal opinion	611,647	(575,112)	36,535 ^(d)	518,487	(484,928)	33,559 ^(d)
Derivative payables where an appropriate legal opinion has not been either sought or obtained	15,882		15,882	16,557		16,557
Total derivative payables recognized on the Consolidated balance sheets	\$ 627,529		\$ 52,417	\$ 535,044		\$ 50,116
Collateral not nettable on the Consolidated balance sheets^{(b)(c)}			(2,921)			(5,872)
Net amounts			\$ 49,496			\$ 44,244

(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 \$64.6 billion and \$67.6 billion at June 30, 2022, and December 31, 2021, respectively. Net derivatives payable included cash collateral netted of \$67.6 billion and \$64.3 billion at June 30, 2022, and December 31, 2021, respectively. Derivative cash collateral relates to OTC and OTC-cleared derivative instruments.

Liquidity risk and credit-related contingent features

Refer to Note 5 of JPMorgan Chase's 2021 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 June 30, 2022, and December 31, 2021.

OTC and OTC-cleared derivative payables containing downgrade triggers

(in millions)	June 30, 2022		December 31, 2021	
Aggregate fair value of net derivative payables	\$	16,037	\$	20,114
Collateral posted		14,926		19,402

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 June 30, 2022, and December 31, 2021, 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

(in millions)	June 30, 2022		December 31, 2021	
	Single-notch downgrade	Two-notch downgrade	Single-notch downgrade	Two-notch downgrade
Amount of additional collateral to be posted upon downgrade ^(a)	\$	273	\$	219
Amount required to settle contracts with termination triggers upon downgrade ^(b)		85		98
		1,552		1,577
		700		787

(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.

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 June 30, 2022 and December 31, 2021.

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 six months ended June 30, 2022 and 2021, 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.

Three months ended June 30, 2022 (in millions)	Gains/(losses) recorded in income			Income statement impact of excluded components ^(e)		OCI impact
	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)}	\$ (4,467)	\$ 4,367	\$ (100)	\$ —	\$ (79)	\$ —
Foreign exchange ^(c)	(818)	830	12	(115)	12	67
Commodity ^(d)	(1,536)	1,464	(72)	—	(73)	—
Total	\$ (6,821)	\$ 6,661	\$ (160)	\$ (115)	\$ (140)	\$ 67

Three months ended June 30, 2021 (in millions)	Gains/(losses) recorded in income			Income statement impact of excluded components ^(e)		OCI impact
	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)}	\$ 2,184	\$ (2,265)	\$ (81)	\$ —	\$ (90)	\$ —
Foreign exchange ^(c)	230	(221)	9	(72)	9	(31)
Commodity ^(d)	(3,126)	3,155	29	—	20	—
Total	\$ (712)	\$ 669	\$ (43)	\$ (72)	\$ (61)	\$ (31)

Six months ended June 30, 2022 (in millions)	Gains/(losses) recorded in income			Income statement impact of excluded components ^(e)		OCI impact
	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)}	\$ (11,537)	\$ 11,348	\$ (189)	\$ —	\$ (145)	\$ —
Foreign exchange ^(c)	(1,508)	1,518	10	(180)	10	212
Commodity ^(d)	(1,712)	1,611	(101)	—	(110)	—
Total	\$ (14,757)	\$ 14,477	\$ (280)	\$ (180)	\$ (245)	\$ 212

Six months ended June 30, 2021 (in millions)	Gains/(losses) recorded in income			Income statement impact of excluded components ^(e)		OCI impact
	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)}	\$ (2,937)	\$ 2,571	\$ (366)	\$ —	\$ (264)	\$ —
Foreign exchange ^(c)	(552) ^(g)	579 ^(g)	27	(150)	27	(68)
Commodity ^(d)	(4,387)	4,443	56	—	32	—
Total	\$ (7,876)	\$ 7,593	\$ (283)	\$ (150)	\$ (205)	\$ (68)

- (a) Primarily consists of hedges of the benchmark (e.g., London Interbank Offered Rate ("LIBOR"), Secured Overnight Financing Rate ("SOFR")) interest rate risk of fixed-rate long-term debt and AFS securities. Gains and losses were recorded in net interest income.
- (b) Effective January 1, 2022, the Firm updated its presentation in the table above to include the amortization of income/expense associated with the inception hedge accounting adjustment applied to the hedged item; prior-period amounts have been revised to conform with the current presentation. 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.
- (g) Prior-period amounts have been revised to conform with the current presentation.

As of June 30, 2022 and December 31, 2021, 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.

June 30, 2022 (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 ^(d)	Discontinued hedging relationships ^{(d)(e)}	Total
Assets				
Investment securities - AFS	\$ 84,552 ^(c)	\$ (3,650)	\$ 598	\$ (3,052)
Liabilities				
Long-term debt	\$ 179,048	\$ (15,722)	\$ 6,182	\$ (9,540)
Beneficial interests issued by consolidated VIEs	750	—	—	—

December 31, 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 ^(d)	Discontinued hedging relationships ^{(d)(e)}	Total
Assets				
Investment securities - AFS	\$ 65,746 ^(c)	\$ 417	\$ 661	\$ 1,078
Liabilities				
Long-term debt	\$ 195,642	\$ (1,999)	\$ 8,834	\$ 6,835
Beneficial interests issued by consolidated VIEs	749	—	(1)	(1)

(a) Excludes physical commodities with a carrying value of \$22.2 billion and \$25.7 billion at June 30, 2022 and December 31, 2021, 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 June 30, 2022 and December 31, 2021, the carrying amount excluded for AFS securities is \$15.7 billion and \$14.0 billion, respectively, and for long-term debt is \$224 million and \$9.7 billion, respectively. Prior-period amount has been revised to conform with the current presentation.

(c) Carrying amount represents the amortized cost, net of allowance if applicable. Refer to Note 9 for additional information.

(d) Positive (negative) amounts related to assets represent cumulative fair value hedge basis adjustments that will reduce (increase) 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.

(e) Represents basis adjustments existing on the balance sheet date associated with hedged items that have been de-designated from qualifying fair value hedging relationships.

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 six months ended June 30, 2022 and 2021, 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.

Three months ended June 30, 2022 (in millions)	Derivatives gains/(losses) recorded in income and other comprehensive income/(loss)		
	Amounts reclassified from AOCI to income	Amounts recorded in OCI	Total change in OCI for period
Contract type			
Interest rate ^(a)	\$	86 \$	(1,509) \$
Foreign exchange ^(b)		(62)	(241)
Total	\$	24 \$	(1,750) \$

Three months ended June 30, 2021 (in millions)	Derivatives gains/(losses) recorded in income and other comprehensive income/(loss)		
	Amounts reclassified from AOCI to income	Amounts recorded in OCI	Total change in OCI for period
Contract type			
Interest rate ^(a)	\$	262 \$	1,122 \$
Foreign exchange ^(b)		78	(4)
Total	\$	340 \$	1,118 \$

Six months ended June 30, 2022 (in millions)	Derivatives gains/(losses) recorded in income and other comprehensive income/(loss)		
	Amounts reclassified from AOCI to income	Amounts recorded in OCI	Total change in OCI for period
Contract type			
Interest rate ^(a)	\$	329 \$	(4,870) \$
Foreign exchange ^(b)		(68)	(316)
Total	\$	261 \$	(5,186) \$

Six months ended June 30, 2021 (in millions)	Derivatives gains/(losses) recorded in income and other comprehensive income/(loss)		
	Amounts reclassified from AOCI to income	Amounts recorded in OCI	Total change in OCI for period
Contract type			
Interest rate ^(a)	\$	499 \$	(1,639) \$
Foreign exchange ^(b)		105	62
Total	\$	604 \$	(1,577) \$

(a) Primarily consists of hedges of LIBOR-indexed and SOFR-indexed floating-rate assets. 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 six months ended June 30, 2022 and 2021.

Over the next 12 months, the Firm expects that approximately \$(1.1) billion (after-tax) of net losses recorded in AOCI at June 30, 2022, 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 six 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 six months ended June 30, 2022 and 2021.

Three months ended June 30, (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	2022		2021	
	Amounts recorded in income ^{(a)(b)}	Amounts recorded in OCI	Amounts recorded in income ^{(a)(b)}	Amounts recorded in OCI
Foreign exchange derivatives	\$ (116)	\$ 3,520	\$ (79)	\$ (270)

Six months ended June 30, (in millions)	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	2022		2021	
	Amounts recorded in income ^{(a)(b)}	Amounts recorded in OCI	Amounts recorded in income ^{(a)(b)}	Amounts recorded in OCI
Foreign exchange derivatives	\$ (247)	\$ 3,858	\$ (107)	\$ 930

(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 amounts reclassified for the three and six months ended June 30, 2022 and 2021 were not material. 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.

(in millions)	Derivatives gains/(losses) recorded in income			
	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Contract type				
Interest rate ^(a)	\$ (309)	\$ 644	\$ (538)	\$ 502
Credit ^(b)	89	(27)	122	(67)
Foreign exchange ^(c)	6	(30)	(76)	68
Total	\$ (214)	\$ 587	\$ (492)	\$ 503

(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 2021 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 June 30, 2022 and December 31, 2021. 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

June 30, 2022 (in millions)	Maximum payout/Notional amount			
	Protection sold	Protection purchased with identical underlyings ^(c)	Net protection (sold)/purchased ^(d)	Other protection purchased ^(e)
Credit derivatives				
Credit default swaps	\$ (473,223)	\$ 482,758	\$ 9,535	\$ 3,290
Other credit derivatives ^(a)	(52,837)	68,842	16,005	16,088
Total credit derivatives	(526,060)	551,600	25,540	19,378
Credit-related notes ^(b)	—	—	—	9,004
Total	\$ (526,060)	\$ 551,600	\$ 25,540	\$ 28,382

December 31, 2021 (in millions)	Maximum payout/Notional amount			
	Protection sold	Protection purchased with identical underlyings ^(c)	Net protection (sold)/purchased ^(d)	Other protection purchased ^(e)
Credit derivatives				
Credit default swaps	\$ (443,481)	\$ 458,180	\$ 14,699	\$ 2,269
Other credit derivatives ^(a)	(56,130)	79,586	23,456	13,435
Total credit derivatives	(499,611)	537,766	38,155	15,704
Credit-related notes ^(b)	—	—	—	9,437
Total	\$ (499,611)	\$ 537,766	\$ 38,155	\$ 25,141

(a) Other credit derivatives predominantly consist of credit swap options and total return swaps.

(b) Represents Other protection purchased by CIB, primarily in its market-making businesses.

(c) 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.

(d) 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.

(e) 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.

The following tables summarize the notional amounts by the ratings, maturity profile, and total fair value, of credit derivatives as of June 30, 2022, and December 31, 2021, 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

June 30, 2022 (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	\$ (81,541)	\$ (278,902)	\$ (29,619)	\$ (390,062)	\$ 1,749	\$ (2,470)	\$ (721)
Noninvestment-grade	(36,026)	(92,132)	(7,840)	(135,998)	867	(5,278)	(4,411)
Total	\$ (117,567)	\$ (371,034)	\$ (37,459)	\$ (526,060)	\$ 2,616	\$ (7,748)	\$ (5,132)

December 31, 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	\$ (91,155)	\$ (255,106)	\$ (29,035)	\$ (375,296)	\$ 3,645	\$ (623)	\$ 3,022
Noninvestment-grade	(32,175)	(84,851)	(7,289)	(124,315)	2,630	(2,003)	627
Total	\$ (123,330)	\$ (339,957)	\$ (36,324)	\$ (499,611)	\$ 6,275	\$ (2,626)	\$ 3,649

(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.

Note 5 – Noninterest revenue and noninterest expense

Noninterest revenue

Refer to Note 6 of JPMorgan Chase's 2021 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.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Underwriting				
Equity	\$ 230	\$ 1,073	\$ 472	\$ 2,135
Debt	711	1,473	1,685	2,694
Total underwriting	941	2,546	2,157	4,829
Advisory	645	924	1,437	1,611
Total investment banking fees	\$ 1,586	\$ 3,470	\$ 3,594	\$ 6,440

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.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Trading revenue by instrument type				
Interest rate ^(a)	\$ 376	\$ 464	\$ 845	\$ 1,387
Credit ^(b)	279 ^(c)	759	736 ^(c)	2,029
Foreign exchange	1,425	641	2,749	1,639
Equity	2,303	1,929	4,558	4,586
Commodity	499	301	1,246	850
Total trading revenue	4,882	4,094	10,134	10,491
Private equity gains/(losses)	108	(18)	(39)	85
Principal transactions	\$ 4,990	\$ 4,076	\$ 10,095	\$ 10,576

(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 markdowns on held-for-sale positions, primarily unfunded commitments, in the bridge financing portfolio.

Lending- and deposit-related fees

The following table presents the components of lending- and deposit-related fees.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Lending-related fees	\$ 362	\$ 370	\$ 724	\$ 728
Deposit-related fees	1,511	1,390	2,988	2,719
Total lending- and deposit-related fees	\$ 1,873	\$ 1,760	\$ 3,712	\$ 3,447

Asset management, administration and commissions

The following table presents the components of asset management, administration and commissions.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Asset management fees				
Investment management fees ^(a)	\$ 3,425	\$ 3,421	\$ 6,987	\$ 6,678
All other asset management fees ^(b)	92	95	182	189
Total asset management fees	3,517	3,516	7,169	6,867
Total administration fees ^(c)	590	650	1,223	1,283
Commissions and other fees				
Brokerage commissions ^(d)	738	761	1,548	1,561
All other commissions and fees	395	267	662	512
Total commissions and fees	1,133	1,028	2,210	2,073
Total asset management, administration and commissions	\$ 5,240	\$ 5,194	\$ 10,602	\$ 10,223

(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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Interchange and merchant processing income	\$ 7,214	\$ 5,974	\$ 13,449	\$ 10,842
Rewards costs and partner payments	(5,641)	(4,282)	(10,511)	(7,816)
Other card income ^(a)	(440)	(45)	(830)	(29)
Total card income	\$ 1,133	\$ 1,647	\$ 2,108	\$ 2,997

(a) Predominantly represents the amortization of account origination costs and annual fees.

Refer to Note 14 for further information on **mortgage fees and related income**.

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 includes the following:

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Legal expense	\$ 73	\$ 185	\$ 192	\$ 213

Note 6 – Interest income and Interest expense

Refer to Note 7 of JPMorgan Chase's 2021 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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Interest income				
Loans ^(a)	\$ 11,626	\$ 10,145	\$ 22,259	\$ 20,332
Taxable securities	2,289	1,577	4,268	3,182
Non-taxable securities ^(b)	245	270	490	547
Total investment securities ^(a)	2,534	1,847	4,758	3,729
Trading assets - debt instruments	2,049	1,711	3,816	3,493
Federal funds sold and securities purchased under resale agreements	543	175	940	408
Securities borrowed ^(c)	173	(90)	86	(167)
Deposits with banks	1,079	103	1,317	168
All other interest-earning assets ^(d)	642	203	966	402
Total interest income	\$ 18,646	\$ 14,094	\$ 34,142	\$ 28,365
Interest expense				
Interest-bearing deposits	\$ 898	\$ 132	\$ 1,080	\$ 278
Federal funds purchased and securities loaned or sold under repurchase agreements	468	60	585	75
Short-term borrowings ^(e)	90	33	130	66
Trading liabilities – debt and all other interest-bearing liabilities ^{(c)(f)}	471	51	662	78
Long-term debt	1,561	1,056	2,637	2,190
Beneficial interest issued by consolidated VIEs	30	21	48	48
Total interest expense	\$ 3,518	\$ 1,353	\$ 5,142	\$ 2,735
Net interest income	\$ 15,128	\$ 12,741	\$ 29,000	\$ 25,630
Provision for credit losses	1,101	(2,285)	2,564	(6,441)
Net interest income after provision for credit losses	\$ 14,027	\$ 15,026	\$ 26,436	\$ 32,071

(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 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 2021 Form 10-K for a discussion of JPMorgan Chase's pension and OPEB plans.

The following table presents the net periodic benefit costs reported in the Consolidated statements of income for the Firm's defined benefit pension, defined contribution and OPEB plans.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	Pension and OPEB plans		Pension and OPEB plans	
Total net periodic defined benefit plan cost/(credit)	\$ (75)	\$ (60)	\$ (139)	\$ (119)
Total defined contribution plans	357	350	701	671
Total pension and OPEB cost included in noninterest expense	\$ 282	\$ 290	\$ 562	\$ 552

At June 30, 2022 and December 31, 2021, the fair values of plan assets for the Firm's defined benefit pension and OPEB plans were \$20.9 billion and \$25.7 billion, respectively.

Note 8 – Employee share-based incentives

Refer to Note 9 of JPMorgan Chase's 2021 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.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Cost of prior grants of restricted stock units ("RSUs"), performance share units ("PSUs") and stock appreciation rights ("SARs") that are amortized over their applicable vesting periods	\$ 378	\$ 280	\$ 649	\$ 636
Accrual of estimated costs of share-based awards to be granted in future periods, predominantly those to full-career eligible employees	441	463	976	1,011
Total noncash compensation expense related to employee share-based incentive plans	\$ 819	\$ 743	\$ 1,625	\$ 1,647

In the first quarter of 2022, in connection with its annual incentive grant for the 2021 performance year, the Firm granted 19 million RSUs and 720 thousand PSUs with weighted-average grant date fair values of \$151.06 per RSU and \$149.99 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 June 30, 2022, 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 2022, the Firm transferred \$73.2 billion of investment securities from AFS to HTM for capital management purposes. AOCI included pretax unrealized losses of \$4.6 billion on the securities at the date of transfer.

Refer to Note 10 of JPMorgan Chase's 2021 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.

(in millions)	June 30, 2022				December 31, 2021			
	Amortized cost ^{(b)(c)}	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost ^{(b)(c)}	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale securities								
Mortgage-backed securities:								
U.S. GSEs and government agencies	\$ 68,511	\$ 252	\$ 5,074	\$ 63,689	\$ 72,800	\$ 736	\$ 993	\$ 72,543
Residential:								
U.S.	1,764	1	55	1,710	2,128	38	2	2,164
Non-U.S.	3,776	9	20	3,765	3,882	25	1	3,906
Commercial	2,271	—	118	2,153	4,944	22	17	4,949
Total mortgage-backed securities	76,322	262	5,267	71,317	83,754	821	1,013	83,562
U.S. Treasury and government agencies	113,811	323	4,150	109,984	178,038	668	1,243	177,463
Obligations of U.S. states and municipalities	10,381	98	346	10,133	14,890	972	2	15,860
Non-U.S. government debt securities	16,223	36	451	15,808	16,163	92	46	16,209
Corporate debt securities	353	—	34	319	332	8	19	321
Asset-backed securities:								
Collateralized loan obligations	11,268	1	297	10,972	9,674	6	18	9,662
Other	3,546	23	33	3,536	5,403	47	2	5,448
Total available-for-sale securities	231,904	743	10,578	222,069	308,254	2,614	2,343	308,525
Held-to-maturity securities^(a)								
Mortgage-backed securities:								
U.S. GSEs and government agencies	117,088	7	8,734	108,361	102,556	1,400	853	103,103
U.S. Residential	11,206	1	834	10,373	7,316	1	106	7,211
Commercial	10,076	2	545	9,533	3,730	11	54	3,687
Total mortgage-backed securities	138,370	10	10,113	128,267	113,602	1,412	1,013	114,001
U.S. Treasury and government agencies	226,362	—	13,506	212,856	185,204	169	2,103	183,270
Obligations of U.S. states and municipalities	19,167	78	939	18,306	13,985	453	44	14,394
Asset-backed securities:								
Collateralized loan obligations	55,121	—	1,521	53,600	48,869	75	22	48,922
Other	2,629	—	71	2,558	2,047	1	7	2,041
Total held-to-maturity securities	441,649	88	26,150	415,587	363,707	2,110	3,189	362,628
Total investment securities, net of allowance for credit losses	\$ 673,553	\$ 831	\$ 36,728	\$ 637,656	\$ 671,961	\$ 4,724	\$ 5,532	\$ 671,153

(a) The Firm purchased \$14.3 billion and \$27.5 billion of HTM securities for the three and six months ended June 30, 2022, respectively, and \$31.8 billion and \$63.1 billion for the three and six months ended June 30, 2021, respectively.

(b) The amortized cost of investment securities is reported net of allowance for credit losses of \$47 million and \$42 million at June 30, 2022 and December 31, 2021, respectively.

(c) Excludes \$2.0 billion and \$1.9 billion of accrued interest receivables at June 30, 2022 and December 31, 2021, respectively. The Firm did not reverse through interest income any accrued interest receivables for the three and six months ended June 30, 2022 and 2021. Refer to Note 10 of JPMorgan Chase's 2021 Form 10-K for further discussion of accounting policies for accrued interest receivables on investment securities.

AFS securities impairment

The following tables present the fair value and gross unrealized losses by aging category for AFS securities at June 30, 2022 and December 31, 2021. The tables exclude U.S. Treasury and government agency securities and U.S. GSE and government agency MBS with unrealized losses of \$9.2 billion and \$2.2 billion, at June 30, 2022 and December 31, 2021, 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.

June 30, 2022 (in millions)	Available-for-sale securities with gross unrealized losses					
	Less than 12 months		12 months or more		Total fair value	Total gross unrealized losses
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses		
Available-for-sale securities						
Mortgage-backed securities:						
Residential:						
U.S.	\$ 1,603	\$ 54	\$ 30	\$ 1	\$ 1,633	\$ 55
Non-U.S.	3,392	20	—	—	3,392	20
Commercial	1,827	93	326	25	2,153	118
Total mortgage-backed securities	6,822	167	356	26	7,178	193
Obligations of U.S. states and municipalities	4,258	341	13	5	4,271	346
Non-U.S. government debt securities	9,832	374	1,313	77	11,145	451
Corporate debt securities	249	4	37	30	286	34
Asset-backed securities:						
Collateralized loan obligations	9,392	258	1,538	39	10,930	297
Other	2,606	30	149	3	2,755	33
Total available-for-sale securities with gross unrealized losses	\$ 33,159	\$ 1,174	\$ 3,406	\$ 180	\$ 36,565	\$ 1,354

December 31, 2021 (in millions)	Available-for-sale securities with gross unrealized losses					
	Less than 12 months		12 months or more		Total fair value	Total gross unrealized losses
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses		
Available-for-sale securities						
Mortgage-backed securities:						
Residential:						
U.S.	\$ 303	\$ 1	\$ 45	\$ 1	\$ 348	\$ 2
Non-U.S.	133	1	—	—	133	1
Commercial	2,557	5	349	12	2,906	17
Total mortgage-backed securities	2,993	7	394	13	3,387	20
Obligations of U.S. states and municipalities	120	2	—	—	120	2
Non-U.S. government debt securities	5,060	37	510	9	5,570	46
Corporate debt securities	166	1	46	18	212	19
Asset-backed securities:						
Collateralized loan obligations	8,110	18	208	—	8,318	18
Other	89	—	178	2	267	2
Total available-for-sale securities with gross unrealized losses	\$ 16,538	\$ 65	\$ 1,336	\$ 42	\$ 17,874	\$ 107

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 June 30, 2022 and December 31, 2021, all HTM securities were rated investment grade and were current and accruing, with approximately 98% rated at least AA+.

Allowance for credit losses on investment securities

The allowance for credit losses on investment securities was \$47 million and \$87 million as of June 30, 2022 and 2021, respectively.

Refer to Note 10 of JPMorgan Chase's 2021 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

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Realized gains	\$ 69	\$ 184	\$ 82	\$ 421
Realized losses	(222)	(339)	(629)	(562)
Investment securities gains/(losses)	\$ (153)	\$ (155)	\$ (547)	\$ (141)
Provision for credit losses	\$ 6	\$ (7)	\$ 5	\$ 9

Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at June 30, 2022, of JPMorgan Chase's investment securities portfolio by contractual maturity.

By remaining maturity June 30, 2022 (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	\$ 3,358	\$ 4,197	\$ 68,765	\$ 76,322
Fair value	2	3,197	4,296	63,822	71,317
Average yield ^(a)	0.23 %	1.08 %	2.56 %	2.73 %	2.64 %
U.S. Treasury and government agencies					
Amortized cost	\$ 12,135	\$ 84,714	\$ 10,105	\$ 6,857	\$ 113,811
Fair value	12,106	81,398	9,460	7,020	109,984
Average yield ^(a)	1.56 %	0.54 %	1.60 %	1.89 %	0.83 %
Obligations of U.S. states and municipalities					
Amortized cost	\$ 17	\$ 132	\$ 801	\$ 9,431	\$ 10,381
Fair value	17	132	812	9,172	10,133
Average yield ^(a)	5.75 %	4.91 %	4.71 %	4.32 %	4.36 %
Non-U.S. government debt securities					
Amortized cost	\$ 6,924	\$ 4,608	\$ 3,530	\$ 1,161	\$ 16,223
Fair value	6,920	4,507	3,315	1,066	15,808
Average yield ^(a)	1.94 %	2.59 %	1.30 %	1.18 %	1.93 %
Corporate debt securities					
Amortized cost	\$ —	\$ 339	\$ 14	\$ —	\$ 353
Fair value	—	306	13	—	319
Average yield ^(a)	— %	12.26 %	2.33 %	— %	11.86 %
Asset-backed securities					
Amortized cost	\$ 112	\$ 1,730	\$ 3,697	\$ 9,275	\$ 14,814
Fair value	110	1,715	3,635	9,048	14,508
Average yield ^(a)	1.88 %	2.99 %	2.09 %	2.38 %	2.37 %
Total available-for-sale securities					
Amortized cost	\$ 19,190	\$ 94,881	\$ 22,344	\$ 95,489	\$ 231,904
Fair value	19,155	91,255	21,531	90,128	222,069
Average yield ^(a)	1.70 %	0.75 %	1.93 %	2.77 %	1.78 %
Held-to-maturity securities					
Mortgage-backed securities					
Amortized cost	\$ —	\$ 1,736	\$ 11,890	\$ 124,754	\$ 138,380
Fair value	—	1,652	10,975	115,640	128,267
Average yield ^(a)	— %	1.99 %	2.44 %	2.78 %	2.74 %
U.S. Treasury and government agencies					
Amortized cost	\$ 24,373	\$ 132,070	\$ 69,919	\$ —	\$ 226,362
Fair value	24,162	126,512	62,182	—	212,856
Average yield ^(a)	0.63 %	0.67 %	1.25 %	— %	0.84 %
Obligations of U.S. states and municipalities					
Amortized cost	\$ —	\$ 79	\$ 2,014	\$ 17,111	\$ 19,204
Fair value	—	75	2,000	16,231	18,306
Average yield ^(a)	— %	2.96 %	3.96 %	4.13 %	4.10 %
Asset-backed securities					
Amortized cost	\$ —	\$ —	\$ 15,143	\$ 42,607	\$ 57,750
Fair value	—	—	14,928	41,230	56,158
Average yield ^(a)	— %	— %	2.01 %	2.02 %	2.02 %
Total held-to-maturity securities					
Amortized cost	\$ 24,373	\$ 133,885	\$ 98,966	\$ 184,472	\$ 441,696
Fair value	24,162	128,239	90,085	173,101	415,587
Average yield ^(a)	0.63 %	0.69 %	1.56 %	2.73 %	1.73 %

(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 eight years for agency residential MBS, seven years for agency residential collateralized mortgage obligations and six years for nonagency residential collateralized mortgage obligations.

Note 10 – Securities financing activities

Refer to Note 11 of JPMorgan Chase's 2021 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 June 30, 2022 and December 31, 2021. 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.

		June 30, 2022				
(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	\$ 615,597	\$ (293,460)	\$ 322,137	\$ (313,022)	\$ 9,115	
Securities borrowed	243,655	(41,262)	202,393	(146,087)	56,306	
Liabilities						
Securities sold under repurchase agreements	\$ 511,697	\$ (293,460)	\$ 218,237	\$ (184,439)	\$ 33,798	
Securities loaned and other ^(a)	54,094	(41,262)	12,832	(12,777)	55	

		December 31, 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	\$ 604,724	\$ (343,093)	\$ 261,631	\$ (245,588)	\$ 16,043	
Securities borrowed	250,333	(44,262)	206,071	(154,599)	51,472	
Liabilities						
Securities sold under repurchase agreements	\$ 532,899	\$ (343,093)	\$ 189,806	\$ (166,456)	\$ 23,350	
Securities loaned and other ^(a)	52,610	(44,262)	8,348	(8,133)	215	

(a) Includes securities-for-securities lending agreements of \$9.7 billion and \$5.6 billion at June 30, 2022 and December 31, 2021, 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 June 30, 2022 and December 31, 2021, included \$5.5 billion and \$13.9 billion, respectively, of securities purchased under resale agreements; \$50.4 billion and \$46.4 billion, respectively, of securities borrowed; \$32.7 billion and \$21.6 billion, respectively, of securities sold under repurchase agreements; and \$41 million and \$198 million, respectively, of securities loaned and other.

The tables below present as of June 30, 2022, and December 31, 2021 the types of financial assets pledged in securities financing agreements and the remaining contractual maturity of the securities financing agreements.

(in millions)	Gross liability balance			
	June 30, 2022		December 31, 2021	
	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	\$ 33,382	\$ —	\$ 37,046	\$ —
Residential - nonagency	1,448	—	1,508	—
Commercial - nonagency	2,015	—	1,463	—
U.S. Treasury, GSEs and government agencies	234,147	1,783	241,578	358
Obligations of U.S. states and municipalities	2,103	4	1,916	7
Non-U.S. government debt	162,391	1,382	174,971	1,572
Corporate debt securities	38,157	2,283	38,180	1,619
Asset-backed securities	1,343	—	1,211	—
Equity securities	36,711	48,642	35,026	49,054
Total	\$ 511,697	\$ 54,094	\$ 532,899	\$ 52,610

June 30, 2022 (in millions)	Remaining contractual maturity of the agreements				
	Overnight and continuous	Up to 30 days	30 – 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	\$ 202,779	\$ 183,881	\$ 40,649	\$ 84,388	\$ 511,697
Total securities loaned and other	52,865	127	—	1,102	54,094

December 31, 2021 (in millions)	Remaining contractual maturity of the agreements				
	Overnight and continuous	Up to 30 days	30 – 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	\$ 195,035	\$ 231,171	\$ 47,201	\$ 59,492	\$ 532,899
Total securities loaned and other	50,034	1,701	—	875	52,610

Transfers not qualifying for sale accounting

At June 30, 2022, and December 31, 2021, the Firm held \$342 million and \$440 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 2021 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)}
<ul style="list-style-type: none"> • Residential real estate^(a) • Auto and other^(b) 	<ul style="list-style-type: none"> • Credit card loans 	<ul style="list-style-type: none"> • 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 2021 Form 10-K for more information on SPEs.

The following tables summarize the Firm's loan balances by portfolio segment.

June 30, 2022					
(in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total ^{(a)(b)}	
Retained	\$ 302,631	\$ 165,494	\$ 584,265	\$ 1,052,390	
Held-for-sale	740	—	3,969	4,709	
At fair value	13,841	—	33,215	47,056	
Total	\$ 317,212	\$ 165,494	\$ 621,449	\$ 1,104,155	

December 31, 2021					
(in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total ^{(a)(b)}	
Retained	\$ 295,556	\$ 154,296	\$ 560,354	\$ 1,010,206	
Held-for-sale	1,287	—	7,401	8,688	
At fair value	26,463	—	32,357	58,820	
Total	\$ 323,306	\$ 154,296	\$ 600,112	\$ 1,077,714	

(a) Excludes \$3.2 billion and \$2.7 billion of accrued interest receivables at June 30, 2022, and December 31, 2021, respectively. The Firm wrote off accrued interest receivables of \$8 million for both the three months ended June 30, 2022 and 2021, and \$20 million and \$21 million for the six months ended June 30, 2022 and 2021, respectively. Prior-period amounts have been revised to conform with the current presentation.

(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 June 30, 2022, and December 31, 2021.

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 June 30, (in millions)	2022				2021			
	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Purchases	\$ 973 ^{(b)(c)}	\$ —	\$ 228	\$ 1,201	\$ 111 ^{(b)(c)}	\$ —	\$ 301	\$ 412
Sales	82	—	12,005	12,087	—	—	8,751	8,751
Retained loans reclassified to held-for-sale ^(a)	66	—	415	481	87	—	892	979

Six months ended June 30, (in millions)	2022				2021			
	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Purchases	\$ 1,092 ^{(b)(c)}	\$ —	\$ 394	\$ 1,486	\$ 302 ^{(b)(c)}	\$ —	\$ 527	\$ 829
Sales	129	—	21,712	21,841	181	—	14,481	14,662
Retained loans reclassified to held-for-sale ^(a)	142	—	688	830	249	—	1,664	1,913

(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 six months ended June 30, 2022 and 2021. 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 \$6.0 billion and \$5.0 billion for the three months ended June 30, 2022 and 2021, respectively, and \$9.2 billion and \$12.0 billion for the six months ended June 30, 2022 and 2021, 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 six months ended June 30, 2022 was \$(352) million and \$(314) million, respectively, of which \$(67) million and \$(32) million, respectively, related to loans. Net gains/(losses) on sales of loans and lending-related commitments for the three and six months ended June 30, 2021 was \$62 million and \$194 million, respectively, of which \$47 million and \$182 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.

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)		June 30, 2022		December 31, 2021
Residential real estate	\$	237,142	\$	224,795
Auto and other ^(a)		65,489		70,761
Total retained loans	\$	302,631	\$	295,556

(a) At June 30, 2022 and December 31, 2021, included \$1.5 billion and \$5.4 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 2021 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.

June 30, 2022										
(in millions, except ratios)	Term loans by origination year ^(d)						Revolving loans		Total	
	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans		
Loan delinquency^{(a)(b)}										
Current	\$ 30,550	\$ 67,493	\$ 44,816	\$ 16,118	\$ 6,750	\$ 53,243	\$ 5,906	\$ 10,616	\$ 235,492	
30–149 days past due	7	20	11	14	10	545	9	164	780	
150 or more days past due	—	—	3	11	13	633	5	205	870	
Total retained loans	\$ 30,557	\$ 67,513	\$ 44,830	\$ 16,143	\$ 6,773	\$ 54,421	\$ 5,920	\$ 10,985	\$ 237,142	
% of 30+ days past due to total retained loans ^(c)	0.02 %	0.03 %	0.03 %	0.15 %	0.34 %	2.11 %	0.24 %	3.36 %	0.68 %	

December 31, 2021										
(in millions, except ratios)	Term loans by origination year ^(d)						Revolving loans		Total	
	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans		
Loan delinquency^{(a)(b)}										
Current	\$ 68,742	\$ 48,334	\$ 18,428	\$ 7,929	\$ 11,684	\$ 49,147	\$ 6,392	\$ 11,807	\$ 222,463	
30–149 days past due	13	23	27	27	22	578	11	182	883	
150 or more days past due	—	11	21	25	33	1,069	6	284	1,449	
Total retained loans	\$ 68,755	\$ 48,368	\$ 18,476	\$ 7,981	\$ 11,739	\$ 50,794	\$ 6,409	\$ 12,273	\$ 224,795	
% of 30+ days past due to total retained loans ^(c)	0.02 %	0.07 %	0.26 %	0.65 %	0.47 %	3.18 %	0.27 %	3.80 %	1.02 %	

- (a) At June 30, 2022 and December 31, 2021, individual delinquency classifications include mortgage loans insured by U.S. government agencies as follows: current included \$30 million and \$35 million; 30–149 days past due included \$11 million for both periods; and 150 or more days past due included \$21 million and \$20 million, respectively.
- (b) At June 30, 2022 and December 31, 2021, 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 June 30, 2022 and December 31, 2021, residential real estate loans excluded mortgage loans insured by U.S. government agencies of \$32 million and \$31 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.

Approximately 37% 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)	June 30, 2022		December 31, 2021	
Nonaccrual loans ^{(a)(b)(c)(d)}	\$	4,076	\$	4,759
90 or more days past due and government guaranteed ^(e)		24		24
Current estimated LTV ratios^{(f)(g)(h)}				
Greater than 125% and refreshed FICO scores:				
Equal to or greater than 660	\$	2	\$	2
Less than 660		1		2
101% to 125% and refreshed FICO scores:				
Equal to or greater than 660		31		37
Less than 660		5		15
80% to 100% and refreshed FICO scores:				
Equal to or greater than 660		2,718		2,701
Less than 660		51		89
Less than 80% and refreshed FICO scores:				
Equal to or greater than 660		222,880		209,295
Less than 660		9,149		9,658
No FICO/LTV available		2,243		2,930
U.S. government-guaranteed		62		66
Total retained loans	\$	237,142	\$	224,795
Weighted average LTV ratio ^{(f)(i)}		48 %		50 %
Weighted average FICO ^{(g)(i)}		767		765
Geographic region^(j)				
California	\$	72,803	\$	71,383
New York		34,406		32,545
Florida		18,408		16,182
Texas		15,099		13,865
Illinois		11,572		11,565
Colorado		9,734		8,885
Washington		8,892		8,292
New Jersey		7,097		6,832
Massachusetts		6,378		6,105
Connecticut		5,409		5,242
All other ^(k)		47,344		43,899
Total retained loans	\$	237,142	\$	224,795

- (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 June 30, 2022, approximately 5% 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 improves subsequent to charge down, the related allowance may be negative.
- (c) Interest income on nonaccrual loans recognized on a cash basis was \$45 million and \$41 million and \$90 million and \$86 million for the three and six months ended June 30, 2022 and 2021, respectively.
- (d) Generally excludes loans under payment deferral programs offered in response to the COVID-19 pandemic.
- (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 June 30, 2022 and December 31, 2021, 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 June 30, 2022 and December 31, 2021.
- (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) Includes residential real estate loans, primarily held in LLCs in AWM that did not have a refreshed FICO score. These loans have been included in a FICO band based on management's estimation of the borrower's credit quality.
- (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 June 30, 2022.
- (k) At June 30, 2022 and December 31, 2021, included mortgage loans insured by U.S. government agencies of \$62 million and \$66 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. The carrying value of new TDRs was \$115 million and \$307 million for the three months ended June 30, 2022 and 2021, respectively, and \$233 million and \$558 million for the six months ended June 30, 2022 and 2021, 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 and loans with short-term or other insignificant modifications that are not considered concessions.

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Number of loans approved for a trial modification	1,165	1,165	2,691	2,566
Number of loans permanently modified	1,289	1,186	2,831	2,900
Concession granted:^(a)				
Interest rate reduction	45 %	78 %	56 %	74 %
Term or payment extension	54	51	67	45
Principal and/or interest deferred	10	18	12	26
Principal forgiveness	1	—	1	2
Other ^(b)	46	34	36	44

(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 and loans with short-term or other insignificant modifications that are not considered concessions.

(in millions, except weighted-average data)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Weighted-average interest rate of loans with interest rate reductions – before TDR	4.76 %	4.39 %	4.55 %	4.51 %
Weighted-average interest rate of loans with interest rate reductions – after TDR	3.36	2.85	3.31	2.90
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	22	22	23	24
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	38	36	39	38
Charge-offs recognized upon permanent modification	\$ 1	\$ —	\$ 1	\$ —
Principal deferred	4	6	11	18
Principal forgiven	—	—	1	1
Balance of loans that redefaulted within one year of permanent modification ^(a)	\$ 27	\$ 21	\$ 70	\$ 45

(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 June 30, 2022, the weighted-average estimated remaining lives of residential real estate loans permanently modified in TDRs were six 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 June 30, 2022 and December 31, 2021, the Firm had residential real estate loans, excluding those insured by U.S. government agencies, with a carrying value of \$696 million and \$619 million, respectively, that were not included in REO, but were in the process of active or suspended foreclosure.

Auto and other

The following tables provide information on delinquency, which is the primary credit quality indicator for retained auto and other consumer loans.

June 30, 2022									
(in millions, except ratios)	Term loans by origination year						Revolving loans		Total
	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	
Loan delinquency									
Current	\$ 12,488	\$ 26,358 ^(b)	\$ 14,459 ^(b)	\$ 5,507	\$ 2,412	\$ 1,269	\$ 2,241	\$ 116	\$ 64,850
30–119 days past due	104	193	99	69	38	28	11	5	547
120 or more days past due	—	—	81	1	—	1	4	5	92
Total retained loans	\$ 12,592	\$ 26,551	\$ 14,639	\$ 5,577	\$ 2,450	\$ 1,298	\$ 2,256	\$ 126	\$ 65,489
% of 30+ days past due to total retained loans ^(a)	0.83 %	0.72 %	0.57 %	1.26 %	1.55 %	2.23 %	0.66 %	7.94 %	0.83 %

December 31, 2021									
(in millions, except ratios)	Term loans by origination year						Revolving loans		Total
	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans	
Loan delinquency									
Current	\$ 35,323 ^(c)	\$ 18,324 ^(c)	\$ 7,443	\$ 3,671	\$ 1,800	\$ 666	\$ 2,242	\$ 120	\$ 69,589
30–119 days past due	192	720	88	53	31	21	12	6	1,123
120 or more days past due	—	35	—	—	1	1	5	7	49
Total retained loans	\$ 35,515	\$ 19,079	\$ 7,531	\$ 3,724	\$ 1,832	\$ 688	\$ 2,259	\$ 133	\$ 70,761
% of 30+ days past due to total retained loans ^(a)	0.54 %	0.47 %	1.17 %	1.42 %	1.75 %	3.20 %	0.75 %	9.77 %	0.71 % ^(d)

(a) At June 30, 2022 and December 31, 2021, auto and other loans excluded \$97 million and \$667 million, respectively, 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.

(b) Includes \$1.3 billion of loans originated in 2021 and \$197 million 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.

(c) Includes \$4.4 billion of loans originated in 2021 and \$1.0 billion of loans originated in 2020 in Business Banking under the PPP.

(d) Prior-period amount has been revised to conform with the current presentation.

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)	Total Auto and other	
	June 30, 2022	December 31, 2021
Nonaccrual loans^{(a)(b)(c)}	\$ 110	\$ 119
Geographic region^(d)		
California	\$ 10,344	\$ 11,163
Texas	7,446	7,859
Florida	4,845	4,901
New York	4,625	5,848
Illinois	2,718	2,930
New Jersey	2,232	2,355
Pennsylvania	1,869	2,004
Georgia	1,719	1,748
Louisiana	1,693	1,801
Arizona	1,681	1,887
All other	26,317	28,265
Total retained loans	\$ 65,489	\$ 70,761

(a) At June 30, 2022 and December 31, 2021, nonaccrual loans excluded \$86 million and \$506 million, respectively, of PPP loans 90 or more days past due and guaranteed by the SBA, of which \$81 million and \$35 million, respectively, were no longer accruing interest based on the guidelines set by the SBA. Typically the principal balance of the loans is insured and interest is guaranteed at a specified reimbursement rate subject to meeting the guidelines set by the SBA. There were no loans that were not guaranteed by the SBA that are 90 or more days past due and still accruing interest at June 30, 2022 and December 31, 2021.

(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 improves subsequent to the charge down, the related allowance may be negative.

(c) Interest income on nonaccrual loans recognized on a cash basis was not material for the three and six months ended June 30, 2022 and 2021.

(d) The geographic regions presented in this table are ordered based on the magnitude of the corresponding loan balances at June 30, 2022.

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 six months ended June 30, 2022 and 2021.

Additional commitments to lend to borrowers whose loans have been modified in TDRs as of June 30, 2022 and December 31, 2021 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 2021 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.

(in millions, except ratios)	June 30, 2022		
	Within the revolving period	Converted to term loans ^(a)	Total
Loan delinquency			
Current and less than 30 days past due and still accruing	\$ 163,010	\$ 750	\$ 163,760
30–89 days past due and still accruing	841	51	892
90 or more days past due and still accruing	816	26	842
Total retained loans	\$ 164,667	\$ 827	\$ 165,494
Loan delinquency ratios			
% of 30+ days past due to total retained loans	1.01 %	9.31 %	1.05 %
% of 90+ days past due to total retained loans	0.50	3.14	0.51

(in millions, except ratios)	December 31, 2021		
	Within the revolving period	Converted to term loans ^(a)	Total
Loan delinquency			
Current and less than 30 days past due and still accruing	\$ 151,798	\$ 901	\$ 152,699
30–89 days past due and still accruing	770	59	829
90 or more days past due and still accruing	741	27	768
Total retained loans	\$ 153,309	\$ 987	\$ 154,296
Loan delinquency ratios			
% of 30+ days past due to total retained loans	0.99 %	8.71 %	1.04 %
% of 90+ days past due to total retained loans	0.48	2.74	0.50

(a) 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)	June 30, 2022	December 31, 2021
Geographic region^(a)		
California	\$ 24,954	\$ 23,030
Texas	17,138	15,879
New York	13,616	12,652
Florida	11,205	10,412
Illinois	9,198	8,530
New Jersey	6,854	6,367
Ohio	5,231	4,923
Colorado	5,029	4,573
Pennsylvania	4,943	4,708
Michigan	3,988	3,773
All other	63,338	59,449
Total retained loans	\$ 165,494	\$ 154,296
Percentage of portfolio based on carrying value with estimated refreshed FICO scores		
Equal to or greater than 660	88.2 %	88.5 %
Less than 660	11.6	11.3
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 June 30, 2022.

Loan modifications

The Firm may offer 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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Balance of new TDRs ^(a)	\$ 81	\$ 90	\$ 163	\$ 233
Weighted-average interest rate of loans – before TDR	18.94 %	17.92 %	18.47 %	17.81 %
Weighted-average interest rate of loans – after TDR	4.62	5.15	4.75	5.20
Balance of loans that redefaulted within one year of modification ^(b)	\$ 8	\$ 13	\$ 17	\$ 32

(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 2021 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		Commercial and industrial		Other ^(b)		Total retained loans	
	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021
Loans by risk ratings								
Investment-grade	\$ 97,344	\$ 92,369	\$ 78,452	\$ 75,783	\$ 244,149	\$ 241,859	\$ 419,945	\$ 410,011
Noninvestment-grade:								
Noncriticized	22,230	22,495	72,066	62,039	55,399	52,440	149,695	136,974
Criticized performing	3,546	3,645	7,971	6,900	1,025	770	12,542	11,315
Criticized nonaccrual ^(a)	328	326	986	969	769	759	2,083	2,054
Total noninvestment-grade	26,104	26,466	81,023	69,908	57,193	53,969	164,320	150,343
Total retained loans	\$ 123,448	\$ 118,835	\$ 159,475	\$ 145,691	\$ 301,342	\$ 295,828	\$ 584,265	\$ 560,354
% of investment-grade to total retained loans	78.85 %	77.73 %	49.19 %	52.02 %	81.02 %	81.76 %	71.88 %	73.17 %
% of total criticized to total retained loans	3.14	3.34	5.62	5.40	0.60	0.52	2.50	2.39
% of criticized nonaccrual to total retained loans	0.27	0.27	0.62	0.67	0.26	0.26	0.36	0.37

(a) At June 30, 2022 and December 31, 2021 nonaccrual loans excluded \$33 million and \$127 million, respectively, of PPP loans 90 or more days past due and guaranteed by the SBA, predominantly in commercial and industrial.

(b) 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 2021 Form 10-K for more information on SPEs.

(in millions)	Secured by real estate								
	June 30, 2022								
	Term loans by origination year						Revolving loans		
	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	\$ 15,386	\$ 23,092	\$ 15,162	\$ 15,702	\$ 6,329	\$ 20,509	\$ 1,156	\$ 8	\$ 97,344
Noninvestment-grade	3,146	5,203	3,464	3,823	2,919	6,831	717	1	26,104
Total retained loans	\$ 18,532	\$ 28,295	\$ 18,626	\$ 19,525	\$ 9,248	\$ 27,340	\$ 1,873	\$ 9	\$ 123,448

(in millions)	Secured by real estate								
	December 31, 2021								
	Term loans by origination year						Revolving loans		
	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	\$ 23,346	\$ 16,030	\$ 17,265	\$ 8,103	\$ 7,325	\$ 19,066	\$ 1,226	\$ 8	\$ 92,369
Noninvestment-grade	5,364	3,826	4,564	3,806	2,834	5,613	458	1	26,466
Total retained loans	\$ 28,710	\$ 19,856	\$ 21,829	\$ 11,909	\$ 10,159	\$ 24,679	\$ 1,684	\$ 9	\$ 118,835

Commercial and industrial									
June 30, 2022									
(in millions)	Term loans by origination year						Revolving loans		Total
	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	
Loans by risk ratings									
Investment-grade	\$ 15,298	\$ 11,588	\$ 4,517	\$ 2,498	\$ 898	\$ 1,419	\$ 42,169	\$ 65	\$ 78,452 ^(a)
Noninvestment-grade	12,384	14,389	4,665	3,363	1,245	968	43,930	79	81,023
Total retained loans	\$ 27,682	\$ 25,977	\$ 9,182	\$ 5,861	\$ 2,143	\$ 2,387	\$ 86,099	\$ 144	\$ 159,475

Commercial and industrial									
December 31, 2021									
(in millions)	Term loans by origination year						Revolving loans		Total
	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans	
Loans by risk ratings									
Investment-grade	\$ 21,342	\$ 6,268	\$ 3,609	\$ 1,269	\$ 1,108	\$ 819	\$ 41,367	\$ 1	\$ 75,783 ^(b)
Noninvestment-grade	19,314	7,112	4,559	2,177	930	430	35,312	74	69,908
Total retained loans	\$ 40,656	\$ 13,380	\$ 8,168	\$ 3,446	\$ 2,038	\$ 1,249	\$ 76,679	\$ 75	\$ 145,691

(a) At June 30, 2022, \$311 million of the \$368 million total PPP loans in the wholesale portfolio were commercial and industrial. Of the \$311 million, \$176 million were originated in 2021 and \$135 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) At December 31, 2021, \$1.1 billion of the \$1.3 billion total PPP loans in the wholesale portfolio were commercial and industrial. Of the \$1.1 billion, \$698 million were originated in 2021 and \$396 million were originated in 2020.

Other ^(a)									
June 30, 2022									
(in millions)	Term loans by origination year						Revolving loans		Total
	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	
Loans by risk ratings									
Investment-grade	\$ 22,907	\$ 17,185	\$ 15,373	\$ 4,978	\$ 2,268	\$ 8,932	\$ 171,265	\$ 1,241	\$ 244,149
Noninvestment-grade	10,701	8,223	2,204	1,031	555	662	33,677	140	57,193
Total retained loans	\$ 33,608	\$ 25,408	\$ 17,577	\$ 6,009	\$ 2,823	\$ 9,594	\$ 204,942	\$ 1,381	\$ 301,342

Other ^(a)									
December 31, 2021									
(in millions)	Term loans by origination year						Revolving loans		Total
	2021	2020	2019	2018	2017	Prior to 2017	Within the revolving period	Converted to term loans	
Loans by risk ratings									
Investment-grade	\$ 26,782	\$ 17,829	\$ 6,125	\$ 2,885	\$ 3,868	\$ 7,651	\$ 176,118	\$ 601	\$ 241,859
Noninvestment-grade	16,905	2,399	1,455	935	218	467	31,585	5	53,969
Total retained loans	\$ 43,687	\$ 20,228	\$ 7,580	\$ 3,820	\$ 4,086	\$ 8,118	\$ 207,703	\$ 606	\$ 295,828

(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 2021 Form 10-K for more information on SPEs.

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.

(in millions, except ratios)	Multifamily		Other commercial		Total retained loans secured by real estate	
	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021
Retained loans secured by real estate	\$ 77,370	\$ 73,801	\$ 46,078	\$ 45,034	\$ 123,448	\$ 118,835
Criticized	1,714	1,671	2,160	2,300	3,874	3,971
% of criticized to total retained loans secured by real estate	2.22 %	2.26 %	4.69 %	5.11 %	3.14 %	3.34 %
Criticized nonaccrual	\$ 75	\$ 91	\$ 253	\$ 235	\$ 328	\$ 326
% of criticized nonaccrual loans to total retained loans secured by real estate	0.10 %	0.12 %	0.55 %	0.52 %	0.27 %	0.27 %

Geographic distribution and delinquency

The following table provides information on the geographic distribution and delinquency for retained wholesale loans.

(in millions)	Secured by real estate		Commercial and industrial		Other		Total retained loans	
	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021
Loans by geographic distribution^(a)								
Total U.S.	\$ 120,309	\$ 115,732	\$ 119,337	\$ 106,449	\$ 218,334	\$ 215,750	\$ 457,980	\$ 437,931
Total non-U.S.	3,139	3,103	40,138	39,242	83,008	80,078	126,285	122,423
Total retained loans	\$ 123,448	\$ 118,835	\$ 159,475	\$ 145,691	\$ 301,342	\$ 295,828	\$ 584,265	\$ 560,354
Loan delinquency								
Current and less than 30 days past due and still accruing	\$ 122,833	\$ 118,163	\$ 156,966	\$ 143,459	\$ 298,606	\$ 293,358	\$ 578,405	\$ 554,980
30–89 days past due and still accruing	189	331	1,224	1,193	1,884	1,590	3,297	3,114
90 or more days past due and still accruing ^(b)	98	15	299	70	83	121	480	206
Criticized nonaccrual ^(c)	328	326	986	969	769	759	2,083	2,054
Total retained loans	\$ 123,448	\$ 118,835	\$ 159,475	\$ 145,691	\$ 301,342	\$ 295,828	\$ 584,265	\$ 560,354

(a) The U.S. and non-U.S. distribution is determined based predominantly on the domicile of the borrower.

(b) Represents loans that are considered well-collateralized and therefore still accruing interest.

(c) At June 30, 2022 and December 31, 2021 nonaccrual loans excluded \$33 million and \$127 million, respectively, of PPP loans 90 or more days past due and guaranteed by the SBA, predominantly in commercial and industrial.

Nonaccrual loans

The following table provides information on retained wholesale nonaccrual loans.

(in millions)	Secured by real estate		Commercial and industrial		Other		Total retained loans	
	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021
Nonaccrual loans								
With an allowance	\$ 247	\$ 254	\$ 656	\$ 604	\$ 522	\$ 286	\$ 1,425	\$ 1,144
Without an allowance ^(a)	81	72	330	365	247	473	658	910
Total nonaccrual loans^(b)	\$ 328	\$ 326	\$ 986	\$ 969	\$ 769	\$ 759	\$ 2,083	\$ 2,054

(a) 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.

(b) Interest income on nonaccrual loans recognized on a cash basis was not material for the three and six months ended June 30, 2022 and 2021.

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. New TDRs were \$60 million and \$224 million for the three months ended June 30, 2022, and 2021, respectively and \$479 million and \$652 million for the six months ended June 30, 2022 and 2021, respectively. New TDRs for the three months ended June 30, 2022 and 2021 reflected extending maturity dates and covenant waivers primarily in the Commercial and Industrial loan class. New TDRs for the six months ended June 30, 2022 and 2021 reflected modifications that included extending maturity dates and covenant waivers for both periods as well as the receipt of assets in partial satisfaction of the loan in 2021 predominantly in the Commercial and Industrial loan class. The impact of these modifications resulting in new TDRs was not material to the Firm for the three and six months ended June 30, 2022 and 2021.

The carrying value of TDRs was \$852 million and \$607 million as of June 30, 2022, and December 31, 2021, respectively.

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 2021 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 credit losses and includes a breakdown of loans and lending-related commitments by impairment methodology. Refer to Note 10 of JPMorgan Chase's 2021 Form 10-K and Note 9 of this Form 10-Q for further information on the allowance for credit losses on investment securities.

Six month ended June 30, (in millions)	2022				2021			
	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,	\$ 1,765	\$ 10,250	\$ 4,371	\$ 16,386	\$ 3,636	\$ 17,800	\$ 6,892	\$ 28,328
Gross charge-offs	384	1,505	123	2,012	308	2,213	135	2,656
Gross recoveries collected	(311)	(419)	(43)	(773)	(318)	(475)	(72)	(865)
Net charge-offs/(recoveries)	73	1,086	80	1,239	(10)	1,738	63	1,791
Provision for loan losses	237	1,236	1,125	2,598	(1,746)	(3,562)	(1,730)	(7,038)
Other	—	—	5	5	(2)	—	3	1
Ending balance at June 30	\$ 1,929	\$ 10,400	\$ 5,421	\$ 17,750	\$ 1,898	\$ 12,500	\$ 5,102	\$ 19,500
Allowance for lending-related commitments								
Beginning balance at January 1,	\$ 113	\$ —	\$ 2,148	\$ 2,261	\$ 187	\$ —	\$ 2,222	\$ 2,409
Provision for lending-related commitments	(2)	—	(37)	(39)	(46)	—	634	588
Other	(1)	—	1	—	1	—	—	1
Ending balance at June 30	\$ 110	\$ —	\$ 2,112	\$ 2,222	\$ 142	\$ —	\$ 2,856	\$ 2,998
Total allowance for investment securities	NA	NA	NA	47	NA	NA	NA	87
Total allowance for credit losses	\$ 2,039	\$ 10,400	\$ 7,533	\$ 20,019	\$ 2,040	\$ 12,500	\$ 7,958	\$ 22,585
Allowance for loan losses by impairment methodology								
Asset-specific ^(a)	\$ (676)	\$ 227	\$ 332	\$ (117)	\$ (557)	\$ 443	\$ 488	\$ 374
Portfolio-based	2,605	10,173	5,089	17,867	2,455	12,057	4,614	19,126
Total allowance for loan losses	\$ 1,929	\$ 10,400	\$ 5,421	\$ 17,750	\$ 1,898	\$ 12,500	\$ 5,102	\$ 19,500
Loans by impairment methodology								
Asset-specific ^(a)	\$ 12,683	\$ 827	\$ 2,408	\$ 15,918	\$ 15,187	\$ 1,180	\$ 3,010	\$ 19,377
Portfolio-based	289,948	164,667	581,857	1,036,472	282,544	139,899	521,845	944,288
Total retained loans	\$ 302,631	\$ 165,494	\$ 584,265	\$ 1,052,390	\$ 297,731	\$ 141,079	\$ 524,855	\$ 963,665
Collateral-dependent loans								
Net charge-offs	\$ (15)	\$ —	\$ 8	\$ (7)	\$ 23	\$ —	\$ 6	\$ 29
Loans measured at fair value of collateral less cost to sell	3,935	—	607	4,542	4,689	—	341	5,030
Allowance for lending-related commitments by impairment methodology								
Asset-specific	\$ —	\$ —	\$ 78	\$ 78	\$ —	\$ —	\$ 150	\$ 150
Portfolio-based	110	—	2,034	2,144	142	—	2,706	2,848
Total allowance for lending-related commitments^(b)	\$ 110	\$ —	\$ 2,112	\$ 2,222	\$ 142	\$ —	\$ 2,856	\$ 2,998
Lending-related commitments by impairment methodology								
Asset-specific	\$ —	\$ —	\$ 397	\$ 397	\$ —	\$ —	\$ 851	\$ 851
Portfolio-based ^(c)	26,809	—	448,362	475,171	36,092	—	459,078	495,170
Total lending-related commitments	\$ 26,809	\$ —	\$ 448,759	\$ 475,568	\$ 36,092	\$ —	\$ 459,929	\$ 496,021

(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 allowance for credit card 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.

(b) The allowance for lending-related commitments is reported in accounts payable and other liabilities on the Consolidated balance sheets.

(c) At June 30, 2022 and 2021, lending-related commitments excluded \$13.7 billion and \$20.8 billion, respectively, for the consumer, excluding credit card portfolio segment; \$774.0 billion and \$682.5 billion, respectively, for the credit card portfolio segment; and \$38.7 billion and \$42.7 billion, respectively, for the wholesale portfolio segment, which were not subject to the allowance for lending-related commitments.

Discussion of changes in the allowance

The allowance for credit losses as of June 30, 2022 was \$20.0 billion, an increase of \$1.3 billion from December 31, 2021, consisting of: \$1.0 billion in wholesale and \$311 million in consumer.

The change in allowance reflects the increased weight placed on the adverse scenarios in the current year, due to the ongoing effects associated with higher inflation, changes in monetary policy, and geopolitical risks, including the war in Ukraine, and a modest deterioration in the Firm's macroeconomic forecast. The increase in the allowance was also driven by loan growth in Card and CB in the second quarter of 2022, and client-specific Russia and Russia-associated downgrades in CIB and AWM in the first quarter of 2022.

The Firm's allowance for credit losses is estimated using a weighted average of five internally developed macroeconomic scenarios. The adverse scenarios incorporate more punitive macroeconomic factors than the central case assumptions provided in the table below, resulting in weighted average U.S. unemployment rates above 4% through the fourth quarter of 2023, and a 1.1% lower U.S. real GDP level exiting the fourth quarter of 2023.

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

	Assumptions at June 30, 2022		
	4Q22	2Q23	4Q23
U.S. unemployment rate ^(a)	3.6 %	3.6 %	3.7 %
YoY growth in U.S. real GDP ^(b)	1.3 %	1.7 %	1.2 %

	Assumptions at December 31, 2021		
	2Q22	4Q22	2Q23
U.S. unemployment rate ^(a)	4.2 %	4.0 %	3.9 %
YoY growth in U.S. real GDP ^(b)	3.1 %	2.8 %	2.1 %

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

(b) As of June 30, 2022, the year over year growth in U.S. real GDP in the forecast horizon of the central scenario is calculated as the percent change in U.S. real GDP levels from the prior year.

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 2021 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 Consumer Credit Portfolio on pages 57-61, Wholesale Credit Portfolio on pages 62-70 and Note 11 for additional information on the consumer and wholesale credit portfolios.

Refer to Critical Accounting Estimates Used by the Firm on pages 83-85 for further information on the allowance for credit losses and related management judgments.

Note 13 – Variable interest entities

Refer to Note 1 of JPMorgan Chase's 2021 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 2021 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	152
	Mortgage securitization trusts	Servicing and securitization of both originated and purchased residential mortgages	152-154
CIB	Mortgage and other securitization trusts	Securitization of both originated and purchased residential and commercial mortgages, and other consumer loans	152-154
	Multi-seller conduits	Assisting clients in accessing the financial markets in a cost-efficient manner and structuring transactions to meet investor needs	154
	Municipal bond vehicles	Financing of municipal bond investments	154

The Firm also invests in and provides financing and other services to VIEs sponsored by third parties. Refer to pages 155-157 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.

June 30, 2022 (in millions)	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs ^(c)			
	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	\$ 57,928	\$ 811	\$ 49,640	\$ 683	\$ 1,959	\$ 26	\$ 2,668
Subprime	10,170	—	9,446	4	—	—	4
Commercial and other ^(b)	163,168	—	113,129	754	5,112	586	6,452
Total	\$ 231,266	\$ 811	\$ 172,215	\$ 1,441	\$ 7,071	\$ 612	\$ 9,124

December 31, 2021 (in millions)	Principal amount outstanding			JPMorgan Chase interest in securitized assets in nonconsolidated VIEs ^(c)			
	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	\$ 55,085	\$ 942	\$ 47,029	\$ 974	\$ 684	\$ 95	\$ 1,753
Subprime	10,966	27	10,115	2	—	—	2
Commercial and other ^(b)	150,694	—	93,698	671	3,274	506	4,451
Total	\$ 216,745	\$ 969	\$ 150,842	\$ 1,647	\$ 3,958	\$ 601	\$ 6,206

(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 \$202 million and \$44 million, respectively, at June 30, 2022, and \$145 million and \$36 million, respectively, at December 31, 2021, which the Firm purchased in connection with CIB's secondary market-making activities.

(d) Includes interests held in re-securitization transactions.

(e) As of June 30, 2022 and December 31, 2021, 86% and 79%, respectively, 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 \$2.6 billion and \$1.6 billion of investment-grade retained interests, and \$52 million and \$131 million of noninvestment-grade retained interests at June 30, 2022, and December 31, 2021, respectively. The retained interests in commercial and other securitization trusts consisted of \$5.4 billion and \$3.5 billion of investment-grade retained interests, and \$1.0 billion and \$929 million of noninvestment-grade retained interests at June 30, 2022 and December 31, 2021, 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.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Transfers of securities to VIEs				
U.S. GSEs and government agencies	\$ 7,373	\$ 18,794	\$ 13,449	\$ 31,899

The Firm did not transfer any private label securities to re-securitization VIEs during the three and six months ended June 30, 2022 and 2021, respectively and retained interests in any such Firm-sponsored VIEs as of June 30, 2022 and December 31, 2021 were not material.

The following table presents information on the Firm's interests in nonconsolidated re-securitization VIEs.

(in millions)	Nonconsolidated re-securitization VIEs	
	June 30, 2022	December 31, 2021
U.S. GSEs and government agencies		
Interest in VIEs	\$ 2,470	\$ 1,947

As of June 30, 2022, and December 31, 2021, 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 \$12.1 billion and \$13.7 billion of the commercial paper issued by the Firm-administered multi-seller conduits at June 30, 2022, and December 31, 2021, 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 \$13.1 billion and \$13.4 billion at June 30, 2022, and December 31, 2021, 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 June 30, 2022, and December 31, 2021.

June 30, 2022 (in millions)	Assets				Liabilities		
	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	\$ —	\$ 10,852	\$ 114	\$ 10,966	\$ 1,749	\$ 1	\$ 1,750
Firm-administered multi-seller conduits	—	18,886	116	19,002	6,993	39	7,032
Municipal bond vehicles	2,012	—	4	2,016	1,744	3	1,747
Mortgage securitization entities ^(a)	—	830	17	847	154	72	226
Other	—	1,109 ^(b)	316	1,425	—	152	152
Total	\$ 2,012	\$ 31,677	\$ 567	\$ 34,256	\$ 10,640	\$ 267	\$ 10,907

December 31, 2021 (in millions)	Assets				Liabilities		
	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	\$ —	\$ 11,108	\$ 102	\$ 11,210	\$ 2,397	\$ 1	\$ 2,398
Firm-administered multi-seller conduits	1	19,883	71	19,955	6,198	41	6,239
Municipal bond vehicles	2,009	—	2	2,011	1,976	—	1,976
Mortgage securitization entities ^(a)	—	955	32	987	179	85	264
Other	—	1,078 ^(b)	283	1,361	—	118	118
Total	\$ 2,010	\$ 33,024	\$ 490	\$ 35,524	\$ 10,750	\$ 245	\$ 10,995

(a) Includes residential and commercial mortgage securitizations.

(b) Primarily 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 \$1.9 billion and \$2.6 billion at June 30, 2022, and December 31, 2021, 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 \$27.5 billion and \$26.8 billion, of which \$9.8 billion and \$9.4 billion was unfunded at June 30, 2022 and December 31, 2021, respectively. 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 2021 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.

Securitization activity

The following table provides information related to the Firm's securitization activities for the three and six months ended June 30, 2022 and 2021, 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.

(in millions)	Three months ended June 30,				Six months ended June 30,			
	2022		2021		2022		2021	
	Residential mortgage ^(a)	Commercial and other ^(a)	Residential mortgage ^(a)	Commercial and other ^(a)	Residential mortgage ^(a)	Commercial and other ^(a)	Residential mortgage ^(a)	Commercial and other ^(a)
Principal securitized	\$ 3,028	\$ 3,950	\$ 4,115	\$ 2,876	\$ 9,523	\$ 7,058	\$ 8,192	\$ 4,788
All cash flows during the period:^(a)								
Proceeds received from loan sales as financial instruments ^{(b)(c)}	\$ 2,754	\$ 3,869	\$ 4,218	\$ 2,909	\$ 9,129	\$ 6,975	\$ 8,452	\$ 4,879
Servicing fees collected	20	—	41	—	44	—	82	—
Cash flows received on interests	127	54	173	71	282	125	356	123

(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 MSR's 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 MSR's on a nonrecourse basis, predominantly to U.S. GSEs. These loans and excess MSR's 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 MSR's.

The Firm's maximum exposure as a liquidity provider to customer TOB trusts at June 30, 2022 and December 31, 2021 was \$6.9 billion and \$6.8 billion, respectively. The fair value of assets held by such VIEs at June 30, 2022 and December 31, 2021 was \$9.4 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.

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Carrying value of loans sold	\$ 10,721	\$ 24,459	\$ 34,389	\$ 47,606
Proceeds received from loan sales as cash	4	24	13	40
Proceeds from loan sales as securities ^{(a)(b)}	10,551	24,033	33,809	46,782
Total proceeds received from loan sales^(c)	\$ 10,555	\$ 24,057	\$ 33,822	\$ 46,822
Gains/(losses) on loan sales ^{(d)(e)}	\$ —	\$ —	\$ —	\$ 4

(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 June 30, 2022 and December 31, 2021. Substantially all of these loans and real estate are insured or guaranteed by U.S. government agencies.

(in millions)	Jun 30, 2022	Dec 31, 2021
Loans repurchased or option to repurchase ^(a)	\$ 826	\$ 1,022
Real estate owned	8	5
Foreclosed government-guaranteed residential mortgage loans ^(b)	25	36

(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 June 30, 2022, and December 31, 2021.

(in millions)	Securitized assets		90 days past due		Net liquidation losses/(recoveries)			
					Three months ended June 30,		Six months ended June 30,	
	Jun 30, 2022	Dec 31, 2021	Jun 30, 2022	Dec 31, 2021	2022	2021	2022	2021
Securitized loans								
Residential mortgage:								
Prime / Alt-A & option ARMs	\$ 49,640	\$ 47,029	\$ 1,732	\$ 2,466	\$ (21)	\$ 2	\$ (27)	\$ 14
Subprime	9,446	10,115	1,397	1,609	(3)	—	(3)	18
Commercial and other	113,129	93,698	957	1,456	5	—	11	21
Total loans securitized	\$ 172,215	\$ 150,842	\$ 4,086	\$ 5,531	\$ (19)	\$ 2	\$ (19)	\$ 53

Note 14 – Goodwill and Mortgage servicing rights

Refer to Note 15 of JPMorgan Chase's 2021 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)		June 30, 2022	December 31, 2021
Consumer & Community Banking	\$	31,907	\$ 31,474
Corporate & Investment Bank		7,931	7,906
Commercial Banking		2,986	2,986
Asset & Wealth Management		7,223	7,222
Corporate		650	727
Total goodwill	\$	50,697	\$ 50,315

The following table presents changes in the carrying amount of goodwill.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Balance at beginning of period	\$ 50,298	\$ 49,243	\$ 50,315	\$ 49,248
Changes during the period from:				
Business combinations ^(a)	470	—	470	—
Other ^(b)	(71)	13	(88)	8
Balance at June 30,	\$ 50,697	\$ 49,256	\$ 50,697	\$ 49,256

(a) For the three and six months ended June 30, 2022, represents estimated goodwill associated with the acquisitions of Frosch Travel Group, LLC in CCB and Volkswagen Payments S.A. in CIB.

(b) Primarily foreign currency adjustments and, in 2021, 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 2021 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 June 30, 2022, the Firm reviewed current economic conditions, estimated market cost of equity, as well as actual business results and projections of business performance. Based on such reviews, the Firm has concluded that goodwill was not impaired as of June 30, 2022, or December 31, 2021, nor was goodwill written off due to impairment during the six months ended June 30, 2022 or 2021.

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 2021 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 six months ended June 30, 2022 and 2021.

(in millions, except where otherwise noted)	As of or for the three months ended June 30,		As of or for the six months ended June 30,	
	2022	2021	2022	2021
Fair value at beginning of period	\$ 7,294	\$ 4,470	\$ 5,494	\$ 3,276
MSR activity:				
Originations of MSRs	181	419	596	823
Purchase of MSRs	160	395	875	574
Disposition of MSRs ^(a)	(614)	(25)	(671)	(24)
Net additions/(dispositions)	(273)	789	800	1,373
Changes due to collection/realization of expected cash flows	(236)	(182)	(468)	(369)
Changes in valuation due to inputs and assumptions:				
Changes due to market interest rates and other ^(b)	653	(500)	1,547	336
Changes in valuation due to other inputs and assumptions:				
Projected cash flows (e.g., cost to service)	—	1	—	(23)
Discount rates	—	—	—	—
Prepayment model changes and other ^(c)	1	(29)	66	(44)
Total changes in valuation due to other inputs and assumptions	1	(28)	66	(67)
Total changes in valuation due to inputs and assumptions	654	(528)	1,613	269
Fair value at June 30	\$ 7,439	\$ 4,549	\$ 7,439	\$ 4,549
Changes in unrealized gains/(losses) included in income related to MSRs held at June 30	\$ 654	\$ (528)	\$ 1,613	\$ 269
Contractual service fees, late fees and other ancillary fees included in income	395	307	765	598
Third-party mortgage loans serviced at June 30, (in billions)	576	465	576	465
Servicer advances, net of an allowance for uncollectible amounts, at June 30, (in billions) ^(d)	1.2	1.7	1.2	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 six months ended June 30, 2022 and 2021.

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
CCB mortgage fees and related income				
Production revenue	\$ 150	\$ 517	\$ 361	\$ 1,274
Net mortgage servicing revenue:				
Operating revenue:				
Loan servicing revenue	435	316	803	564
Changes in MSR asset fair value due to collection/realization of expected cash flows	(236)	(182)	(468)	(369)
Total operating revenue	199	134	335	195
Risk management:				
Changes in MSR asset fair value due to market interest rates and other ^(a)	653	(500)	1,547	336
Other changes in MSR asset fair value due to other inputs and assumptions in model ^(b)	1	(28)	66	(67)
Changes in derivative fair value and other	(626)	425	(1,476)	(487)
Total risk management	28	(103)	137	(218)
Total net mortgage servicing revenue	227	31	472	(23)
Total CCB mortgage fees and related income	377	548	833	1,251
All other	1	3	5	4
Mortgage fees and related income	\$ 378	\$ 551	\$ 838	\$ 1,255

(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).

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 the following 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.

The table below outlines the key economic assumptions used to determine the fair value of the Firm's MSR's at June 30, 2022, and December 31, 2021, and outlines hypothetical sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

(in millions, except rates)	Jun 30, 2022	Dec 31, 2021
Weighted-average prepayment speed assumption (constant prepayment rate)	6.72 %	9.90 %
Impact on fair value of 10% adverse change	\$ (189)	\$ (210)
Impact on fair value of 20% adverse change	(366)	(404)
Weighted-average option adjusted spread ^(a)	5.79 %	6.44 %
Impact on fair value of a 100 basis point adverse change	\$ (318)	\$ (225)
Impact on fair value of a 200 basis point adverse change	(611)	(433)

(a) Includes the impact of operational risk and regulatory capital.

Note 15 – Deposits

Refer to Note 17 of JPMorgan Chase's 2021 Form 10-K for further information on deposits.

At June 30, 2022 and December 31, 2021, noninterest-bearing and interest-bearing deposits were as follows.

(in millions)	June 30, 2022	December 31, 2021
U.S. offices		
Noninterest-bearing (included \$11,247 and \$8,115 at fair value) ^(a)	\$ 714,478	\$ 711,525 ^(b)
Interest-bearing (included \$589 and \$629 at fair value) ^(a)	1,343,802	1,359,932 ^(b)
Total deposits in U.S. offices	2,058,280	2,071,457
Non-U.S. offices		
Noninterest-bearing (included \$1,135 and \$2,420 at fair value) ^(a)	26,983	26,229
Interest-bearing (included \$299 and \$169 at fair value) ^(a)	386,281	364,617
Total deposits in non-U.S. offices	413,264	390,846
Total deposits	\$ 2,471,544	\$ 2,462,303

(a) Includes structured notes classified as deposits for which the fair value option has been elected. Refer to Note 3 for further information.

(b) Prior-period amount has been revised to conform with the current presentation.

Note 16 – Leases

Refer to Note 18 of JPMorgan Chase's 2021 Form 10-K for a further discussion on leases.

Firm as lessee

At June 30, 2022, 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)	June 30, 2022	December 31, 2021
Right-of-use assets	\$ 7,965	\$ 7,888
Lease liabilities	8,326	8,328

The Firm's net rental expense was \$484 million and \$483 million for the three months ended June 30, 2022 and 2021 and \$976 million and \$974 million for the six months ended June 30, 2022 and 2021, 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:

(in millions)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Operating lease income	\$ 945	\$ 1,277	\$ 1,993	\$ 2,602
Depreciation expense	668	876	1,379	1,809

Note 17 - Preferred stock

Refer to Note 21 of JPMorgan Chase's 2021 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 June 30, 2022 and December 31, 2021, and the quarterly dividend declarations for the three and six months ended June 30, 2022 and 2021.

	Shares		Carrying value (in millions)		Issue date	Contractual rate in effect at June 30, 2022	Earliest redemption date	Floating annualized rate ^(a)	Dividend declared per share				
	June 30, 2022	December 31, 2021	June 30, 2022	December 31, 2021					Three months ended June 30,		Six months ended June 30,		
									2022	2021	2022	2021	
Fixed-rate:													
Series AA	—	—	\$ —	\$ —	6/4/2015	—%	9/1/2020	NA	\$—	\$152.50	\$—	\$305.00	
Series BB	—	—	—	—	7/29/2015	—	9/1/2020	NA	—	153.75	—	307.50	
Series DD	169,625	169,625	1,696	1,696	9/21/2018	5.750	12/1/2023	NA	143.75	143.75	287.50	287.50	
Series EE	185,000	185,000	1,850	1,850	1/24/2019	6.000	3/1/2024	NA	150.00	150.00	300.00	300.00	
Series GG	90,000	90,000	900	900	11/7/2019	4.750	12/1/2024	NA	118.75	118.75	237.50	237.50	
Series JJ	150,000	150,000	1,500	1,500	3/17/2021	4.550	6/1/2026	NA	113.75	93.53	227.50	93.53	(b)
Series LL	185,000	185,000	1,850	1,850	5/20/2021	4.625	6/1/2026	NA	115.63	—	231.26	—	(c)
Series MM	200,000	200,000	2,000	2,000	7/29/2021	4.200	9/1/2026	NA	105.00	NA	210.00	NA	
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%	\$119.03	\$92.40	\$211.16	\$185.46	
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	257.50	257.50	
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	300.00	300.00	
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	337.50	337.50	
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	306.25	306.25	
Series V	250,000	250,000	2,500	2,500	6/9/2014	LIBOR + 3.32%	7/1/2019	LIBOR + 3.32	108.36	89.02	194.76	174.99	
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	305.00	305.00	
Series Z	—	200,000	—	2,000	4/21/2015	—	5/1/2020	LIBOR + 3.80	—	100.50	—	201.74	
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	231.25	231.25	
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	250.00	250.00	
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	230.00	230.00	
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	200.00	200.00	
Series KK	200,000	200,000	2,000	2,000	5/12/2021	3.650	6/1/2026	CMT + 2.85	91.25	—	182.50	—	(c)
Total preferred stock	3,283,750	3,483,750	\$ 32,838	\$ 34,838									

(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) The initial dividend declared is prorated based on the number of days outstanding for the period. Dividends were declared quarterly thereafter at the contractual rate.

(c) No dividends were declared from the original issue date through June 30, 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 \$33.2 billion at June 30, 2022.

Redemptions

On February 1, 2022, the Firm redeemed all \$2.0 billion of its fixed-to-floating rate non-cumulative preferred stock, Series Z.

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.

Note 18 – Earnings per share

Refer to Note 23 of JPMorgan Chase's 2021 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 six months ended June 30, 2022 and 2021.

(in millions, except per share amounts)	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Basic earnings per share				
Net income	\$ 8,649	\$ 11,948	\$ 16,931	\$ 26,248
Less: Preferred stock dividends	410	393	807	772
Net income applicable to common equity	8,239	11,555	16,124	25,476
Less: Dividends and undistributed earnings allocated to participating securities	44	59	85	130
Net income applicable to common stockholders	\$ 8,195	\$ 11,496	\$ 16,039	\$ 25,346
Total weighted-average basic shares outstanding	2,962.2	3,036.6	2,969.6	3,054.9
Net income per share	\$ 2.77	\$ 3.79	\$ 5.40	\$ 8.30
Diluted earnings per share				
Net income applicable to common stockholders	\$ 8,195	\$ 11,496	\$ 16,039	\$ 25,346
Total weighted-average basic shares outstanding	2,962.2	3,036.6	2,969.6	3,054.9
Add: Dilutive impact of SARs and employee stock options, unvested PSUs and nondividend-earning RSUs	4.1	5.3	4.1	5.4
Total weighted-average diluted shares outstanding	2,966.3	3,041.9	2,973.7	3,060.3
Net income per share	\$ 2.76	\$ 3.78	\$ 5.39	\$ 8.28

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 June 30, 2022 (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 April 1, 2022	\$ (4,813)	\$ (996)	\$ (21)	\$ (3,087)	\$ (143)	\$ (507)	\$ (9,567)
Net change	(4,031)	(679)	51	(1,348)	20	1,185	(4,802)
Balance at June 30, 2022	\$ (8,844) ^(a)	\$ (1,675)	\$ 30	\$ (4,435)	\$ (123)	\$ 678	\$ (14,369)

As of or for the three months ended June 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 April 1, 2021	\$ 3,841	\$ (723)	\$ (140)	\$ 134	\$ (1,064)	\$ (1,007)	\$ 1,041
Net change	674	64	(23)	591	9	214	1,529
Balance at June 30, 2021	\$ 4,515 ^(a)	\$ (659)	\$ (163)	\$ 725	\$ (1,055)	\$ (793)	\$ 2,570

As of or for the six month ended June 30, 2022 (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, 2022	\$ 2,640	\$ (934)	\$ (131)	\$ (296)	\$ (210)	\$ (1,153)	\$ (84)
Net change	(11,484)	(741)	161	(4,139)	87	1,831	(14,285)
Balance at June 30, 2022	\$ (8,844) ^(a)	\$ (1,675)	\$ 30	\$ (4,435)	\$ (123)	\$ 678	\$ (14,369)

As of or for the six months ended June 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	(3,665)	(186)	(51)	(1,658)	77	67	(5,416)
Balance at June 30, 2021	\$ 4,515 ^(a)	\$ (659)	\$ (163)	\$ 725	\$ (1,055)	\$ (793)	\$ 2,570

(a) As of June 30, 2022 and 2021 includes after-tax net unamortized unrealized gains/(losses) of \$(1.4) billion and \$3.0 billion, related to AFS securities that have been transferred to HTM, respectively. Refer to Note 10 of JPMorgan Chase's 2021 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 June 30, (in millions)	2022			2021		
	Pre-tax	Tax effect	After-tax	Pre-tax	Tax effect	After-tax
Unrealized gains/(losses) on investment securities:						
Net unrealized gains/(losses) arising during the period	\$ (5,456)	\$ 1,308	\$ (4,148)	\$ 727	\$ (171)	\$ 556
Reclassification adjustment for realized (gains)/losses included in net income ^(a)	153	(36)	117	155	(37)	118
Net change	(5,303)	1,272	(4,031)	882	(208)	674
Translation adjustments^(b):						
Translation	(3,550)	193	(3,357)	280	(10)	270
Hedges	3,524	(846)	2,678	(270)	64	(206)
Net change	(26)	(653)	(679)	10	54	64
Fair value hedges, net change^(c):	67	(16)	51	(31)	8	(23)
Cash flow hedges:						
Net unrealized gains/(losses) arising during the period	(1,750)	420	(1,330)	1,118	(269)	849
Reclassification adjustment for realized (gains)/losses included in net income ^(d)	(24)	6	(18)	(340)	82	(258)
Net change	(1,774)	426	(1,348)	778	(187)	591
Defined benefit pension and OPEB plans, net change:	33	(13)	20	2	7	9
DVA on fair value option elected liabilities, net change:	1,558	(373)	1,185	276	(62)	214
Total other comprehensive income/(loss)	\$ (5,445)	\$ 643	\$ (4,802)	\$ 1,917	\$ (388)	\$ 1,529

Six month ended June 30, (in millions)	2022			2021		
	Pre-tax	Tax effect	After-tax	Pre-tax	Tax effect	After-tax
Unrealized gains/(losses) on investment securities:						
Net unrealized gains/(losses) arising during the period	\$ (15,658)	\$ 3,758	\$ (11,900)	\$ (4,966)	\$ 1,194	\$ (3,772)
Reclassification adjustment for realized (gains)/losses included in net income ^(a)	547	(131)	416	141	(34)	107
Net change	(15,111)	3,627	(11,484)	(4,825)	1,160	(3,665)
Translation adjustments^(b):						
Translation	(3,891)	217	(3,674)	(920)	29	(891)
Hedges	3,862	(929)	2,933	930	(225)	705
Net change	(29)	(712)	(741)	10	(196)	(186)
Fair value hedges, net change^(c):	212	(51)	161	(68)	17	(51)
Cash flow hedges:						
Net unrealized gains/(losses) arising during the period	(5,186)	1,245	(3,941)	(1,577)	378	(1,199)
Reclassification adjustment for realized (gains)/losses included in net income ^(d)	(261)	63	(198)	(604)	145	(459)
Net change	(5,447)	1,308	(4,139)	(2,181)	523	(1,658)
Defined benefit pension and OPEB plans, net change:	123	(36)	87	93	(16)	77
DVA on fair value option elected liabilities, net change:	2,417	(586)	1,831	87	(20)	67
Total other comprehensive income/(loss)	\$ (17,835)	\$ 3,550	\$ (14,285)	\$ (6,884)	\$ 1,468	\$ (5,416)

(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 six months ended June 30, 2022 and 2021.

(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 2021 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)	June 30, 2022	December 31, 2021
Segregated for the benefit of securities and cleared derivative customers	\$ 19.8	\$ 14.6
Cash reserves at non-U.S. central banks and held for other general purposes	7.6	5.1
Total restricted cash^(a)	\$ 27.4	\$ 19.7

(a) Comprises \$26.1 billion and \$18.4 billion in deposits with banks, and \$1.3 billion and \$1.3 billion in cash and due from banks on the Consolidated balance sheet as of June 30, 2022 and December 31, 2021, respectively.

Also, as of June 30, 2022 and December 31, 2021, the Firm had the following other restricted assets:

- Cash and securities pledged with clearing organizations for the benefit of customers of \$42.8 billion and \$47.5 billion, respectively.
- Securities with a fair value of \$43.2 billion and \$30.0 billion, respectively, were also restricted in relation to customer activity.

Note 21 – Regulatory capital

Refer to Note 27 of JPMorgan Chase's 2021 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 risk-based regulatory capital ratio requirements and well-capitalized ratios to which the Firm and its IDI subsidiaries were subject as of June 30, 2022 and December 31, 2021.

	Standardized capital ratio requirements		Advanced capital ratio requirements		Well-capitalized ratios	
	BHC ^(a)	IDI ^(b)	BHC ^(a)	IDI ^(b)	BHC ^(c)	IDI ^(d)
Risk-based capital ratios						
CET1 capital	11.2 %	7.0 %	10.5 %	7.0 %	NA	6.5 %
Tier 1 capital	12.7	8.5	12.0	8.5	6.0 %	8.0
Total capital	14.7	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 regulatory capital ratio requirements applicable to the Firm. The CET1, Tier 1 and Total capital ratio requirements each include a respective minimum requirement plus a GSIB surcharge of 3.5% as calculated under Method 2; plus a 3.2% 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 ratio requirements 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 leverage-based regulatory capital ratio requirements and well-capitalized ratios to which the Firm and its IDI subsidiaries were subject as of June 30, 2022 and December 31, 2021.

	Capital ratio requirements ^(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

On December 31, 2021, the CECL capital transition provisions, which delayed the effects of CECL on regulatory capital for two years, expired. Beginning January 1, 2022, the \$2.9 billion CECL capital benefit recognized as of December 31, 2021, is being phased out at 25% per year over a three-year period. As of June 30, 2022, CET1 capital reflected the remaining \$2.2 billion, benefit associated with the CECL capital transition provisions.

Additionally, effective January 1, 2022, the Firm phased out 25% of the other relevant CECL capital transition provisions recognized as of December 31, 2021, from Tier 2 capital, adjusted average assets, and total leverage exposure.

Refer to Note 27 of JPMorgan Chase's 2021 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 June 30, 2022 and December 31, 2021, JPMorgan Chase and JPMorgan Chase Bank, N.A. were well-capitalized and met all capital requirements to which each was subject.

June 30, 2022 (in millions, except ratios)	Basel III Standardized		Basel III Advanced	
	JPMorgan Chase & Co.	JPMorgan Chase Bank, N.A.	JPMorgan Chase & Co.	JPMorgan Chase Bank, N.A.
Risk-based capital metrics:^(a)				
CET1 capital	\$ 207,436	\$ 263,041	\$ 207,436	\$ 263,041
Tier 1 capital	239,705	263,044	239,705	263,044
Total capital	268,339	279,857	257,329	268,368
Risk-weighted assets	1,704,893	1,631,555	1,613,210	1,461,684
CET1 capital ratio	12.2 %	16.1 %	12.9 %	18.0 %
Tier 1 capital ratio	14.1	16.1	14.9	18.0
Total capital ratio	15.7	17.2	16.0	18.4

December 31, 2021 (in millions, except ratios)	Basel III Standardized		Basel III Advanced	
	JPMorgan Chase & Co.	JPMorgan Chase Bank, N.A.	JPMorgan Chase & Co.	JPMorgan Chase Bank, N.A.
Risk-based capital metrics:^(a)				
CET1 capital	\$ 213,942	\$ 266,907	\$ 213,942	\$ 266,907
Tier 1 capital	246,162	266,910	246,162	266,910
Total capital	274,900	281,826	265,796	272,299
Risk-weighted assets	1,638,900	1,582,280	1,547,920	1,392,847
CET1 capital ratio	13.1 %	16.9 %	13.8 %	19.2 %
Tier 1 capital ratio	15.0	16.9	15.9	19.2
Total capital ratio	16.8	17.8	17.2	19.5

(a) The capital metrics reflect the CECL capital transition provisions. Additionally, loans originated under the PPP receive a zero percent risk weight.

Three months ended (in millions, except ratios)	June 30, 2022		December 31, 2021	
	JPMorgan Chase & Co.	JPMorgan Chase Bank, N.A.	JPMorgan Chase & Co.	JPMorgan Chase Bank, N.A.
Leverage-based capital metrics:^(a)				
Adjusted average assets ^(b)	\$ 3,861,979	\$ 3,402,079	\$ 3,782,035	\$ 3,334,925
Tier 1 leverage ratio	6.2 %	7.7 %	6.5 %	8.0 %
Total leverage exposure	\$ 4,563,099	\$ 4,104,529	\$ 4,571,789	\$ 4,119,286
SLR	5.3 %	6.4 %	5.4 %	6.5 %

(a) The capital metrics reflect the CECL capital transition provisions.

(b) Adjusted average assets, for purposes of calculating the leverage ratios, includes quarterly average assets adjusted for on-balance sheet assets that are subject to deduction from Tier 1 capital, predominantly goodwill, inclusive of estimated equity method goodwill, and other intangible assets.

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 2021 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 June 30, 2022, and December 31, 2021. 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

By remaining maturity (in millions)	Contractual amount						Carrying value ^(h)		
	June 30, 2022						Dec 31, 2021	Jun 30, 2022	Dec 31, 2021
	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)	\$ 11,475	\$ 2,737	\$ 6,475	\$ 7,476	\$ 28,163	\$ 32,996	\$ 125	\$ 100	
Auto and other	11,143	—	—	1,178	12,321	12,338	—	2	
Total consumer, excluding credit card	22,618	2,737	6,475	8,654	40,484	45,334	125	102	
Credit card ^(b)	774,021	—	—	—	774,021	730,534	—	—	
Total consumer^(c)	796,639	2,737	6,475	8,654	814,505	775,868	125	102	
Wholesale:									
Other unfunded commitments to extend credit ^(d)	112,164	141,382	178,584	23,313	455,443	453,467	2,307	2,037	
Standby letters of credit and other financial guarantees ^(d)	14,512	7,863	4,616	1,060	28,051	28,530	417	476	
Other letters of credit ^(d)	3,504	424	78	—	4,006	4,448	19	9	
Total wholesale^(c)	130,180	149,669	183,278	24,373	487,500	486,445	2,743	2,522	
Total lending-related	\$ 926,819	\$ 152,406	\$ 189,753	\$ 33,027	\$ 1,302,005	\$ 1,262,313	\$ 2,868	\$ 2,624	
Other guarantees and commitments									
Securities lending indemnification agreements and guarantees ^(e)	\$ 337,049	\$ —	\$ —	\$ —	\$ 337,049	\$ 337,770	\$ —	\$ —	
Derivatives qualifying as guarantees	3,372	146	12,791	37,874	54,183	55,730	842	475	
Unsettled resale and securities borrowed agreements	193,602	1,728	—	—	195,330	103,681	(11)	1	
Unsettled repurchase and securities loaned agreements	98,905	523	—	—	99,428	74,263	(4)	—	
Loan sale and securitization-related indemnifications:									
Mortgage repurchase liability	NA	NA	NA	NA	NA	NA	54	61	
Loans sold with recourse	NA	NA	NA	NA	788	827	12	19	
Exchange & clearing house guarantees and commitments ^(f)	127,727	—	—	—	127,727	182,701	—	—	
Other guarantees and commitments^(g)	7,916	915	288	2,204	11,323	10,490	63	69	

(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 June 30, 2022, and December 31, 2021, reflected the contractual amount net of risk participations totaling \$44 million at both periods, for other unfunded commitments to extend credit; \$8.2 billion and \$7.9 billion, respectively, for standby letters of credit and other financial guarantees; and \$899 million and \$451 million, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.

(e) At June 30, 2022, and December 31, 2021, collateral held by the Firm in support of securities lending indemnification agreements was \$355.2 billion and \$357.4 billion, respectively. Securities lending collateral primarily consists of cash, G7 government securities, and securities issued by U.S. GSEs and government agencies.

(f) At June 30, 2022, and December 31, 2021, 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 June 30, 2022, and December 31, 2021, primarily includes unfunded commitments to purchase secondary market loans, unfunded commitments related to certain tax-oriented equity investments, and other equity investment commitments.

(h) 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. At June 30, 2022, includes net markdowns on held-for-sale positions related to unfunded commitments in the bridge financing portfolio.

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.

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 June 30, 2022, and December 31, 2021.

Standby letters of credit, other financial guarantees and other letters of credit

(in millions)	June 30, 2022		December 31, 2021	
	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)	\$ 19,696	\$ 2,763	\$ 19,998	\$ 3,087
Noninvestment-grade ^(a)	8,355	1,243	8,532	1,361
Total contractual amount	\$ 28,051	\$ 4,006	\$ 28,530	\$ 4,448
Allowance for lending-related commitments	\$ 97	\$ 19	\$ 123	\$ 9
Guarantee liability	320	—	353	—
Total carrying value	\$ 417	\$ 19	\$ 476	\$ 9
Commitments with collateral	\$ 15,314	\$ 690	\$ 14,511	\$ 999

(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 2021 Form 10-K for further information on these derivatives.

The following table summarizes the derivatives qualifying as guarantees as of June 30, 2022, and December 31, 2021.

(in millions)	June 30, 2022	December 31, 2021
Notional amounts		
Derivative guarantees	\$ 54,183	\$ 55,730
Stable value contracts with contractually limited exposure	28,480	29,778
Maximum exposure of stable value contracts with contractually limited exposure	2,635	2,882
Fair value		
Derivative payables	842	475

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.

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.

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 2021 Form 10-K for additional information regarding litigation.

Sponsored member repo program

The Firm acts as a sponsoring member to clear eligible overnight and term 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 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 170. Refer to Note 11 of JPMorgan Chase's 2021 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 170 of this Note. Refer to Note 20 of JPMorgan Chase's 2021 Form 10-K for additional information.

Note 23 – Pledged assets and collateral

Refer to Note 29 of JPMorgan Chase's 2021 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)	June 30, 2022	December 31, 2021
Assets that may be sold or repledged or otherwise used by secured parties	\$ 123.5	\$ 126.3
Assets that may not be sold or repledged or otherwise used by secured parties	86.1	112.0
Assets pledged at Federal Reserve banks and FHLBs	519.7	476.4
Total pledged assets	\$ 729.3	\$ 714.7

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 2021 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)	June 30, 2022	December 31, 2021
Collateral permitted to be sold or repledged, delivered, or otherwise used	\$ 1,424.2	\$ 1,471.3
Collateral sold, repledged, delivered or otherwise used	1,122.3	1,111.0

Note 24 – Litigation

Contingencies

As of June 30, 2022, 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 \$1.2 billion at June 30, 2022. 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 are 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 alleged 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. A trial was held between February and April 2022. In June 2022, the Court decided the case in favor of JPMorgan Chase Bank, N.A. and dismissed it in full. The FRN has requested permission to appeal the decision relating solely to the 2013 payment of approximately \$75 million.

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. 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 following the antitrust plea. The only remaining FX-related governmental inquiry is a South Africa Competition Commission matter which is currently pending before the South Africa Competition Tribunal.

With respect to civil litigation matters, 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, the Netherlands, Brazil and Australia. In a putative class action pending before the U.K. Competition Appeal Tribunal, the tribunal has denied a request by the proposed class representatives for class certification on an opt-out basis.

Inquiries Concerning Preservation Requirements. In December 2021 certain of the Firm's subsidiaries entered into resolutions with the U.S. Securities and Exchange Commission ("SEC") and the U.S. Commodity Futures Trading Commission ("CFTC") to resolve their respective civil investigations of compliance with records preservation requirements applicable to broker-dealer firms, swap dealers and futures commission merchants. The SEC and CFTC found that J.P. Morgan Securities LLC did not maintain copies of certain communications required to be maintained under their respective record keeping rules, where such communications were sent or received by employees over electronic messaging channels that had not been approved for employee use by the Firm. The CFTC resolution also included JPMorgan Chase Bank, N.A. and J.P. Morgan Securities plc as swap dealers. The SEC and CFTC also found related supervision failures. Under these resolutions, J.P.

Morgan Securities LLC paid a \$125 million civil monetary penalty to the SEC, and J.P. Morgan Securities LLC, JPMorgan Chase Bank, N.A. and J.P. Morgan Securities plc paid a total \$75 million civil monetary penalty to the CFTC. The Firm continues to respond to requests for information and other material from certain authorities 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.

In March 2022, a shareholder derivative action was filed in the United States District Court for the Eastern District of New York against the Firm's Board of Directors asserting breaches of fiduciary duty and violation of federal securities laws based on the Board's alleged failure to exercise adequate oversight over compliance with records preservation requirements. The complaint seeks damages, restitution, disgorgement and corporate governance reforms. Defendants have moved to dismiss the complaint.

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 monetary class action 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 settlement 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 injunctive class action 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 one other bank remain 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. A consolidated putative class action related to the period that U.S. dollar LIBOR was administered by ICE Benchmark Administration has been dismissed. In addition, 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. Defendants moved to dismiss plaintiffs' complaint. In December 2021, the court denied plaintiffs' motions for a preliminary injunction seeking to enjoin defendants from setting U.S. dollar LIBOR and enforcing any financial instruments that rely on U.S. dollar LIBOR. 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, and, in July 2022, the Court granted final approval of a settlement among the parties. 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. The actions in the Northern District of Illinois were transferred to the Southern District of New York. The Court consolidated these putative class actions, and, in June 2022, the Court granted final approval of a settlement among the parties. In Canada, plaintiffs have commenced putative class action proceedings based on similar alleged underlying conduct related to precious metals.

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.

In May 2022, a shareholder derivative suit purporting to act on behalf of the Firm, was filed in the Supreme Court of the State of New York asserting breach of fiduciary duty and unjust enrichment claims against certain current and former officers and directors of the Firm. The complaint claims the Firm's Board of Directors wrongfully rejected the shareholder's demand to commence litigation and seeks

damages, disgorgement and corporate governance reforms on the basis of alleged supervisory failures with regard to certain historical spoofing-related conduct that was the subject of the Firm's resolutions with the DOJ, CFTC and SEC in September 2020, as well as certain fiduciary activities that were separately the subject of a resolution between JPMorgan Chase Bank, N.A. and the OCC in November 2020.

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.

* * *

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 \$73 million and \$185 million for the three months ended June 30, 2022 and 2021, respectively, and \$192 million and \$213 million for the six months ended June 30, 2022 and 2021, respectively. 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 2021 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 six months ended June 30, 2022 and 2021, 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 2021 Form 10-K for additional information on the Firm's managed basis.

Capital allocation

The amount of capital assigned to each business 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 93 of JPMorgan Chase's 2021 Form 10-K for additional information on capital allocation.

Segment results and reconciliation^(a)

As of or for the three months ended June 30, (in millions, except ratios)	Consumer & Community Banking		Corporate & Investment Bank		Commercial Banking		Asset & Wealth Management	
	2022	2021	2022	2021	2022	2021	2022	2021
Noninterest revenue	\$ 3,906	\$ 4,726	\$ 8,749	\$ 9,912	\$ 904	\$ 950	\$ 3,084	\$ 3,165
Net interest income	8,708	8,034	3,198	3,302	1,779	1,533	1,222	942
Total net revenue	12,614	12,760	11,947	13,214	2,683	2,483	4,306	4,107
Provision for credit losses	761	(1,868)	59	(79)	209	(377)	44	(10)
Noninterest expense	7,723	7,062	6,745	6,523	1,156	981	2,919	2,586
Income/(loss) before income tax expense/(benefit)	4,130	7,566	5,143	6,770	1,318	1,879	1,343	1,531
Income tax expense/(benefit)	1,030	1,921 ^(b)	1,418	1,750 ^(b)	324	457 ^(b)	339	375 ^(b)
Net income/(loss)	\$ 3,100	\$ 5,645 ^(b)	\$ 3,725	\$ 5,020 ^(b)	\$ 994	\$ 1,422 ^(b)	\$ 1,004	\$ 1,156 ^(b)
Average equity	\$ 50,000	\$ 50,000	\$ 103,000	\$ 83,000	\$ 25,000	\$ 24,000	\$ 17,000	\$ 14,000
Total assets	500,219	494,305	1,403,558	1,363,992	242,456	226,022	235,553	217,284
ROE	24 %	44 %	14 %	23 %	15 %	23 %	23 %	32 %
Overhead ratio	61	55	56	49	43	40	68	63

As of or for the three months ended June 30, (in millions, except ratios)	Corporate		Reconciling Items ^(a)		Total	
	2022	2021	2022	2021	2022	2021
Noninterest revenue	\$ (244)	\$ (208)	\$ (812)	\$ (807)	\$ 15,587	\$ 17,738
Net interest income	324	(961)	(103)	(109)	15,128	12,741
Total net revenue	80	(1,169)	(915)	(916)	30,715	30,479
Provision for credit losses	28	49	—	—	1,101	(2,285)
Noninterest expense	206	515	—	—	18,749	17,667
Income/(loss) before income tax expense/(benefit)	(154)	(1,733)	(915)	(916)	10,865	15,097
Income tax expense/(benefit)	20	(438) ^(b)	(915)	(916)	2,216	3,149
Net income/(loss)	\$ (174)	\$ (1,295) ^(b)	\$ —	\$ —	\$ 8,649	\$ 11,948
Average equity	\$ 52,986	\$ 79,849	\$ —	\$ —	\$ 247,986	\$ 250,849
Total assets	1,459,528	1,382,653	NA	NA	3,841,314	3,684,256
ROE	NM	NM	NM	NM	13 %	18 %
Overhead ratio	NM	NM	NM	NM	61	58

(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) In the first quarter of 2022, the Firm changed its methodology for allocating income taxes to the LOBs, with no impact to Firmwide net income. Prior-period amounts have been revised to conform with the current presentation.

Segment results and reconciliation^(a)

Six months ended June 30, (in millions, except ratios)	Consumer & Community Banking		Corporate & Investment Bank		Commercial Banking		Asset & Wealth Management	
	2022	2021	2022	2021	2022	2021	2022	2021
Noninterest revenue	\$ 7,808	9,314	\$ 18,706	21,000	\$ 1,771	1,867	\$ 6,328	6,311
Net interest income	17,035	15,963	6,770	6,819	3,310	3,009	2,298	1,873
Total net revenue	24,843	25,277	25,476	27,819	5,081	4,876	8,621	8,184
Provision for credit losses	1,439	(5,470)	504	(410)	366	(495)	198	(131)
Noninterest expense	15,443	14,264	14,043	13,627	2,285	1,950	5,779	5,160
Income/(loss) before income tax expense/(benefit)	7,961	16,483	10,929	14,602	2,430	3,421	2,644	3,155
Income tax expense/(benefit)	1,966	4,051	2,819	3,659	586	819	632	739
Net income/(loss)	\$ 5,995	\$ 12,432	\$ 8,110	\$ 10,943	\$ 1,844	\$ 2,602	\$ 2,012	\$ 2,416
Average equity	\$ 50,009	50,000	\$ 103,009	83,000	\$ 25,009	24,000	\$ 17,009	14,000
Total assets	500,219	494,305	1,403,558	1,363,992	242,456	226,022	235,553	217,284
ROE	2%	4%	1%	2%	1%	2%	2%	3%
Overhead ratio	62	56	55	49	45	40	67	63

Six months ended June 30, (in millions, except ratios)	Corporate		Reconciling Items ^(a)		Total		
	2022	2021	2022	2021	2022	2021	
Noninterest revenue		\$ (589)	174	\$ (1,587)	(1,551)	\$ 32,432	37,115
Net interest income		(212)	(1,816)	(201)	(218)	29,000	25,630
Total net revenue		(801)	(1,642)	(1,788)	(1,769)	61,432	62,745
Provision for credit losses		57	65	—	—	2,564	(6,441)
Noninterest expense		390	1,391	—	—	37,940	36,392
Income/(loss) before income tax expense/(benefit)		(1,248)	(3,098)	(1,788)	(1,769)	20,928	32,794
Income tax expense/(benefit)		(218)	(951)	(1,788)	(1,769)	3,997	6,546
Net income/(loss)	\$ (1,030)	(2,147)	\$ —	\$ —	\$ —	\$ 16,931	\$ 26,248
Average equity	\$ 55,238	77,209	\$ —	\$ —	\$ —	250,238	248,209
Total assets	1,459,528	1,382,653	NA	NA	NA	3,841,314	3,684,256
ROE	NM	NM	NM	NM	NM	1%	2%
Overhead ratio	NM	NM	NM	NM	NM	62	58

(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) In the first quarter of 2022, the Firm changed its methodology for allocating income taxes to the LOBs, with no impact to Firmwide net income. Prior-period amounts have been revised to conform with the current presentation.



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 June 30, 2022, and the related consolidated statements of income, comprehensive income and changes in stockholders' equity for the three-month and six-month periods ended June 30, 2022 and 2021 and the consolidated statements of cash flows for the six-month periods ended June 30, 2022 and 2021, 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, 2021, and the related consolidated statements of income, comprehensive income, changes in stockholders' equity and of cash flows for the year then ended (not presented herein), and in our report dated February 22, 2022, which included a paragraph describing a change in the manner of accounting for credit losses on certain financial instruments in 2020, 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, 2021, 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.

August 3, 2022

JPMorgan Chase & Co.
Consolidated average balance sheets, interest and rates (unaudited)
(Taxable-equivalent interest and rates; in millions, except rates)

	Three months ended June 30, 2022			Three months ended June 30, 2021		
	Average balance	Interest ^(f)	Rate (annualized)	Average balance	Interest ^(f)	Rate (annualized)
Assets						
Deposits with banks	\$ 694,644	\$ 1,079	0.62 %	\$ 721,214	\$ 103	0.06
Federal funds sold and securities purchased under resale agreements	305,132	543	0.71	255,831	175	0.27
Securities borrowed	207,437	173	0.33	190,785	(90)	(0.19) ^(h)
Trading assets – debt instruments	273,736	2,058	3.02	277,024	1,719	2.49
Taxable securities	644,037	2,289	1.43	553,603	1,577	1.14
Nontaxable securities ^(a)	28,762	309	4.31	31,481	339	4.32
Total investment securities	672,799	2,598	1.55 ^(g)	585,084	1,916	1.31 ^(g)
Loans	1,093,106	11,656	4.28	1,024,633	10,177	3.98
All other interest-earning assets ^(b)	139,040	642	1.85	122,624	203	0.66
Total interest-earning assets	3,385,894	18,749	2.22	3,177,195	14,203	1.79
Allowance for loan losses	(17,194)			(22,965)		
Cash and due from banks	28,712			26,758		
Trading assets – equity and other instruments	151,309			199,288		
Trading assets – derivative receivables	84,483			70,212		
Goodwill, MSRs and other intangible Assets	59,355			54,512		
All other noninterest-earning assets	219,084			223,687		
Total assets	\$ 3,911,643			\$ 3,728,687		
Liabilities						
Interest-bearing deposits	\$ 1,790,421	\$ 898	0.20 %	\$ 1,669,376	\$ 132	0.03 %
Federal funds purchased and securities loaned or sold under repurchase agreements	233,376	468	0.80	261,343	60	0.09
Short-term borrowings ^(c)	50,833	90	0.73	46,185	33	0.30
Trading liabilities – debt and all other interest-bearing liabilities ^{(d)(e)}	274,435	471	0.69	246,666	51	0.08 ^(h)
Beneficial interests issued by consolidated VIEs	10,577	30	1.11	15,117	21	0.55
Long-term debt	246,195	1,561	2.54	248,552	1,056	1.70
Total interest-bearing liabilities	2,605,837	3,518	0.54	2,487,239	1,353	0.22
Noninterest-bearing deposits	741,891			654,419		
Trading liabilities – equity and other instruments ^(e)	40,937			35,397		
Trading liabilities – derivative payables	61,026			62,533		
All other liabilities, including the allowance for lending-related commitments	181,128			205,584		
Total liabilities	3,630,819			3,445,172		
Stockholders' equity						
Preferred stock	32,838			32,666		
Common stockholders' equity	247,986			250,849		
Total stockholders' equity	280,824			283,515		
Total liabilities and stockholders' equity	\$ 3,911,643			\$ 3,728,687		
Interest rate spread			1.68 %			1.57 %
Net interest income and net yield on interest-earning assets		\$ 15,231	1.80		\$ 12,850	1.62

(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) Includes commercial paper.

(d) All other interest-bearing liabilities include brokerage-related customer payables.

(e) The combined balance of trading liabilities – debt and equity instruments was \$140.2 billion and \$135.6 billion for the three months ended June 30, 2022 and 2021, respectively.

(f) Interest includes the effect of certain related hedging derivatives. Taxable-equivalent amounts are used where applicable.

(g) The annualized rate for securities based on amortized cost was 1.52% and 1.33% for the three months ended June 30, 2022 and 2021, respectively, and does not give effect to changes in fair value that are reflected in AOCI.

(h) Negative interest income and yield are related to the impact of 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.

JPMorgan Chase & Co.
Consolidated average balance sheets, interest and rates (unaudited)
(Taxable-equivalent interest and rates; in millions, except rates)

	Six months ended June 30, 2022			Six months ended June 30, 2021		
	Average balance	Interest ^(f)	Rate (annualized)	Average balance	Interest ^(f)	Rate (annualized)
Assets						
Deposits with banks	\$ 718,346	\$ 1,317	0.37 %	\$ 676,658	\$ 168	0.05 %
Federal funds sold and securities purchased under resale agreements	300,070	940	0.63	272,704	408	0.30
Securities borrowed	212,704	86	0.08	182,945	(167)	(0.18) ^(h)
Trading assets – debt instruments	272,931	3,833	2.83	299,710	3,509	2.36
Taxable securities	643,340	4,268	1.34	552,097	3,182	1.16
Nontaxable securities ^(a)	28,647	616	4.34	31,682	687	4.37
Total investment securities	671,987	4,884	1.47 ^(g)	583,779	3,869	1.34 ^(g)
Loans	1,080,939	22,317	4.16	1,019,109	20,394	4.04
All other interest-earning assets ^(b)	136,902	966	1.42	117,117	402	0.69
Total interest-earning assets	3,393,879	34,343	2.04	3,152,022	28,583	1.83
Allowance for loan losses	(16,807)			(25,602)		
Cash and due from banks	28,340			25,968		
Trading assets – equity and other instruments	154,093			181,746		
Trading assets – derivative receivables	75,956			72,459		
Goodwill, MSRs and other intangible Assets	58,455			54,223		
All other noninterest-earning assets	215,313			210,268		
Total assets	\$ 3,909,229			\$ 3,671,084		
Liabilities						
Interest-bearing deposits	\$ 1,785,896	\$ 1,080	0.12 %	\$ 1,640,085	\$ 278	0.03 %
Federal funds purchased and securities loaned or sold under repurchase agreements	241,749	585	0.49	281,254	75	0.05
Short-term borrowings ^(c)	49,360	130	0.53	44,120	66	0.31
Trading liabilities – debt and all other interest-bearing liabilities ^{(d)(e)}	268,762	662	0.50	238,836	78	0.07 ^(h)
Beneficial interests issued by consolidated VIEs	10,733	48	0.90	16,145	48	0.60
Long-term debt	250,165	2,637	2.13	244,000	2,190	1.81
Total interest-bearing liabilities	2,606,665	5,142	0.40	2,464,440	2,735	0.22
Noninterest-bearing deposits	738,083			634,403		
Trading liabilities – equity and other instruments ^(e)	42,159			35,214		
Trading liabilities – derivative payables	57,792			65,231		
All other liabilities, including the allowance for lending-related commitments	181,116			192,091		
Total liabilities	3,625,815			3,391,379		
Stockholders' equity						
Preferred stock	33,180			31,496		
Common stockholders' equity	250,234			248,209		
Total stockholders' equity	283,414			279,705		
Total liabilities and stockholders' equity	\$ 3,909,229			\$ 3,671,084		
Interest rate spread			1.64 %			1.61 %
Net interest income and net yield on interest-earning assets		\$ 29,201	1.74		\$ 25,848	1.65

(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) Includes commercial paper.

(d) All other interest-bearing liabilities include brokerage-related customer payables.

(e) The combined balance of trading liabilities – debt and equity instruments was \$140.2 billion and \$131.0 billion for the six months ended June 30, 2022 and 2021, respectively.

(f) Interest includes the effect of certain related hedging derivatives. Taxable-equivalent amounts are used where applicable.

(g) The annualized rate for securities based on amortized cost was 1.45% and 1.35% for the six months ended June 30, 2022 and 2021, respectively, and does not give effect to changes in fair value that are reflected in AOCI.

(h) Negative interest income and yield are related to the impact of 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.

GLOSSARY OF TERMS AND ACRONYMS

2021 Form 10-K: Annual report on Form 10-K for year ended December 31, 2021, 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.

AOI: 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.

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

CFO: Chief Financial Officer

CFTC: Commodity Futures Trading Commission

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.

CRR: Capital Requirements Regulation

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.

EPS: Earnings per share

ERISA: Employee Retirement Income Security Act of 1974

ESG: Environmental, Social and Governance

ETD: "Exchange-traded derivatives": Derivative contracts that are executed on an exchange and settled via a central clearing house.

EU: European Union

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.

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.

FICC: Fixed Income Clearing Corporation

FINRA: Financial Industry Regulatory Authority

Firm: JPMorgan Chase & Co.

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.

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

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

JPMSE: J.P. Morgan SE

LCR: Liquidity coverage ratio

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.

Macro businesses: the macro businesses include Rates, Currencies and Emerging Markets, Fixed Income Financing and Commodities in CIB's Fixed Income Markets.

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.

Markets: consists of CIB's Fixed Income Markets and Equity Markets businesses.

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).

MBS: Mortgage-backed securities

MD&A: Management's discussion and analysis

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

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.

MSR: Mortgage servicing rights

NA: Data is not applicable or available for the period presented.

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.

Pillar 1: The Basel framework consists of a three "Pillar" approach. Pillar 1 establishes minimum capital requirements, defines eligible capital instruments, and prescribes rules for calculating RWA.

Pillar 3: The Basel framework consists of a three "Pillar" approach. Pillar 3 encourages market discipline through disclosure requirements which allow market participants to assess the risk and capital profiles of banks.

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

SA-CCR: Standardized Approach for Counterparty Credit Risk

SAR as it pertains to Hong Kong: Special Administrative Region

SAR(s) as it pertains to employee stock awards: 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

SOFR: Secured Overnight Financing Rate

SPEs: Special purpose entities

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

U.S.: United States of America

U.S. GAAP: Accounting principles generally accepted in the 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. 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

Unaudited: Financial statements and/or information that have not been subject to auditing procedures by an independent registered public accounting firm.

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.

LINE OF BUSINESS METRICS

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 MSR's; the impact of risk management activities associated with MSR's; 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.

Payments is a full service provider of cash management solutions, which primarily includes merchant acquiring, cross border and domestic payments, liquidity and account services, and global trade for multinational corporations, e-commerce and marketplace operators, and financial institutions.

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, 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.

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: revenue primarily includes tax-equivalent adjustments generated from Community Development Banking and activity 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 133-140 of JPMorgan Chase's 2021 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 156 of JPMorgan Chase's 2021 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 June 30, 2022, 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 2021 Form 10-K.

Item 1A. Risk Factors.

Refer to Part I, Item 1A: Risk Factors on pages 9-33 of JPMorgan Chase's 2021 Form 10-K and Forward-Looking Statements on page 87 of this Form 10-Q for a discussion of certain risk factors affecting the Firm.

Supervision and regulation

Refer to the Supervision and regulation section on pages 4–8 of JPMorgan Chase's 2021 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 June 30, 2022.

Repurchases under the common share repurchase program

Refer to Capital Risk Management on pages 44-49 of this Form 10-Q and pages 86-96 of JPMorgan Chase's 2021 Form 10-K for information regarding repurchases under the Firm's common share repurchase program.

Through April 30, 2022, the Firm was authorized to repurchase up to \$30 billion of common shares under its previously approved common share repurchase program, that was announced on December 18, 2020. Effective May 1, 2022, the Firm is authorized to purchase up to \$30 billion of common shares under a new equity repurchase program.

As a result of the expected increase in the SCB in the fourth quarter of 2022 and GSIB surcharge in the first quarter of 2023, the Firm has temporarily suspended share repurchases.

Shares repurchased pursuant to the common share repurchase program during the six months ended June 30, 2022 were as follows.

Six months ended June 30, 2022	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)
First quarter	18,106,991	\$ 138.04	\$ 2,500	\$ 9,052
April	1,980,026	\$ 128.77	\$ 255	\$ 8,797 ^(b)
May	2,437,519	122.65	299	29,701
June	563,502	120.85	68	29,633 ^(c)
Second quarter	4,981,047	\$ 124.88	\$ 622	\$ 29,633 ^(c)
Year-to-date	23,088,038	\$ 135.20	\$ 3,122	\$ 29,633 ^(c)

(a) Excludes commissions cost.

(b) The \$8.8 billion under the prior Board authorization was canceled when the \$30 billion repurchase program was authorized by the Board of Directors effective May 1, 2022.

(c) 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, 2021.)
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 June 30, 2022, formatted in XBRL (eXtensible Business Reporting Language) interactive data files: (i) the Consolidated statements of income (unaudited) for the three and six months ended June 30, 2022 and 2021, (ii) the Consolidated statements of comprehensive income (unaudited) for the three and six months ended June 30, 2022 and 2021, (iii) the Consolidated balance sheets (unaudited) as of June 30, 2022, and December 31, 2021, (iv) the Consolidated statements of changes in stockholders' equity (unaudited) for the three and six months ended June 30, 2022 and 2021, (v) the Consolidated statements of cash flows (unaudited) for the six months ended June 30, 2022 and 2021, 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: August 3, 2022



August 3, 2022

Securities and Exchange Commission 100 F Street, N.E.
Washington, DC 20549

Re: JPMorgan Chase & Co.

Registration Statements on Form S-3
(No. 333-236659)
(No. 333-236659-01)
(No. 333-263304)

Registration Statements on Form S-8
(No. 333-219702)
(No. 333-219701)
(No. 333-219699)
(No. 333-185584)
(No. 333-185582)
(No. 333-185581)
(No. 333-175681)
(No. 333-158325)
(No. 333-142109)
(No. 333-125827)
(No. 333-112967)

Commissioners:

We are aware that our report dated August 3, 2022 on our review of interim financial information of JPMorgan Chase & Co. and its subsidiaries (the "Firm"), which appears in this Quarterly Report on Form 10-Q, is incorporated by reference in the Registration Statements of the Firm referred to above. Pursuant to Rule 436(c) under the Securities Act of 1933, such report should not be considered a part of such Registration Statements, and is not a report within the meaning of Sections 7 and 11 of that Act.

Very truly yours,

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP, 300 Madison Avenue, New York, NY 10017

Exhibit 31.1
JPMorgan Chase & Co.

CERTIFICATION

I, James Dimon, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of JPMorgan Chase & Co.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2022

/s/ James Dimon

James Dimon
Chairman and Chief Executive Officer

Exhibit 31.2
JPMorgan Chase & Co.

CERTIFICATION

I, Jeremy Barnum, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of JPMorgan Chase & Co.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2022

/s/ Jeremy Barnum

Jeremy Barnum
Executive Vice President and Chief Financial Officer

Exhibit 32
JPMorgan Chase & Co.

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of JPMorgan Chase & Co. on Form 10-Q for the period ended June 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of JPMorgan Chase & Co., certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of JPMorgan Chase & Co.

Date: August 3, 2022

By: /s/ James Dimon

James Dimon
Chairman and Chief Executive Officer

Date: August 3, 2022

By: /s/ Jeremy Barnum

Jeremy Barnum
Executive Vice President and Chief Financial Officer

This certification accompanies this Quarterly Report on Form 10-Q and 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.

A signed original of this written statement required by Section 906 has been provided to, and will be retained by, JPMorgan Chase & Co. and furnished to the Securities and Exchange Commission or its staff upon request.