JPMORGAN CHASE BANK, NATIONAL ASSOCIATION

(a wholly-owned subsidiary of JPMorgan Chase & Co.)

CONSOLIDATED FINANCIAL STATEMENTS

For the six months ended June 30, 2023

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For the six months ended June 30, 2023

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)
Consolidated statements of income (unaudited)

(in millions)	Six months ended June 30, 2023	Six months ended June 30, 2022
Revenue		
Investment banking fees	**$ 1,283**	$ 1,602
Principal transactions	**12,224**	9,012
Lending- and deposit-related fees	**3,447**	3,710
Asset management fees	**1,350**	1,268
Commissions and other fees	**5,983**	5,773
Investment securities losses	**(1,768)**	(547)
Mortgage fees and related income	**499**	838
Card income	**2,328**	2,108
Other income	**4,168**	2,538
Noninterest revenue	**29,514**	26,302
Interest income	**69,558**	31,372
Interest expense	**24,845**	2,332
Net interest income	**44,713**	29,040
Total net revenue	**74,227**	55,342
Provision for credit losses	**5,103**	2,557
Noninterest expense		
Compensation expense	**18,525**	17,185
Occupancy expense	**2,057**	2,155
Technology, communications and equipment expense	**4,056**	4,393
Professional and outside services	**3,320**	3,393
Marketing	**2,154**	1,790
Other expense	**6,831**	5,147
Total noninterest expense	**36,943**	34,063
Income before income tax expense	**32,181**	18,722
Income tax expense	**6,468**	4,426
Net income	**$ 25,713**	$ 14,296

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

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)
Consolidated statements of comprehensive income (unaudited)

	Six months ended June 30,	
(in millions)	**2023**	2022
Net income	**$ 25,713**	$ 14,296
Other comprehensive income/(loss), after-tax		
Unrealized gains/(losses) on investment securities	**2,967**	(11,467)
Translation adjustments, net of hedges	**254**	(688)
Cash flow hedges	**299**	(4,137)
Defined benefit pension and OPEB plans	**(48)**	86
Debit valuation adjustment ("DVA") on fair value option elected liabilities	**101**	307
Total other comprehensive income/(loss), after-tax	**3,573**	(15,899)
Comprehensive income/(loss)	**$ 29,286**	$ (1,603)

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JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)
Consolidated balance sheets (unaudited)

(in millions, except share data)	June 30, 2023	December 31, 2022
Assets		
Cash and due from banks	**$ 25,783**	$ 27,258
Deposits with banks	**467,840**	538,715
Federal funds sold and securities purchased under resale agreements (included **$209,404** and $193,945 at fair value)	**262,814**	259,460
Securities borrowed (included **$20,825** and $22,454 at fair value)	**53,842**	53,642
Trading assets (included assets pledged of **$70,317** and $39,458)	**402,130**	288,420
Available-for-sale securities (amortized cost of **$209,787** and $216,103; included assets pledged of **$14,675** and $15,274)	**203,191**	205,790
Held-to-maturity securities	**408,941**	425,305
Investment securities, net of allowance for credit losses	**612,132**	631,095
Loans (included **$38,524** and $41,795 at fair value)	**1,298,184**	1,132,985
Allowance for loan losses	**(21,919)**	(19,714)
Loans, net of allowance for loan losses	**1,276,265**	1,113,271
Accrued interest and accounts receivable	**78,258**	89,373
Premises and equipment	**28,078**	26,347
Goodwill, Mortgage servicing rights and other intangible assets	**50,257**	48,600
Other assets (included **$14,120** and $12,667 at fair value and assets pledged of **$2,876** and $2,505)	**124,796**	125,761
Total assets[(a)]	**$ 3,382,195**	$ 3,201,942
Liabilities		
Deposits (included **$51,711** and $28,742 at fair value)	**$ 2,505,649**	$ 2,440,722
Federal funds purchased and securities loaned or sold under repurchase agreements (included **$87,283** and $75,327 at fair value)	**99,926**	85,902
Short-term borrowings (included **$8,063** and $7,796 at fair value)	**11,624**	10,074
Trading liabilities	**123,451**	116,629
Accounts payable and other liabilities (included **$7,962** and $7,760 at fair value)	**157,428**	156,433
Beneficial interests issued by consolidated variable interest entities	**20,022**	13,424
Long-term debt (included **$26,821** and $27,145 at fair value)	**148,726**	75,138
Total liabilities[(a)]	**3,066,826**	2,898,322
Commitments and contingencies (refer to Notes 24, 25 and 26)		
Stockholder's equity		
Preferred stock ($1 par value; authorized 15,000,000 shares; issued **0** shares)	**—**	—
Common stock ($12 par value; authorized 200,000,000 shares; issued **168,971,750** shares)	**2,028**	2,028
Additional paid-in capital	**118,335**	118,293
Retained earnings	**209,397**	201,263
Accumulated other comprehensive losses	**(14,391)**	(17,964)
Total stockholder's equity	**315,369**	303,620
Total liabilities and stockholder's equity	**$ 3,382,195**	$ 3,201,942

(a) The following table presents information on assets and liabilities related to variable interest entities ("VIEs") that are consolidated by the Bank at June 30, 2023, and December 31, 2022. 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 the Bank. The assets and liabilities in the table below include third-party assets and liabilities of consolidated VIEs (including balances with related parties) and exclude intercompany balances that eliminate in consolidation. Refer to Note 15 for a further discussion.

(in millions)	June 30, 2023	December 31, 2022
Assets		
Trading assets	**$ 2,314**	$ 2,089
Loans	**39,114**	34,394
All other assets	**281**	290
Total assets	**$ 41,709**	$ 36,773
Liabilities		
Beneficial interests issued by consolidated VIEs	**$ 20,022**	$ 13,424
All other liabilities	**117**	132
Total liabilities	**$ 20,139**	$ 13,556

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

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)
Consolidated statements of changes in stockholder's equity (unaudited)

	Six months ended June 30,	
(in millions)	**2023**	2022
Common stock		
Balance at January 1 and June 30	**$ 2,028**	$ 2,028
Additional paid-in capital		
Balance at the beginning of the period	**118,293**	118,221
Other	**42**	–
Balance at June 30	**118,335**	118,221
Retained earnings		
Balance at the beginning of the period	**201,263**	182,421
Cumulative effect of change in accounting principles	**451**	–
Net income	**25,713**	14,296
Cash dividends paid to JPMorgan Chase & Co.	**(18,000)**	(4,000)
Other	**(30)**	–
Balance at June 30	**209,397**	192,717
Accumulated other comprehensive income/(loss)		
Balance at the beginning of the period	**(17,964)**	178
Other comprehensive income/(loss), after-tax	**3,573**	(15,899)
Balance at June 30	**(14,391)**	(15,721)
Total stockholder's equity	**$ 315,369**	$ 297,245

Effective January 1, 2023, the Bank adopted the Financial Instruments – Credit Losses: Troubled Debt Restructurings and Derivatives and Hedging: Fair Value Hedging – Portfolio Layer Method accounting guidance. Refer to Note 1 for further information.

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

JPMorgan Chase Bank, National Association
(a wholly-owned subsidiary of JPMorgan Chase & Co.)
Consolidated statements of cash flows (unaudited)

	Six months ended June 30,	
(in millions)	**2023**	2022
Operating activities		
Net income	**$ 25,713**	$ 14,296
Adjustments to reconcile net income to net cash provided by/(used in) operating activities:		
Provision for credit losses	**5,103**	2,557
Depreciation and amortization	**1,907**	3,385
Deferred tax (benefit)/expense	**(2,025)**	(2,323)
Bargain purchase gain associated with the First Republic acquisition	**(2,712)**	–
Other	**1,304**	547
Originations and purchases of loans held-for-sale	**(47,992)**	(102,857)
Proceeds from sales, securitizations and paydowns of loans held-for-sale	**47,465**	116,756
Net change in:		
Trading assets	**(109,145)**	(35,452)
Securities borrowed	**(188)**	6,212
Accrued interest and accounts receivable	**13,650**	(14,942)
Other assets	**14,924**	(24,823)
Trading liabilities	**(274)**	37,478
Accounts payable and other liabilities	**(10,702)**	51,766
Other operating adjustments	**1,734**	378
Net cash (used in)/provided by operating activities	**(61,238)**	52,978
Investing activities		
Net change in:		
Federal funds sold and securities purchased under resale agreements	**(3,186)**	(71,761)
Held-to-maturity securities:		
Proceeds from paydowns and maturities	**13,762**	20,952
Purchases	**(4,141)**	(27,490)
Available-for-sale securities:		
Proceeds from paydowns and maturities	**23,465**	21,806
Proceeds from sales	**69,868**	36,217
Purchases	**(52,423)**	(66,200)
Proceeds from sales and securitizations of loans held-for-investment	**19,442**	22,188
Other changes in loans, net	**(33,990)**	(67,677)
Net cash used in the First Republic acquisition	**(9,920)**	–
All other investing activities, net	**(9,528)**	(2,968)
Net cash provided by/(used in) investing activities	**13,349**	(134,933)
Financing activities		
Net change in:		
Deposits	**(25,424)**	9,412
Federal funds purchased and securities loaned or sold under repurchase agreements	**13,992**	24,515
Short-term borrowings	**976**	(818)
Beneficial interests issued by consolidated variable interest entities	**7,265**	785
Proceeds from long-term borrowings	**5,840**	11,662
Payments of long-term borrowings	**(9,376)**	(12,067)
Cash capital contribution from JPMorgan Chase & Co.	**7**	–
Dividends paid to JPMorgan Chase & Co.	**(18,000)**	(4,000)
All other financing activities, net	**184**	138
Net cash (used in)/provided by financing activities	**(24,536)**	29,627
Effect of exchange rate changes on cash and due from banks and deposits with banks	**75**	(18,792)
Net (decrease) in cash and due from banks and deposits with banks	**(72,350)**	(71,120)
Cash and due from banks and deposits with banks at the beginning of the period	**565,973**	739,317
Cash and due from banks and deposits with banks at the end of the period	**$ 493,623**	$ 668,197
Cash interest paid	**$ 23,770**	$ 1,846
Cash income taxes paid, net[(a)]	**6,741**	6,597

(a) Includes $4.8 billion and $5.2 billion paid to JPMorgan Chase & Co. for the six months ended June 30, 2023 and 2022, respectively. Refer to Note 23 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for discussion of income taxes.

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

Note 1 – Overview and basis of presentation

JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A. ") and its subsidiaries, (collectively, the "Bank"), is a wholly-owned bank subsidiary of JPMorgan Chase & Co. ("JPMorgan Chase"), which is a leading financial services firm based in the United States of America ("U.S."), with operations worldwide. JPMorgan Chase Bank, N.A. is a national banking association that is chartered by the Office of the Comptroller of the Currency ("OCC"), a bureau of the United States Department of the Treasury. JPMorgan Chase Bank, N.A.'s main office is located in Columbus, Ohio, and it has U.S. branches in 48 states and Washington, D.C. as of June 30, 2023. JPMorgan Chase Bank, N.A. operates nationally as well as through non-U.S. bank branches and subsidiaries, and representative offices. The Bank either directly or through such offices, branches and subsidiaries offers a wide range of banking services to its U.S. and non-U.S. customers including 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 Bank serves millions of customers in the U.S. and many of the world's most prominent corporate, institutional and government clients. JPMorgan Chase Bank, N.A.'s principal operating subsidiaries outside of the U.S. are J.P. Morgan Securities plc and J.P. Morgan SE, which are based in the United Kingdom ("U.K.") and Germany, respectively.

The JPMorgan Chase Bank, N.A. Board of Directors is responsible for the oversight of management of JPMorgan Chase Bank, N.A. The JPMorgan Chase Bank, N.A. Board of Directors accomplishes this function acting directly and through the principal standing committees of JPMorgan Chase's Board of Directors. Risk and control oversight is primarily the responsibility of the Risk Committee and the Audit Committee, respectively, and, with respect to compensation and other management-related matters, the Compensation & Management Development Committee. Each committee of JPMorgan Chase's Board of Directors oversees reputational risks and conduct risks within its scope of responsibility.

The accounting and financial reporting policies of the Bank conform to accounting principles generally accepted in the U.S. ("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 Bank, N.A.'s 2022 Annual Financial Statements.

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

First Republic acquisition

On May 1, 2023, JPMorgan Chase Bank, N.A. acquired certain assets and assumed certain liabilities of First Republic Bank (the "First Republic acquisition") from the Federal Deposit Insurance Corporation ("FDIC"). The Bank's Consolidated Financial Statements as of and for the period ended June 30, 2023 reflect the impact of the First Republic acquisition. Where meaningful to the disclosure, the impact of the First Republic acquisition is disclosed in various sections of these Bank financial statements. The Bank continues to convert certain operations, and to integrate clients, products and services, associated with the First Republic acquisition, to align with the Bank's businesses and operations. Accordingly, reporting classifications may change in future periods. Refer to Note 27 for additional information.

Consolidation

The Consolidated Financial Statements include the accounts of the Bank and other entities in which the Bank has a controlling financial interest. All material intercompany balances and transactions between the consolidated Bank group of entities have been eliminated. The Bank regularly enters into transactions with JPMorgan Chase and its various subsidiaries collectively, JPMorgan Chase affiliates. These transactions are considered to be related party transactions. Refer to Note 20 for further discussion of the Bank's related party transactions.

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

The Bank 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 15 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a further description of the Bank'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 balances to be presented on a net basis when specified conditions are met, including the existence of a legally enforceable master netting agreement. The Bank has elected to net such balances where it has determined that the specified conditions are met. Refer to Note 1 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information on offsetting assets and liabilities.

Accounting standard adopted January 1, 2023

Derivatives and Hedging: Fair Value Hedging – Portfolio Layer Method

The adoption of this guidance expanded the 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. This guidance also clarified the types of derivatives that can be used as hedges, and the balance sheet presentation and disclosure requirements for the hedge accounting adjustments. As permitted by the guidance, the Bank elected to transfer held-to-maturity ("HTM") securities to available-for-sale ("AFS") and designate those securities in a portfolio layer method hedge upon adoption. The adoption impact of the transfer on retained earnings was not material.

Refer to Note 6 and Note 11 for additional information.

Financial Instruments – Credit Losses Troubled Debt Restructurings and Vintage Disclosures

The adoption of this guidance eliminated the accounting and disclosure requirements for troubled debt restructurings ("TDRs"), including the requirement to measure the allowance using a discounted cash flow ("DCF") methodology, and allowed the option of a non-DCF portfolio-based approach for modified loans to troubled borrowers. If a DCF methodology is still applied for these modified loans, the discount rate must be the post-modification effective interest rate, instead of the pre-modification effective interest rate.

The Bank elected to apply its non-DCF, portfolio-based allowance approach for modified loans to troubled borrowers for all portfolios except modified nonaccrual risk-rated loans which the Bank elected to continue applying a DCF methodology. Refer to Note 14 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a description of the portfolio-based allowance approach and the asset-specific allowance approach.

This guidance was adopted under the modified retrospective method which resulted in a net decrease to the allowance for credit losses of $587 million and an increase to retained earnings of $446 million, after-tax, predominantly driven by residential real estate and credit card.

The adoption of this guidance eliminated the disclosure requirements for TDRs including the requirement to assess whether a modification is reasonably expected or involves a concession. The new guidance requires disclosure for loan modifications to borrowers experiencing financial difficulty consisting of principal forgiveness, interest rate reduction, other-than-insignificant payment delay, term extension or a combination of these modifications. The Bank has defined these types of modifications as financial difficulty modifications ("FDMs"). As a result of the elimination of the requirement to assess whether a modification is reasonably expected or involves a concession, the population of loans considered FDMs will differ from those previously considered TDRs. This guidance also requires disclosure of current period gross charge-offs by vintage origination year.

Refer to Note 13 for further information.

Note 2 - 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 *Issued March 2020 and updated January 2021 and December 2022*	• 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.	• Issued and effective March 12, 2020. The January 7, 2021 and December 21, 2022 updates were effective when issued. • Refer to Note 2 - Accounting and Reporting Developments on page12 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information.

FASB Standards Adopted since January 1, 2023

Standard	Summary of guidance	Effects on financial statements
Derivatives and Hedging: Fair Value Hedging – Portfolio Layer Method *Issued March 2022*	• 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 disclosure requirements for the hedge accounting adjustments. • Allows a one-time reclassification from HTM to AFS upon adoption.	• Adopted prospectively on January 1, 2023. • Refer to Note 1 for further information.
Financial Instruments - Credit Losses: Troubled Debt Restructurings and Vintage Disclosures *Issued March 2022*	• 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.	• Adopted under the modified retrospective method on January 1, 2023. • Refer to Note 1 for further information.

FASB Standards Issued but not yet Adopted

Standard	Summary of guidance	Effects on financial statements
Investments - Equity Method and Joint Ventures: Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method *Issued March 2023*	• Expands the ability to elect proportional amortization for more types of tax-oriented investments (beyond low income housing tax credit investments) on program-by-program basis. • 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.	• Required effective date: January 1, 2024.[(a)] • The Bank is currently evaluating the potential impact on the Consolidated Financial Statements.

(a) Early adoption is permitted.

Note 3 – Fair value measurement

Refer to Note 3 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a discussion of the Bank'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, 2023, and December 31, 2022, by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

	Fair value hierarchy				
June 30, 2023 (in millions)	Level 1	Level 2	Level 3	Derivative netting adjustments[e]	Total fair value
Federal funds sold and securities purchased under resale agreements	$ –	$ 209,404	$ –	$ –	$ 209,404
Securities borrowed	–	20,825	–	–	20,825
Trading assets:					
Debt instruments:					
Mortgage-backed securities ("MBS"):					
U.S. GSEs and government agencies[a]	–	23,881	706	–	24,587
Residential – nonagency	–	1,016	5	–	1,021
Commercial – nonagency	–	318	6	–	324
Total mortgage-backed securities	–	25,215	717	–	25,932
U.S. Treasury, GSEs and government agencies[a]	26,574	315	–	–	26,889
Obligations of U.S. states and municipalities	–	4,923	5	–	4,928
Certificates of deposit, bankers' acceptances and commercial paper	–	1,502	–	–	1,502
Non-U.S. government debt securities	41,423	63,851	199	–	105,473
Corporate debt securities	–	25,184	239	–	25,423
Loans	–	6,870	1,030	–	7,900
Asset-backed securities	–	591	9	–	600
Total debt instruments	67,997	128,451	2,199	–	198,647
Equity securities	107,329	1,187	184	–	108,700
Physical commodities[b]	1,805	10,734	–	–	12,539
Other	–	18,157	192	–	18,349
Total debt and equity instruments[c]	177,131	158,529	2,575	–	338,235
Derivative receivables:					
Interest rate	918	339,126	4,290	(316,979)	27,355
Credit	–	11,799	1,194	(11,771)	1,222
Foreign exchange	205	228,954	1,555	(208,535)	22,179
Equity	–	52,645	8,056	(53,241)	7,460
Commodity	–	24,141	297	(18,759)	5,679
Total derivative receivables	1,123	656,665	15,392	(609,285)	63,895
Total trading assets	178,254	815,194	17,967	(609,285)	402,130
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. GSEs and government agencies[a]	1	79,767	–	–	79,768
Residential – nonagency	–	3,544	–	–	3,544
Commercial – nonagency	–	2,056	–	–	2,056
Total mortgage-backed securities	1	85,367	–	–	85,368
U.S. Treasury and government agencies	62,688	49	–	–	62,737
Obligations of U.S. states and municipalities	–	23,994	–	–	23,994
Non-U.S. government debt securities	13,397	8,643	–	–	22,040
Corporate debt securities	–	95	267	–	362
Asset-backed securities:					
Collateralized loan obligations	–	5,437	–	–	5,437
Other	–	3,253	–	–	3,253
Total available-for-sale securities	76,086	126,838	267	–	203,191
Loans	–	34,741	3,783	–	38,524
Mortgage servicing rights ("MSRs")	–	–	8,229	–	8,229
Other assets[d]	8,117	5,836	157	–	14,110
Total assets measured at fair value on a recurring basis	$ 262,457	$ 1,212,838	$ 30,403	$ (609,285)	$ 896,413
Deposits	$ –	$ 49,656	$ 2,055	$ –	$ 51,711
Federal funds purchased and securities loaned or sold under repurchase agreements	–	87,283	–	–	87,283
Short-term borrowings	–	6,560	1,503	–	8,063
Trading liabilities:					
Debt and equity instruments[c]	56,229	23,901	52	–	80,182
Derivative payables:					
Interest rate	731	316,672	7,659	(309,805)	15,257
Credit	–	12,895	464	(12,819)	540
Foreign exchange	185	226,568	1,150	(213,730)	14,173
Equity	–	54,702	8,046	(55,688)	7,060
Commodity	–	24,203	646	(18,610)	6,239
Total derivative payables	916	635,040	17,965	(610,652)	43,269
Total trading liabilities	57,145	658,941	18,017	(610,652)	123,451
Accounts payable and other liabilities	7,185	720	57	–	7,962
Long-term debt	–	15,816	11,005	–	26,821
Total liabilities measured at fair value on a recurring basis	$ 64,330	$ 818,976	$ 32,637	$ (610,652)	$ 305,291

December 31, 2022 (in millions)	Fair value hierarchy Level 1	Level 2	Level 3	Derivative netting adjustments[(e)]	Total fair value
Federal funds sold and securities purchased under resale agreements	$ –	$ 193,945	$ –	$ –	$ 193,945
Securities borrowed	–	22,454	–	–	22,454
Trading assets:					
Debt instruments:					
Mortgage-backed securities:					
U.S. GSEs and government agencies[(a)]	–	6,746	742	–	7,488
Residential – nonagency	–	1,200	4	–	1,204
Commercial – nonagency	–	354	–	–	354
Total mortgage-backed securities	–	8,300	746	–	9,046
U.S. Treasury, GSEs and government agencies[(a)]	9,402	16	–	–	9,418
Obligations of U.S. states and municipalities	–	4,825	5	–	4,830
Certificates of deposit, bankers' acceptances and commercial paper	–	210	–	–	210
Non-U.S. government debt securities	18,213	48,224	155	–	66,592
Corporate debt securities	–	18,687	201	–	18,888
Loans	–	5,720	687	–	6,407
Asset-backed securities	–	596	1	–	597
Total debt instruments	27,615	86,578	1,795	–	115,988
Equity securities	57,996	1,942	166	–	60,104
Physical commodities[(b)]	8,454	16,205	–	–	24,659
Other	–	19,416	347	–	19,763
Total debt and equity instruments[(c)]	94,065	124,141	2,308	–	220,514
Derivative receivables:					
Interest rate	856	354,320	4,089	(331,521)	27,744
Credit	–	9,252	717	(8,885)	1,084
Foreign exchange	169	241,003	1,427	(219,326)	23,273
Equity	–	43,962	8,537	(45,459)	7,040
Commodity	–	34,517	369	(26,121)	8,765
Total derivative receivables	1,025	683,054	15,139	(631,312)	67,906
Total trading assets	95,090	807,195	17,447	(631,312)	288,420
Available-for-sale securities:					
Mortgage-backed securities:					
U.S. GSEs and government agencies[(a)]	3	71,500	–	–	71,503
Residential – nonagency	–	4,620	–	–	4,620
Commercial – nonagency	–	1,958	–	–	1,958
Total mortgage-backed securities	3	78,078	–	–	78,081
U.S. Treasury and government agencies	92,060	–	–	–	92,060
Obligations of U.S. states and municipalities	–	6,758	–	–	6,758
Non-U.S. government debt securities	10,591	9,105	–	–	19,696
Corporate debt securities	–	97	239	–	336
Asset-backed securities:					
Collateralized loan obligations	–	5,792	–	–	5,792
Other	–	3,067	–	–	3,067
Total available-for-sale securities	102,654	102,897	239	–	205,790
Loans	–	40,401	1,394	–	41,795
Mortgage servicing rights	–	–	7,973	–	7,973
Other assets[(d)]	7,105	5,411	143	–	12,659
Total assets measured at fair value on a recurring basis	$ 204,849	$ 1,172,303	$ 27,196	$ (631,312)	$ 773,036
Deposits	$ –	$ 26,576	$ 2,166	$ –	$ 28,742
Federal funds purchased and securities loaned or sold under repurchase agreements	–	75,327	–	–	75,327
Short-term borrowings	–	6,539	1,257	–	7,796
Trading liabilities:					
Debt and equity instruments[(c)]	46,832	21,730	76	–	68,638
Derivative payables:					
Interest rate	556	331,488	5,787	(322,378)	15,453
Credit	–	9,409	618	(9,294)	733
Foreign exchange	161	252,605	866	(234,810)	18,822
Equity	–	45,037	7,431	(45,582)	6,886
Commodity	–	30,918	543	(25,364)	6,097
Total derivative payables	717	669,457	15,245	(637,428)	47,991
Total trading liabilities	47,549	691,187	15,321	(637,428)	116,629
Accounts payable and other liabilities	7,084	623	53	–	7,760
Long-term debt	–	15,497	11,648	–	27,145
Total liabilities measured at fair value on a recurring basis	$ 54,633	$ 815,749	$ 30,445	$ (637,428)	$ 263,399

(a) At June 30, 2023, and December 31, 2022, included total U.S. GSE obligations of $47.9 billion and $27.7 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 Bank'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 Bank'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 6 for a further discussion of the Bank'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, 2023, and December 31, 2022, the fair values of these investments, which include certain hedge funds, private equity funds, real estate and other funds, were $10 million and $8 million, respectively.

(e) As permitted under U.S. GAAP, the Bank 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. Additionally, includes derivative receivables and payables with affiliates on a net basis. Refer to Note 20 for information regarding our derivative activities with affiliates.

Level 3 valuations

Refer to Note 3 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information on the Bank's valuation process and a detailed discussion of the determination of fair value for individual financial instruments.

The following table presents the Bank'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 Bank 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 Bank'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 Bank's estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by the Bank 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 Bank at each balance sheet date.

Level 3 inputs[(a)]

June 30, 2023							
Product/Instrument	**Fair value** (in millions)	**Principal valuation technique**	**Unobservable inputs**[(g)]	**Range of input values**			**Average**[(i)]
Residential mortgage-backed securities and loans[(b)]	$ 1,638	Discounted cash flows	Yield	6%	-	40%	7%
			Prepayment speed	3%	-	11%	8%
			Conditional default rate	0%	-	5%	0%
			Loss severity	0%	-	110%	3%
Commercial mortgage-backed securities and loans[(c)]	2,297	Market comparables	Price	$0	-	$98	$84
Corporate debt securities	506	Market comparables	Price	$0	-	$242	$92
Loans[(d)]	1,595	Market comparables	Price	$0	-	$108	$78
Non-U.S. government debt securities	199	Market comparables	Price	$6	-	$106	$91
Net interest rate derivatives	(3,352)	Option pricing	Interest rate volatility	26 bps	-	674 bps	133 bps
			Interest rate spread volatility	37 bps	-	77 bps	64 bps
			Bermudan switch value	0%	-	58%	22%
			Interest rate correlation	(82)%	-	90%	15%
			IR-FX correlation	(35)%	-	60%	5%
	(17)	Discounted cash flows	Prepayment speed	0%	-	15%	5%
Net credit derivatives	714	Discounted cash flows	Credit correlation	35%	-	65%	48%
			Credit spread	0 bps	-	11,279 bps	342 bps
			Recovery rate	10%	-	90%	40%
	16	Market comparables	Price	$15	-	$115	$82
Net foreign exchange derivatives	477	Option pricing	IR-FX correlation	(40)%	-	60%	20%
	(72)	Discounted cash flows	Prepayment speed		11%		11%
			Interest rate curve	0%	-	30%	6%
Net equity derivatives	10	Option pricing	Forward equity price[(h)]	84%	-	142%	101%
			Equity volatility	3%	-	158%	30%
			Equity correlation	15%		100%	59%
			Equity-FX correlation	(86)%	-	60%	(30)%
			Equity-IR correlation	10%	-	35%	21%
Net commodity derivatives	(349)	Option pricing	Oil commodity forward	$95 / BBL	-	$249 / BBL	$172 / BBL
			Natural gas commodity forward	$1 / MMBTU	-	$7 / MMBTU	$4 / MMBTU
			Commodity volatility	4%	-	127%	66%
			Commodity correlation	(28)%	-	53%	26%
MSRs	8,229	Discounted cash flows	Refer to Note 16				
Long-term debt, short-term borrowings, and deposits[(e)]	13,207	Option pricing	Interest rate volatility	26 bps	-	674 bps	133 bps
			Bermudan switch value	0%	-	58%	22%
			Interest rate correlation	(82)%	-	90%	15%
			IR-FX correlation	(35)%	-	60%	5%
			Equity correlation	15%	-	100%	59%
			Equity-FX correlation	(86)%	-	60%	(30)%
			Equity-IR correlation	10%	-	35%	21%
	1356	Discounted cash flows	Credit correlation	35%	-	65%	48%
Other level 3 assets and liabilities, net[(f)]	438						

(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 $706 million, nonagency securities of $5 million and non-trading loans of $927 million.
(c) Comprises nonagency securities of $6 million, trading loans of $72 million and non-trading loans of $2.2 billion.
(d) Comprises trading loans of $958 million and non-trading loans of $637 million.
(e) Long-term debt, short-term borrowings and deposits include structured notes issued by the Bank 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 other equity instruments of $122 million with level 3 inputs comparable to net equity derivatives. 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 3 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements 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 Bank'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 Bank within level 3 of the fair value hierarchy for the six months ended June 30, 2023 and 2022. 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 Bank 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 Bank's risk management activities related to such level 3 instruments.

Six months ended June 30, 2023 (in millions)	Fair value at Jan 1, 2023	Total realized/ unrealized gains/ (losses)	Purchases[g]	Sales	Settlements[h]	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2023	Change in unrealized gains/ (losses) related to financial instruments held at June 30, 2023
	Fair value measurements using significant unobservable inputs								
Assets:[a]									
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	$ 742	$ 7	$ 106	$ (106)	$ (43)	$ –	$ –	$ 706	$ 1
Residential – nonagency	4	6	–	(6)	–	1	–	5	–
Commercial – nonagency	–	(1)	1	–	–	6	–	6	(1)
Total mortgage-backed securities	746	12	107	(112)	(43)	7	–	717	–
Obligations of U.S. states and municipalities	5	–	–	–	–	–	–	5	–
Non-U.S. government debt securities	155	40	100	(96)	–	–	–	199	43
Corporate debt securities	201	12	102	(56)	–	20	(40)	239	12
Loans	687	4	679	(126)	(137)	121	(198)	1,030	9
Asset-backed securities	1	–	4	(1)	–	5	–	9	–
Total debt instruments	1,795	68	992	(391)	(180)	153	(238)	2,199	64
Equity securities	166	(28)	68	(71)	(1)	136	(86)	184	(13)
Other	347	(99)	118	–	(175)	5	(4)	192	20
Total trading assets – debt and equity instruments	2,308	(59) (c)	1,178	(462)	(356)	294	(328)	2,575	71 (c)
Net derivative receivables:[b]									
Interest rate	(1,698)	(783)	97	(192)	252	(1,024)	(21)	(3,369)	(686)
Credit	99	489	6	(4)	147	2	(9)	730	469
Foreign exchange	561	27	79	(110)	(205)	92	(39)	405	3
Equity	1,106	(537)	1,560	(1,583)	(344)	483	(675)	10	(172)
Commodity	(174)	(185)	41	(119)	54	(3)	37	(349)	(100)
Total net derivative receivables	(106)	(989) (c)	1,783	(2,008)	(96)	(450)	(707)	(2,573)	(486) (c)
Available-for-sale securities:									
Corporate debt securities	239	28	–	–	–	–	–	267	28
Total available-for-sale securities	239	28 (d)	–	–	–	–	–	267	28 (d)
Loans	1,394	24 (c)	2,282	(73)	(585)	917	(176)	3,783	24 (c)
Mortgage servicing rights	7,973	264 (e)	577	(90)	(495)	–	–	8,229	264 (e)
Other assets	143	14 (c)	–	–	–	–	–	157	13 (c)

Six months ended June 30, 2023 (in millions)	Fair value at Jan 1, 2023	Total realized/ unrealized (gains)/ losses	Purchases	Sales	Issuances	Settlements[h]	Transfers into level 3	Transfers (out of) level 3	Fair value at June 30, 2023	Change in unrealized (gains)/losses related to financial instruments held at June 30, 2023
	Fair value measurements using significant unobservable inputs									
Liabilities:[a]										
Deposits	$ 2,166	$ (1) (c)(f)	$ –	$ –	$ 267	$ (248)	$ –	$ (129)	$ 2,055	$ 1 (c)(f)
Short-term borrowings	1,257	110 (c)(f)	–	–	2,080	(1,936)	2	(10)	1,503	20 (c)(f)
Trading liabilities – debt and equity instruments	76	(8) (c)	(29)	6	–	–	9	(2)	52	(2) (c)
Accounts payable and other liabilities	53	4 (c)	–	–	–	–	–	–	57	4 (c)
Long-term debt	11,648	545 (c)(f)	–	–	2,151	(3,221)	46	(164)	11,005	521 (c)(f)

Six months ended June 30, 2022 (in millions)	Fair value measurements using significant unobservable inputs: Fair value at Jan 1, 2022	Total realized/unrealized gains/(losses)	Purchases[(g)]	Sales	Settlements[(h)]	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)]									
Trading assets:									
Debt instruments:									
Mortgage-backed securities:									
U.S. GSEs and government agencies	$ 254	$ 24	$ 643	$ (102)	$ (27)	$ –	$ –	$ 792	$ 24
Residential – nonagency	9	(1)	–	–	–	–	–	8	(1)
Commercial – nonagency	1	–	–	–	–	–	–	1	–
Total mortgage-backed securities	264	23	643	(102)	(27)	–	–	801	23
Obligations of U.S. states and municipalities	5	–	–	–	–	–	–	5	–
Non-U.S. government debt securities	81	(42)	405	(266)	–	43	(16)	205	(103)
Corporate debt securities	267	(30)	80	(72)	(37)	97	(45)	260	(38)
Loans	654	(32)	361	(262)	(159)	521	(290)	793	(7)
Asset-backed securities	4	–	–	(1)	–	1	(1)	3	–
Total debt instruments	1,275	(81)	1,489	(703)	(223)	662	(352)	2,067	(125)
Equity securities	32	(822)	254	(212)	–	864	(21)	95	(393)
Other	602	(69)	446	–	(538)	2	(7)	436	(94)
Total trading assets – debt and equity instruments	1,909	(972) (c)	2,189	(915)	(761)	1,528	(380)	2,598	(612) (c)
Net derivative receivables:[(b)]									
Interest rate	(2,834)	1,119	200	(674)	443	3	(226)	(1,969)	1,267
Credit	88	330	8	(8)	(101)	(2)	6	321	319
Foreign exchange	(356)	577	139	(43)	30	18	(19)	346	518
Equity	(778)	1,347	1,518	(1,312)	(234)	227	24	792	1,397
Commodity	(962)	917	70	(205)	242	1	3	66	864
Total net derivative receivables	(4,842)	4,290 (c)	1,935	(2,242)	380	247	(212)	(444)	4,365 (c)
Available-for-sale securities:									
Corporate debt securities	161	9	16	–	–	–	–	186	9
Total available-for-sale securities	161	9 (d)	16	–	–	–	–	186	9 (d)
Loans	1,904	63 (c)	278	(99)	(528)	616	(307)	1,927	23 (c)
Mortgage servicing rights	5,494	1,613 (e)	1,471	(671)	(468)	–	–	7,439	1,613 (e)
Other assets	77	21 (c)	–	–	(2)	–	–	96	14 (c)

Six months ended June 30, 2022 (in millions)	Fair value measurements using significant unobservable inputs: Fair value at Jan 1, 2022	Total realized/unrealized (gains)/losses	Purchases	Sales	Issuances	Settlements[(h)]	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	$ 2,329	$ (305) (c)(f)	$ –	$ –	$ 246	$ (73)	$ –	$ (162)	$ 2,035	$ (301) (c)(f)
Short-term borrowings	2,376	(466) (c)(f)	–	–	2,359	(2,214)	16	(11)	2,060	15 (c)(f)
Trading liabilities – debt and equity instruments	29	(38) (c)	(20)	40	–	–	45	(2)	54	99 (c)
Accounts payable and other liabilities	69	(5) (c)	–	–	–	–	–	–	64	(5) (c)
Long-term debt	13,925	(1,931) (c)(f)	–	–	3,733	(2,877)	425	(358)	12,917	(1,825) (c)(f)

(a) Level 3 assets at fair value as a percentage of total Bank assets at fair value (including assets measured at fair value on a nonrecurring basis) were 3% and 4% at June 30, 2023 and December 31, 2022, respectively. Level 3 liabilities at fair value as a percentage of total Bank liabilities at fair value (including liabilities measured at fair value on a nonrecurring basis) were 11% and 12% at June 30, 2023 and December 31, 2022, 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 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 available for sale ("AFS") securities are reported in investment securities gains/(losses). Unrealized gains/(losses) are reported in OCI. Realized and unrealized gains/(losses) recorded on level 3 AFS securities were not material for the six months ended June 30, 2023 and 2022.

(e) Changes in fair value for MSRs 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 six months ended June 30, 2023 and 2022. Unrealized (gains)/losses are reported in OCI, and were $(110) million and $(176) million for the six months ended June 30, 2023 and 2022, 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, 2022, 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 20 for further information on changes impacting items measured at fair value on a nonrecurring basis.

Six months ended June 30, 2023

Level 3 assets were $30.4 billion at June 30, 2023, reflecting an increase of $3.2 billion from December 31, 2022,

The increase for the six months ended June 30, 2023 was largely driven by:

- $2.4 billion increase in non-trading loans primarily due to $1.9 billion of loans associated with the First Republic acquisition.

Refer to the sections below for additional information.

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

For the six months ended June 30, 2023, significant transfers from level 2 into level 3 included the following:

- $1.4 billion of gross interest rate derivatives payable as a result of the transition to term SOFR for certain interest rate options.
- $1.2 billion of gross equity derivative receivables and $721 million of gross equity derivative payables as a result of a decrease in observability and an increase in the significance of unobservable inputs.
- $917 million of non-trading loans driven by a decrease in observability.

For the six months ended June 30, 2023, significant transfers from level 3 into level 2 included the following:

- $1.9 billion of gross equity derivative receivables and $1.2 billion of gross equity derivative payables 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:

- $1.5 billion of total debt and equity instruments, largely due to equity securities of $864 million driven by a decrease in observability as a result of restricted access to certain markets.
- $1.7 billion of gross equity derivative receivables and $1.5 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:

- $1.8 billion of gross equity derivative receivables and $1.8 billion of gross equity derivative payables 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 Bank'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 16-19 for further information on these instruments.

Six months ended June 30, 2023

- $718 million of net losses on assets, driven by losses in net derivative receivables due to market movements.
- $650 million of net losses on liabilities, predominantly driven by gains in long-term debt due to market movements.

Six months ended June 30, 2022

- $5.0 billion of net gains on assets, predominantly driven by gains in net interest rate derivative receivables and net equity derivative receivables due to market movements and MSRs reflecting lower prepayment speeds on higher rates.
- $2.7 billion of net gains on liabilities, largely driven by gains in long-term debt due to market movements.

Assets and liabilities measured at fair value on a nonrecurring basis

The following tables present the assets and liabilities held as of June 30, 2023 and 2022, for which nonrecurring fair value adjustments were recorded during the six months ended June 30, 2023 and 2022, by major product category and fair value hierarchy.

	Fair value hierarchy			
June 30, 2023 (in millions)	Level 1	Level 2	Level 3	Total fair value
Loans	**$ –**	**$ 803**	**$ 714** [b]	**$ 1,517**
Other assets[a]	**–**	**7**	**79**	**86**
Total assets measured at fair value on a nonrecurring basis	**$ –**	**$ 810**	**$ 793**	**$ 1,603**
Accounts payable and other liabilities	**–**	**–**	**–**	**–**
Total liabilities measured at fair value on a nonrecurring basis	**$ –**	**$ –**	**$ –**	**$ –**

	Fair value hierarchy			
June 30, 2022 (in millions)	Level 1	Level 2	Level 3	Total fair value
Loans	$ –	$ 1,515	$ 665	$ 2,180
Other assets	–	22	445	467
Total assets measured at fair value on a nonrecurring basis	$ –	$ 1,537	$ 1,110	$ 2,647
Accounts payable and other liabilities	–	–	293	293
Total liabilities measured at fair value on a nonrecurring basis	$ –	$ –	$ 293	$ 293

(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 $79 million in level 3 assets measured at fair value on a nonrecurring basis as of June 30, 2023, $23 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 $714 million in level 3 assets measured at fair value on a nonrecurring basis as of June 30, 2023, $23 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 Bank's experience with actual liquidation values. These discounts ranged from 3% to 56% with a weighted average of 25%.

Nonrecurring fair value changes

The following table presents the total change in value of assets and liabilities for which fair value adjustments have been recognized for the six months ended June 30, 2023 and 2022, related to assets and liabilities held at those dates.

	Six months ended June 30,	
(in millions)	**2023**	2022
Loans	**$ (108)**	$ (91)
Other assets[a]	**–**	39
Accounts payable and other liabilities	**–**	(288)
Total nonrecurring fair value gains/ (losses)	**$ (108)**	$ (340)

(a) Included $8 million and $55 million for the six months ended June 30, 2023 and 2022, respectively, of net gains/(losses) as a result of the measurement alternative.

Refer to Note 13 for further information about the measurement of collateral-dependent loans.

Equity securities without readily determinable fair values

The Bank 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 Bank may adjust the prices if deemed necessary to arrive at the Bank'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 Bank'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, 2023 and 2022, 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.

	Six months ended June 30,	
As of or for the period ended, (in millions)	**2023**	2022
Other assets		
Carrying value[(a)]	**$ 706**	$ 626
Upward carrying value changes[(b)]	**8**	55
Downward carrying value changes/impairment[(c)]	**–**	–

(a) The carrying value as of December 31, 2022 was $639 million. 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, 2023 were $411 million.
(c) The cumulative downward carrying value changes/impairment between January 1, 2018 and June 30, 2023 were $(21) million.

Included in other assets above is the Bank's interest in approximately 37 million Visa Class B common shares ("Visa B shares"). These shares are subject to certain transfer restrictions and are convertible into Visa Class A common shares ("Visa A shares") at a specified conversion rate upon final resolution of certain litigation matters involving Visa. On June 29, 2023, Visa filed a Current Report on Form 8-K with the SEC indicating that the conversion rate of Visa B shares to Visa A shares decreased from 1.5991 to 1.5902 effective June 28, 2023. The conversion rate may be further adjusted by Visa depending on developments related to the litigation matters. The outcome of those litigation matters, and the effect that the resolution of those matters may have on the conversion rate, is unknown. Accordingly, as of June 30, 2023, there is significant uncertainty regarding when the transfer restrictions on Visa B shares may be terminated and what the final conversion rate for the Visa B shares will be. As a result of these considerations, as well as differences in voting rights, Visa B shares are not considered to be similar to Visa A shares, and they continue to be held at their nominal carrying value.

In connection with prior sales of Visa B shares, the Bank has entered into derivative instruments with the purchasers of the shares under which the Bank retains the risk associated with changes in the conversion rate. Under the terms of the derivative instruments, the Bank will (a) make or receive payments based on subsequent changes in the conversion rate and (b) make periodic interest payments to the purchasers of the Visa B shares. The payments under the derivative instruments will continue as long as the Visa B shares remain subject to transfer restrictions. The derivative instruments are accounted for at fair value using a discounted cash flow methodology based upon the Bank's estimate of the timing and magnitude of final resolution of the litigation matters. The derivative instruments are recorded in trading liabilities, and changes in fair value are recognized in other income. As of June 30, 2023, the Bank held derivative instruments associated with 23 million Visa B shares that the Bank had previously sold, which are all subject to similar terms and conditions.

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, 2023, and December 31, 2022, 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.

	June 30, 2023					December 31, 2022				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value	Level 1	Level 2	Level 3	Total estimated fair value
Financial assets										
Cash and due from banks	**$ 25.8**	**$ 25.8**	**$ –**	**$ –**	**$ 25.8**	$ 27.3	$ 27.3	$ –	$ –	$ 27.3
Deposits with banks	**467.8**	**467.8**	**0.1**	**–**	**467.9**	538.7	538.5	0.2	–	538.7
Accrued interest and accounts receivable	**78.0**	**–**	**78.0**	**–**	**78.0**	89.0	–	88.9	0.1	89.0
Federal funds sold and securities purchased under resale agreements	**53.4**	**–**	**53.4**	**–**	**53.4**	65.5	–	65.5	–	65.5
Securities borrowed	**33.0**	**–**	**33.0**	**–**	**33.0**	31.2	–	31.2	–	31.2
Investment securities, held-to-maturity	**408.9**	**185.8**	**189.5**	**–**	**375.3**	425.3	189.1	199.5	–	388.6
Loans, net of allowance for loan losses[(a)]	**1,237.7**	**–**	**276.3**	**934.3**	**1,210.6**	1,071.5	–	191.0	851.7	1,042.7
Other	**57.0**	**–**	**55.2**	**1.8**	**57.0**	63.5	–	62.4	1.1	63.5
Financial liabilities										
Deposits	**$ 2,453.9**	**$ –**	**$ 2,454.1**	**$ –**	**$ 2,454.1**	$2,412.0	$ –	$ 2,411.9	$ –	$ 2,411.9
Federal funds purchased and securities loaned or sold under repurchase agreements	**12.6**	**–**	**12.6**	**–**	**12.6**	10.6	–	10.6	–	10.6
Short-term borrowings[(b)]	**3.6**	**–**	**3.6**	**–**	**3.6**	2.3	–	2.3	–	2.3
Accounts payable and other liabilities	**121.4**	**–**	**112.3**	**8.6**	**120.9**	120.1	–	113.9	5.5	119.4
Beneficial interests issued by consolidated VIEs	**20.0**	**–**	**20.0**	**–**	**20.0**	13.4	–	13.4	–	13.4
Long-term debt[(b)]	**121.9**	**–**	**69.8**	**51.7**	**121.5**	48.0	–	45.1	2.8	47.9

(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.

(b) Includes FHLB advances in level 2 of Long-term debt and Short-term borrowings and the Purchase Money Note in level 3 of Long-term debt associated with the First Republic acquisition. Refer to Notes 19 and 27 for additional information.

The majority of the Bank'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.

	June 30, 2023					December 31, 2022				
		Estimated fair value hierarchy					Estimated fair value hierarchy			
(in billions)	Carrying value[(a)(b)(c)]	Level 1	Level 2	Level 3	Total estimated fair value	Carrying value[(a)(b)]	Level 1	Level 2	Level 3	Total estimated fair value
Wholesale lending-related commitments	**$ 3.7**	**$ –**	**$ –**	**$ 4.9**	**$ 4.9**	$ 2.3	$ –	$ –	$ 3.1	$ 3.1

(a) Excludes the current carrying values of the guarantee liability and the offsetting asset, each of which is recognized at fair value at the inception of the guarantees.

(b) Includes the wholesale allowance for lending-related commitments.

(c) As of June 30, 2023, includes fair value adjustments associated with the First Republic acquisition for other unfunded commitments to extend credit totaling $1.6 billion. Refer to Notes 24 and 27 for additional information.

The Bank does not estimate the fair value of consumer off-balance sheet lending-related commitments. In many cases, the Bank can reduce or cancel these commitments by providing the borrower notice or, in some cases as permitted by law, without notice. Refer to page 16 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a further discussion of the valuation of lending-related commitments.

Note 4 – 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 Bank 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 Bank'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 the Bank'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 six months ended June 30, 2023 and 2022 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.

	Six months ended June 30,					
	2023			2022		
(in millions)	Principal transactions	All other income	Total changes in fair value recorded[e]	Principal transactions	All other income	Total changes in fair value recorded[e]
Federal funds sold and securities purchased under resale agreements	$ 168	$ –	$ 168	$ (152)	$ –	$ (152)
Securities borrowed	12	–	12	(297)	–	(297)
Trading assets:						
Debt and equity instruments, excluding loans	2,216	–	2,216	(1,372)	–	(1,372)
Loans reported as trading assets:						
Changes in instrument-specific credit risk	216	–	216	(143) [f]	–	(143)
Other changes in fair value	4	2 [c]	6	(22)	–	(22)
Loans:						
Changes in instrument-specific credit risk	71	(4) [c]	67	(78)	23 [c]	(55)
Other changes in fair value	124	104 [c]	228	(1,148)	(774) [c]	(1,922)
Other assets	2	–	2	2	–	2
Deposits[a]	(878)	–	(878)	793	–	793
Federal funds purchased and securities loaned or sold under repurchase agreements	(33)	–	(33)	276	–	276
Short-term borrowings[a]	(574)	–	(574)	1,041	–	1,041
Trading liabilities	–	–	–	(1)	–	(1)
Other liabilities	(1)	–	(1)	(4)	–	(4)
Long-term debt[a][b]	(1,903)	(27) [c][d]	(1,930)	3,305	33 [c][d]	3,338

(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 six months ended June 30, 2023 and 2022.

(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. Refer to Note 8 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, 2023, and December 31, 2022, for loans, long-term debt and long-term beneficial interests for which the fair value option has been elected.

	June 30, 2023			December 31, 2022		
(in millions)	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	**$ 2,181**	**$ 458**	**$ (1,723)**	$ 1,890	$ 297	$ (1,593)
Loans	**785**	**758**	**(27)**	881	826	(55)
Subtotal	**2,966**	**1,216**	**(1,750)**	2,771	1,123	(1,648)
90 or more days past due and government guaranteed						
Loans[(a)]	**82**	**76**	**(6)**	202	115	(87)
All other performing loans[(b)]						
Loans reported as trading assets	**8,685**	**7,442**	**(1,243)**	7,365	6,110	(1,255)
Loans	**39,692**	**37,690**	**(2,002)**	42,272	40,854	(1,418)
Subtotal	**48,377**	**45,132**	**(3,245)**	49,637	46,964	(2,673)
Total loans	**$ 51,425**	**$ 46,424**	**$ (5,001)**	$ 52,610	$ 48,202	$ (4,408)
Long-term debt						
Principal-protected debt	**$ 6,777** (d)	**$ 5,918**	**$ (859)**	$ 6,364 (d)	$ 5,900	$ (464)
Nonprincipal-protected debt[(c)]	**NA**	**20,903**	**NA**	NA	21,245	NA
Total long-term debt	**NA**	**$ 26,821**	**NA**	NA	$ 27,145	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, 2023, and December 31, 2022.
(c) Remaining contractual principal is not applicable to nonprincipal-protected structured notes. Unlike principal-protected structured notes, for which the Bank is obligated to return a stated amount of principal at maturity, nonprincipal-protected structured notes do not obligate the Bank to return a stated amount of principal at maturity, but 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 Bank as issuer for both nonprincipal-protected and principal-protected notes.
(d) Where the Bank 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 Bank's next call date.

At June 30, 2023, and December 31, 2022, the contractual amount of lending-related commitments for which the fair value option was elected was $10.0 billion and $7.4 billion, respectively, with a corresponding fair value of $264 million and $24 million, respectively. Refer to Note 26 of JPMorgan Chase Bank, N.A.'s 2022 Annual Report, and Note 24 of these Consolidated Financial Statements for further information regarding off-balance sheet lending-related financial instruments.

Note 5 – Credit risk concentrations

Concentrations of credit risk arise when a number of clients, counterparties or customers are engaged in similar business activities or activities in the same geographic region, or when they have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic conditions.

The Bank regularly monitors various segments of its credit portfolios to assess potential credit risk concentrations and to obtain additional collateral when deemed necessary and permitted under the Bank's agreements. Senior management is significantly involved in the credit approval and review process, and risk levels are adjusted as needed to reflect the Bank's risk appetite.

In the Bank's consumer portfolio, concentrations are managed primarily by product and by U.S. geographic region, with a key focus on trends and concentrations at the portfolio level, where potential credit risk concentrations can be remedied through changes in underwriting policies and portfolio guidelines. Refer to Note 13 for additional information on the geographic composition of the Bank's consumer loan portfolios. In the wholesale portfolio, credit risk concentrations are evaluated primarily by industry and monitored regularly on both an aggregate portfolio level and on an individual client or counterparty basis.

The Bank's wholesale exposure is managed through loan syndications and participations, loan sales, securitizations, credit derivatives, master netting agreements, collateral and other risk-reduction techniques. Refer to Note 13 for additional information on loans.

The Bank does not believe that its exposure to any particular loan product or industry segment results in a significant concentration of credit risk.

Terms of loan products and collateral coverage are included in the Bank's assessment when extending credit and establishing its allowance for loan losses.

The table below presents both on-balance sheet and off-balance sheet consumer and wholesale credit exposure by the Bank's three credit portfolio segments as of June 30, 2023 and December 31, 2022. The wholesale industry of risk category is generally based on the client or counterparty's primary business activity.

	June 30, 2023				December 31, 2022			
		On-balance sheet				On-balance sheet		
(in millions)	Credit exposure[(h)(i)]	Loans	Derivatives	Off-balance sheet[(j)]	Credit exposure[(h)]	Loans	Derivatives	Off-balance sheet[(j)]
Consumer, excluding credit card	**$ 459,025**	**$ 408,179**	**$ –**	**$ 50,846**	$ 344,861	$ 311,343	$ –	$ 33,518
Credit card[(a)]	**1,072,833**	**191,348**	**–**	**881,485**	1,006,459	185,175	–	821,284
Total consumer[(a)]	**1,531,858**	**599,527**	**–**	**932,331**	1,351,320	496,518	–	854,802
Wholesale[(b)]								
Real Estate	**206,899**	**165,056**	**331**	**41,512**	170,857	131,681	249	38,927
Individuals and Individual Entities[(c)]	**140,594**	**121,521**	**730**	**18,343**	129,987	119,597	433	9,957
Asset Managers	**137,100**	**52,657**	**14,513**	**69,930**	91,952	39,970	14,065	37,917
Consumer & Retail	**125,932**	**47,408**	**2,277**	**76,247**	120,551	45,865	1,647	73,039
Industrials	**77,203**	**27,534**	**1,424**	**48,245**	72,479	26,955	1,770	43,754
Technology, Media & Telecommunications	**76,190**	**21,159**	**2,601**	**52,430**	71,996	21,622	2,950	47,424
Healthcare	**65,391**	**22,676**	**1,704**	**41,011**	62,449	22,919	1,648	37,882
Banks & Finance Cos	**61,669**	**34,932**	**4,790**	**21,947**	51,770	32,248	3,104	16,418
State & Municipal Govt[(d)]	**37,000**	**20,499**	**456**	**16,045**	33,650	17,954	582	15,114
Utilities	**35,563**	**7,101**	**3,000**	**25,462**	35,867	8,975	3,114	23,778
Oil & Gas	**33,234**	**9,609**	**1,351**	**22,274**	38,667	9,633	5,118	23,916
Automotive	**32,947**	**15,169**	**602**	**17,176**	33,287	14,735	529	18,023
Chemicals & Plastics	**22,117**	**6,316**	**507**	**15,294**	19,946	5,766	398	13,782
Insurance	**21,721**	**2,659**	**8,173**	**10,889**	20,823	2,387	7,859	10,577
Central Govt	**16,838**	**3,670**	**10,820**	**2,348**	19,078	3,167	12,938	2,973
Metals & Mining	**15,627**	**4,786**	**307**	**10,534**	15,903	5,398	462	10,043
Transportation	**15,441**	**5,773**	**606**	**9,062**	15,004	4,999	567	9,438
Securities Firms	**7,103**	**908**	**3,381**	**2,814**	6,037	406	3,371	2,260
Financial Markets Infrastructure	**4,938**	**184**	**2,436**	**2,318**	4,942	13	3,030	1,899
All other[(e)]	**134,834**	**97,009**	**3,886**	**33,939**	122,854	87,103	4,072	31,679
Subtotal	**1,268,341**	**666,626**	**63,895**	**537,820**	1,138,099	601,393	67,906	468,800
Loans held-for-sale and loans at fair value	**32,031**	**32,031**	**–**	**–**	35,074	35,074	–	–
Receivables from customers[(f)]	**10,168**	**–**	**–**	**–**	10,969	–	–	–
Total wholesale	**1,310,540**	**698,657**	**63,895**	**537,820**	1,184,142	636,467	67,906	468,800
Total exposure[(g)(h)]	**$ 2,842,398**	**$1,298,184**	**$ 63,895**	**$1,470,151**	$ 2,535,462	$1,132,985	$ 67,906	$1,323,602

(a) Also includes commercial card lending-related commitments.

(b) The industry rankings presented in the table as of December 31, 2022, are based on the industry rankings of the corresponding exposures as of June 30, 2023, not actual rankings of such exposures at December 31, 2022.

(c) Individuals and Individual Entities predominantly consists of global private bank clients and includes exposure to personal investment companies and personal and testamentary trusts.

(d) In addition to the credit risk exposure to states and municipal governments (both U.S. and non-U.S.) as of June 30, 2023 and December 31, 2022, noted above, the Bank held: $4.9 billion and $4.8 billion, respectively, of trading assets; $24.0 billion and $6.8 billion, respectively, of AFS securities; and $11.6 billion and $19.7 billion, respectively, of HTM securities, issued by U.S. state and municipal governments. Refer to Note 3 and Note 11 for further information.

(e) All other includes: SPEs, and Private education and civic organizations, representing approximately 94% and 6%, respectively, as of June 30, 2023 and 95% and 5%, respectively, as of December 31, 2022. Refer to Note 15 for more information on exposures to SPEs.

(f) Receivables from customers reflect held-for-investment margin loans to brokerage clients that are collateralized by assets maintained in the clients' brokerage accounts (e.g., cash on deposit, 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 Bank 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 Bank's Consolidated balance sheets.

(g) Excludes cash placed with banks of $483.9 billion and $555.4 billion, as of June 30, 2023 and December 31, 2022, respectively, which is predominantly placed with various central banks, primarily Federal Reserve Banks.

(h) Credit exposure is net of risk participations and excludes the benefit of credit derivatives used in credit portfolio management activities held against derivative receivables or loans and liquid securities and other cash collateral held against derivative receivables.

(i) Included credit exposure associated with the First Republic acquisition consisting of $104.6 billion in the consumer, excluding credit card portfolio, and $98.2 billion in the wholesale portfolio predominantly in Asset Managers, Real Estate, and Individuals and Individual Entities.

(j) Represents lending-related financial instruments.

Note 6 – Derivative instruments

The Bank makes markets in derivatives for clients and also uses derivatives to hedge or manage its own risk exposures. Refer to Note 6 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a further discussion of the Bank's use of and accounting policies regarding derivative instruments.

The Bank's disclosures are based on the accounting treatment and purpose of these derivatives. A limited number of the Bank'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 Bank's market-making businesses or for other purposes.

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

Type of Derivative	Use of Derivative	Designation and disclosure	Page reference
Manage specifically identified risk exposures in qualifying hedge accounting relationships:			
• Interest rate	Hedge fixed rate assets and liabilities	Fair value hedge	33-34
• Interest rate	Hedge floating-rate assets and liabilities	Cash flow hedge	35
• Foreign exchange	Hedge foreign currency-denominated assets and liabilities	Fair value hedge	33-34
• Foreign exchange	Hedge foreign currency-denominated forecasted revenue and expense	Cash flow hedge	35
• Foreign exchange	Hedge the value of the Bank's investments in non-U.S. dollar functional currency entities	Net investment hedge	36
• Commodity	Hedge commodity inventory	Fair value hedge	33-34
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	36
• Credit	Manage the credit risk associated with wholesale lending exposures	Specified risk management	36
• Interest rate and foreign exchange	Manage the risk associated with certain other specified assets and liabilities	Specified risk management	36
Market-making derivatives and other activities:			
• Various	Market-making and related risk management	Market-making and other	36
• Various	Other derivatives	Market-making and other	36

Notional amount of derivative contracts

The following table summarizes the notional amount of free-standing derivative contracts outstanding as of June 30, 2023, and December 31, 2022.

	Notional amounts[b]	
(in billions)	**June 30, 2023**	December 31, 2022
Interest rate contracts		
Swaps	**$ 30,085**	$ 25,377
Futures and forwards	**2,864**	2,149
Written options	**3,336**	3,054
Purchased options	**3,406**	3,006
Total interest rate contracts	**39,691**	33,586
Credit derivatives[a]	**1,480**	1,136
Foreign exchange contracts		
Cross-currency swaps	**4,476**	4,230
Spot, futures and forwards	**8,720**	7,046
Written options	**864**	776
Purchased options	**823**	760
Total foreign exchange contracts	**14,883**	12,812
Equity contracts		
Swaps	**779**	727
Futures and forwards	**112**	114
Written options	**640**	498
Purchased options	**635**	486
Total equity contracts	**2,166**	1,825
Commodity contracts		
Swaps	**297**	297
Spot, futures and forwards	**140**	138
Written options	**147**	131
Purchased options	**118**	107
Total commodity contracts	**702**	673
Total derivative notional amounts	**$ 58,922**	$ 50,032

(a) Refer to the Credit derivatives discussion on pages 37 for more information on volumes and types of credit derivative contracts.

(b) Represents the sum of gross long and gross short notional derivative contracts with third parties and JPMorgan Chase affiliates. Refer to Note 20 for additional information on our derivative activities with affiliates.

While the notional amounts disclosed above give an indication of the volume of the Bank's derivatives activity, the notional amounts significantly exceed, in the Bank'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 tables below include derivative receivables and payables with affiliates on a gross and net basis. Refer to Note 20 for information regarding our derivative activities with affiliates.

The following table summarizes information on derivative receivables and payables (before and after netting adjustments) that are reflected on the Bank's Consolidated balance sheets as of June 30, 2023, and December 31, 2022, by accounting designation (e.g., whether the derivatives were designated in qualifying hedge accounting relationships or not) and contract type.

Free-standing derivative receivables and payables[a]

	Gross derivative receivables				Gross derivative payables			
June 30, 2023 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[b]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[b]
Trading assets and liabilities								
Interest rate	**$ 344,334**	**$ –**	**$ 344,334**	**$ 27,355**	**$ 325,062**	**$ –**	**$ 325,062**	**$ 15,257**
Credit	**12,993**	**–**	**12,993**	**1,222**	**13,359**	**–**	**13,359**	**540**
Foreign exchange	**230,033**	**681**	**230,714**	**22,179**	**227,303**	**600**	**227,903**	**14,173**
Equity	**60,701**	**–**	**60,701**	**7,460**	**62,748**	**–**	**62,748**	**7,060**
Commodity	**23,729**	**709**	**24,438**	**5,679**	**24,042**	**807**	**24,849**	**6,239**
Total fair value of trading assets and liabilities	**$ 671,790**	**$ 1,390**	**$ 673,180**	**$ 63,895**	**$ 652,514**	**$ 1,407**	**$ 653,921**	**$ 43,269**

	Gross derivative receivables				Gross derivative payables			
December 31, 2022 (in millions)	Not designated as hedges	Designated as hedges	Total derivative receivables	Net derivative receivables[b]	Not designated as hedges	Designated as hedges	Total derivative payables	Net derivative payables[b]
Trading assets and liabilities								
Interest rate	$ 359,265	$ –	$ 359,265	$ 27,744	$ 337,831	$ –	$ 337,831	$ 15,453
Credit	9,969	–	9,969	1,084	10,027	–	10,027	733
Foreign exchange	242,220	379	242,599	23,273	251,129	2,503	253,632	18,822
Equity	52,499	–	52,499	7,040	52,468	–	52,468	6,886
Commodity	33,192	1,694	34,886	8,765	29,141	2,320	31,461	6,097
Total fair value of trading assets and liabilities	$ 697,145	$ 2,073	$ 699,218	$ 67,906	$ 680,596	$ 4,823	$ 685,419	$ 47,991

(a) Balances exclude structured notes for which the fair value option has been elected. Refer to Note 4 for further information.
(b) As permitted under U.S. GAAP, the Bank 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, 2023, and December 31, 2022, 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 Bank 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 Bank receives and transfers additional collateral (financial instruments and cash). These amounts mitigate counterparty credit risk associated with the Bank'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;
- 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.

	June 30, 2023			December 31, 2022		
(in millions)	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables	Gross derivative receivables	Amounts netted on the Consolidated balance sheets	Net derivative receivables
U.S. GAAP nettable derivative receivables						
Interest rate contracts:						
Over-the-counter ("OTC")	**$ 250,897**	**$ (225,400)**	**$ 25,497**	$ 263,938	$ (238,610)	$ 25,328
OTC-cleared	**91,210**	**(91,054)**	**156**	92,984	(92,607)	377
Exchange-traded[(a)]	**572**	**(525)**	**47**	553	(304)	249
Total interest rate contracts	**342,679**	**(316,979)**	**25,700**	357,475	(331,521)	25,954
Credit contracts:						
OTC	**8,180**	**(7,149)**	**1,031**	8,118	(7,181)	937
OTC-cleared	**4,674**	**(4,622)**	**52**	1,746	(1,704)	42
Total credit contracts	**12,854**	**(11,771)**	**1,083**	9,864	(8,885)	979
Foreign exchange contracts:						
OTC	**227,051**	**(207,632)**	**19,419**	239,012	(217,908)	21,104
OTC-cleared	**910**	**(901)**	**9**	1,461	(1,417)	44
Exchange-traded[(a)]	**11**	**(2)**	**9**	15	(1)	14
Total foreign exchange contracts	**227,972**	**(208,535)**	**19,437**	240,488	(219,326)	21,162
Equity contracts:						
OTC	**44,469**	**(41,155)**	**3,314**	38,886	(36,334)	2,552
Exchange-traded[(a)]	**13,708**	**(12,086)**	**1,622**	10,491	(9,125)	1,366
Total equity contracts	**58,177**	**(53,241)**	**4,936**	49,377	(45,459)	3,918
Commodity contracts:						
OTC	**16,121**	**(12,404)**	**3,717**	24,000	(17,264)	6,736
OTC-cleared	**111**	**(111)**	**—**	121	(112)	9
Exchange-traded[(a)]	**6,264**	**(6,244)**	**20**	9,103	(8,745)	358
Total commodity contracts	**22,496**	**(18,759)**	**3,737**	33,224	(26,121)	7,103
Derivative receivables with appropriate legal opinion	**664,178**	**(609,285)**	**54,893** [(d)]	690,428	(631,312)	59,116 [(d)]
Derivative receivables where an appropriate legal opinion has not been either sought or obtained	**9,002**		**9,002**	8,790		8,790
Total derivative receivables recognized on the Consolidated balance sheets	**$ 673,180**		**$ 63,895**	$ 699,218		$ 67,906
Collateral not nettable on the Consolidated balance sheets[(b)(c)]			**(23,232)**			(22,953)
Net amounts			**$ 40,663**			$ 44,953

(in millions)	June 30, 2023 Gross derivative payables	June 30, 2023 Amounts netted on the Consolidated balance sheets	June 30, 2023 Net derivative payables	December 31, 2022 Gross derivative payables	December 31, 2022 Amounts netted on the Consolidated balance sheets	December 31, 2022 Net derivative payables
U.S. GAAP nettable derivative payables						
Interest rate contracts:						
OTC	**$ 228,383**	**$ (215,206)**	**$ 13,177**	$ 239,068	$ (225,920)	$ 13,148
OTC-cleared	**94,295**	**(94,096)**	**199**	96,413	(96,154)	259
Exchange-traded[(a)]	**510**	**(503)**	**7**	322	(304)	18
Total interest rate contracts	**323,188**	**(309,805)**	**13,383**	335,803	(322,378)	13,425
Credit contracts:						
OTC	**8,836**	**(8,386)**	**450**	8,109	(7,649)	460
OTC-cleared	**4,438**	**(4,433)**	**5**	1,674	(1,645)	29
Total credit contracts	**13,274**	**(12,819)**	**455**	9,783	(9,294)	489
Foreign exchange contracts:						
OTC	**224,645**	**(212,829)**	**11,816**	248,604	(233,393)	15,211
OTC-cleared	**993**	**(901)**	**92**	1,488	(1,417)	71
Exchange-traded[(a)]	**15**	**–**	**15**	20	–	20
Total foreign exchange contracts	**225,653**	**(213,730)**	**11,923**	250,112	(234,810)	15,302
Equity contracts:						
OTC	**46,304**	**(43,602)**	**2,702**	38,846	(36,469)	2,377
Exchange-traded[(a)]	**12,638**	**(12,086)**	**552**	9,287	(9,113)	174
Total equity contracts	**58,942**	**(55,688)**	**3,254**	48,133	(45,582)	2,551
Commodity contracts:						
OTC	**15,648**	**(12,226)**	**3,422**	20,601	(16,494)	4,107
OTC-cleared	**116**	**(116)**	**–**	112	(112)	–
Exchange-traded[(a)]	**7,049**	**(6,268)**	**781**	9,021	(8,758)	263
Total commodity contracts	**22,813**	**(18,610)**	**4,203**	29,734	(25,364)	4,370
Derivative payables with appropriate legal opinion	**643,870**	**(610,652)**	**33,218** [(d)]	673,565	(637,428)	36,137 [(d)]
Derivative payables where an appropriate legal opinion has not been either sought or obtained	**10,051**		**10,051**	11,854		11,854
Total derivative payables recognized on the Consolidated balance sheets	**$ 653,921**		**$ 43,269**	$ 685,419		$ 47,991
Collateral not nettable on the Consolidated balance sheets[(b)(c)]			**(3,998)**			(2,610)
Net amounts			**$ 39,271**			$ 45,381

(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 $64.8 billion and $67.5 billion at June 30, 2023, and December 31, 2022, respectively. Net derivatives payable included cash collateral netted of $66.2 billion and $73.6 billion at June 30, 2023, and December 31, 2022, respectively. Derivative cash collateral relates to OTC and OTC-cleared derivative instruments.

Liquidity risk and credit-related contingent features

Refer to Note 6 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a more detailed discussion of liquidity risk and credit-related contingent features related to the Bank'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 Bank has posted in the normal course of business, at June 30, 2023, and December 31, 2022.

OTC and OTC-cleared derivative payables containing downgrade triggers

(in millions)	June 30, 2023	December 31, 2022
Aggregate fair value of net derivative payables	$ 14,992	$ 15,518
Collateral posted	13,985	14,673

The following table shows the impact of a single-notch and two-notch downgrade of the long-term issuer ratings of the Bank and its subsidiaries at June 30, 2023, and December 31, 2022, 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 rating threshold 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 payment 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

	June 30, 2023		December 31, 2022	
(in millions)	Single-notch downgrade	Two-notch downgrade	Single-notch downgrade	Two-notch downgrade
Amount of additional collateral to be posted upon downgrade[a]	$ 81	$ 1,241	$ 128	$ 1,293
Amount required to settle contracts with termination triggers upon downgrade[b]	80	795	88	907

(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 Bank 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 Bank generally accounts for such transfers as collateralized financing transactions as described in Note 12, 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 both June 30, 2023 and December 31, 2022.

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. Refer to Note 20 for information regarding our derivative activities with affiliates.

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 six months ended June 30, 2023 and 2022, respectively. The Bank includes gains/(losses) on the hedging derivative in the same line item in the Consolidated statements of income as the related hedged item.

	Gains/(losses) recorded in income			Income statement impact of excluded components[e]		OCI impact
Six months ended June 30, 2023 (in millions)	Derivatives	Hedged items	Income statement impact	Amortization approach	Changes in fair value	Derivatives - Gains/(losses) recorded in OCI[f]
Contract type						
Interest rate[a][b]	**$ 1,286**	**$ (1,157)**	**$ 129**	**$ –**	**$ 88**	**$ –**
Foreign exchange[c]	**(207)**	**337**	**130**	**–**	**130**	**–**
Commodity[d]	**(1,344)**	**1,550**	**206**	**–**	**206**	**–**
Total	**$ (265)**	**$ 730**	**$ 465**	**$ –**	**$ 424**	**$ –**

	Gains/(losses) recorded in income			Income statement impact of excluded components[e]		OCI impact
Six months ended June 30, 2022 (in millions)	Derivatives	Hedged items	Income statement impact	Amortization approach	Changes in fair value	Derivatives - Gains/(losses) recorded in OCI[f]
Contract type						
Interest rate[a][b]	$ 4,333	$ (4,502)	$ (169)	$ –	$ (81)	$ –
Foreign exchange[c]	1,065	(1,055)	10	–	10	–
Commodity[d]	(1,927)	1,869	(58)	–	(46)	–
Total	$ 3,471	$ (3,688)	$ (217)	$ –	$ (117)	$ –

(a) Primarily consists of hedges of the benchmark (e.g., 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) Includes the amortization of income/expense associated with the inception hedge accounting adjustment applied to the hedged item. 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 AFS securities for changes in spot foreign currency rates. Gains and losses related to the derivatives and the hedged items due to changes in foreign currency rates and the income statement impact of excluded components were recorded primarily in principal transactions revenue and net interest income.

(d) Consists of overall fair value hedges of physical commodities inventories that are generally carried at the lower of cost or net realizable value (net realizable value approximates fair value). Gains and losses were recorded in principal transactions revenue.

(e) The assessment of hedge effectiveness excludes certain components of the changes in fair values of the derivatives and hedged items such as forward points on foreign exchange forward contracts, time values and cross-currency basis spreads. Excluded components may impact earnings either through amortization of the initial amount over the life of the derivative, or through fair value changes recognized in the current period.

(f) Represents the change in value of amounts excluded from the assessment of effectiveness under the amortization approach, predominantly cross-currency basis spreads. The amount excluded at inception of the hedge is recognized in earnings over the life of the derivative.

As of June 30, 2023 and December 31, 2022, 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.

		Cumulative amount of fair value hedging adjustments included in the carrying amount of hedged items:		
June 30, 2023 (in millions)	Carrying amount of the hedged items[(a)(b)]	Active hedging relationships[(d)]	Discontinued hedging relationships[(d)(e)]	Total
Assets				
Investment securities - AFS	**$ 136,444** [(c)]	**$ (2,752)**	**$ (3,462)**	**$ (6,214)**
Liabilities				
Long-term debt	**$ 1,007**	**$ –**	**$ 72**	**$ 72**

		Cumulative amount of fair value hedging adjustments included in the carrying amount of hedged items:		
December 31, 2022 (in millions)	Carrying amount of the hedged items[(a)(b)]	Active hedging relationships[(d)]	Discontinued hedging relationships[(d)(e)]	Total
Assets				
Investment securities - AFS	$ 84,073 [(c)]	$ (4,149)	$ (1,542)	$ (5,691)
Liabilities				
Long-term debt	$ 992	$ –	$ 82	$ 82

(a) Excludes physical commodities with a carrying value of $11.7 billion and $24.3 billion at June 30, 2023 and December 31, 2022, respectively, to which the Bank 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 Bank 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, 2023 and December 31, 2022, the carrying amount excluded for AFS securities is $20.9 billion and $20.3 billion, respectively.

(c) Carrying amount represents the amortized cost, net of allowance if applicable. Effective January 1, 2023, the Bank adopted the new portfolio layer method hedge accounting guidance which expanded the ability to hedge a portfolio of prepayable assets to allow more of the portfolio to be hedged. At June 30, 2023, the amortized cost of the portfolio layer method closed portfolios was $67.8 billion, of which $49.6 billion was designated as hedged. The cumulative amount of basis adjustments was $(1.1) billion, reflecting $(865) million and $(229) million for active and discontinued hedging relationships, respectively. Refer to Note 1 and Note 11 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 six months ended June 30, 2023 and 2022, respectively. The Bank 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.

Six months ended June 30, 2023 (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)]	**$ (902)**	**$ (740)**	**$ 162**
Foreign exchange[(b)]	**(46)**	**186**	**232**
Total	**$ (948)**	**$ (554)**	**$ 394**

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	$ (4,869)	$ (5,198)
Foreign exchange[(b)]	(68)	(315)	(247)
Total	$ 261	$ (5,184)	$ (5,445)

(a) Primarily consists of hedges of 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 Bank did not experience any forecasted transactions that failed to occur for the six months ended June 30, 2023 and 2022.

Over the next 12 months, the Bank expects that approximately $(1.3) billion (after-tax) of net losses recorded in AOCI at June 30, 2023, 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 seven years, corresponding to the timing of the originally hedged forecasted cash flows. For open cash flow hedges, the maximum length of time over which forecasted transactions are hedged is approximately seven years. The Bank'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 six months ended June 30, 2023 and 2022.

	Gains/(losses) recorded in income and other comprehensive income/(loss)			
	2023		2022	
Six months ended June 30, (in millions)	Amounts recorded in income[(a)(b)]	Amounts recorded in OCI	Amounts recorded in income[(a)(b)]	Amounts recorded in OCI
Foreign exchange derivatives	**$ 201**	**$ (957)**	$ (191)	$ 3,198

(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 Bank 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. There were no sales or liquidations of legal entities that resulted in reclassification during the six months ended June 30, 2023. The amounts were not material for the six months ended June 30, 2022. Refer to Note 21 for further information.

Gains and losses on derivatives used for specified risk management purposes

The following table presents pre-tax gains/(losses) recorded on a limited number of derivatives, not designated in hedge accounting relationships, that are used to manage risks associated with certain specified assets and liabilities, including certain risks arising from mortgage commitments, warehouse loans, MSRs, wholesale lending exposures, and foreign currency-denominated assets and liabilities.

	Derivatives gains/(losses) recorded in income	
	Six months ended June 30,	
(in millions)	**2023**	2022
Contract type		
Interest rate[(a)]	**$ (126)**	$ (543)
Credit[(b)]	**(163)**	122
Foreign exchange[(c)]	**(18)**	36
Total	**$ (307)**	$ (385)

(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 Bank'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 Bank 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 7 for information on principal transactions revenue.

Credit derivatives

Refer to Note 6 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements 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 Bank sold and purchased as of June 30, 2023 and December 31, 2022. The Bank 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 Bank's view, the risks associated with such derivatives.

Total credit derivatives and credit-related notes

	Maximum payout/Notional amount			
June 30, 2023 (in millions)	Protection sold	Protection purchased with identical underlyings[c]	Net protection (sold)/ purchased[d]	Other protection purchased[e]
Credit derivatives				
Credit default swaps	**$ (646,053)**	**$ 673,632**	**$ 27,579**	**$ 6,232**
Other credit derivatives[a]	**(64,637)**	**75,103**	**10,466**	**14,001**
Total credit derivatives	**(710,690)**	**748,735**	**38,045**	**20,233**
Credit-related notes[b]	**–**	**–**	**–**	**7,002**
Total	**$ (710,690)**	**$ 748,735**	**$ 38,045**	**$ 27,235**

	Maximum payout/Notional amount			
December 31, 2022 (in millions)	Protection sold	Protection purchased with identical underlyings[c]	Net protection (sold)/ purchased[d]	Other protection purchased[e]
Credit derivatives				
Credit default swaps	$ (492,104)	$ 505,795	$ 13,691	$ 3,014
Other credit derivatives[a]	(57,814)	67,118	9,304	10,522
Total credit derivatives	(549,918)	572,913	22,995	13,536
Credit-related notes[b]	–	–	–	7,198
Total	$ (549,918)	$ 572,913	$ 22,995	$ 20,734

(a) Other credit derivatives predominantly consist of credit swap options and total return swaps.
(b) Represents Other protection purchased by the Bank, primarily in its market-making activities.
(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 Bank on referenced instruments (single-name, portfolio or index) where the Bank 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, 2023, and December 31, 2022, where the Bank 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 the Bank is the purchaser of protection are comparable to the profile reflected below.

Protection sold – credit derivatives ratings[a]/maturity profile

June 30, 2023 (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	**$ (106,018)**	**$ (419,773)**	**$ (34,474)**	**$ (560,265)**	**$ 4,399**	**$ (1,527)**	**$ 2,872**
Noninvestment-grade	**(39,109)**	**(108,436)**	**(2,880)**	**(150,425)**	**2,643**	**(2,802)**	**(159)**
Total	**$ (145,127)**	**$ (528,209)**	**$ (37,354)**	**$ (710,690)**	**$ 7,042**	**$ (4,329)**	**$ 2,713**

December 31, 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	$ (97,396)	$ (300,062)	$ (27,282)	$ (424,740)	$ 2,397	$ (1,985)	$ 412
Noninvestment-grade	(33,518)	(88,788)	(2,872)	(125,178)	1,326	(2,539)	(1,213)
Total	$ (130,914)	$ (388,850)	$ (30,154)	$ (549,918)	$ 3,723	$ (4,524)	$ (801)

(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 7 – Noninterest revenue and noninterest expense

Noninterest revenue

Refer to Note 7 of the Bank's 2022 Annual Financial Statements for a discussion of the components of and accounting policies for the Bank's noninterest revenue.

Investment banking fees

The following table presents the components of investment banking fees.

(in millions)	Six months ended June 30, 2023	2022
Underwriting		
Equity	**$ 116**	$ 115
Debt	**778**	1,021
Total underwriting	**894**	1,136
Advisory	**389**	466
Total investment banking fees	**$ 1,283**	$ 1,602

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 Bank's client-driven market-making activities and fund deployment activities. Refer to Note 8 for further information on interest income and interest expense.

Trading revenue is presented primarily by instrument type. The Bank's client-driven market-making activities 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 the Bank's client-driven market making activities.

(in millions)	Six months ended June 30, 2023	2022
Trading revenue by instrument type		
Interest rate[(a)]	**$ 2,696**	$ 1,345
Credit[(b)]	**650**	535 [(c)]
Foreign exchange	**2,893**	2,648
Equity	**4,803**	3,434
Commodity	**1,182**	1,050
Total trading revenue	**$ 12,224**	$ 9,012

(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)	Six months ended June 30, 2023	2022
Lending-related fees[(a)]	**$ 958**	$ 722
Deposit-related fees	**2,489**	2,988
Total lending- and deposit-related fees	**$ 3,447**	$ 3,710

(a) Includes the impact of the First Republic acquisition. Refer to Note 27 for additional information.

Deposit-related fees include the impact of credits earned by clients that reduce such fees.

Asset management fees

The following table presents the components of asset management fees.

(in millions)	Six months ended June 30, 2023	2022
Asset management fees		
Investment management fees[(a)(b)]	**$ 1,322**	$ 1,242
All other asset management fees	**28**	26
Total asset management fees	**$ 1,350**	$ 1,268

(a) Represents fees earned from managing assets on behalf of the Bank's clients, including investors in Bank-sponsored funds and owners of separately managed investment accounts.
(b) Includes the impact of the First Republic acquisition. Refer to Note 27 for additional information.

Commissions and other fees

The following table presents the components of commissions and other fees.

(in millions)	Six months ended June 30, 2023	2022
Commissions and other fees		
Brokerage commissions[(a)]	**$ 649**	$ 701
Administration fees[(b)]	**1,120**	1,219
All other commissions and fees [(c)]	**4,214**	3,853
Total commissions and other fees	**$ 5,983**	$ 5,773

(a) Represents commissions earned when the Bank acts as a broker, by facilitating its clients' purchases and sales of securities and other financial instruments.
(b) Predominantly includes fees for custody, securities lending, funds services and securities clearance.
(c) Includes fees earned for operational support and services provided to JPMorgan Chase affiliates. Refer to Note 20 for additional information.

Card income

The following table presents the components of card income.

(in millions)	Six months ended June 30, 2023	2022
Interchange and merchant processing income	**$ 15,024**	$ 13,449
Rewards costs and partner payments	**(11,901)**	(10,511)
Other card income[(a)]	**(795)**	(830)
Total card income	**$ 2,328**	$ 2,108

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

Refer to Note 16 for further information on **mortgage fees and related income.**

Other income

The following table presents certain components of other income:

(in millions)	Six months ended June 30, 2023	2022
Operating lease income	**$ 1,470**	$ 1,992
Estimated bargain purchase gain associated with the First Republic acquisition[(a)]	**2,712**	–

(a) Refer to Note 27 for additional information on the First Republic acquisition.

Refer to Note 18 for information on operating lease income included within other income.

Noninterest expense

Other expense

Other expense on the Bank's Consolidated statements of income includes the following:

(in millions)	Six months ended June 30, 2023	2022
Legal expense	**$ 516**	$ 48
FDIC-related expense	**655**	414
First Republic-related expense[(a)]	**647**	–

(a) Refer to Note 27 for additional information on the First Republic acquisition.

FDIC Special Assessment

In May 2023, the FDIC issued a notice of proposed rulemaking recommending a special assessment related to the systemic risk determination made on March 12, 2023, to recover losses to the Deposit Insurance Fund ("DIF") arising from the protection of uninsured depositors resulting from recent bank resolutions. In its current form, the rule would impose a special assessment at an annual rate of 12.5 basis points on certain banks' estimated uninsured deposits reported as of December 31, 2022. The Bank expects to be subject to special assessments imposed by the FDIC to recover losses to the DIF.

Note 8 – Interest income and Interest expense

Refer to Note 8 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a description of the Bank's accounting policies regarding interest income and interest expense.

The following table presents the components of interest income and interest expense.

(in millions)	Six months ended June 30, 2023	2022
Interest income		
Loans[(a)]	**$ 37,953**	$ 22,228
Taxable securities	**8,155**	4,263
Non-taxable securities[(b)]	**590**	489
Total investment securities[(a)]	**8,745**	4,752
Trading assets - debt instruments	**3,618**	2,084
Federal funds sold and securities purchased under resale agreements	**5,816**	780
Securities borrowed[(c)]	**936**	(20)
Deposits with banks	**9,983**	1,318
All other interest-earning assets	**2,507**	230
Total interest income	**$ 69,558**	$ 31,372
Interest expense		
Interest-bearing deposits	**$ 18,787**	$ 1,234
Federal funds purchased and securities loaned or sold under repurchase agreements	**2,221**	231
Trading liabilities - debt, short-term borrowings and all other interest-bearing liabilities	**1,734**	525
Long-term debt	**1,751**	295
Beneficial interest issued by consolidated VIEs	**352**	47
Total interest expense	**$ 24,845**	$ 2,332
Net interest income	**$ 44,713**	$ 29,040
Provision for credit losses	**5,103**	2,557
Net interest income after provision for credit losses	**$ 39,610**	$ 26,483

(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 and rates reflect the net impact of interest earned offset by fees paid on client-driven securities borrowed transactions.

Note 9 – Pension and other postretirement employee benefit plans

Refer to Note 9 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a discussion of the Bank's pension and other postretirement employee benefit ("OPEB") plans.

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

	Six months ended June 30,	
	Pension and OPEB plans	
(in millions)	**2023**	2022
Total net periodic defined benefit plan cost/(credit)[(a)]	**$ (109)**	$ (93)
Total defined contribution plans	**681**	635
Total pension and OPEB cost included in noninterest expense	**$ 572**	$ 542

(a) Includes $(15) million and $(10) million for the six months ended June 30, 2023 and 2022, respectively, that the Bank charged JPMorgan Chase and its non-bank subsidiaries for their share of the U.S. qualified defined benefit pension plan expense.

As of June 30, 2023 and December 31, 2022, the fair values of plan assets for the Bank's significant defined benefit pension and OPEB plans were $17.4 billion and $17.0 billion, respectively.

Note 10 – Employee share-based incentives

Certain employees of the Bank participate in JPMorgan Chase's long-term share-based incentive plans, which provide grants of common stock-based awards, including restricted stock units ("RSUs"), performance share units ("PSUs") and stock appreciation rights ("SARs"). Refer to Note 10 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a discussion of the accounting policies and other information relating to employee share-based incentives.

The Bank recognized the following compensation expense related to its participation in various employee share-based incentive plans in its Consolidated statements of income.

	Six months ended June 30,	
(in millions)	**2023**	2022
Cost of prior grants of RSUs, PSUs and SARs that are amortized over their applicable vesting periods	**$ 600**	$ 455
Accrual of estimated costs of share-based awards to be granted in future periods, predominantly those to full-career eligible employees	**653**	686
Total compensation expense related to employee share-based incentive plans	**$ 1,253**	$ 1,141

There are no separate plans solely for the employees of the Bank and, therefore, the share-based compensation expense for the Bank is determined based upon employee participation in the JPMorgan Chase plans and effected through a charge from JPMorgan Chase, which is cash settled.

During the six month period ended June 30, 2023, in connection with its annual incentive grant for the 2022 performance year, JPMorgan Chase granted employees of the Bank 14 million RSUs and 764 thousand PSUs with weighted-average grant date fair values of $137.93 per RSU and $139.78 per PSU.

Note 11 – Investment securities

Investment securities consist of debt securities that are classified as AFS or held-to-maturity ("HTM"). Debt securities classified as trading assets are discussed in Note 3. Predominantly all of the Bank's AFS and HTM securities are held in connection with its asset-liability management activities. At June 30, 2023, 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).

Effective January 1, 2023, the Bank adopted the portfolio layer method hedge accounting guidance which permitted a transfer of HTM securities to AFS upon adoption. The Bank transferred obligations of U.S. states and municipalities with a carrying value of $7.1 billion resulting in the recognition of $38 million net pre-tax unrealized losses in AOCI. This transfer was a noncash transaction. Refer to Note 1 and Note 21 for additional information.

During 2022, the Bank transferred $78.3 billion of investment securities from AFS to HTM for capital management purposes. AOCI included pretax unrealized losses of $4.8 billion on the securities at the date of transfer. Refer to Note 11 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements 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.

	June 30, 2023				December 31, 2022			
(in millions)	Amortized cost[c][d]	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost[c][d]	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale securities								
Mortgage-backed securities:								
U.S. GSEs and government agencies	**$ 84,749**	**$ 326**	**$ 5,307**	**$ 79,768**	$ 77,194	$ 479	$ 6,170	$ 71,503
Residential:								
U.S.	**1,803**	**1**	**119**	**1,685**	1,576	1	111	1,466
Non-U.S.	**1,861**	**4**	**6**	**1,859**	3,176	5	27	3,154
Commercial	**2,223**	**1**	**168**	**2,056**	2,113	–	155	1,958
Total mortgage-backed securities	**90,636**	**332**	**5,600**	**85,368**	84,059	485	6,463	78,081
U.S. Treasury and government agencies	**63,998**	**297**	**1,558**	**62,737**	95,217	302	3,459	92,060
Obligations of U.S. states and municipalities	**24,250**	**172**	**428**	**23,994**	7,075	86	403	6,758
Non-U.S. government debt securities	**22,588**	**20**	**568**	**22,040**	20,360	14	678	19,696
Corporate debt securities	**366**	**–**	**4**	**362**	342	–	6	336
Asset-backed securities:								
Collateralized loan obligations	**5,506**	**3**	**72**	**5,437**	5,916	1	125	5,792
Other	**3,308**	**2**	**57**	**3,253**	3,134	2	69	3,067
Unallocated portfolio layer fair value basis adjustments [a]	**(865)**	**–**	**(865)**	**NA**	NA	NA	NA	NA
Total available-for-sale securities	**209,787**	**826**	**7,422**	**203,191** [e]	216,103	890	11,203	205,790
Held-to-maturity securities[b]								
Mortgage-backed securities:								
U.S. GSEs and government agencies	**110,517**	**29**	**13,201**	**97,345**	113,492	35	13,709	99,818
U.S. Residential	**10,293**	**3**	**1,206**	**9,090**	10,503	3	1244	9,262
Commercial	**10,712**	**7**	**741**	**9,978**	10,361	10	734	9,637
Total mortgage-backed securities	**131,522**	**39**	**15,148**	**116,413**	134,356	48	15,687	118,717
U.S. Treasury and government agencies	**202,655**	**–**	**16,825**	**185,830**	207,463	–	18,363	189,100
Obligations of U.S. states and municipalities	**11,617**	**44**	**758**	**10,903**	19,747	53	1,080	18,720
Asset-backed securities:								
Collateralized loan obligations	**61,095**	**42**	**951**	**60,186**	61,414	4	1,522	59,896
Other	**2,052**	**–**	**84**	**1,968**	2,325	–	110	2,215
Total held-to-maturity securities	**408,941**	**125**	**33,766**	**375,300**	425,305	105	36,762	388,648
Total investment securities, net of allowance for credit losses	**$ 618,728**	**$ 951**	**$41,188**	**$ 578,491**	$ 641,408	$ 995	$47,965	$ 594,438

(a) Represents the amount of portfolio layer method basis adjustments related to AFS securities hedged in a closed portfolio. Under U.S. GAAP portfolio layer method basis adjustments are not allocated to individual securities, however the amounts impact the unrealized gains or losses for the individual securities being hedged. Refer to Note 1and Note 6 for additional information.

(b) The Bank purchased $4.1 billion and $27.5 billion of HTM securities for the six months ended June 30, 2023 and 2022, respectively.

(c) The amortized cost of investment securities is reported net of allowance for credit losses of $74 million and $67 million at June 30, 2023 and December 31, 2022, respectively.

(d) Excludes $2.5 billion of accrued interest receivable at both June 30, 2023 and December 31, 2022. The Bank did not reverse through interest income any accrued interest receivable for the six months ended June 30, 2023 and 2022. Refer to Note 11 of JPMorgan Chase Bank, N.A. 2022 Annual Financial Statements for further discussion of accounting policies for accrued interest receivable on investment securities.

(e) As of June 30, 2023, included $25.8 billion of AFS securities associated with the First Republic acquisition. Refer to Note 27 for additional information.

AFS securities impairment

The following tables present the fair value and gross unrealized losses by aging category for AFS securities at June 30, 2023 and December 31, 2022. The tables exclude U.S. Treasury and government agency securities and U.S. GSE and government agency MBS with unrealized losses of $6.9 billion and $9.6 billion, at June 30, 2023 and December 31, 2022, respectively; changes in the value of these securities are generally driven by changes in interest rates rather than changes in their credit profile given the explicit or implicit guarantees provided by the U.S. government.

	Available-for-sale securities with gross unrealized losses					
	Less than 12 months		12 months or more			
June 30, 2023 (in millions)	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale securities						
Mortgage-backed securities:						
Residential:						
U.S.	$ **371**	$ **7**	$ **1,253**	$ **112**	$ **1,624**	$ **119**
Non-U.S.	**4**	**—**	**1,635**	**6**	**1,639**	**6**
Commercial	**154**	**3**	**1,761**	**165**	**1,915**	**168**
Total mortgage-backed securities	**529**	**10**	**4,649**	**283**	**5,178**	**293**
Obligations of U.S. states and municipalities	**10,757**	**123**	**1,961**	**305**	**12,718**	**428**
Non-U.S. government debt securities	**8,745**	**64**	**5,316**	**504**	**14,061**	**568**
Corporate debt securities	**123**	**2**	**51**	**2**	**174**	**4**
Asset-backed securities:						
Collateralized loan obligations	**20**	**—**	**5,066**	**72**	**5,086**	**72**
Other	**1,157**	**16**	**1,888**	**41**	**3,045**	**57**
Total available-for-sale securities with gross unrealized losses	$ **21,331** (a)	$ **215**	$ **18,931**	$ **1,207**	$ **40,262**	$ **1,422**

	Available-for-sale securities with gross unrealized losses					
	Less than 12 months		12 months or more			
December 31, 2022 (in millions)	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Total fair value	Total gross unrealized losses
Available-for-sale securities						
Mortgage-backed securities:						
Residential:						
U.S.	$ 1,187	$ 71	$ 260	$ 40	$ 1,447	$ 111
Non-U.S.	2,848	26	70	1	2,918	27
Commercial	1,131	74	813	81	1,944	155
Total mortgage-backed securities	5,166	171	1,143	122	6,309	293
Obligations of U.S. states and municipalities	3,023	240	364	163	3,387	403
Non-U.S. government debt securities	6,941	321	3,848	357	10,789	678
Corporate debt securities	150	2	186	4	336	6
Asset-backed securities:						
Collateralized loan obligations	3,010	61	2,701	64	5,711	125
Other	2,586	51	256	18	2,842	69
Total available-for-sale securities with gross unrealized losses	$ 20,876	$ 846	$ 8,498	$ 728	$ 29,374	$ 1,574

(a) Includes the impact of the First Republic acquisition, primarily impacting obligations of U.S. states and municipalities. Refer to Note 27 for additional information.

HTM securities – credit risk

Credit quality indicator

The primary credit quality indicator for HTM securities is the risk rating assigned to each security. At June 30, 2023 and December 31, 2022, all HTM securities were rated investment grade and were current and accruing, with approximately 99% and 98% rated at least AA+, respectively.

Allowance for credit losses on investment securities

The allowance for credit losses on investment securities was $74 million and $47 million as of June 30, 2023 and 2022, respectively, which included a cumulative-effect adjustment to retained earnings related to the transfer of HTM securities to AFS for the six months ended June 30, 2023.

Refer to Note 11 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further discussion of accounting policies for AFS and HTM securities.

Selected impacts of investment securities on the Consolidated statements of income

	Six months ended June 30,	
(in millions)	**2023**	2022
Realized gains	**$ 329**	$ 82
Realized losses	**(2,097)**	(629)
Investment securities gains/(losses)	**$ (1,768)**	$ (547)
Provision for credit losses	**$ 13**	$ 5

Contractual maturities and yields

The following table presents the amortized cost and estimated fair value at June 30, 2023, of the Bank's investment securities portfolio by contractual maturity.

By remaining maturity June 30, 2023 (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[c]	Total
Available-for-sale securities					
Mortgage-backed securities					
Amortized cost	$ 15	$ 3,622	$ 5,077	$ 81,922	$ 90,636
Fair value	14	3,488	5,057	76,809	85,368 [d]
Average yield[a]	2.18 %	4.55 %	5.98 %	4.40 %	4.49 %
U.S. Treasury and government agencies					
Amortized cost	$ 7,471	$ 36,773	$ 13,276	$ 6,478	$ 63,998
Fair value	7,384	35,699	13,300	6,354	62,737
Average yield[a]	0.35 %	4.56 %	5.97 %	6.52 %	4.56 %
Obligations of U.S. states and municipalities					
Amortized cost	$ 11	$ 72	$ 1,244	$ 22,923	$ 24,250
Fair value	11	70	1,243	22,670	23,994 [d]
Average yield[a]	5.58 %	3.82 %	4.27 %	5.60 %	5.52 %
Non-U.S. government debt securities					
Amortized cost	$ 13,373	$ 3,423	$ 3,352	$ 2,440	$ 22,588
Fair value	13,360	3,321	2,929	2,430	22,040
Average yield[a]	4.78 %	2.97 %	1.23 %	3.61 %	3.86 %
Corporate debt securities					
Amortized cost	$ 125	$ 227	$ 14	$ –	$ 366
Fair value	125	224	13	–	362
Average yield[a]	16.25 %	11.75 %	4.10 %	– %	13.01 %
Asset-backed securities					
Amortized cost	$ –	$ 1,313	$ 3,859	$ 3,642	$ 8,814
Fair value	–	1,291	3,820	3,579	8,690 [d]
Average yield[a]	– %	3.46 %	5.99 %	6.06 %	5.64 %
Total available-for-sale securities					
Amortized cost[b]	$ 20,995	$ 45,430	$ 26,822	$ 117,405	$ 210,652
Fair value	20,894	44,093	26,362	111,842	203,191 [d]
Average yield[a]	3.27 %	4.44 %	5.30 %	4.78 %	4.62 %
Held-to-maturity securities					
Mortgage-backed securities					
Amortized cost	$ 99	$ 3,835	$ 10,482	$ 117,142	$ 131,558
Fair value	97	3,555	9,212	103,549	116,413
Average yield[a]	6.21 %	2.75 %	2.53 %	2.99 %	2.95 %
U.S. Treasury and government agencies					
Amortized cost	$ 60,878	$ 92,403	$ 49,374	$ –	$ 202,655
Fair value	59,517	85,053	41,260	–	185,830
Average yield[a]	0.46 %	0.93 %	1.27 %	– %	0.87 %
Obligations of U.S. states and municipalities					
Amortized cost	$ –	$ –	$ 640	$ 11,015	$ 11,655
Fair value	–	–	608	10,295	10,903
Average yield[a]	– %	– %	4.39 %	4.04 %	4.06 %
Asset-backed securities					
Amortized cost	$ –	$ 74	$ 21,388	$ 41,685	$ 63,147
Fair value	–	74	21,139	40,941	62,154
Average yield[a]	– %	6.15 %	5.87 %	6.00 %	5.96 %
Total held-to-maturity securities					
Amortized cost[b]	$ 60,977	$ 96,312	$ 81,884	$ 169,842	$ 409,015
Fair value	59,614	88,682	72,219	154,785	375,300
Average yield[a]	0.47 %	1.00 %	2.66 %	3.80 %	2.42 %

(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, including closed portfolio hedges. 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) For purposes of this table, the amortized cost of available-for-sale securities excludes the portfolio layer fair value hedge basis adjustments of $(865) million at June 30, 2023. The amortized cost of held-to-maturity securities also excludes the allowance for credit losses of $(74) million at June 30, 2023.

(c) Substantially all of the Bank'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.

(d) Includes AFS securities associated with the First Republic acquisition, primarily impacting due after 10 years. Refer to Note 27 for additional information.

Note 12 – Securities financing activities

Refer to Note 12 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a discussion of accounting policies relating to securities financing activities. Refer to Note 4 for further information regarding securities financing agreements for which the fair value option has been elected. Refer to Note 25 for further information regarding assets pledged and collateral received in securities financing agreements.

The table below summarizes the gross and net amounts of the Bank's securities financing agreements as of June 30, 2023 and December 31, 2022. When the Bank 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 Bank nets, on the Consolidated balance sheets, the balances outstanding under its securities financing agreements with the same counterparty. In addition, the Bank 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 Bank 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 Bank is acting as the lender in a securities-for-securities lending agreement and receives securities that can be pledged or sold as collateral, the Bank 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, 2023				
(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	**$ 384,657**	**$ (121,912)**	**$ 262,745**	**$ (258,392)**	**$ 4,353**
Securities borrowed	**55,167**	**(1,325)**	**53,842**	**(45,513)**	**8,329**
Liabilities					
Securities sold under repurchase agreements	**$ 212,682**	**$ (121,912)**	**$ 90,770**	**$ (89,691)**	**$ 1,079**
Securities loaned and other[(a)]	**16,604**	**(1,325)**	**15,279**	**(15,014)**	**265**

	December 31, 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	$ 441,264	$ (181,895)	$ 259,369	$ (249,268)	$ 10,101
Securities borrowed	54,693	(1,051)	53,642	(43,817)	9,825
Liabilities					
Securities sold under repurchase agreements	$ 259,011	$ (181,895)	$ 77,116	$ (75,048)	$ 2,068
Securities loaned and other[(a)]	15,860	(1,051)	14,809	(14,590)	219

(a) Includes securities-for-securities lending agreements of $7.9 billion and $7.7 billion at June 30, 2023 and December 31, 2022, respectively, accounted for at fair value, where the Bank 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, 2023 and December 31, 2022, included $3.9 billion and $5.9 billion, respectively, of securities purchased under resale agreements; $6.4 billion and $8.4 billion, respectively, of securities borrowed; $463 million and $495 million, respectively, of securities sold under repurchase agreements. There were no securities loaned and other agreements where the Bank has not received an appropriate legal opinion at June 30, 2023 and December 31, 2022.

The tables below present as of June 30, 2023 and December 31, 2022 the types of financial assets pledged in securities financing agreements and the remaining contractual maturity of the securities financing agreements.

	Gross liability balance			
	June 30, 2023		December 31, 2022	
(in millions)	Securities sold under repurchase agreements	Securities loaned and other	Securities sold under repurchase agreements	Securities loaned and other
MBS - U.S. GSEs and government agencies	**$ 3,520**	**$ —**	$ 512	$ —
U.S. Treasury, GSEs and government agencies	**72,989**	**7,893**	93,398	7,704
Obligations of U.S. states and municipalities	**—**		5	72
Non-U.S. government debt	**127,218**	**1,962**	155,393	1,710
Corporate debt securities	**8,955**	**851**	9,665	614
Asset-backed securities	**—**	**—**	38	—
Equity securities	**—**	**5,898**	—	5,760
Total	**$ 212,682**	**$ 16,604**	$ 259,011	$ 15,860

	Remaining contractual maturity of the agreements				
June 30, 2023 (in millions)	Overnight and continuous	Up to 30 days	30 - 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	**$ 94,620**	**$ 83,247**	**$ 17,074**	**$ 17,741**	**$ 212,682**
Total securities loaned and other	**16,211**	**—**	**2**	**391**	**16,604**

	Remaining contractual maturity of the agreements				
December 31, 2022 (in millions)	Overnight and continuous	Up to 30 days	30 - 90 days	Greater than 90 days	Total
Total securities sold under repurchase agreements	$ 77,679	$ 133,093	$ 31,212	$ 17,027	$ 259,011
Total securities loaned and other	14,412	1,147	3	298	15,860

Transfers not qualifying for sale accounting

At both June 30, 2023 and December 31, 2022, the Bank held $692 million 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 13 – Loans

Loan accounting framework

The accounting for a loan depends on management's strategy for the loan. The Bank 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 13 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a detailed discussion of loans, including accounting policies. Refer to Note 4 of these Consolidated Financial Statements for further information on the Bank's elections of fair value accounting under the fair value option. Refer to Note 3 of these Consolidated Financial Statements for information on loans carried at fair value and classified as trading assets.

On January 1, 2023 the Bank adopted the Financial Instruments - Credit Losses: Troubled Debt Restructurings and Vintage Disclosures accounting guidance as discussed in Note 1. The adoption of this guidance eliminated the existing accounting and disclosure requirements for TDRs, and implemented additional disclosure requirements for FDMs. The disclosure requirements for FDMs are effective for periods beginning on or after January 1, 2023. Refer to Note 13 of JPMorgan Chase Bank, N.A. 2022 Annual Financial Statements for a detailed discussion on loan modifications prior to January 1, 2023, which were accounted for and reported as TDRs. This new guidance also requires disclosure of current period gross charge-offs by vintage origination year, effective for periods beginning on or after January 1, 2023.

Loan portfolio

The Bank's loan portfolio, including loans of $149.8 billion associated with the First Republic acquisition, is divided into three portfolio segments, which are the same segments used by the Bank to determine the allowance for loan losses: Consumer, excluding credit card; Credit card; and Wholesale. Within each portfolio segment the Bank monitors and assesses the credit risk in the following classes of loans, based on the risk characteristics of each loan class.

Consumer, excluding credit card	Credit card	Wholesale[(c)(d)]
• Residential real estate[(a)] • Auto and other[(b)]	• Credit card loans	• Secured by real estate • Commercial and industrial • Other[(e)]

(a) Includes scored mortgage and home equity loans.
(b) Includes scored auto, business banking loans, overdrafts and other consumer unsecured loans.
(c) Includes loans for which the wholesale methodology is applied when determining the allowance for loan losses, as well as risk-rated business banking and wealth management and auto dealer loans.
(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, special purpose entities ("SPEs"), nonprofits, personal investment companies and trusts, as well as loans to individuals and individual entities (predominantly global private bank clients). Refer to Note 15 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for more information on SPEs.

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

June 30, 2023 (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total[(b)(c)]
Retained	**$ 396,188** [(a)]	**$ 191,348**	**$ 666,626** [(a)]	**$ 1,254,162**
Held-for-sale	**548**	**–**	**4,950**	**5,498**
At fair value	**11,443** [(a)]	**–**	**27,081**	**38,524**
Total	**$ 408,179**	**$ 191,348**	**$ 698,657**	**$ 1,298,184**

December 31, 2022 (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total[(b)(c)]
Retained	$ 300,746	$ 185,175	$ 601,393	$ 1,087,314
Held-for-sale	617	–	3,259	3,876
At fair value	9,980	–	31,815	41,795
Total	$ 311,343	$ 185,175	$ 636,467	$ 1,132,985

(a) Includes loans associated with the First Republic acquisition consisting of $91.9 billion of retained loans and $1.9 billion loans at fair value in consumer, excluding credit card and $56.0 billion of retained loans in wholesale.
(b) Excludes $6.0 billion and $5.2 billion of accrued interest receivables as of June 30, 2023 and December 31, 2022, respectively. Accrued interest receivables written off was not material for the six months ended June 30, 2023 and 2022.
(c) 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, 2023, and December 31, 2022.

The following table provides 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.

	2023				2022			
Six months ended June 30, (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Purchases	**$ 92,081** (b)(c)(d)	**$ –**	**$ 58,561** (b)	**$150,642**	$ 1,092 (c)(d)	$ –	$ 394	$ 1,486
Sales	**438**	**–**	**18,797**	**19,235**	129	–	21,712	21,841
Retained loans reclassified to held-for-sale[(a)]	**124**	**–**	**1,085**	**1,209**	142	–	688	830

(a) Reclassifications of loans to held-for-sale are non-cash transactions.
(b) Includes loans acquired in the First Republic acquisition consisting of $91.9 billion in Consumer, excluding credit card and $58.4 billion in Wholesale.
(c) Includes purchases of residential real estate loans, including the Bank's voluntary repurchases of certain delinquent loans from loan pools as permitted by Government National Mortgage Association ("Ginnie Mae") guidelines for the six months ended June 30, 2023 and 2022. The Bank 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, the Federal Housing Administration ("FHA"), Rural Housing Services ("RHS"), and/or the U.S. Department of Veterans Affairs ("VA").
(d) Excludes purchases of retained loans of $2.3 billion and $9.2 billion for the six months ended June 30, 2023 and 2022, respectively, which are predominantly, sourced through the correspondent origination channel and underwritten in accordance with the Bank'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 six months ended June 30, 2023,was $38 million, of which $44 million, related to loans. Net gains/(losses) on sales of loans and lending-related commitments for the six months ended June 30, 2022, was $(329) million , of which $(47) million, 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, 2023	December 31, 2022
Residential real estate	**$ 328,003** (a)	$ 237,554
Auto and other	**68,185**	63,192
Total retained loans	**$ 396,188**	$ 300,746

(a) Included $91.9 billion of loans associated with the First Republic acquisition.

Delinquency rates are the primary credit quality indicator for consumer loans. Refer to Note 13 of JPMorgan Chase Bank, N.A.'s 2022 Annual Consolidated Financial Statements for further information on consumer credit quality indicators.

Residential real estate

Delinquency is the primary credit quality indicator for retained residential real estate loans. The following tables provide information on delinquency and gross charge-offs for the six months ended June 30, 2023.

(in millions, except ratios)	June 30, 2023								
	Term loans by origination year[f]						Revolving loans		
	2023	2022	2021	2020	2019	Prior to 2019	Within the revolving period	Converted to term loans	Total
Loan delinquency[a][b]									
Current[c]	**$ 13,596**	**$ 65,317**	**$ 86,324**	**$ 57,052**	**$ 22,211**	**$ 65,266**	**$ 7,584**	**$ 8,877**	**$326,227**
30–149 days past due	**3**	**19**	**44**	**29**	**41**	**710**	**39**	**216**	**1,101**
150 or more days past due	**–**	**6**	**2**	**6**	**10**	**472**	**3**	**176**	**675**
Total retained loans	**$ 13,599**	**$ 65,342**	**$ 86,370**	**$ 57,087**	**$ 22,262**	**$ 66,448**	**$ 7,626**	**$ 9,269**	**$328,003**
% of 30+ days past due to total retained loans[d][e]	**0.02 %**	**0.04 %**	**0.05 %**	**0.06 %**	**0.23 %**	**1.75 %**	**0.55 %**	**4.23 %**	**0.54 %**
Gross charge-offs	**$ –**	**$ –**	**$ –**	**$ –**	**$ –**	**$ 52**	**$ 14**	**$ 4**	**$ 70**

(in millions, except ratios)	December 31, 2022								
	Term loans by origination year[f]						Revolving loans		
	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	Total
Loan delinquency[a][b]									
Current	$ 39,934	$ 66,072	$ 43,315	$ 15,397	$ 6,339	$ 49,626	$ 5,589	$ 9,685	$235,957
30–149 days past due	29	11	14	20	20	597	15	208	914
150 or more days past due	1	1	6	10	7	479	4	175	683
Total retained loans	$ 39,964	$ 66,084	$ 43,335	$ 15,427	$ 6,366	$ 50,702	$ 5,608	$ 10,068	$237,554
% of 30+ days past due to total retained loans[d]	0.08 %	0.02 %	0.05 %	0.19 %	0.42 %	2.07 %	0.34 %	3.80 %	0.66 %

(a) Individual delinquency classifications include mortgage loans insured by U.S. government agencies which were not material at June 30, 2023 and December 31, 2022.
(b) At June 30, 2023 and December 31, 2022, 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) Included $5.6 billion, $26.2 billion, $22.0 billion, $15.0 billion, $7.5 billion, and $12.9 billion of term loans originated in 2023, 2022, 2021, 2020, 2019 and prior to 2019, respectively, and $2.5 billion of revolving loans within the revolving period associated with the First Republic acquisition.
(d) Excludes mortgage loans that are 30 or more days past due insured by U.S. government agencies which were not material at June 30, 2023 and December 31, 2022 . These amounts have been excluded based upon the government guarantee.
(e) Included $158 million of 30+ days past due loans associated with the First Republic acquisition.
(f) 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 Bank holds is considered in the Bank'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, 2023**	December 31, 2022
Nonaccrual loans[a][b][c][d][e]	**$ 3,637**	$ 3,742
Current estimated LTV ratios[f][g][h]		
Greater than 125% and refreshed FICO scores:		
Equal to or greater than 660	**$ 68**	$ 2
Less than 660	**5**	–
101% to 125% and refreshed FICO scores:		
Equal to or greater than 660	**569**	174
Less than 660	**11**	6
80% to 100% and refreshed FICO scores:		
Equal to or greater than 660	**17,260** [l]	12,034
Less than 660	**254**	184
Less than 80% and refreshed FICO scores:		
Equal to or greater than 660	**298,787** [l]	215,093
Less than 660	**9,523** [l]	8,656
No FICO/LTV available	**1,526**	1,405 [k]
Total retained loans	**$ 328,003** [m]	$ 237,554
Weighted average LTV ratio[f][i]	**51 %**	51 %
Weighted average FICO[g][i]	**771**	769
Geographic region[j][k]		
California	**$ 128,036** [n]	$ 73,112
New York	**49,412** [n]	34,471
Florida	**22,518** [n]	18,870
Texas	**15,447**	14,968
Massachusetts	**14,351** [n]	6,380
Illinois	**11,051**	11,296
Colorado	**10,765**	9,968
Washington	**9,778**	9,060
New Jersey	**8,106**	7,108
Connecticut	**7,142**	5,432
All other	**51,397**	46,889
Total retained loans	**$ 328,003** [m]	$ 237,554

(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 Bank 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 loans, regardless of their delinquency status. At June 30, 2023, approximately 9% of Chapter 7 residential real estate loans were 30 days or more past due.

(b) Mortgage loans insured by U.S. government agencies excluded from nonaccrual loans were not material at June 30,2023 and December 31, 2022.

(c) 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.

(d) Interest income on nonaccrual loans recognized on a cash basis was $89 million and $90 million for the six months ended June 30, 2023 and 2022, respectively.

(e) Generally excludes loans under payment deferral programs offered in response to the COVID-19 pandemic.

(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 Bank on at least a quarterly basis.

(h) Includes residential real estate loans, primarily held in LLCs, 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, 2023.

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

(l) Included $4.3 billion in equal to or greater than 660 FICO scores within 80% to 100% LTV ratio, and $85.3 billion and $1.2 billion in equal to or greater than 660 and less than 660 FICO scores, respectively, within less than 80% LTV ratio associated with the First Republic acquisition.

(m) Included $91.9 billion of loans associated with the First Republic acquisition.

(n) Included $55.5 billion, $15.2 billion, $3.6 billion and $8.0 billion in California, New York, Florida and Massachusetts, respectively, associated with the First Republic acquisition.

Loan modifications

The Bank grants certain modifications of residential real estate loans to borrowers experiencing financial difficulty, which effective January 1, 2023, are reported as FDMs. The Bank's proprietary modification programs as well as government programs, including U.S. GSE programs, that generally provide various modifications to borrowers experiencing financial difficulty including, but not limited to, interest rate reductions, term extensions, other-than-insignificant payment delay and principal forgiveness that would otherwise have been required under the terms of the original agreement, are considered FDMs.

For the six months ended June 30, 2023, residential real estate FDMs were $75 million. The financial effects of the FDMs, which were largely in the form of term extensions and interest rate reductions, included extending the weighted-average life of the loans by 18 years, and reducing the weighted-average contractual interest rate from 6.75% to 4.01% for the six months ended June 30, 2023. There were no additional commitments to lend to borrowers experiencing financial difficulty whose loans have been modified as FDMs. In addition to FDMs, the Bank also had $48 million of loans subject to a trial modification, and $5 million of Chapter 7 loans for the six months ended June 30, 2023. The changes to the TDR accounting guidance eliminated the TDR reasonably expected and concession assessment criteria. Accordingly, trial modifications and Chapter 7 loans were considered TDRs, but not FDMs.

For periods ending prior to January 1, 2023, modifications of residential real estate loans where the Bank granted concessions to borrowers who were experiencing financial difficulty were generally accounted for and reported as TDRs. For the six months ended June 30, 2022, new TDRs were $233 million. There were no additional commitments to lend to borrowers whose residential real estate loans have been modified in TDRs. Refer to Note 13 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information on TDRs.

Nature and extent of modifications

The following table provides information about how residential real estate loans were modified in TDRs during the period presented.

	Six months ended June 30,
	2022
Number of loans approved for a trial modification	2,689
Number of loans permanently modified	2,831
Concession granted:[(a)]	
Interest rate reduction	56 %
Term or payment extension	67
Principal and/or interest deferred	12
Principal forgiveness	1
Other[(b)]	36

(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 and about redefaults of certain loans modified in TDRs for the period presented.

	Six months ended June 30,
(in millions, except weighted-average data)	2022
Weighted-average interest rate of loans with interest rate reductions – before TDR	4.55 %
Weighted-average interest rate of loans with interest rate reductions – after TDR	3.31
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – before TDR	23
Weighted-average remaining contractual term (in years) of loans with term or payment extensions – after TDR	39
Charge-offs recognized upon permanent modification	$ 1
Principal deferred	11
Principal forgiven	1
Balance of loans that redefaulted within one year of permanent modification[(a)]	$ 70

(a) Represents loans permanently modified in TDRs that experienced a payment default in the period presented, and for which the payment default occurred within one year of the modification. The dollar amount presented represents the balance of such loans at the end of the reporting period in which such loans defaulted.

Active and suspended foreclosure

At June 30, 2023 and December 31, 2022, the Bank had residential real estate loans, excluding those insured by U.S. government agencies, with a carrying value of $565 million and $565 million, respectively, that were not included in REO, but were in the process of active or suspended foreclosure.

Auto and other

Delinquency is the primary credit quality indicator for retained auto and other loans. The following tables provide information on delinquency and gross charge-offs for the six months ended June 30, 2023.

	June 30, 2023								
	Term loans by origination year						Revolving loans		
(in millions, except ratios)	2023	2022	2021	2020	2019	Prior to 2019	Within the revolving period	Converted to term loans	Total
Loan delinquency									
Current	**$17,763**	**$18,062**	**$16,287**	**$ 8,801**	**$ 2,765**	**$ 1,041**	**$ 2,544**	**$ 113**	**$67,376**
30–119 days past due	**121**	**234**	**216**	**79**	**48**	**28**	**14**	**15**	**755**
120 or more days past due	**–**	**1**	**25**	**13**	**–**	**1**	**2**	**12**	**54**
Total retained loans	**$17,884**	**$18,297**	**$16,528**	**$ 8,893**	**$ 2,813**	**$ 1,070**	**$ 2,560**	**$ 140**	**$68,185**
% of 30+ days past due to total retained loans[(a)]	**0.68 %**	**1.28 %**	**1.26 %**	**0.83 %**	**1.71 %**	**2.71 %**	**0.63 %**	**19.29 %**	**1.11 %**
Gross charge-offs	**$ 106**	**$ 168**	**$ 82**	**$ 28**	**$ 16**	**$ 30**	**$ –**	**$ 1**	**$ 431**

	December 31, 2022								
	Term loans by origination year						Revolving loans		
(in millions, except ratios)	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	Total
Loan delinquency									
Current	$22,187	$20,212	$11,401	$ 3,991	$ 1,467	$ 578	$ 2,342	$ 118	$62,296
30–119 days past due	263	308	100	68	33	17	12	10	811
120 or more days past due	–	53	24	–	–	1	2	5	85
Total retained loans	$22,450	$20,573	$11,525	$ 4,059	$ 1,500	$ 596	$ 2,356	$ 133	$63,192
% of 30+ days past due to total retained loans[(a)]	1.17 %	1.15 %	0.83 %	1.68 %	2.20 %	3.02 %	0.59 %	11.28 %	1.18 %

(a) At June 30, 2023 and December 31, 2022, auto and other loans excluded $50 million and $153 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.

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, 2023	December 31, 2022
Nonaccrual loans[(a)(b)(c)]	**$ 143**	$ 129
Geographic region[(d)]		
California	**$ 10,353**	$ 9,689
Texas	**8,070**	7,216
Florida	**5,344**	4,847
New York	**4,634**	4,345
Illinois	**3,062**	2,839
New Jersey	**2,462**	2,219
Pennsylvania	**1,873**	1,822
Georgia	**1,858**	1,708
Arizona	**1,700**	1,551
Ohio	**1,672**	1,603
All other	**27,157**	25,353
Total retained loans	**$ 68,185**	$ 63,192

(a) At June 30, 2023 and December 31, 2022, nonaccrual loans excluded $39 million and $101 million, respectively, of PPP loans 90 or more days past due and guaranteed by the SBA, of which $38 million and $76 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, 2023 and December 31, 2022.

(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 six months ended June 30, 2023 and 2022.

(d) The geographic regions presented in this table are ordered based on the magnitude of the corresponding loan balances at June 30, 2023.

Loan modifications

The Bank grants certain modifications of auto and other loans to borrowers experiencing financial difficulty, which effective January 1, 2023, are reported as FDMs. For the six months ended June 30, 2023, auto and other FDMs were not material and there were no additional commitments to lend to borrowers modified as FDMs.

For the six months ended June 30, 2022, auto and other TDRs were not material.

Credit card loan portfolio

The credit card portfolio segment includes credit card loans originated and purchased by the Bank. Delinquency rates are the primary credit quality indicator for credit card loans.

Refer to Note 13 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information on the credit card loan portfolio, including credit quality indicators.

The following tables provide information on delinquency and gross charge-offs for the six months ended June 30, 2023.

	June 30, 2023		
(in millions, except ratios)	Within the revolving period	Converted to term loans	Total
Loan delinquency			
Current and less than 30 days past due and still accruing	$ **187,340**	$ **755**	$ **188,095**
30–89 days past due and still accruing	**1,580**	**68**	**1,648**
90 or more days past due and still accruing	**1,570**	**35**	**1,605**
Total retained loans	$ **190,490**	$ **858**	$ **191,348**
Loan delinquency ratios			
% of 30+ days past due to total retained loans	**1.65** %	**12.00** %	**1.70** %
% of 90+ days past due to total retained loans	**0.82**	**4.08**	**0.84**
Gross charge-offs	$ **2,357**	$ **75**	$ **2,432**

	December 31, 2022		
(in millions, except ratios)	Within the revolving period	Converted to term loans	Total
Loan delinquency			
Current and less than 30 days past due and still accruing	$ 181,793	$ 696	$ 182,489
30–89 days past due and still accruing	1,356	64	1,420
90 or more days past due and still accruing	1,230	36	1,266
Total retained loans	$ 184,379	$ 796	$ 185,175
Loan delinquency ratios			
% of 30+ days past due to total retained loans	1.40 %	12.56 %	1.45 %
% of 90+ days past due to total retained loans	0.67	4.52	0.68

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, 2023	December 31, 2022
Geographic region[(a)]		
California	$ **29,258**	$ 28,154
Texas	**19,992**	19,171
New York	**15,511**	15,046
Florida	**13,439**	12,905
Illinois	**10,457**	10,089
New Jersey	**7,902**	7,643
Ohio	**5,898**	5,792
Colorado	**5,840**	5,493
Pennsylvania	**5,549**	5,517
Arizona	**4,647**	4,487
All other	**72,855**	70,878
Total retained loans	$ **191,348**	$ 185,175
Percentage of portfolio based on carrying value with estimated refreshed FICO scores		
Equal to or greater than 660	**86.4** %	86.8 %
Less than 660	**13.4**	13.0
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, 2023.

Loan modifications

The Bank grants certain modifications of credit card loans to borrowers experiencing financial difficulty, which effective January 1, 2023, are reported as FDMs. 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 under long-term programs. 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 Bank's standard charge-off policy. In most cases, the Bank does not reinstate the borrower's line of credit.

The following table provides information on credit card loan modifications considered FDMs.

Six months ended June 30, 2023 (in millions)	Amortized cost basis	% of loan modifications to total retained credit card loans	Financial effect of loan modification
Loan modification			
Term extension and interest rate reduction[a][b]	**$ 326**	**0.17 %**	Term extension with a reduced weighted average contractual interest rate from 22.96% to 3.54%
Total	**$ 326**		

(a) Term extension includes credit card loans whose terms have been modified under long-term programs by placing the customer on a fixed payment plan.
(b) The interest rates represent weighted average at enrollment.

For the six months ended June 30, 2023, the Bank also had $26 million of loans subject to trial modifications. The changes to the TDR accounting guidance eliminated the TDR reasonably expected and concession assessment criteria. Accordingly, trial modifications are not considered FDMs.

The following table provides information on the payment status of FDMs during the six months ended June 30, 2023.

June 30, 2023 (in millions)	Amortized cost basis
Current and less than 30 days past due and still accruing	**$ 264**
30-89 days past due and still accruing	**38**
90 or more days past due and still accruing	**24**
Total	**$ 326**

There were $6 million FDMs that re-defaulted during the six months ended June 30, 2023 which were a combination of term extension and interest rate reduction.

For credit card loans modified as FDMs, 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 Bank's standard charge-off policy.

For periods ending prior to January 1, 2023, modifications of credit card loans where the Bank granted concessions to borrowers who were experiencing financial difficulty were generally accounted for and reported as TDRs. Refer to Note 13 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information on TDRs.

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. New enrollments were less than 1% of total retained credit card loans.

(in millions, except weighted-average data)	Six months ended June 30 2022
Balance of new TDRs[a]	$ 163
Weighted-average interest rate of loans – before TDR	18.47 %
Weighted-average interest rate of loans – after TDR	4.75
Balance of loans that redefaulted within one year of modification[b]	$ 17

(a) Represents the outstanding balance prior to modification.
(b) Represents loans modified in TDRs that experienced a payment default in the period presented, and for which the payment default occurred within one year of the modification. The amount presented represents the balance of such loans as of the end of the quarter in which they defaulted.

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 13 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information on these risk ratings.

Internal risk rating is the primary credit quality indicator for retained wholesale loans. The following tables provide information on internal risk rating and gross charge-offs for the six months ended June 30, 2023.

	Secured by real estate		Commercial and industrial		Other[b]		Total retained loans	
(in millions, except ratios)	**Jun 30, 2023**	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022
Loans by risk ratings								
Investment-grade	**$ 120,647**	$ 99,514	**$ 74,549**	$ 76,207	**$ 255,985**	$ 248,155	**$ 451,181**	$ 423,876
Noninvestment-grade:								
Noncriticized	**36,385**	23,307	**83,907**	81,359	**77,083**	57,547	**197,375**	162,213
Criticized performing	**4,310**	3,652	**9,771**	8,965	**1,400**	728	**15,481**	13,345
Criticized nonaccrual	**518**	246	**1,437**	1,018	**634**	695	**2,589**	1,959
Total noninvestment-grade	**41,213**	27,205	**95,115**	91,342	**79,117**	58,970	**215,445**	177,517
Total retained loans[a]	**$ 161,860**	$ 126,719	**$ 169,664**	$ 167,549	**$ 335,102**	$ 307,125	**$ 666,626**	$ 601,393
% of investment-grade to total retained loans	**74.54 %**	78.53 %	**43.94 %**	45.48 %	**76.39 %**	80.80 %	**67.68 %**	70.48 %
% of total criticized to total retained loans	**2.98**	3.08	**6.61**	5.96	**0.61**	0.46	**2.71**	2.54
% of criticized nonaccrual to total retained loans	**0.32**	0.19	**0.85**	0.61	**0.19**	0.23	**0.39**	0.33

(a) As of June 30, 2023 included $33.9 billion of Secured by real estate loans, $3.9 billion of Commercial and industrial loans, and $18.2 billion of Other loans associated with the First Republic acquisition.

(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). Refer to Note 15 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for more information on SPEs.

	Secured by real estate								
	June 30, 2023								
	Term loans by origination year						Revolving loans		
(in millions)	2023	2022	2021	2020	2019	Prior to 2019	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	**$ 6,375**	**$ 29,986**	**$ 26,336**	**$ 17,252**	**$ 16,256**	**$ 23,159**	**$ 1,283**	**$ –**	**$ 120,647**
Noninvestment-grade	**2,613**	**11,514**	**8,058**	**4,225**	**4,270**	**9,251**	**1,280**	**2**	**41,213**
Total retained loans[a]	**$ 8,988**	**$ 41,500**	**$ 34,394**	**$ 21,477**	**$ 20,526**	**$ 32,410**	**$ 2,563**	**$ 2**	**$ 161,860**
Gross charge-offs	**$ –**	**$ 25**	**$ 21**	**$ –**	**$ –**	**$ 47**	**$ –**	**$ –**	**$ 93**

	Secured by real estate								
	December 31, 2022								
	Term loans by origination year						Revolving loans		
(in millions)	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	$ 24,096	$ 22,407	$ 14,773	$ 14,666	$ 5,277	$ 17,289	$ 1,006	$ –	$ 99,514
Noninvestment-grade	6,097	5,602	3,032	3,498	2,395	5,659	920	2	27,205
Total retained loans	$ 30,193	$ 28,009	$ 17,805	$ 18,164	$ 7,672	$ 22,948	$ 1,926	$ 2	$ 126,719

(a) As of June 30, 2023 included $3.0 billion, $11.0 billion, $6.3 billion, $4.4 billion, $3.0 billion, and $5.4 billion of retained loans originated in 2023, 2022, 2021, 2020, 2019 and prior to 2019, respectively, and $799 million of revolving loans within the revolving period associated with the First Republic acquisition.

Commercial and industrial									
	June 30, 2023								
	Term loans by origination year						Revolving loans		
(in millions)	2023	2022	2021	2020	2019	Prior to 2019	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	**$ 10,821**	**$ 12,726**	**$ 6,324**	**$ 2,510**	**$ 1,314**	**$ 1,268**	**$ 39,585**	**$ 1**	**$ 74,549**
Noninvestment-grade	**10,345**	**19,652**	**11,130**	**2,646**	**1,828**	**1,445**	**47,977**	**92**	**95,115**
Total retained loans[a]	**$ 21,166**	**$ 32,378**	**$ 17,454**	**$ 5,156**	**$ 3,142**	**$ 2,713**	**$ 87,562**	**$ 93**	**$ 169,664**
Gross charge-offs	**$ –**	**$ 6**	**$ 20**	**$ 1**	**$ 2**	**$ 6**	**$ 115**	**$ 4**	**$ 154**

Commercial and industrial									
	December 31, 2022								
	Term loans by origination year						Revolving loans		
(in millions)	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	$ 21,051	$ 8,338	$ 3,045	$ 1,995	$ 766	$ 989	$ 40,022	$ 1	$ 76,207
Noninvestment-grade	24,080	12,444	3,459	2,506	525	1,014	47,232	82	91,342
Total retained loans	$ 45,131	$ 20,782	$ 6,504	$ 4,501	$ 1,291	$ 2,003	$ 87,254	$ 83	$ 167,549

(a) As of June 30, 2023 included $231 million, $764 million, $444 million, $346 million, $92 million, and $270 million of retained loans originated in 2023, 2022, 2021, 2020, 2019 and prior to 2019, respectively, and $1.7 billion of revolving loans within the revolving period associated with the First Republic acquisition.

Other[a]									
	June 30, 2023								
	Term loans by origination year						Revolving loans		
(in millions)	2023	2022	2021	2020	2019	Prior to 2019	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	**$ 23,907**	**$ 21,445**	**$ 11,572**	**$ 10,970**	**$ 4,139**	**$ 7,537**	**$ 173,844**	**$ 2571**	**$ 255,985**
Noninvestment-grade	**7,211**	**12,769**	**6,803**	**2,367**	**760**	**2,067**	**47,082**	**58**	**79,117**
Total retained loans[b]	**$ 31,118**	**$ 34,214**	**$ 18,375**	**$ 13,337**	**$ 4,899**	**$ 9,604**	**$ 220,926**	**$ 2,629**	**$ 335,102**
Gross charge-offs	**$ –**	**$ –**	**$ 5**	**$ 5**	**$ –**	**$ –**	**$ 4**	**$ –**	**$ 14**

Other[a]									
	December 31, 2022								
	Term loans by origination year[b]						Revolving loans[b]		
(in millions)	2022	2021	2020	2019	2018	Prior to 2018	Within the revolving period	Converted to term loans	Total
Loans by risk ratings									
Investment-grade	$ 31,401	$ 15,505	$ 13,015	$ 4,529	$ 2,160	$ 7,055	$ 170,893	$ 3,597	$ 248,155
Noninvestment-grade	16,971	7,096	1,821	699	451	454	31,396	82	58,970
Total retained loans	$ 48,372	$ 22,601	$ 14,836	$ 5,228	$ 2,611	$ 7,509	$ 202,289	$ 3,679	$ 307,125

(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). Refer to Note 15 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for more information on SPEs.

(b) As of June 30, 2023 included $128 million, $615 million, $708 million, $877 million, $168 million, and $1.3 billion of retained loans originated in 2023, 2022, 2021, 2020, 2019 and prior to 2019, respectively, $14.3 billion of revolving loans within the revolving period, and $55 million converted to term loans associated with the First Republic acquisition.

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, 2023	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022
Retained loans secured by real estate	**$100,732**	$ 79,139	**$ 61,128**	$ 47,580	**$ 161,860** (a)	$ 126,719
Criticized	**2,141**	1,916	**2,687**	1,982	**4,828**	3,898
% of criticized to total retained loans secured by real estate	**2.13 %**	2.42 %	**4.40 %**	4.17 %	**2.98 %**	3.08 %
Criticized nonaccrual	**$ 56**	$ 51	**$ 462**	$ 195	**$ 518**	$ 246
% of criticized nonaccrual loans to total retained loans secured by real estate	**0.06 %**	0.06 %	**0.76 %**	0.41 %	**0.32 %**	0.19 %

(a) Included $21.0 billion and $13.0 billion of Multifamily and Other commercial loans associated with the First Republic acquisition.

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, 2023	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022
Loans by geographic distribution[(a)(b)]								
Total U.S.	**$ 158,930**	$ 123,753	**$ 128,920**	$ 125,273	**$ 256,743**	$ 229,293	**$ 544,593**	$ 478,319
Total non-U.S.	**2,930**	2,966	**40,744**	42,276	**78,359**	77,832	**122,033**	123,074
Total retained loans	**$ 161,860**	$ 126,719	**$ 169,664**	$ 167,549	**$ 335,102**	$ 307,125	**$ 666,626**	$ 601,393
Loan delinquency								
Current and less than 30 days past due and still accruing	**$ 161,128**	$ 126,072	**$ 166,693**	$ 165,303	**$ 333,126**	$ 305,363	**$ 660,947**	$ 596,738
30–89 days past due and still accruing	**214**	400	**1,315**	1,128	**1,230**	1,014	**2,759**	2,542
90 or more days past due and still accruing[(c)]	**—**	1	**219**	100	**112**	53	**331**	154
Criticized nonaccrual	**518**	246	**1,437**	1,018	**634**	695	**2,589**	1,959
Total retained loans	**$ 161,860**	$ 126,719	**$ 169,664**	$ 167,549	**$ 335,102**	$ 307,125	**$ 666,626**	$ 601,393

(a) The U.S. and non-U.S. distribution is determined based predominantly on the domicile of the borrower.
(b) Borrowers associated with the First Republic acquisition are predominantly domiciled in the U.S.
(c) Represents loans that are considered well-collateralized and therefore still accruing interest.

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, 2023	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022	**Jun 30, 2023**	Dec 31, 2022
Nonaccrual loans								
With an allowance	**$ 281**	$ 172	**$ 1,035**	$ 686	**$ 336**	$ 483	**$ 1,652**	$ 1,341
Without an allowance[(a)]	**237**	74	**402**	332	**298**	212	**937**	618
Total nonaccrual loans[(b)]	**$ 518**	$ 246	**$ 1,437**	$ 1,018	**$ 634**	$ 695	**$ 2,589**	$ 1,959

(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 six months ended June 30, 2023 and 2022.

Loan modifications

The Bank grants certain modifications of wholesale loans to borrowers experiencing financial difficulty, which effective January 1, 2023, are reported as FDMs. The following tables provide information about Commercial and industrial and Other loan modifications considered FDMs.

Six months ended June 30, 2023 (in millions)	Commercial and industrial		
	Amortized cost basis	% of loan modifications to total retained commercial and industrial wholesale loans	Financial effect of loan modification
Loan modification			
Single modifications			
Term extension	423	0.25 %	Extended loans by a weighted-average of 10 months
Other-than-insignificant payment delay	5	— %	Provided payment deferrals with delayed amounts primarily re-amortized over the remaining tenor
Multiple modifications			
Interest Rate Reduction and Term Extension	$ 1	— %	Reduced weighted-average contractual interest by -191 bps and extended loans by a weighted-average of 17 months
Term extension and principal forgiveness	$ 40	0.02 %	Extended loans by a weighted-average of 64 months and reduced amortized cost basis of the loans by $23 million
Total	$ 469		

Six months ended June 30, 2023 (in millions)	Other		
	Amortized cost basis	% of loan modifications to total retained commercial and industrial wholesale loans	Financial effect of loan modification
Loan modification			
Single modifications			
Interest rate reduction	$ 11	— %	Reduced weighted-average contractual interest by 654 bps
Term extension	54	0.02 %	Extended loans by a weighted-average of 6 months
Multiple modifications			
Payment Delay and Term Extension	$ 235	0.07 %	Provided payment deferrals with delayed amounts primarily recaptured at the end of the deferral period and extended loans by a weighted-average of 144 months
Total	$ 300		

The following table provides information on the payment status of Commercial and industrial and Other FDMs during the six months ended June 30, 2023.

Six months ended June 30, 2023 (in millions)	Amortized cost basis	
	Commercial and industrial	Other
Current and less than 30 days past due and still accruing	$ 331	$ —
30-89 days past due and still accruing	—	—
90 or more days past due and still accruing	3	—
Criticized nonaccrual	135	300
Total	$ 469	$ 300

The following table provides information on Commercial and industrial FDMs that re-defaulted during the six months ended June 30, 2023. There were no Other FDM re-defaults during the six months ended June 30, 2023.

Six months ended June 30, 2023 (in millions)		Amortized cost basis
Loan modification		
Term extension		**7**
Total[(a)]	**$**	**7**

(a) Represents FDMs that were 30 days or more past due.

Additional commitments to lend to borrowers experiencing financial difficulty whose Commercial and industrial loans have been modified as FDMs was $1.3 billion for the six months ended June 30, 2023.

There were no additional commitments to lend to borrowers experiencing financial difficulties whose Other loans have been modified as FDMs for the six months ended June 30, 2023.

For the six months ended June 30, 2023, Secured by real estate FDMs was $85 million. The financial effects of FDMs were largely term extensions which extended the loans by a weighted-average of nine months. There was $1 million in modified term extensions that re-defaulted during the six months ended June 30, 2023. There were no additional commitments to lend to borrowers experiencing financial difficulty whose loans have been modified as FDMs for the six months ended June 30, 2023.

Prior to January 1, 2023, certain loan modifications were considered TDRs.

For the six months ended June 30, 2022, new TDRs were $479 million. New TDRs for the six months ended June 30, 2022 reflected extended maturity dates and covenant waivers primarily in the Commercial and Industrial loan class. For the six months ended June 30, 2022, the impact of these modifications were not material to the Bank.

As a result of the elimination of the requirement to assess whether a modification is reasonably expected or involves a concession, the population of loans considered FDMs is greater than those previously considered TDRs.

Note 14 – Allowance for credit losses

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

On January 1, 2023 the Bank adopted the Financial Instruments - Credit Losses: Troubled Debt Restructurings accounting guidance as described in Note 1.

The adoption of this guidance eliminated the requirement to measure the allowance for TDRs using a DCF methodology and allowed the option of a non-DCF portfolio-based approach for modified loans to borrowers experiencing financial difficulty. If a DCF methodology is still applied for these modified loans, the discount rate must be the post-modification effective interest rate, instead of the pre-modification effective interest rate.

The Bank elected to change from an asset-specific allowance approach to its non-DCF, portfolio-based allowance approach for modified loans to troubled borrowers for all portfolios except collateral-dependent loans and nonaccrual risk-rated loans, for which the asset-specific allowance approach will continue to apply.

This guidance was adopted under the modified retrospective method which resulted in a net decrease to the allowance for credit losses of $587 million and an increase to retained earnings of $446 million, after-tax predominantly driven by residential real estate and credit card.

Refer to Note 14 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements 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 11 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements and Note 11 of these Consolidated Financial Statements for further information on the allowance for credit losses on investment securities.

	2023				2022			
Six months ended June 30, (in millions)	Consumer, excluding credit card	Credit card	Wholesale	Total	Consumer, excluding credit card	Credit card	Wholesale	Total
Allowance for loan losses								
Beginning balance at January 1,	$ 2,040	$ 11,200	$ 6,474	$ 19,714	$ 1,765	$ 10,250	$ 4,363	$ 16,378
Cumulative effect of a change in accounting principle[(a)]	(489)	(100)	2	(587)	NA	NA	NA	NA
Gross charge-offs	501	2,432	259	3,192	384	1,505	95	1,984
Gross recoveries collected	(247)	(386)	(47)	(680)	(311)	(419)	(41)	(771)
Net charge-offs/(recoveries)	254	2,046	212	2,512	73	1,086	54	1,213
Provision for loan losses	751	2,546	1,984	5,281	237	1,236	1,103	2,576
Other	–	–	23	23	–	–	6	6
Ending balance at June 30,	$ 2,048	$ 11,600	$ 8,271	$ 21,919	$ 1,929	$ 10,400	$ 5,418	$ 17,747
Allowance for lending-related commitments								
Beginning balance at January 1,	$ 76	$ –	$ 2,276	$ 2,352	$ 113	$ –	$ 2,102	$ 2,215
Provision for lending-related commitments	52	–	(240)	(188)	(2)	–	(22)	(24)
Other	1	–	6	7	(1)	–	(1)	(2)
Ending balance at June 30,	$ 129	$ –	$ 2,042	$ 2,171	$ 110	$ –	$ 2,079	$ 2,189
Total allowance for investment securities				74	NA	NA	NA	47
Total allowance for credit losses[(b)(c)]	$ 2,177	$ 11,600	$ 10,313	$ 24,164	$ 2,039	$ 10,400	$ 7,497	$ 19,983
Allowance for loan losses by impairment methodology								
Asset-specific[(d)]	$ (971)	$ –	$ 476	$ (495)	$ (676)	$ 227	$ 332	$ (117)
Portfolio-based	3,019	11,600	7,795	22,414	2,605	10,173	5,086	17,864
Total allowance for loan losses	$ 2,048	$ 11,600	$ 8,271	$ 21,919	$ 1,929	$ 10,400	$ 5,418	$ 17,747
Loans by impairment methodology								
Asset-specific[(d)]	$ 3,436	$ –	$ 2,583	$ 6,019	$ 12,678	$ 827	$ 2,408	$ 15,913
Portfolio-based	392,752	191,348	664,043	1,248,143	289,946	164,667	579,568	1,034,181
Total retained loans	$ 396,188	$ 191,348	$ 666,626	$ 1,254,162	$ 302,624	$ 165,494	$ 581,976	$ 1,050,094
Collateral-dependent loans								
Net charge-offs	$ 5	$ –	$ 77	$ 82	$ (15)	$ –	$ 8	$ (7)
Loans measured at fair value of collateral less cost to sell	3,385	–	758	4,143	3,932	–	603	4,535
Allowance for lending-related commitments by impairment methodology								
Asset-specific	$ –	$ –	$ 65	$ 65	$ –	$ –	$ 55	$ 55
Portfolio-based	129	–	1,977	2,106	110	–	2,024	2,134
Total allowance for lending-related commitments[(e)]	$ 129	$ –	$ 2,042	$ 2,171	$ 110	$ –	$ 2,079	$ 2,189
Lending-related commitments by impairment methodology								
Asset-specific	$ –	$ –	$ 331	$ 331	$ –	$ –	$ 397	$ 397
Portfolio-based[(f)]	32,428	–	518,165	550,593	26,809	–	454,942	481,751
Total lending-related commitments	$ 32,428	$ –	$ 518,496	$ 550,924	$ 26,809	$ –	$ 455,339	$ 482,148

(a) Represents the impact to the allowance for loan losses upon the adoption of the Financial Instruments - Credit Losses: Troubled Debt Restructurings accounting guidance.
(b) At June 30, 2023, in addition to the allowance for credit losses in the table above, the Bank also had an allowance for credit losses of $18 million associated with certain accounts receivable.
(c) As of June 30, 2023 included $1.2 billion allowance for credit losses associated with the First Republic acquisition.
(d) Includes collateral-dependent loans, including those for which foreclosure is deemed probable, and nonaccrual risk-rated loans for all periods presented. Prior periods also include non collateral-dependent TDRs or reasonably expected TDRs and modified PCD loans.
(e) The allowance for lending-related commitments is reported in accounts payable and other liabilities on the Consolidated balance sheets.
(f) At June 30, 2023 and 2022, lending-related commitments excluded $18.4 billion and $13.7 billion, respectively, for the consumer, excluding credit card portfolio segment; $881.5 billion and $774.0 billion, respectively, for the credit card portfolio segment; and $19.3 billion and $29.0 billion, respectively, for the wholesale portfolio segment, which were not subject to the allowance for lending-related commitments. Prior period amount for wholesale lending-related commitments, including the amount not subject to allowance, has been revised to conform with the current presentation.

Discussion of changes in the allowance

The allowance for credit losses as of June 30, 2023 was$24.2 billion, reflecting a net addition of $2.6 billion from December 31, 2022.

The net addition to the allowance for credit losses included $1.4 billion, consisting of:

- $785 million in **wholesale**, predominantly driven by net downgrade activity, updates to certain assumptions related to office real estate in the second quarter of 2023, and the impact of the additional weight placed on the adverse scenarios in the first quarter of 2023, and
- $649 million in **consumer**, predominantly driven by credit card portfolio, reflecting loan growth, the net effect of changes in the Bank's macroeconomic outlook, including the impact from the weighted average U.S. unemployment rate peaking in the third quarter of 2024, and the additional weight placed on the adverse scenarios in the first quarter of 2023, partially offset by reduced borrower uncertainty.

The net addition also included $1.2 billion to establish the allowance for the First Republic loans and lending related commitments in the second quarter of 2023.

The Bank has maintained the additional weight placed on the relative adverse scenario in the first quarter of 2023, reflecting an increased probability of a moderate recession due to tightening financial conditions.

The allowance for credit losses also reflected a reduction of $587 million as a result of the adoption of changes to the TDR accounting guidance on January 1, 2023. Refer to Note 1 for further information.

The Bank'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 a weighted average U.S. unemployment rate peaking at 5.8% in the third quarter of 2024, and a 1.5% lower U.S. real GDP exiting the fourth quarter of 2024.

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

	Assumptions at June 30, 2023		
	4Q23	2Q24	4Q24
U.S. unemployment rate[(a)]	4.2 %	4.9 %	5.0 %
YoY growth in U.S. real GDP[(b)]	0.5 %	– %	1.0 %

	Assumptions at December 31, 2022		
	2Q23	4Q23	2Q24
U.S. unemployment rate[(a)]	3.8 %	4.3 %	5.0 %
YoY growth in U.S. real GDP[(b)]	1.5 %	0.4 %	– %

(a) Reflects quarterly average of forecasted U.S. unemployment rate.
(b) The year over year growth in U.S. real GDP in the forecast horizon of the central scenario is calculated as the percentage 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 14 and Note 11 of JPMorgan Chase Bank, N.A. 2022 Annual Financial Statements for a description of the policies, methodologies and judgments used to determine the Bank's allowance for credit losses on loans, lending-related commitments, and investment securities.

Note 15 – Variable interest entities

Refer to Note 1 and Note 15 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a further description of the Bank's accounting policies and involvement with VIEs.

The following table summarizes the most significant types of Bank-sponsored VIEs by business. JPMorgan Chase Bank, N.A. considers a "sponsored" VIE to include any entity where: (1) the Bank is the primary beneficiary of the structure; (2) the VIE is used by the Bank to securitize its assets; (3) the VIE issues financial instruments with the JPMorgan Chase Bank, N.A. name; or (4) the entity is a Bank-administered asset-backed commercial paper conduit.

Transaction Type	*Activity*	*Consolidated Financial Statements page reference*
Credit card securitization trusts	Securitization of originated credit card receivables	64-66
Mortgage securitization trusts	Servicing and securitization of both originated and purchased residential mortgages	66
Mortgage and other securitization trusts	Securitization of both originated and purchased residential and commercial mortgages, and other consumer loans	66
Multi-seller conduits	Assisting clients in accessing the financial markets in a cost-efficient manner and structuring transactions to meet investor needs	66
Municipal bond vehicles	Financing of municipal bond investments	66

The Bank also invests in and provides financing and other services to VIEs sponsored by third parties. Refer to pages 67-68 of this Note for more information on consolidated VIE assets and liabilities as well as the VIEs sponsored by third parties.

Significant Bank-sponsored VIEs

Credit card securitizations

As a result of the Bank's continuing involvement, the Bank is considered to be the primary beneficiary of its Bank-sponsored credit card securitization trust, the Chase Issuance Trust.

Bank-sponsored mortgage and other securitization trusts

The Bank securitizes (or has securitized) originated and purchased residential mortgages, commercial mortgages and other consumer loans. Depending on the particular transaction, as well as the respective business involved, the Bank 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 Bank-sponsored private-label securitization entities, including those in which the Bank has continuing involvement, and those that are consolidated by the Bank. 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 Bank's only continuing involvement is servicing the loans. The Bank's maximum loss exposure from retained and purchased interests is the carrying value of these interests.

	Principal amount outstanding			Bank interest in securitized assets in nonconsolidated VIEs[c][d]			
June 30, 2023 (in millions)	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	Investment securities	Other financial assets	Total interests held by the Bank
Securitization-related[a]							
Residential mortgage:							
Prime/Alt-A and option ARMs	**$ 49,300**	**$ 715**	**$ 28,492**	**$ 393**	**$ 2,060**	**$ 22**	**$ 2,475**
Subprime	**6,480**	**—**	**691**	**—**	**—**	**—**	**—**
Commercial and other[b]	**162,546**	**—**	**80,305**	**242**	**5,442**	**669**	**6,353**
Total	**$ 218,326**	**$ 715**	**$ 109,488**	**$ 635**	**$ 7,502**	**$ 691**	**$ 8,828**

	Principal amount outstanding			Bank interest in securitized assets in nonconsolidated VIEs[c][d]			
December 31, 2022 (in millions)	Total assets held by securitization VIEs	Assets held in consolidated securitization VIEs	Assets held in nonconsolidated securitization VIEs with continuing involvement	Trading assets	Investment securities	Other financial assets	Total interests held by the Bank
Securitization-related[a]							
Residential mortgage:							
Prime/Alt-A and option ARMs	$ 47,662	$ 754	$ 26,597	$ 382	$ 1,918	$ —	$ 2,300
Subprime	6,753	—	726	—	—	—	—
Commercial and other[b]	164,661	—	78,746	268	5,373	670	6,311
Total	$ 219,076	$ 754	$ 106,069	$ 650	$ 7,291	$ 670	$ 8,611

(a) Excludes U.S. GSEs and government agency securitizations, which are not Bank-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. There were no senior and subordinated securities purchased in connection with the Bank's secondary market-making activities at June 30, 2023, and December 31, 2022, respectively.
(d) As of June 30, 2023, and December 31, 2022, 86% and 85%, respectively, of the Bank'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 $2.4 billion and $2.3 billion of investment-grade retained interests, and noninvestment-grade retained interests were not material at both June 30, 2023 and December 31, 2022. The retained interests in commercial and other securitization trusts consisted of $5.5 billion and $5.4 billion of investment-grade retained interests, and $895 million and $899 million of noninvestment-grade retained interests at June 30, 2023, and December 31, 2022, respectively.

Residential mortgage
The Bank securitizes originated residential mortgage loans, as well as residential mortgage loans purchased from third parties. The Bank generally retains servicing for all residential mortgage loans originated and may retain servicing for certain mortgage loans purchased.

Commercial mortgages and other consumer securitizations
The Bank originates and securitizes commercial mortgage loans, and engages in underwriting and trading activities involving the securities issued by securitization trusts.

Multi-seller conduits
In the normal course of business, the Bank makes markets in and invests in commercial paper issued by Bank-administered multi-seller conduits. The Bank held $12.4 billion and $13.8 billion of the commercial paper issued by Bank-administered multi-seller conduits at June 30, 2023, and December 31, 2022, respectively, which have been eliminated in consolidation. The Bank's investments reflect the Bank'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 Bank is not obligated under any agreement to purchase the commercial paper issued by Bank-administered multi-seller conduits.

The Bank provides deal-specific liquidity as well as program-wide liquidity and credit enhancement to its administered multi-seller conduits, which have been eliminated in consolidation. The administered multi-seller conduits then provide certain of their clients with lending-related commitments. The unfunded commitments were $11.3 billion and $10.6 billion at June 30, 2023, and December 31, 2022, respectively, and are reported as off-balance sheet lending-related commitments in other unfunded commitments to extend credit. Refer to Note 24 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 Bank 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 Bank as of June 30, 2023 and December 31, 2022.

	Assets				Liabilities		
June 30, 2023 (in millions)	Trading assets	Loans	Other[(c)]	Total assets[(d)]	Beneficial interests in VIE assets[(e)]	Other[(f)]	Total liabilities
VIE program type							
Bank-sponsored credit card trusts	**$ –**	**$ 9,168**	**$ 81**	**$ 9,249**	**$ 999**	**$ 2**	**$ 1,001**
Bank-administered multi-seller conduits	**1**	**28,598**	**169**	**28,768**	**16,383**	**47**	**16,430**
Municipal bond vehicles	**2,313**	**–**	**21**	**2,334**	**2,509**	**9**	**2,518**
Mortgage securitization entities[(a)]	**–**	**723**	**9**	**732**	**131**	**59**	**190**
Other	**–**	**625** [(b)]	**1**	**626**	**–**	**–**	**–**
Total	**$ 2,314**	**$ 39,114**	**$ 281**	**$ 41,709**	**$ 20,022**	**$ 117**	**$ 20,139**

	Assets				Liabilities		
December 31, 2022 (in millions)	Trading assets	Loans	Other[(c)]	Total assets[(d)]	Beneficial interests in VIE assets[(e)]	Other[(f)]	Total liabilities
VIE program type							
Bank-sponsored credit card trusts	$ –	$ 9,699	$ 100	$ 9,799	$ 1,999	$ 2	$ 2,001
Bank-administered multi-seller conduits	–	22,819	169	22,988	9,236	52	9,288
Municipal bond vehicles	2,089	–	7	2,096	2,052	10	2,062
Mortgage securitization entities[(a)]	–	763	10	773	137	68	205
Other	–	1,113	4	1,117	–	–	–
Total	$ 2,089	$ 34,394	$ 290	$ 36,773	$ 13,424	$ 132	$ 13,556

(a) Includes residential mortgage securitizations.
(b) Primarily includes purchased supply chain finance receivables and purchased auto loan securitizations.
(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 (including balances with related parties) 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 variable interest entities." The holders of these beneficial interests generally do not have recourse to the general credit of the Bank. Included in beneficial interests in VIE assets are long-term beneficial interests of $1.1 billion and $2.1 billion at June 30, 2023, and December 31, 2022, respectively.
(f) Includes liabilities classified as accounts payable and other liabilities on the Consolidated balance sheets.

VIEs sponsored by third parties

The Bank enters into transactions with VIEs structured by other parties. These include, for example, acting as a derivative counterparty, liquidity provider and investor. 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 Bank 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 Bank 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 Bank 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 Bank does not consolidate tax credit vehicles. The Bank 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 $27.7 billion and $25.0 billion at June 30, 2023 and December 31, 2022, of which $11.2 billion and $9.1 billion was unfunded at June 30, 2023 and December 31, 2022, respectively. The Bank 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 23 of JPMorgan Chase Bank, N.A.'s 2022 Annual

Financial Statements for further information on affordable housing tax credits and Note 24 of these Consolidated Financial Statements for more information on off-balance sheet lending-related commitments.

Customer municipal bond vehicles (TOB trusts)
The Bank may provide various services to customer TOB trusts, including liquidity or tender option provider. In certain customer TOB transactions, the Bank, as liquidity provider, has entered into a reimbursement agreement with the Residual holder.

In those transactions, upon the termination of the vehicle, the Bank has recourse to the third-party Residual holders for any shortfall. The Bank does not have any intent to protect Residual holders from potential losses on any of the underlying municipal bonds. The Bank does not consolidate customer TOB trusts, since the Bank does not have the power to make decisions that significantly impact the economic performance of the municipal bond vehicle. The Bank's maximum exposure as a liquidity provider to customer TOB trusts at June 30, 2023 and December 31, 2022 was $5.9 billion and $5.8 billion, respectively. The fair value of assets held by such VIEs at both June 30, 2023 and December 31, 2022 was $8.2 billion.

Loan securitizations

The Bank has securitized and sold a variety of loans, including residential mortgages, credit card receivables, commercial mortgages and other consumer loans.

Securitization activity

The following table provides information related to the Bank's securitization activities for the six months ended June 30, 2023 and 2022, related to assets held in Bank-sponsored securitization entities that were not consolidated by the Bank, and where sale accounting was achieved at the time of the securitization.

	Six months ended June 30,			
	2023		2022	
(in millions)	Residential mortgage[b]	Commercial and other[c]	Residential mortgage[b]	Commercial and other[c]
Principal securitized	**$ 3,289**	**$ 376**	$ 9,523	$ 7,058
All cash flows during the period:				
Proceeds received from loan sales as cash or financial instruments[a]	**$ 3,153**	**$ 380**	$ 9,129	$ 6,975
Servicing fees collected	**12**	**1**	44	–
Cash flows received on interests	**147**	**152**	242	88

(a) The carrying value of the loans accounted for at fair value approximated the proceeds received upon loan sale. The proceeds received were primarily cash.
(b) Represents prime mortgages. Excludes loan securitization activity related to U.S. GSEs and government agencies.
(c) Includes commercial mortgage and other consumer loans.

Loans and excess MSRs sold to U.S. government-sponsored enterprises, and loans in securitization transactions pursuant to Ginnie Mae guidelines

In addition to the amounts reported in the securitization activity tables above, the Bank, in the normal course of business, sells originated and purchased mortgage loans and certain originated excess MSRs on a nonrecourse basis, predominantly to U.S. GSEs. These loans and excess MSRs are sold primarily for the purpose of securitization by the U.S. GSEs, who provide certain guarantee provisions (e.g., credit enhancement of the loans). The Bank 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 Bank does not consolidate the securitization vehicles underlying these transactions as it is not the primary beneficiary. For a limited number of loan sales, the Bank is obligated to share a portion of the credit risk associated with the sold loans with the purchaser. Refer to Note 24 of these Consolidated Financial Statements for additional information about the Bank's loan sales- and securitization-related indemnifications and Note 16 for additional information about the impact of the Bank's sale of certain excess MSRs.

The following table summarizes the activities related to loans sold to the U.S. GSEs, and loans in securitization transactions pursuant to Ginnie Mae guidelines.

	Six months ended June 30,	
(in millions)	**2023**	2022
Carrying value of loans sold	**$ 9,021**	$ 34,389
Proceeds received from loan sales as cash	**$ 40**	$ 13
Proceeds from loan sales as securities[a][b]	**8,882**	33,809
Total proceeds received from loan sales[c]	**$ 8,922**	$ 33,822
Gains/(losses) on loan sales[d][e]	**$ –**	$ –

(a) Includes securities from U.S. GSEs and Ginnie Mae that are generally sold shortly after receipt or retained as part of the Bank'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 Bank's obligation to repurchase certain loans due to material breaches of representations and warranties as discussed in Note 24, the Bank 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 Bank 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 Bank'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 13 for additional information.

The following table presents loans the Bank repurchased or had an option to repurchase, real estate owned, and foreclosed government-guaranteed residential mortgage loans recognized on the Bank's Consolidated balance sheets as of June 30, 2023 and December 31, 2022. Substantially all of these loans and real estate are insured or guaranteed by U.S. government agencies.

(in millions)	**June 30, 2023**	December 31, 2022
Loans repurchased or option to repurchase[a]	**$ 751**	$ 837
Real estate owned	**9**	10
Foreclosed government-guaranteed residential mortgage loans[b]	**23**	26

(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 Bank-sponsored private-label securitization entities, in which the Bank has continuing involvement as of June 30, 2023, and December 31, 2022.

	Securitized assets		90 days past due		Net liquidation losses/ (recoveries) Six months ended June 30,	
(in millions)	**June 30, 2023**	December 31, 2022	**June 30, 2023**	December 31, 2022	**2023**	2022
Securitized loans						
Residential mortgage:						
Prime / Alt-A & option ARMs	**$ 28,492**	$ 26,597	**$ 294**	$ 287	**$ 9**	$ (21)
Subprime	**691**	726	**64**	80	**2**	(4)
Commercial and other	**80,305**	78,746	**862**	426	**3**	–
Total loans securitized	**$ 109,488**	$ 106,069	**$ 1,220**	$ 793	**$ 14**	$ (25)

Note 16 – Goodwill and Mortgage servicing rights

Refer to Note 16 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a discussion of the accounting policies related to goodwill and mortgage servicing rights.

Goodwill

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

	Six months ended June 30,			
(in millions)		**2023**		2022
Balance at beginning of period[(a)]	**$**	**40,520**	$	40,202
Changes during the period from:				
Business combinations[(b)]		**(2)**		36
Other[(c)]		**5**		(12)
Balance at June 30,[(a)]	**$**	**40,523**	$	40,226

(a) Reflects gross goodwill balances as the Bank has not recognized any impairment losses to date.
(b) For the six months ended June 30, 2022, represents estimated goodwill associated with the acquisition of Volkswagen Payments S.A.
(c) Predominantly foreign currency adjustments.

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 16 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a further discussion of the Bank'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 Bank 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, 2023, the Bank 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 Bank has concluded that goodwill was not impaired as of June 30, 2023 or December 31, 2022.

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 3 and 16 of JPMorgan Chase Bank, N.A. 's 2022 Annual Financial Statements 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 six months ended June 30, 2023 and 2022.

	As of or for the six months ended June 30,	
(in millions, except where otherwise noted)	**2023**	2022
Fair value at beginning of period	**$ 7,973**	$ 5,494
MSR activity:		
Originations of MSRs	**110**	596
Purchase of MSRs[a]	**467**	875
Disposition of MSRs[b]	**(90)**	(671)
Net additions/(dispositions)	**487**	800
Changes due to collection/realization of expected cash flows	**(495)**	(468)
Changes in valuation due to inputs and assumptions:		
Changes due to market interest rates and other[c]	**261**	1,547
Changes in valuation due to other inputs and assumptions:		
Projected cash flows (e.g., cost to service)	**2**	—
Discount rates	**—**	—
Prepayment model changes and other[d]	**1**	66
Total changes in valuation due to other inputs and assumptions	**3**	66
Total changes in valuation due to inputs and assumptions	**264**	1,613
Fair value at June 30,	**$ 8,229**	$ 7,439
Changes in unrealized gains/(losses) included in income related to MSRs held at June 30,	**$ 264**	$ 1,613
Contractual service fees, late fees and other ancillary fees included in income	**776**	765
Third-party mortgage loans serviced at June 30, (in billions)	**605**	576
Servicer advances, net of an allowance for uncollectible amounts, at June 30[e]	**595**	1,166

(a) Includes purchase price adjustments associated with MSRs purchased in the prior quarter, primarily as a result of loans that prepaid within 90 days of settlement, allowing the Bank to recover the purchase price.

(b) 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 Bank acquired the remaining balance of those SMBS as trading securities.

(c) 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.

(d) Represents changes in prepayments other than those attributable to changes in market interest rates.

(e) Represents amounts the Bank 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 Bank'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 Bank 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 six months ended June 30, 2023 and 2022.

	Six months ended June 30,	
(in millions)	**2023**	2022
Mortgage fees and related income		
Production revenue	**$ 177**	$ 361
Net mortgage servicing revenue:		
Operating revenue:		
Loan servicing revenue	**802**	803
Changes in MSR asset fair value due to collection/realization of expected cash flows	**(495)**	(468)
Total operating revenue	**307**	335
Risk management:		
Changes in MSR asset fair value due to market interest rates and other[(a)]	**261**	1,547
Other changes in MSR asset fair value due to other inputs and assumptions in model[(b)]	**3**	66
Changes in derivative fair value and other	**(251)**	(1,476)
Total risk management	**13**	137
Total net mortgage servicing revenue	**320**	472
All other	**2**	5
Mortgage fees and related income	**$ 499**	$ 838

(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 Bank's MSRs at June 30, 2023, and December 31, 2022, and outlines hypothetical sensitivities of those fair values to immediate adverse changes in those assumptions, as defined below.

(in millions, except rates)	**Jun 30, 2023**	Dec 31, 2022
Weighted-average prepayment speed assumption (constant prepayment rate)	**6.27 %**	6.12 %
Impact on fair value of 10% adverse change	**$ (186)**	$ (183)
Impact on fair value of 20% adverse change	**(361)**	(356)
Weighted-average option adjusted spread[(a)]	**5.77 %**	5.77 %
Impact on fair value of a 100 basis point adverse change	**$ (348)**	$ (341)
Impact on fair value of a 200 basis point adverse change	**(668)**	(655)

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

Note 17 – Deposits

Refer to Note 18 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information on deposits.

As of June 30, 2023, and December 31, 2022, noninterest-bearing and interest-bearing deposits were as follows.

(in millions)	June 30, 2023	December 31, 2022
U.S. offices		
Noninterest-bearing (included **$48,012** and $26,483, at fair value)[a]	$ 661,020	$ 648,852
Interest-bearing (included **$572** and $586 at fair value)[a]	1,407,022	1,365,661
Total deposits in U.S. offices	2,068,042	2,014,513
Non-U.S. offices		
Noninterest-bearing (included **$1,332** and $1,400 at fair value)[a]	25,774	28,394
Interest-bearing (included **$1,795** and $273 at fair value)[a]	411,833	397,815
Total deposits in non-U.S. offices	437,607	426,209
Total deposits	$ 2,505,649	$ 2,440,722

(a) Includes structured notes classified as deposits for which the fair value option has been elected. Refer to Note 4 for further discussion.

As of June 30, 2023 and December 31, 2022, time deposits in denominations that met or exceeded the insured limit were as follows.

(in millions)	June 30, 2023	December 31, 2022
U.S. offices	$ 108,034	$ 76,698
Non-U.S. offices[a]	86,508	78,241
Total	$ 194,542	$ 154,939

(a) Represents all time deposits in non-U.S. offices as these deposits typically exceed the insured limit.

As of June 30, 2023, the remaining maturities of interest-bearing time deposits in each of the 12-month periods ending June 30 were as follows.

June 30, (in millions)	U.S.	Non-U.S.	Total
2024	$145,990	$ 83,555	$ 229,545
2025	10,269	206	10,475
2026	309	90	399
2027	160	25	185
2028	95	1,087	1,182
After 5 years	533	213	746
Total	$157,356	$ 85,176	$ 242,532

Note 18 – Leases

Refer to Note 19 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a further discussion on leases.

Bank as lessee

At June 30, 2023, the Bank was 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 carrying values of the Bank's operating leases were as follows:

(in millions)	June 30, 2023	December 31, 2022
Right-of-use assets	$ 7,669[a]	$ 7,006
Lease liabilities	8,108[a]	7,495

(a) Includes $756 million of right-of-use assets and corresponding lease liabilities, associated with the First Republic acquisition.

The Bank's net rental expense was $845 million and $904 million for the six months ended June 30, 2023 and 2022, respectively.

Bank as lessor

The Bank's lease financings are predominantly auto operating leases, and are included in other assets on the Bank's Consolidated balance sheets.

The following table presents the Bank'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:

	Six months ended June 30,	
(in millions)	2023	2022
Operating lease income	$ 1,470	$ 1,992
Depreciation expense	876	1,377

Note 19 – Long-term debt

The Bank issues long-term debt denominated in various currencies, predominantly U.S. dollars, with both fixed and variable interest rates. Included in senior and subordinated debt below are various equity-linked or other indexed instruments, which the Bank has elected to measure at fair value; changes in fair value are recorded in principal transactions revenue in the Consolidated statements of income, except for unrealized gains/(losses) due to DVA which are recorded in OCI. The following table is a summary of long-term debt carrying values (including unamortized premiums and discounts, issuance costs, valuation adjustments and fair value adjustments, where applicable) by remaining contractual maturity as of June 30, 2023.

By remaining maturity at (in millions, except rates)		June 30, 2023				December 31, 2022
		Under 1 year	1-5 years	After 5 years	**Total**	Total
Long-term debt payable to JPMorgan Chase & Co. and affiliates						
Senior debt:	Fixed rate	**$ –**	**$ 1**	**$ 61**	**$ 62**	$ 52
	Variable rate	**2,816**	**33,591**	**78**	**36,485**	35,080
	Interest rates[f]	**– %**	**5.52 %**	**– %**	**5.52 %**	4.69 %
	Subtotal	**$ 2,816**	**$ 33,592**	**$ 139**	**$ 36,547**	$ 35,132
Long-term debt issued to unrelated parties						
Federal Home Loan Banks ("FHLB") advances:	Fixed rate	**$ 7,443**	**$ 17,609**	**$ 42**	**$ 25,094** [g]	$ 93
	Variable rate	**7,000**	**4,000**	**–**	**11,000**	11,000
	Interest rates[f]	**4.64 %**	**4.29 %**	**6.07 %**	**4.43 %**	4.32%
Purchase Money Note[a]:	Fixed rate	**$ –**	**$ 48,883**	**$ –**	**$ 48,883**	NA
	Interest rates[f]	**– %**	**3.40 %**	**– %**	**3.40 %**	NA
Senior debt:	Fixed rate	**$ 716**	**$ 4,787**	**$ 5,650**	**$ 11,153**	$ 10,882
	Variable rate	**6,246**	**5,741**	**3,804**	**15,791**	17,770
	Interest rates[f]	**3.95 %**	**4.99 %**	**1.54%**	**1.89 %**	2.01%
Subordinated debt:	Fixed rate	**$ –**	**$ 258**	**$ –**	**$ 258**	$ 261
	Interest rates[f]	**– %**	**8.25 %**	**– %**	**8.25 %**	8.25 %
	Subtotal	**$ 21,405**	**$ 81,278**	**$ 9,496**	**$ 112,179**	$ 40,006
Total long-term debt[b][c][d]		**$ 24,221**	**$ 114,870**	**$ 9,635**	**$ 148,726** [h][i]	$ 75,138
Long-term beneficial interests:						
	Fixed rate	**$ –**	**$ 999**	**$ –**	**$ 999**	$ 1,999
	Variable rate	**–**	**–**	**131**	**131**	138
	Interest rates[f]	**– %**	**3.97 %**	**3.58 %**	**3.92 %**	2.80 %
Total long-term beneficial interests[e]		**$ –**	**$ 999**	**$ 131**	**$ 1,130**	$ 2,137

(a) As of June 30, 2023, reflects the Purchase Money Note associated with the First Republic acquisition. Refer to Note 27 for additional information.
(b) Included long-term debt of $87.7 billion and $13.8 billion secured by assets totaling $221.2 billion and $208.3 billion at June 30, 2023 and December 31, 2022, respectively. The amount of long-term debt secured by assets does not include amounts related to hybrid instruments.
(c) Included $26.8 billion and $27.1 billion of long-term debt accounted for at fair value at June 30, 2023 and December 31, 2022, respectively.
(d) Included $2.7 billion and $2.4 billion of outstanding zero-coupon notes at June 30, 2023 and December 31, 2022, respectively. The aggregate principal amount of these notes at their respective maturities is $4.8 billion and $4.4 billion, respectively. The aggregate principal amount reflects the contractual principal payment at maturity, which may exceed the contractual principal payment at the Bank's next call date, if applicable.
(e) Included on the Consolidated balance sheets in beneficial interests issued by consolidated VIEs. Excluded short-term commercial paper and other short-term beneficial interests of $18.9 billion and $11.3 billion at June 30, 2023 and December 31, 2022, respectively.
(f) The interest rates shown are the weighted average of contractual rates in effect at June 30, 2023 and December 31, 2022, respectively, including non-U.S. dollar fixed- and variable-rate issuances, which excludes the effects of the associated derivative instruments used in hedge accounting relationships, if applicable. The interest rates shown exclude structured notes accounted for at fair value.
(g) As of June 30, 2023, included $25.0 billion of FHLB advances associated with the First Republic acquisition. Refer to Note 27 for additional information.
(h) As of June 30, 2023, long-term debt in the aggregate of $4.7 billion was redeemable at the option of the Bank in whole or in part, prior to maturity, based on the terms specified in the respective instruments.
(i) The aggregate carrying values of debt that matures in each of the 12-month periods ending June 30, 2024, 2025, 2026, 2027 and 2028 is $24.2 billion, $56.1 billion, $4.4 billion, $4.8 billion and $49.6 billion, respectively.

The weighted-average contractual interest rates for total long-term debt excluding structured notes accounted for at fair value were 4.26% and 4.47% as of June 30, 2023 and December 31, 2022, respectively. In order to modify exposure to interest rate movements, the Bank utilizes derivative instruments, primarily interest rate swaps, in conjunction with some of its debt issuances. The use of these instruments modifies the Bank's interest expense on the associated debt. The modified weighted-average interest rates for total long-term debt, including the effects of related derivative instruments, were 4.26% and 4.46% as of June 30, 2023 and December 31, 2022, respectively.

The Bank's unsecured debt does not contain requirements that would call for an acceleration of payments, maturities or changes in the structure of the existing debt, provide any limitations on future borrowings or require additional collateral, based on unfavorable changes in the Bank's credit ratings, financial ratios or earnings.

Note 20 – Related party transactions

JPMorgan Chase Bank, N.A. regularly enters into transactions with JPMorgan Chase and its various subsidiaries collectively, JPMorgan Chase affiliates. Refer to Note 21 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for discussion of the more significant types of transactions.

Revenue and expense-related transactions with related parties are listed below.

(in millions)	Six months ended June 30, 2023	2022
Interest income	**$ 3,001**	$ 178
Interest expense	**3,345**	446
Net interest income	**(344)**	(268)
Noninterest revenue		
Principal transactions	**(689)**	14,960
All other income[(a)]	**4,084**	3,726
Total noninterest revenue	**3,395**	18,686
Noninterest expense[(a)]	**3,307**	2,999

Balances with related parties are listed below.

(in millions)	June 30, 2023	December 31, 2022
Assets		
Federal funds sold and securities purchased under resale agreements	**$ 94,641**	$ 107,038
Accrued interest and accounts receivable	**20,406**	28,989
All other assets	**7,960**	6,487
Liabilities		
Deposits[(b)]	**106,687**	100,548
Federal funds purchased and securities loaned or sold under repurchase agreements	**39,361**	40,821
Accounts payable and all other liabilities	**16,629**	13,749
Long-term debt	**36,547**	35,132

(a) All other income Includes fees earned by the Bank for services provided to JPMorgan Chase affiliates. Noninterest expense includes fees incurred by the bank for services provided from JPMorgan Chase affiliates

(b) At both June 30, 2023 and December 31, 2022, includes $25.0 billion, respectively, pledged to support extensions of credit and other transactions requiring collateral with affiliates as defined by Section 23A under the Federal Reserve Act, which defines the constraints that apply to U.S. banks in certain of their interactions with affiliates.

The following table summarizes information on derivative receivables and payables with JPMorgan Chase affiliates before and after netting adjustments for legally enforceable master netting agreements as of June 30, 2023 and December 31, 2022.

	June 30, 2023		December 31, 2022	
(in millions)	Gross derivative receivable/payable	Net derivative receivable/payable	Gross derivative receivable/payable	Net derivative receivable/payable
Derivative receivables from affiliates	**$ 87,486**	**$ 122**	$ 89,480	$ 322
Derivative payables to affiliates	**78,291**	**35**	77,784	56

Note 21 – 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 gain/(loss) related to the Bank's defined benefit pension and OPEB plans, and fair value option-elected liabilities arising from changes in the Bank's own credit risk (DVA).

As of or for the six months ended June 30, 2023, (in millions)	Unrealized gains/(losses) on investment securities	Translation adjustments, net of 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, 2023	**$ (9,105)**	**$ (1,240)**	**$(5,655)**	**$ (1,779)**	**$ (185)**	**$(17,964)**
Net change	**2,967**	**254**	**299**	**(48)**	**101**	**3,573**
Balance at June 30, 2023	**$ (6,138)** (a)	**$ (986)**	**$(5,356)**	**$ (1,827)**	**$ (84)**	**$(14,391)**

As of or for the six months ended June 30, 2022, (in millions)	Unrealized gains/(losses) on investment securities	Translation adjustments, net of 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	$ 2,646	$ (685)	$ (296)	$ (1,037)	$ (450)	$ 178
Net change	(11,467)	(688)	(4,137)	86	307	(15,899)
Balance at June 30, 2022	$ (8,821) (a)	$ (1,373)	$(4,433)	$ (951)	$ (143)	$(15,721)

(a) As of June 30, 2023 includes after-tax net unamortized unrealized gains/(losses) of $(29) million related to HTM securities that have been transferred to AFS as permitted by the new hedge accounting guidance adopted on January 1, 2023. As of June 30, 2023 and 2022 includes after-tax net unamortized unrealized gains/(losses) of $(1.1) billion and $(1.4) billion, related to AFS securities that have been transferred to HTM, respectively. Refer to Note 11 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information.

The following table presents the pre-tax and after-tax changes in the components of OCI.

	2023			2022		
Six months ended June 30, (in millions)	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	**$ 2,136**	**$ (512)**	**$ 1,624**	$ (15,633)	$ 3,750	$ (11,883)
Reclassification adjustment for realized (gains)/losses included in net income(a)	**1,768**	**(425)**	**1,343**	547	(131)	416
Net change	**3,904**	**(937)**	**2,967**	(15,086)	3,619	(11,467)
Translation adjustments(b):						
Translation	**977**	**5**	**982**	(3,227)	104	(3,123)
Hedges	**(957)**	**229**	**(728)**	3,202	(767)	2,435
Net change	**20**	**234**	**254**	(25)	(663)	(688)
Cash flow hedges:						
Net unrealized gains/(losses) arising during the period	**(554)**	**133**	**(421)**	(5,184)	1,245	(3,939)
Reclassification adjustment for realized (gains)/losses included in net income(c)	**948**	**(228)**	**720**	(261)	63	(198)
Net change	**394**	**(95)**	**299**	(5,445)	1,308	(4,137)
Defined benefit pension and OPEB plans, net change:	**(62)**	**14**	**(48)**	121	(35)	86
DVA on fair value option elected liabilities, net change:	**$ 131**	**$ (30)**	**$ 101**	$ 410	$ (103)	$ 307
Total other comprehensive income/(loss)	**$ 4,387**	**$ (814)**	**$ 3,573**	$ (20,025)	$ 4,126	$ (15,899)

(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. There were no sales or liquidations of legal entities that resulted in reclassification during the six months ended June 30, 2023. The amounts were not material for the six months ended June 30, 2022.

(c) The pre-tax amounts are primarily recorded in noninterest revenue, net interest income and compensation expense in the Consolidated statements of income.

Note 22 – Restricted cash and other restricted assets

Refer to Note 24 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a detailed discussion of the Bank's restricted cash and other restricted assets.

Certain of the Bank'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 Bank's subsidiaries.

The Bank 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 Bank's broker-dealer activities are subject to certain restrictions on cash and other assets.

The following table presents the components of the Bank's restricted cash:

(in billions)	June 30, 2023	December 31, 2022
Segregated for the benefit of securities and cleared derivative customers	$ 9.1	$ 8.5
Cash reserves at non-U.S. central banks and held for other general purposes	8.4	8.1
Total restricted cash[a]	**$ 17.5**	$ 16.6

(a) Comprises $16.2 billion and $15.2 billion in deposits with banks, and $1.3 billion and $1.4 billion in cash and due from banks on the Consolidated balance sheets as of June 30, 2023 and December 31, 2022, respectively.

Also, as of June 30, 2023 and December 31, 2022, the Bank had cash pledged with clearing organizations for the benefit of customers of $6.2 billion and $7.0 billion, respectively.

Note 23 – Regulatory capital

Refer to Note 25 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a detailed discussion on regulatory capital.

The Bank's banking regulator, the OCC, establishes capital requirements, including well-capitalized requirements for national banks.

Under the risk-based capital and leverage-based guidelines of the OCC, the Bank 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 OCC to take action.

The following table presents the risk-based and leverage-based regulatory capital ratio requirements and well-capitalized ratios to which the Bank was subject as of June 30, 2023 and December 31, 2022.

	Capital ratio requirements[a][b]	Well-capitalized ratios[c]
Capital ratios		
CET1 capital	7.0 %	6.5 %
Tier 1 capital	8.5	8.0
Total capital	10.5	10.0
Tier 1 leverage	4.0	5.0
SLR	6.0	6.0

Note: The table above is as defined by the regulations issued by the OCC and FDIC and to which the Bank is subject.

(a) Represents the regulatory capital ratio requirements applicable to the Bank under Basel III. The CET1, Tier 1 and Total capital ratio requirements include a fixed capital conservation buffer requirement of 2.5%.

(b) Represents minimum SLR requirement of 3.0%, as well as supplementary leverage buffer requirement of 3.0% for the Bank.

(c) Represents requirements for the Bank pursuant to regulations issued under the FDIC Improvement Act.

CECL regulatory capital transition

Beginning January 1, 2022, the $2.9 billion CECL capital benefit, provided by the Federal Reserve in response to the COVID-19 pandemic, is being phased out at 25% per year over a three-year period. As of June 30, 2023, the Bank's CET1 capital reflected the remaining $1.5 billion benefit associated with the CECL capital transition provisions.

Additionally, effective January 1, 2023, the Bank phased out 50% of the other CECL capital transition provisions which impacted Tier 2 capital, adjusted average assets, total leverage exposure and RWA, as applicable.

Refer to Note 25 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements 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 the Bank. As of June 30, 2023, and December 31, 2022, the Bank was well-capitalized and met all capital requirements to which it was subject.

	Basel III Standardized		Basel III Advanced		
(in millions, except ratios)	June 30, 2023	December 31, 2022	June 30, 2023		December 31, 2022
Risk-based capital metrics:[a]					
CET1 capital	**$279,233**	$269,668	**$279,233**		$269,668
Tier 1 capital	**279,236**	269,672	**279,236**		269,672
Total capital	**298,582**	288,433	**285,500**	(b)	275,255
Risk-weighted assets	**1,642,804**	1,597,072	**1,541,700**	(b)(c)	1,475,602
CET1 capital ratio	**17.0 %**	16.9 %	**18.1 %**		18.3 %
Tier 1 capital ratio	**17.0**	16.9	**18.1**		18.3
Total capital ratio	**18.2**	18.1	**18.5**		18.7

(a) The capital metrics reflect the CECL capital transition provisions.
(b) Includes the impacts of certain assets associated with the First Republic acquisition to which the Standardized approach has been applied as permitted by the transition provisions in the U.S. capital rules.
(c) RWA results include the benefit of the shared-loss agreements with the FDIC for certain assets associated with the First Republic acquisition.

Three months ended (in millions, except ratios)	June 30, 2023	December 31, 2022
Leverage-based capital metrics:[a]		
Adjusted average assets[b]	**$3,308,478**	$3,249,912
Tier 1 leverage ratio	**8.4 %**	8.3 %
Total leverage exposure	**$3,993,500**	$3,925,502
SLR	**7.0 %**	6.9 %

(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 24 – Off-balance sheet lending-related financial instruments, guarantees, and other commitments

The Bank 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 Bank should the customer or client draw upon the commitment or the Bank 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 Bank's view, representative of its expected future credit exposure or funding requirements. Refer to Note 26 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a further discussion of lending-related commitments and guarantees, and the Bank'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 14 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, 2023, and December 31, 2022. 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 Bank has not experienced, and does not anticipate, that all available lines of credit for these products will be utilized at the same time. The Bank 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 Bank typically closes credit card lines when the borrower is 60 days or more past due. The Bank 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: June 30, 2023 — Expires in 1 year or less	Contractual amount: June 30, 2023 — Expires after 1 year through 3 years	Contractual amount: June 30, 2023 — Expires after 3 years through 5 years	Contractual amount: June 30, 2023 — Expires after 5 years	Contractual amount: June 30, 2023 — Total	Contractual amount: Dec 31, 2022 — Total	Carrying value[l]: Jun 30, 2023	Carrying value[l]: Dec 31, 2022
Lending-related								
Consumer, excluding credit card:								
Residential real estate[a]	$ 9,164	$ 5,873	$ 6,304	$ 12,692	$ 34,033	$ 21,287	$ 714 [m]	$ 75
Auto and other	14,203	324	–	2,286	16,813	12,231	236 [m]	–
Total consumer, excluding credit card	23,367	6,197	6,304	14,978	50,846	33,518	950	75
Credit card[b]	881,485	–	–	–	881,485	821,284	–	–
Total consumer[c]	904,852	6,197	6,304	14,978	932,331	854,802	950	75
Wholesale:								
Other unfunded commitments to extend credit[d]	120,680	160,131	201,921	23,307	506,039	437,211	3,549 [k][m]	2,298 [k]
Standby letters of credit and other financial guarantees[d][e]	14,979	8,072	4,273	1,099	28,423	27,455	517	408
Other letters of credit[d]	3,022	233	103	–	3,358	4,134	23	6
Total wholesale[c]	138,681	168,436	206,297	24,406	537,820	468,800	4,089	2,712
Total lending-related	$1,043,533	$174,633	$ 212,601	$ 39,384	$1,470,151	$1,323,602	$ 5,039	$ 2,787
Other guarantees and commitments								
Securities lending indemnification agreements and guarantees[f]	$ 317,713	$ –	$ –	$ –	$ 317,713	$ 312,261	$ –	$ –
Derivatives qualifying as guarantees	4,139	228	11,959	40,852	57,178	59,262	223	652
Unsettled resale and securities borrowed agreements[g]	82,651	585	–	–	83,236	82,694	–	(3)
Unsettled repurchase and securities loaned agreements[h]	87,309	547	–	–	87,856	53,321	–	(3)
Loan sale and securitization-related indemnifications:								
Mortgage repurchase liability	NA	NA	NA	NA	NA	NA	76	76
Loans sold with recourse	NA	NA	NA	NA	591	631	9	11
Exchange & clearing house guarantees and commitments[i]	14,037	–	–		14,037	43,641	–	–
Other guarantees and commitments[j]	5,486	521	96	2,942	9,045	6,272	43	53

(a) Includes certain commitments to purchase loans from correspondents.
(b) Also includes commercial card lending-related commitments.
(c) Predominantly all consumer and wholesale lending-related commitments are in the U.S.
(d) As of June 30, 2023, and December 31, 2022, reflected the contractual amount net of risk participations totaling $87 million and $71 million, respectively, for other unfunded commitments to extend credit; $8.0 billion and $8.2 billion, respectively, for standby letters of credit and other financial guarantees; and $425 million and $512 million, respectively, for other letters of credit. In regulatory filings with the Federal Reserve these commitments are shown gross of risk participations.
(e) As of June 30, 2023 and December 31, 2022, included commitments to JPMorgan Chase affiliates of $19 million and $19 million.
(f) As of June 30, 2023 and December 31, 2022, collateral held by the Bank in support of securities lending indemnification agreements was $334.2 billion and $328.2 billion, respectively. Total securities lending indemnification agreements and guarantees included balances with JPMorgan Chase affiliates of $21.2 billion and $28.9 billion at June 30, 2023 and December 31, 2022, respectively. Collateral held by the Bank in support of securities lending indemnification agreements with JPMorgan Chase affiliates was $21.8 billion and $29.6 billion at June 30, 2023 and December 31, 2022, respectively. Securities lending collateral primarily consists of cash, G7 government securities, and securities issued by U.S. GSEs and government agencies.
(g) As of June 30, 2023, and December 31, 2022, included $1.5 billion and $35 million of unsettled resale and securities borrowed agreements with JPMorgan Chase affiliates.
(h) As of June 30, 2023, and December 31, 2022, included $1.5 billion and $128 million of unsettled repurchase and securities loaned agreements with JPMorgan Chase affiliates.
(i) As of June 30, 2023, and December 31, 2022, includes guarantees to the Fixed Income Clearing Corporation under the sponsored member repo program and commitments and guarantees associated with the Bank's membership in certain clearing houses.
(j) As of June 30, 2023, and December 31, 2022, primarily includes unfunded commitments related to certain tax-oriented equity investments, unfunded commitments to purchase secondary market loans and other equity investment commitments.
(k) As of June 30, 2023 and December 31, 2022, includes net markdowns on held-for-sale positions related to unfunded commitments in the bridge financing portfolio.
(l) For lending-related products, the carrying value includes 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.
(m) As of June 30, 2023, includes fair value adjustments associated with the First Republic acquisition for residential real estate lending-related commitments totaling $576 million, for auto and other lending-related commitments totaling $236 million and for other unfunded commitments to extend credit totaling $1.6 billion. Refer to Note 27 for additional information.

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 Bank also issues commitments under multipurpose facilities which could be drawn upon in several forms, including the issuance of a standby letter of credit.

Standby letters of credit and other financial guarantees

Standby letters of credit and other financial guarantees are conditional lending commitments issued by the Bank to guarantee the performance of a client or customer to a third party under certain arrangements, such as commercial paper facilities, bond financings, acquisition financings, trade financings and similar transactions.

The following table summarizes the contractual amount and carrying value of standby letters of credit and other financial guarantees and other letters of credit arrangements as of June 30, 2023, and December 31, 2022.

Standby letters of credit, other financial guarantees and other letters of credit

	June 30, 2023		December 31, 2022	
(in millions)	Standby letters of credit and other financial guarantees	Other letters of credit	Standby letters of credit and other financial guarantees	Other letters of credit
Investment-grade[(a)]	**$ 19,593**	**$ 2,385**	$ 19,224	$ 3,040
Noninvestment-grade[(a)]	**8,830**	**973**	8,231	1,094
Total contractual amount	**$ 28,423**	**$ 3,358**	$ 27,455	$ 4,134
Allowance for lending-related commitments	**$ 146**	**$ 23**	$ 82	$ 6
Guarantee liability	**371**	**–**	326	–
Total carrying value	**$ 517**	**$ 23**	$ 408	$ 12
Commitments with collateral	**$ 16,413**	**$ 549**	$ 15,293	$ 795

(a) The ratings scale is based on the Bank's internal risk ratings. Refer to Note 13 for further information on internal risk ratings.

Derivatives qualifying as guarantees

The Bank transacts in certain derivative contracts that have the characteristics of a guarantee under U.S. GAAP. Refer to Note 26 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for further information on these derivatives.

The following table summarizes the derivatives qualifying as guarantees as of June 30, 2023, and December 31, 2022.

(in millions)	June 30, 2023	December 31, 2022
Notional amounts		
Derivative guarantees	**$ 57,178**	$ 59,262
Stable value contracts with contractually limited exposure	**31,715**	31,820
Maximum exposure of stable value contracts with contractually limited exposure	**1,442**	2,063
Fair value		
Derivative payables	**223**	652

In addition to derivative contracts that meet the characteristics of a guarantee, the Bank is both a purchaser and seller of credit protection in the credit derivatives market. Refer to Note 6 for a further discussion of credit derivatives.

Merchant charge-backs

Under the rules of payment networks, in its role as a merchant acquirer, the Bank's Merchant Services business in Payments, 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, the Bank 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 the Bank is unable to collect the amount from the merchant, the Bank will bear the loss for the amount credited or refunded to the cardholder. The Bank mitigates this risk by withholding future settlements, retaining cash reserve accounts or obtaining other collateral. In addition, the Bank recognizes a valuation allowance that covers the payment or performance risk related to charge-backs.

Loan sales- and securitization-related indemnifications

In connection with the Bank's mortgage loan sale and securitization activities with GSEs the Bank has made representations and warranties that the loans sold meet certain requirements, and that may require the Bank to repurchase mortgage loans and/or indemnify the loan purchaser if such representations and warranties are breached by the Bank.

The liability related to repurchase demands associated with private label securitizations is separately evaluated by the Bank in establishing its litigation reserves. Refer to Note 26 of these Consolidated Financial Statements and Note 28 of JPMorgan Chase Bank, N.A. 2022 Annual Financial Statements additional information regarding litigation.

Sponsored member repo program

The Bank 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 Bank 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 Bank 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 Bank expects the risk of loss to be remote. The Bank's maximum possible exposure, without taking into consideration the associated collateral, is included in the Exchange & clearing house guarantees and commitments line on pages 80. Refer to Note 12 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for additional information on credit risk mitigation practices on resale agreements and the types of collateral pledged under repurchase agreements.

Note 25 – Pledged assets and collateral

Refer to Note 27 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a discussion of the Bank's pledged assets and collateral.

Pledged assets

The Bank 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 Bank 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, and borrowings of affiliates. 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 Bank's pledged assets.

(in billions)	June 30, 2023	December 31, 2022
Assets that may be sold or repledged or otherwise used by secured parties	**$ 87.9**	$ 57.2
Assets that may not be sold or repledged or otherwise used by secured parties[(a)]	**174.0**	43.3
Assets pledged at Federal Reserve banks and FHLBs[(b)]	**621.7**	567.6
Total pledged assets	**$ 883.6**	$ 668.1

(a) As of June 30, 2023, included $120.0 billion of assets pledged to the FDIC as part of the shared-loss agreements associated with the First Republic acquisition. Refer to Note 27 for additional information.

(b) As of June 30, 2023, included $23.7 billion of assets pledged to the FHLB associated with the First Republic acquisition.

Total pledged assets do not include assets of consolidated VIEs; these assets are used to settle the liabilities of those entities. Refer to Note 15 for additional information on assets and liabilities of consolidated VIEs. Refer to Note 12 for additional information on the Bank's securities financing activities. Refer to Note 20 of JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for additional information on the Bank's long-term debt.

Collateral

The Bank 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, 2023	December 31, 2022
Collateral permitted to be sold or repledged, delivered, or otherwise used	**$ 649.5**	$ 710.6
Collateral sold, repledged, delivered or otherwise used	**471.9**	522.7

Note 26 – Litigation

Contingencies

As of June 30, 2023, JPMorgan Chase and its subsidiaries, including but not limited to JPMorgan Chase Bank, N.A., 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 JPMorgan Chase'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.

JPMorgan Chase 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 $1.3 billion at June 30, 2023. This estimated aggregate range of reasonably possible losses was based upon information available as of that date for those proceedings in which JPMorgan Chase believes that an estimate of reasonably possible loss can be made. For certain matters, JPMorgan Chase does not believe that such an estimate can be made, as of that date. JPMorgan Chase'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 JPMorgan Chase and JPMorgan Chase Bank, N.A., 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 uncertainty of the various potential outcomes of such proceedings, including where JPMorgan Chase 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 JPMorgan Chase did not take into account in its estimate because JPMorgan Chase had deemed the likelihood of that outcome to be remote. Accordingly, JPMorgan Chase'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 JPMorgan Chase's material legal proceedings in which JPMorgan Chase and its subsidiaries (which in certain instances include JPMorgan Chase Bank, N.A.) are involved or have been named as parties.

1MDB Litigation. J.P. Morgan (Suisse) SA was named as a defendant in a civil litigation filed in May 2021 in Malaysia by 1Malaysia Development Berhad ("1MDB"), a Malaysian state-owned and controlled investment fund. J.P. Morgan (Suisse) SA was served in August 2022. The claim alleges "dishonest assistance" against J.P. Morgan (Suisse) SA in relation to payments of $300 million and $500 million, from 2009 and 2010, respectively, received from 1MDB and paid into an account at J.P. Morgan Suisse (SA) held by 1MDB PetroSaudi Limited, a joint venture company between 1MDB and PetroSaudi Holdings (Cayman) Limited. In September 2022, JPMorgan Chase filed an application challenging the validity of service and the Malaysian Court's jurisdiction to hear the claim. In April 2023, 1MDB discontinued its claim against J.P. Morgan (Suisse) SA, but requested permission of the Court to refile in the future, which the Court took under consideration.

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 JPMorgan Chase 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. JPMorgan Chase is responding to and cooperating with the PMLA investigation.

Foreign Exchange Investigations and Litigation. JPMorgan Chase 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, JPMorgan Chase pleaded guilty to a single violation of federal antitrust law. The Department of Labor ("DOL") granted the Bank exemptions that permit JPMorgan Chase and its affiliates to continue to rely on the Qualified Professional Asset Manager exemption under the Employee Retirement Income Security Act (“ERISA”) through 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 JPMorgan Chase’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. Although certain members of the settlement class filed requests to the Court to be excluded from the class, an agreement to resolve their claims was reached in December 2022. The District Court denied certification of a putative class action against JPMorgan Chase and other foreign exchange dealers on behalf of certain parties who purchased foreign currencies at allegedly inflated rates and granted summary judgment against the named plaintiffs in March 2023. Those plaintiffs have filed a notice of appeal. 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. An agreement to resolve one of the UK actions was reached in December 2022. In July 2023, the U.K. Court of Appeal overturned the Competition Appeal Tribunal’s earlier denial of a request for class certification on an opt-out basis. In Israel, a settlement in principle has been reached in the putative class action, which remains subject to court approval.

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, but that settlement was reversed on appeal and remanded to the United States District Court for the Eastern District of New York.

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. In March 2023, the United States Court of Appeals for the Second Circuit affirmed the District Court’s approval of the settlement, and two merchants have filed petitions for rehearing of the Appellate Court’s approval. 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.

Of the merchants who opted out of the amended damages class settlement, certain merchants filed individual actions raising similar allegations against Visa and Mastercard, as well as against JPMorgan Chase and other banks. While some of those actions remain pending, the defendants have reached settlements with the merchants who opted out representing approximately 65% of the combined Mastercard-branded and Visa-branded payment card sales volume.

Jeffrey Epstein Litigation. JPMorgan Chase Bank, N.A. was named as a defendant in two lawsuits filed in the United States District Court for the Southern District of New York alleging that JPMorgan Chase Bank, N.A. knowingly facilitated Jeffrey Epstein’s sex trafficking and other unlawful conduct by providing banking services to Epstein until 2013. One case, which was filed in November 2022, was a putative class action filed by an alleged sex-trafficking victim of Epstein, and the other case, which was filed in December 2022, was brought on behalf of the government of the United States Virgin Islands and also alleges certain Virgin Islands statutory claims. In March 2023, the Court granted in part and denied in part JPMorgan Chase Bank, N.A.’s motions to dismiss these complaints, allowing some claims to proceed in both lawsuits. Also in March 2023, JPMorgan Chase Bank, N.A. filed third-party complaints impleading JPMorgan Chase’s former employee, James Edward Staley, into the two lawsuits, asserting claims for indemnification, contribution, breach of fiduciary duty and violation of the faithless servant doctrine. In May 2023, the Court denied Staley’s motion to dismiss the impleader complaints. In June 2023, the Court granted the putative class’ motion for class certification and granted a preliminary approval of a settlement between the class and JPMorgan Chase Bank, N.A., pursuant to which JPMorgan Chase Bank, N.A. will pay $290 million to a fund for Epstein survivors. The actions involving the government of the United States Virgin Islands and Staley are proceeding.

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 JPMorgan Chase and one other bank remain subject, continues. In December 2016, the European Commission issued a decision against JPMorgan Chase and other banks finding an infringement of European antitrust rules relating to EURIBOR. JPMorgan Chase has filed an appeal of that decision with the European General Court, and that appeal is pending.

In addition, JPMorgan Chase 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, JPMorgan Chase 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 JPMorgan Chase. 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 JPMorgan Chase and other defendants were engaged in an unlawful agreement to set U.S. dollar LIBOR and conspired to monopolize the market for LIBOR-based consumer loans and credit cards. In September 2022, the Court dismissed plaintiffs' complaint in its entirety, and plaintiffs filed an amended complaint asserting similar antitrust claims, which defendants have moved to dismiss. JPMorgan Chase's settlements of putative class actions related to the Singapore Interbank Offered Rate and the Singapore Swap Offer Rate, and the Australian Bank Bill Swap Reference Rate received final court approval in November 2022, while the settlement related to Swiss franc LIBOR remains subject to court approval.

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 have opposed. The parties have reached an agreement in principle to settle this action, subject to final documentation and court approval.

Shareholder Litigation. Several shareholder putative class actions, as well as shareholder derivative actions purporting to act on behalf of JPMorgan Chase, have been filed against JPMorgan Chase, its Board of Directors and certain of its current and former officers.

Certain of these shareholder suits relate to historical trading practices by former employees in the precious metals and U.S. treasuries markets and related conduct which were the subject of JPMorgan Chase's resolutions with the DOJ, CFTC and SEC in September 2020, and fiduciary activities that were separately the subject of a resolution between JPMorgan Chase Bank, N.A. and the OCC in November 2020. One of these shareholder derivative suits was filed in the Supreme Court of the State of New York in May 2022, asserting breach of fiduciary duty and unjust enrichment claims relating to the historical trading practices and related conduct and fiduciary activities which were the subject of the resolutions described above. In December 2022, the court granted defendants' motion to dismiss this action in full, and in January 2023, the plaintiff filed a notice of appeal, which remains pending. A second shareholder derivative action was filed in the United States District Court for the Eastern District of New York in December 2022 relating to the historical trading practices and related conduct, which asserts breach of fiduciary duty and contribution claims and alleges that the shareholder is excused from making a demand to commence litigation because such a demand would have been futile. Defendants have moved to dismiss the complaint. In addition, a consolidated putative class action is pending in the United States District Court for the Eastern District of New York on behalf of shareholders who acquired shares of JPMorgan Chase common stock during the putative class period, alleging that certain SEC filings of JPMorgan Chase were materially false or misleading because they did not disclose certain information relating to the historical trading practices and conduct. Defendants have moved to dismiss the amended complaint in this action.

A separate shareholder derivative suit was filed in March 2022 in the United States District Court for the Eastern District of New York asserting breaches of fiduciary duty and violations of federal securities laws based on the alleged failure of the Board of Directors to exercise adequate oversight over JPMorgan Chase's compliance with records preservation requirements which were the subject of resolutions between certain of JPMorgan Chase's subsidiaries and the SEC and the CFTC. Defendants' motion to dismiss the amended complaint is pending.

Two shareholder derivative suits were filed in May and June 2023, respectively, in the United States District Court for the Southern District of New York asserting breaches of fiduciary duty and unjust enrichment based on the alleged failure of the Board of Directors and James Dimon to exercise adequate oversight with respect to JPMorgan Chase's provision of banking services to Jeffrey Epstein. These actions allege that the shareholders are excused from making a demand to commence litigation because such a demand would have been futile. These actions were consolidated and defendants have moved to dismiss the amended complaint filed by the plaintiffs.

* * *

In addition to the various legal proceedings discussed above, JPMorgan Chase and its subsidiaries, including in certain cases, JPMorgan Chase Bank, N.A., are named as defendants or are otherwise involved in a substantial number of other legal proceedings. JPMorgan Chase and JPMorgan Chase Bank, N.A., each believe 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.

JPMorgan Chase Bank, N.A. has established reserves for several hundred of its currently outstanding legal proceedings. In accordance with the provisions of U.S. GAAP for contingencies, JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A. 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. JPMorgan Chase Bank, N.A.'s legal expense was $516 million and $48 million for the six months ended June 30, 2023 and 2022, respectively. Where a particular litigation matter involves one or more subsidiaries or affiliates of JPMorgan Chase, JPMorgan Chase determines the appropriate allocation of legal expense among those subsidiaries or affiliates (including, where applicable, JPMorgan Chase Bank, N.A.). There is no assurance that JPMorgan Chase Bank N.A.'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, JPMorgan Chase Bank N.A. 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 Bank N.A. 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 JPMorgan Chase Bank N.A.'s consolidated financial condition. JPMorgan Chase Bank N.A. 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 Bank, N.A'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 Bank, N.A.'s income for that period.

Note 27 – Business combinations

On May 1, 2023, JPMorgan Chase Bank, National Association acquired certain assets and assumed certain liabilities of First Republic Bank (the "First Republic acquisition") from the Federal Deposit Insurance Corporation ("FDIC"), as receiver, for $67.9 billion resulting in an estimated bargain purchase gain of $2.7 billion recorded in other income. The estimated bargain purchase gain represents the excess of the estimated fair value of the net assets acquired above the purchase price. The First Republic acquisition further advances the Bank's wealth management strategy and is complementary to the Bank's existing franchises.

The Bank has determined that this acquisition constitutes a business combination under U.S. GAAP. Accordingly, the initial recognition of the assets acquired and liabilities assumed were generally measured at their estimated fair values as of May 1, 2023. The determination of those fair values required management to make certain market-based assumptions about expected future cash flows, discount rates and other valuation inputs at the time of the acquisition. The Bank believes that the fair value estimates of the assets acquired and liabilities assumed provide a reasonable basis for determining the estimated bargain purchase gain.

The Bank and the FDIC have not yet completed the settlement process under which the purchase price, and the identification of the assets acquired and liabilities assumed, will be finalized. The finalization of this settlement process may impact the amount of the estimated bargain purchase gain. The purchase and assumption agreement entered into with the FDIC allows for final settlement to occur up to a year after the acquisition date.

In addition, the purchase price and the estimated bargain purchase gain could change pending management's finalization of its acquisition date fair value estimates for certain of the assets acquired and liabilities assumed (such as loans and commitments, intangible assets and leases), which may take place up to one year from the acquisition date, as permitted by U.S. GAAP.

In connection with the First Republic acquisition, the Bank and the FDIC entered into two shared-loss agreements with respect to certain loans and lending-related commitments (the "shared-loss assets"): the Commercial Shared-Loss Agreement ("CSLA") and the Single-Family Shared-Loss Agreement ("SFSLA"). The CSLA covers 80% of credit losses, on a pari-passu basis, over 5 years with a subsequent 3-year recovery period for certain acquired commercial loans and other real estate exposure. The SFSLA covers 80% of credit losses, on a pari-passu basis, for 7 years for certain acquired loans secured by mortgages on real property or shares in cooperative property constituting a primary residence. The indemnification assets which represent the fair value of the CSLA and SFSLA are reflected in the total assets acquired.

As part of the consideration paid, JPMorgan Chase Bank, N.A. issued a five-year, $50.0 billion secured note to the FDIC (the "Purchase Money Note"). The Purchase Money Note bears interest at a fixed rate of 3.4% and is secured by certain of the acquired loans. The Purchase Money Note is prepayable upon notice to the FDIC.

The Bank had placed a $5.0 billion deposit with First Republic Bank on March 16, 2023, as part of $30.0 billion of deposits provided by a consortium of large U.S. banks. The Bank's $5.0 billion deposit was effectively settled as part of the acquisition and the associated allowance for credit losses was released upon closing. The Bank subsequently repaid the remaining $25.0 billion of deposits to the consortium of banks, including accrued interest through the payment date on May 9, 2023.

The computation of the purchase price, the estimated fair value of the assets acquired and liabilities assumed as part of the First Republic acquisition and the related estimated bargain purchase gain are presented below.

(in millions)		Fair value purchase price allocation as of May 1, 2023
Purchase price consideration		
Amounts paid/due to the FDIC, net of cash acquired[(a)]	$	13,589
Purchase Money Note (at fair value)		48,848
Settlement of First Republic deposit and other related party transactions[(b)]		5,447
Contingent consideration - Shared-loss agreements		15
Purchase price consideration	$	67,899
Assets		
Securities	$	30,285
Loans		152,335
Core deposit and customer relationship intangibles		1,462
Indemnification assets - Shared-loss agreements		675
Accounts receivable and other assets[(c)]		7,551
Total assets acquired	$	192,308
Liabilities		
Deposits	$	87,507
FHLB advances		27,919
Lending-related commitments		2,409
Accounts payable and other liabilities[(c)]		3,006
Deferred tax liabilities		856
Total liabilities assumed	$	121,697
Fair value of net assets acquired	$	70,611
Estimated gain on acquisition, after income taxes	$	2,712

(a) Includes $10.6 billion of cash paid to the FDIC at acquisition and $3.7 billion payable to the FDIC, less cash acquired of $680 million.
(b) Includes $447 million of securities financing transactions with First Republic Bank that were effectively settled on the acquisition date.
(c) Other assets include $1.2 billion in tax-oriented investments and $756 million of lease right-of-use assets. Other liabilities include the related tax-oriented investment liabilities of $669 million and lease liabilities of $756 million. Refer to Note 15 and Note 18 for additional information.

The issuance of the $50 billion Purchase Money Note, the effective settlement of the Bank's $5 billion deposit and $447 million of securities financing with First Republic Bank, and the $3.7 billion payable to the FDIC as part of the purchase price consideration are considered non-cash transactions.

The following describes the accounting policies and fair value methodologies generally used by the Bank for the following assets acquired and liabilities assumed: core deposit and customer relationship intangibles, shared-loss agreements and the related indemnification assets, Purchase Money Note, and FHLB advances.

Refer to JPMorgan Chase Bank, N.A.'s 2022 Annual Financial Statements for a discussion of the Bank's accounting policies and valuation methodologies for securities, loans, deposits, and lending-related commitments.

Core deposit and customer relationship intangibles

Core deposit and certain wealth management customer relationship intangibles were acquired as part of the First Republic transaction. The core deposit intangible of $1.3 billion was valued by discounting estimated after-tax cost savings over the remaining useful life of the deposits using the favorable source of funds method. The after-tax cost savings were estimated based on the difference between the cost of maintaining the core deposit base relative to the cost of next best alternative funding sources available to market participants. The customer relationship intangibles of $187 million were valued by discounting estimated after-tax earnings over their remaining useful lives using the multi-period excess earnings method. Both intangible asset valuations utilized assumptions that the Bank believes a market participant would use to estimate fair values, such as growth and attrition rates, projected fee income as well as related costs to service the relationships, and discount rates. The core deposit and customer relationship intangibles will be amortized over a projected period of future cash flows of approximately 7 years.

Indemnification assets - Shared-loss agreements

The indemnification assets represent forecasted recoveries from the FDIC associated with the shared-loss assets over the respective shared loss recovery periods. The indemnification assets were recorded at fair value in other assets on the Consolidated balance sheets on the acquisition date. The fair values of the indemnification assets were estimated based on the timing of the forecasted losses underlying the related allowance for credit losses. The subsequent quarterly remeasurement of the indemnification assets will be based on changes in amount and timing of forecasted losses in the allowance for credit losses associated with the shared loss assets and will be recorded in other income. Under certain circumstances, the Bank may be required to make a payment to the FDIC upon termination of the shared-loss agreements based on the level of actual losses and recoveries on the shared-loss assets. The estimated potential future payment is reflected as contingent consideration as part of the purchase price consideration.

Purchase Money Note and FHLB advances

The Purchase Money Note is recorded in long-term debt on the Consolidated balance sheets. The fair value of the Purchase Money Note was estimated based on a discounted cash flow methodology and incorporated estimated market discount rates.

The FHLB advances assumed in the acquisition are recorded in short-term borrowings and in long-term debt. The fair value of the FHLB advances was based on a discounted cash flow methodology and considered the observed FHLB advance issuance rates.

Loans

The following table presents the unpaid principal balance and estimated fair value of the loans acquired as of May 1, 2023.

	May 1, 2023	
(in millions)	UPB	Fair value
Residential real estate	$ 106,240	$ 91,906
Auto and other	3,092	2,031
Total consumer	109,332	93,937
Secured by real estate	37,119	33,605
Commercial & industrial	4,333	3,933
Other	22,597	20,860
Total wholesale	64,049	58,398
Total loans	$ 173,381	$ 152,335

Unaudited pro forma condensed combined financial information

Included in the Bank's Consolidated statements of income are noninterest revenue, net interest income and net income contributed by First Republic since the acquisition date of May 1, 2023 of $3.1 billion, $897 million and $2.4 billion, respectively, for the six months ended June 30, 2023.

The following table presents certain unaudited pro forma financial information for the six months ended June 30, 2023 and 2022 as if the First Republic acquisition had occurred on January 1, 2022, including recognition of the estimated bargain purchase gain of $2.7 billion and the provision for credit losses of $1.2 billion. Additional adjustments include the interest on the Purchase Money Note and the impact of amortizing and accreting certain estimated fair value adjustments related to intangible assets and loans.

The Bank expects to achieve operating cost savings and other business synergies resulting from the acquisition that are not reflected in the pro forma amounts. The pro forma information is not necessarily indicative of the historical results of operations had the acquisition occurred on January 1, 2022, nor is it indicative of the results of operations in future periods, particularly in light of recent changes in market and economic conditions.

	Six months ended June 30,	
(in millions)	2023	2022
Noninterest revenue	**$ 27,180**	$ 29,545
Net interest income	**46,307**	31,037
Net income	**25,345**	16,252

Note 28 – Business changes and developments

Subsequent events

JPMorgan Chase Bank, N.A. has performed an evaluation of events that have occurred subsequent to June 30, 2023, and through August 3, 2023 (the date the financial statements were available to be issued). Other than the events indicated below, there have been no material subsequent events that occurred during such period that would require disclosure or recognition in JPMorgan Chase Bank, N.A.'s Consolidated Financial Statements as of June 30, 2023.

Dividend payment

On July 12, 2023, the Bank paid an $8.0 billion dividend to its parent JPMorgan Chase & Co.

Basel III Finalization

In July 2023, the Federal Reserve, the OCC and the FDIC released a proposal to amend the risk-based capital framework, entitled “Regulatory capital rule: Amendments applicable to large banking organizations and to banking organizations with significant trading activity”. Under the proposal, the advanced approach would be replaced by the expanded risk-based approach, which does not permit the use of internal models for the calculation of risk-weighted assets, other than for Market Risk. In addition, the stress capital buffer requirement would be applicable to both the expanded risk-based approach and the standardized approach. The proposal would significantly revise risk-based capital requirements for all banks with assets of $100 billion or more, including U.S. GSIBs. The proposed effective date is July 1, 2025 with a three year transition period applicable to the expanded risk-based approach. The proposal is open for comment until November 30, 2023.

Report of Independent Auditors

To the Board of Directors and Stockholder of JPMorgan Chase Bank, National Association:

Results of Review of Interim Financial Information
We have reviewed the accompanying consolidated interim financial information of JPMorgan Chase Bank, National Association and its subsidiaries (the "Bank"), which comprise the consolidated balance sheet as of June 30, 2023, and the related consolidated statements of income, comprehensive income, changes in stockholder's equity and cash flows for the six-month periods ended June 30, 2023 and 2022, including the related notes (collectively referred to as the "consolidated interim financial information").

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated interim financial information for it to be in accordance with accounting principles generally accepted in the United States of America.

Basis for Review Results
We conducted our review in accordance with auditing standards generally accepted in the United States of America (US GAAS) applicable to reviews of interim financial information. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. A review of interim financial information is substantially less in scope than an audit conducted in accordance with US GAAS, the objective of which is an expression of an opinion regarding the financial information as a whole, and accordingly, we do not express such an opinion. We are required to be independent of the Company and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our review. We believe that the results of the review procedures provide a reasonable basis for our conclusion.

Responsibilities of Management for the Consolidated Interim Financial Information
Management is responsible for the preparation and fair presentation of the consolidated interim financial information in accordance with accounting principles generally accepted in the United States of America and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the consolidated interim financial information that is free from material misstatement, whether due to fraud or error.

Other Matter
We previously audited, in accordance with auditing standards generally accepted in the United States of America, the consolidated balance sheet of JPMorgan Chase Bank, National Association and its subsidiaries as of December 31, 2022, and the related consolidated statements of income, comprehensive income, changes in stockholder's equity and of cash flows for the year then ended (not presented herein), and in our report dated February 21, 2023, which included a paragraph describing a change in the manner of accounting for credit losses on certain financial instruments in 2020, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet information as of December 31, 2022, is consistent, in all material respects, with the audited consolidated balance sheet from which it has been derived.

PricewaterhouseCoopers LLP

August 3, 2023

PricewaterhouseCoopers LLP, 300 Madison Avenue, New York, NY 10017

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

Amortized cost: Amount at which a financing receivable or investment is originated or acquired, adjusted for accretion or amortization of premium, discount, and net deferred fees or costs, collection of cash, charge-offs, foreign exchange, and fair value hedge accounting adjustments. For AFS securities, amortized cost is also reduced by any impairment losses recognized in earnings. Amortized cost is not reduced by the allowance for credit losses, except where explicitly presented net.

AOCI: Accumulated other comprehensive income/(loss)

BBL: Barrel

Beneficial interests issued by consolidated VIEs: represents the interest of third-party holders of debt, equity securities, or other obligations, issued by VIEs that the Bank consolidates.

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.

CDS: Credit default swaps

CECL: Current Expected Credit Losses

CET1 capital: Common equity Tier 1 capital

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.

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.

DVA: Debit valuation adjustment

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.

Fannie Mae: Federal National Mortgage Association

FASB: Financial Accounting Standards Board

FDIC: Federal Deposit Insurance Corporation

FDM: "Financial difficulty modification" applies to loan modifications effective January 1, 2023, and is deemed to occur when the Bank modifies specific terms of the original loan agreement. The following types of modifications are considered FDMs: principal forgiveness, interest rate reduction, other-than-insignificant payment delay, term extension or a combination of these modifications.

Federal Reserve: The Board of the Governors of the Federal Reserve System

FHA: Federal Housing Administration

FHLB: Federal Home Loan Bank

FICC: Fixed Income Clearing Corporation

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.

Freddie Mac: Federal Home Loan Mortgage Corporation

Free-standing derivatives: is a derivative contract entered into either separate and apart from any of the Bank’s other financial instruments or equity transactions. Or, in conjunction with some other transaction and is legally detachable and separately exercisable.

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

HELOC: Home equity line of credit

Home equity – senior lien: represents loans and commitments where the Bank holds the first security interest on the property.

Home equity – junior lien: represents loans and commitments where the Bank holds a security interest that is subordinate in rank to other liens.

HTM: Held-to-maturity

Investment-grade: An indication of credit quality based on the Bank'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.

ISDA: International Swaps and Derivatives Association

JPMorgan Chase: JPMorgan Chase & Co.

JPMorgan Chase Bank, N.A.: JPMorgan Chase Bank, National Association

JPMSE: J.P. Morgan SE

LIBOR: London Interbank Offered Rate

LLC: Limited Liability Company

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.

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

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.

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 Bank's Alt-A loans are those where a borrower does not provide complete documentation of his or her assets or the amount or source of his or her income.

Option ARMs

The option ARM real estate loan product is an adjustable-rate mortgage loan that provides the borrower with the option each month to make a fully amortizing, interest-only or minimum payment. The minimum payment on an option ARM loan is based on the interest rate charged during the introductory period. This introductory rate is usually significantly below the fully indexed rate. The fully indexed rate is calculated using an index rate plus a margin. Once the introductory period ends, the contractual interest rate charged on the loan increases to the fully indexed rate and adjusts monthly to reflect movements in the index. The minimum payment is typically insufficient to cover interest accrued in the prior month, and any unpaid interest is deferred and added to the principal balance of the loan. Option ARM loans are subject to payment recast, which converts the loan to a variable-rate fully amortizing loan upon meeting specified loan balance and anniversary date triggers.

Prime

Prime mortgage loans are made to borrowers with good credit records who meet specific underwriting requirements, including prescriptive requirements related to income and overall debt levels. New prime mortgage borrowers provide full documentation and generally have reliable payment histories.

Subprime

Subprime loans are loans that, prior to mid-2008, were offered to certain customers with one or more high risk characteristics, including but not limited to: (i) unreliable or poor payment histories; (ii) a high LTV ratio of greater than 80% (without borrower-paid mortgage insurance); (iii) a high debt-to-income ratio; (iv) an occupancy type for the loan is other than the borrower's primary residence; or (v) a history of delinquencies or late payments on the loan.

MSA: Metropolitan statistical areas

MSR: Mortgage servicing rights

MT: Metric tons

NA: Data is not applicable or available for the period presented.

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 Bank 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.

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.

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.

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 Bank is willing to buy a financial or other instrument and the price at which the Bank 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 Bank 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.

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 Bank.

PPP: Paycheck Protection Program under the Small Business Association ("SBA")

PSU(s): Performance share units

Retained loans: Loans that are held-for-investment (i.e. excludes loans held-for-sale and loans at fair value).

RHS: Rural Housing Service of the U.S. Department of Agriculture

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.

Scored portfolios: Consumer loan portfolios that predominantly include residential real estate loans, credit card loans, auto loans to individuals and certain small business loans.

S&P: Standard and Poors

SAR(s): Stock appreciation rights

SEC: U.S. Securities and Exchange Commission

SLR: Supplementary leverage ratio

SOFR: Secured Overnight Financing Rate

SPEs: Special purpose entities

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.

TDR: "Troubled debt restructuring" applies to loan modifications granted prior to January 1, 2023 and is deemed to occur when the Bank 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.

U.K.: United Kingdom

Unaudited: Financial statements and/or information that have not been subject to auditing procedures by an independent registered public accounting firm.

U.S.: United States of America

U.S. government agencies: U.S. government agencies include, but are not limited to, agencies such as Ginnie Mae and FHA, and do not include Fannie Mae and Freddie Mac which are U.S. government-sponsored enterprises ("U.S. GSEs"). In general, obligations of U.S. government agencies are fully and explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government in the event of a default.

U.S. GAAP: Accounting principles generally accepted in the United States of America.

U.S. GSE(s): "U.S. government-sponsored enterprises" are quasi-governmental, privately-held entities established or chartered by the U.S. government to serve public purposes as specified by the U.S. Congress to improve the flow of credit to specific sectors of the economy and provide certain essential services to the public. U.S. GSEs include Fannie Mae and Freddie Mac, but do not include Ginnie Mae or FHA. U.S. GSE obligations are not explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government.

U.S. Treasury: U.S. Department of the Treasury

VA: U.S. Department of Veterans Affairs

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.