JPMorgan Chase & Co.

2023 Annual Dodd-Frank Act Stress Test Results Disclosure

June 30, 2023

Agenda

Overview

This 2023 Annual Dodd-Frank Act Stress Test Results Disclosure presents the results of the annual stress test conducted by JPMorgan Chase & Co. ("JPMorgan Chase" or the "Firm") as required under the rules of the Board of Governors of the Federal Reserve System (the "Federal Reserve") that implement the Dodd-Frank Act Stress Test ("DFAST") requirements ("DFAST Rule"). The results reflect certain forecasted financial measures for the nine-quarter projection period (1Q23 through 1Q25) under the Supervisory Severely Adverse Scenario prescribed by the Federal Reserve. The stress test has been conducted in accordance with the regulations and other requirements of the Federal Reserve.

The results represent hypothetical estimates under the Supervisory Severely Adverse Scenario prescribed by the Federal Reserve on February 9, 2023 and do not represent JPMorgan Chase's forecasts of actual expected gains, losses, pre-provision net revenue ("PPNR"), net income before taxes, capital, risk-weighted assets ("RWA"), or capital ratios.

The results were calculated using forecasting models and methodologies developed by JPMorgan Chase. The Federal Reserve conducts its own stress tests of large banks, including JPMorgan Chase, based on forecasting models and methodologies developed by the Federal Reserve. Because the models and methodologies utilized by the Firm and the Federal Reserve are different, the results separately published by the Federal Reserve[1] may vary from those disclosed in this report. JPMorgan Chase may not be able to explain the differences between the results published in this report and the results published by the Federal Reserve. This report does not include information on the Firm's 2023 Stress Capital Buffer ("SCB") requirement, which will be published by the Federal Reserve by August 31, 2023.

JPMorgan Chase's results reflect the standardized set of capital action assumptions that are specified in the Federal Reserve's DFAST Rule[2] for each quarter of the projection period, as follows:

- No dividends on any instruments that qualify as common equity tier 1 capital ("CET1");
- Payments on instruments that qualify as additional tier 1 capital or tier 2 capital equal to the stated dividend, interest, or principal due on such instrument;
- No redemption or repurchase of any capital instrument that is eligible for inclusion in the numerator of a regulatory capital ratio; and
- No issuances of common stock or preferred stock

A strong capital position is essential to the Firm's business strategy and competitive position. Maintaining a strong balance sheet to manage through economic volatility is considered a strategic imperative of the Firm's Board of Directors, Chief Executive Officer and Operating Committee. Capital adequacy and stress testing is subject to oversight at the most senior levels of the Firm, including the Firm's Board of Directors. The annual DFAST Stress Test is subject to a governance framework, which includes oversight by the Board of Directors, the Firmwide Asset and Liability Committee, the Capital Governance Committee, the Firmwide and line of business ("LOB") Chief Financial Officers and Chief Risk Officers, Model Risk Governance and Review, and Internal Audit.

[1] https://www.federalreserve.gov/publications/files/2023-dfast-results-20230628.pdf
[2] 12 CFR 252.56(b)

2023 Supervisory Severely Adverse Scenario highlights

The scenario is characterized by a severe global recession accompanied by a period of heightened stress in both commercial and residential real estate markets, as well as corporate debt markets

KEY ECONOMIC VARIABLES IN THE SUPERVISORY SEVERELY ADVERSE SCENARIO PRESCRIBED BY THE FEDERAL RESERVE[1]

- **U.S. real GDP** – GDP declines 8.7% to its trough in the first quarter of 2024
- **U.S. unemployment rate** – Unemployment rate increases by 6.4% to a peak level of 10.0% in the third quarter of 2024
- **U.S. inflation** – The annualized rate of change in the Consumer Price Index (“CPI”) decreases from 3.1% in the fourth quarter of 2022 to 1.3% in the third quarter of 2023
- **Real estate prices** – House prices decline 37.9% through the third quarter of 2024 relative to their level in the fourth quarter of 2022; commercial real estate prices decline by 40.0% by the fourth quarter of 2024 relative to their level in the fourth quarter of 2022
- **Equity markets** – Equity prices decline by 45.0% through the fourth quarter of 2023; equity market volatility peaks in the second quarter of 2023
- **Treasury rates** – Short-term Treasury rates fall to 0.1% by the third quarter of 2023 and remain there for the remainder of the scenario; long-term Treasury rates drop from 3.9% in the fourth quarter of 2022 to 0.8% in the second quarter of 2023, gradually recovering to 1.3% by the first quarter of 2025
- **Mortgage rates** – The spread between 30-year mortgage rates and long-term Treasury rates widens to 3.0 percentage points by the third quarter of 2023, narrowing to 2.0 percentage points by the first quarter of 2025
- **Credit spreads** – The spread between yields on BBB corporate bonds and yields on long-term Treasury securities widens 360bps to a peak of 580bps in the fourth quarter of 2023
- **International** – The scenario features sharp slowdowns starting in the first quarter of 2023 in all developed country blocs, leading to recessions in the Euro area, the United Kingdom, and Japan

ADDITIONAL COMPONENTS[2]

- The Firm is also tested against the following additional, add-on components as part of the 2023 Supervisory Severely Adverse Scenario:
  - **Global market shock –** set of hypothetical shocks to a large set of risk factors which stress trading, private equity, and certain other fair-valued positions
  - **Counterparty default –** involves the unexpected default of the Firm’s largest counterparty determined by net stressed losses

[1] For the full scenario description and a complete set of economic variables provided by the Federal Reserve, see Board of Governors of the Federal Reserve System “Federal Reserve Board releases hypothetical scenarios for its 2023 bank stress tests” (February 9, 2023) https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20230209a1.pdf
[2] As prescribed by the Federal Reserve, the "as-of" date for the 2023 Annual Stress Test global market shock, exploratory market shock, and counterparty default components can be any date during the business week of October 14, 2022

Agenda

DFAST results under the Supervisory Severely Adverse Scenario

Capital and RWA projections – JPMorgan Chase

FIRM-CALCULATED PROJECTED STRESSED CAPITAL RATIOS[1,2] (1Q23 – 1Q25)

			Stressed capital ratios	
	Actual 4Q22	Regulatory minimum[3]	1Q25	Minimum[4]
Common equity tier 1 capital ratio (%)	13.2%	4.5%	11.9%	11.3%
Tier 1 risk-based capital ratio (%)	14.9%	6.0%	13.5%	12.8%
Total risk-based capital ratio (%)	16.8%	8.0%	15.3%	14.6%
Tier 1 leverage ratio (%)	6.6%	4.0%	6.2%	6.1%
Supplementary leverage ratio (%)	5.6%	3.0%	5.2%	5.2%

FIRM-CALCULATED PROJECTED RISK-WEIGHTED ASSETS

	Actual 4Q22	Projected 1Q25
Basel III Standardized risk-weighted assets ($B)	$1,654	$1,691

[1] Risk-based capital ratios and Tier 1 leverage ratio were calculated under the Basel III Standardized rules. The supplementary leverage ratio ("SLR") was calculated under the Basel III Advanced rules. For additional information on Basel III, refer to Capital Risk Management on pages 86-96 and Note 27 on pages 274-275 of JPMorgan Chase's Annual Report on Form 10-K for the year ended December 31, 2022 ("2022 Form 10-K")
[2] The capital metrics include the impact of the Current Expected Credit Losses ("CECL") capital transition provisions. Refer to Capital Risk Management pages 86-96 of JPMorgan Chase's 2022 Form 10-K
[3] Represents minimum requirements applicable to the Firm excluding regulatory capital buffers
[4] The minimum capital ratio represents the lowest calculated stressed risk-based and leverage-based capital ratios during the period 1Q23 to 1Q25

DFAST results under the Supervisory Severely Adverse Scenario

Profit & loss projections – JPMorgan Chase

FIRM-CALCULATED 9-QUARTER CUMULATIVE PROJECTED PPNR, LOSSES, NET INCOME BEFORE TAXES, AND OTHER COMPREHENSIVE INCOME (1Q23 – 1Q25)

	Billions of dollars	Percent of average assets[6]
Pre-provision net revenue	$78.1	2.1 %
equals		
Net interest income	153.0	4.1
Noninterest income	109.1	3.0
less		
Noninterest expense[1]	184.0	5.0
Other revenue[2]	0.0	
less		
Provision for credit losses	82.0	
Trading and counterparty losses[3]	20.7	
Other losses/(gains)[4]	4.1	
equals		
Net income/(loss) before taxes	**$(28.7)**	**(0.8) %**
Memo items		
Other comprehensive income[5]	*$12.1*	
Other effects on capital	*Actual 4Q22*	*1Q25*
Accumulated other comprehensive income ("AOCI") in capital (billions of dollars)	*$(11.7)*	*$0.4*

[1] Noninterest expense includes losses from operational-risk events and other real estate owned costs
[2] Other revenue includes one-time income and expense items not included in PPNR
[3] Trading and counterparty losses include mark-to-market (“MTM”) and credit valuation adjustment ("CVA") losses resulting from the assumed instantaneous global market shock, and losses arising from the counterparty default scenario component applied to derivatives, securities lending, and repurchase agreement activities
[4] Other losses/(gains) includes projected changes in fair value of loans held-for-sale ("HFS"), loans accounted for under the fair value option ("FVO"), equity securities not held for trading, and hedges on loans measured at amortized cost
[5] Other comprehensive income is reported on a post-tax basis and includes net unrealized losses/(gains) on (a) available-for-sale (“AFS”) investment securities and (b) net losses and prior service costs related to defined benefit pension and other postretirement employee benefit (“OPEB”) plans
[6] Average assets is the nine-quarter average of total assets

DFAST results under the Supervisory Severely Adverse Scenario

Loan loss projections – JPMorgan Chase

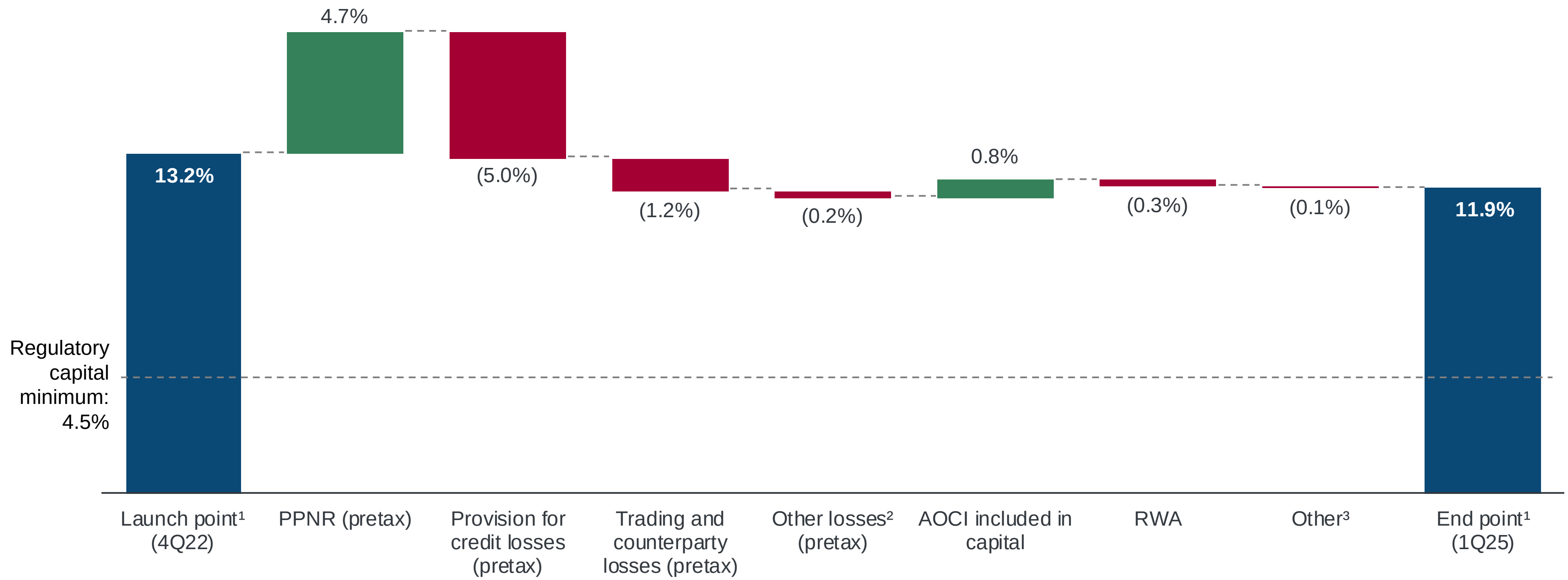
FIRM-CALCULATED 9-QUARTER CUMULATIVE PROJECTED LOAN LOSSES, BY TYPE OF LOAN (1Q23 – 1Q25)

Loan type	Billions of dollars	Portfolio loss rates (%)[4]
First lien mortgages, domestic	$3.7	1.8 %
Junior liens and home equity lines of credit, domestic	0.5	3.1
Commercial & industrial[1]	21.0	10.5
Commercial real estate, domestic	2.4	2.1
Credit cards	21.4	13.1
Other consumer[2]	1.6	2.1
Other[3]	7.4	2.4
Total projected loan losses	**$58.1**	**5.4 %**

Note: Numbers may not sum due to rounding
1 Includes small and medium enterprise loans and corporate cards
2 Includes auto loans and other consumer loans
3 Includes international real estate loans, loans secured by farmland, loans to foreign governments, agricultural loans, securities lending, loans to depository and other financial institutions, and all other loans and leases
4 Portfolio loss rates are calculated by taking the cumulative losses over the nine-quarter projection period (i.e., 1Q23 to 1Q25) divided by the nine-quarter average loan balances excluding loans HFS and loans accounted for under the FVO

Key drivers of JPMorgan Chase’s pro forma CET1 ratio

FIRM-CALCULATED CET1 RATIO UNDER SUPERVISORY SEVERELY ADVERSE SCENARIO ($B)

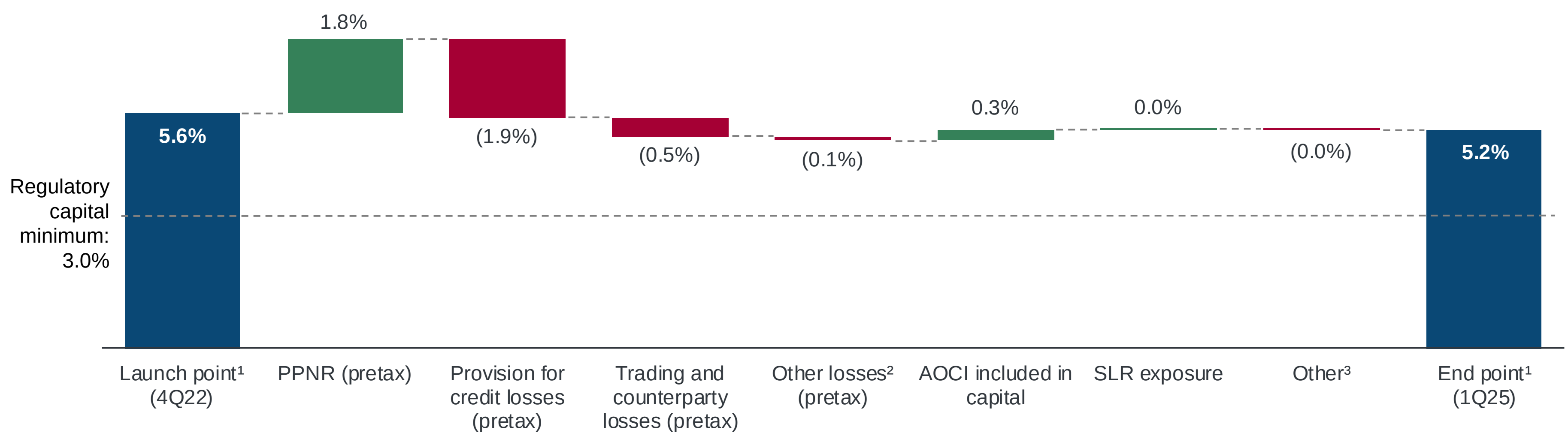


	Launch point[1] (4Q22)	PPNR (pretax)	Provision for credit losses (pretax)	Trading and counterparty losses (pretax)	Other losses[2] (pretax)	AOCI included in capital	RWA	Other[3]	End point[1] (1Q25)
CET1 capital	$219	$78	$(82)	$(21)	$(4)	$12		$(1)	$202
RWA	$1,654						$37		$1,691

Note: Numbers may not sum due to rounding
[1] 4Q22 and 1Q25 reflect end-of-period amounts. Other amounts represent the cumulative nine-quarter impact for 1Q23 to 1Q25
[2] Includes projected changes in fair value of loans HFS, loans accounted for under the FVO, equity securities not held for trading, and hedges on loans measured at amortized cost
[3] Includes preferred stock dividends, income tax expense/(benefit), goodwill and intangibles net of related deferred tax liabilities, and other capital deductions

Key drivers of JPMorgan Chase's pro forma SLR

FIRM-CALCULATED SLR UNDER SUPERVISORY SEVERELY ADVERSE SCENARIO ($B)



	Launch point (4Q22)	PPNR (pretax)	Provision for credit losses (pretax)	Trading and counterparty losses (pretax)	Other losses (pretax)	AOCI included in capital	SLR exposure	Other	End point (1Q25)
Tier 1 capital	$246	$78	$(82)	$(21)	$(4)	$12		$(1)	$228
SLR exposure	$4,367						($3)		$4,364

[1] 4Q22 and 1Q25 reflect end-of-period amounts. Other amounts represent the cumulative nine-quarter impact for 1Q23 to 1Q25
[2] Includes projected changes in fair value of loans HFS, loans accounted for under the FVO, equity securities not held for trading, and hedges on loans measured at amortized cost
[3] Includes preferred stock dividends, income tax expense/(benefit), goodwill and intangibles net of related deferred tax liabilities, and other capital deductions

Agenda

DFAST results under the Supervisory Severely Adverse Scenario

Capital projections – JPMorgan Chase Bank, N.A. (JPMCB)[1]

JPMCB-CALCULATED PROJECTED STRESSED CAPITAL RATIOS[2,3] (1Q23 – 1Q25)

	Actual 4Q22	Regulatory minimum[4]	Stressed capital ratios	
			1Q25	Minimum[5]
Common equity tier 1 capital ratio (%)	16.9%	4.5%	15.1%	14.5%
Tier 1 risk-based capital ratio (%)	16.9%	6.0%	15.1%	14.5%
Total risk-based capital ratio (%)	18.1%	8.0%	16.2%	15.7%
Tier 1 leverage ratio (%)	8.3%	4.0%	7.6%	7.6%
Supplementary leverage ratio (%)	6.9%	3.0%	6.3%	6.3%

[1] For the full scenario description and instructions provided by the OCC, see https://www.occ.treas.gov/publications-and-resources/forms/dodd-frank-act-stress-test/index-dodd-frank-act-stress-test.html
[2] Risk-based capital ratios and Tier 1 leverage ratio were calculated under the Basel III Standardized rules. The SLR was calculated under the Basel III Advanced rules. For additional information on Basel III, refer to Capital Risk Management on pages 86-96 and Note 27 on pages 274-275 of JPMorgan Chase's 2022 Form 10-K
[3] The capital metrics include the impact of the Current Expected Credit Losses ("CECL") capital transition provisions. Refer to Capital Risk Management pages 86-96 of JPMorgan Chase's 2022 Form 10-K
[4] Represents minimum requirements applicable to the Firm excluding regulatory capital buffers
[5] The minimum capital ratio represents the lowest calculated stressed risk-based and leverage-based capital ratios during the period 1Q23 to 1Q25

DFAST results under the Supervisory Severely Adverse Scenario

Profit & loss projections – JPMorgan Chase Bank, N.A. (JPMCB)

JPMCB-CALCULATED 9-QUARTER CUMULATIVE PROJECTED PPNR, LOSSES, NET INCOME BEFORE TAXES, AND OTHER COMPREHENSIVE INCOME (1Q23 – 1Q25)

	Billions of dollars	Percent of average assets[6]
Pre-provision net revenue	$76.5	2.4 %
equals		
Net interest income	164.2	5.1
Noninterest income	80.1	2.5
less		
Noninterest expense[1]	167.8	5.2
Other revenue[2]	0.0	
less		
Provision for credit losses	81.9	
Trading and counterparty losses[3]	12.7	
Other losses/(gains)[4]	4.0	
equals		
Net income/(loss) before taxes	**$(22.0)**	**(0.7) %**
Memo items		
Other comprehensive income[5]	*$12.4*	
Other effects on capital	*Actual 4Q22*	*1Q25*
Accumulated other comprehensive income ("AOCI") in capital (billions of dollars)	*$(12.3)*	*$0.1*

Note: Numbers may not sum due to rounding

[1] Noninterest expense includes losses from operational-risk events and other real estate owned costs

[2] Other revenue includes one-time income and expense items not included in PPNR

[3] Trading and counterparty losses include MTM and CVA losses resulting from the assumed instantaneous global market shock, and losses arising from the counterparty default scenario component applied to derivatives, securities lending, and repurchase agreement activities

[4] Other losses/(gains) includes losses/(gains) associated with loans HFS, loans accounted for under the FVO, equity securities not held for trading, and hedges on loans measured at amortized cost

[5] Other comprehensive income is reported on a post-tax basis and includes net unrealized losses/gains on (a) AFS investment securities and (b) net losses and prior service costs related to defined benefit pension and OPEB plans

[6] Average assets is the nine-quarter average of total assets

Agenda

Key risks addressed in capital adequacy assessment projections

The below risks, categorized across four key risk types, represent risks inherent in JPMorgan Chase's business activities. The results of the Firm's capital stress tests reflect risks from each of these categories:

Risk types	Definition

Strategic	• **Strategic risk** is the risk to earnings, capital, liquidity or reputation[1] associated with poorly designed or failed business plans or inadequate response to changes in the operating environment
	  ○ **Capital risk** is the risk the Firm has an insufficient level or composition of capital to support the Firm's business activities and associated risks during normal economic environments and under stressed conditions
	  ○ **Liquidity risk** is the risk that the Firm will be unable to meet its contractual and contingent financial obligations as they arise or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities

Credit and investment	• **Credit and investment risk** is the risk associated with the default or change in credit profile of a client, counterparty or customer; or loss of principal or a reduction in expected returns on investments, including consumer credit risk, wholesale credit risk and investment portfolio risk
	  ○ **Consumer credit risk** is the risk associated with the default or change in credit profile of a customer
	  ○ **Wholesale credit risk** is the risk associated with the default or change in credit profile of a client or counterparty
	  ○ **Investment portfolio risk** is the risk associated with the loss of principal or a reduction in expected returns on investments arising from the investment securities portfolio or from principal investments

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

Operational	• **Operational risk** is the risk of an adverse outcome resulting from inadequate or failed internal processes or systems; human factors; or external events impacting the Firm's processes or systems. It includes compliance, conduct, legal, and estimations and model risk
	  ○ **Compliance risk** is the risk of failing to comply with laws, rules, regulations or codes of conduct and standards of self-regulatory organizations
	  ○ **Conduct risk** is the risk that any action or misconduct by an employee could lead to unfair client or customer outcomes, impact the integrity of the markets in which the Firm operates, harm employees or the Firm, or compromise the Firm's reputation
	  ○ **Legal risk** is the risk of loss primarily caused by the actual or alleged failure to meet legal obligations that arise from the rule of law in jurisdictions in which the Firm operates, agreements with clients and customers, and products and services offered by the Firm
	  ○ **Estimations and model risk** is the potential for adverse consequences from decisions based on incorrect or misused estimation outputs

For additional information on the Firm's risks, see Firmwide Risk Management and the various risk sections on pages 81-148 of JPMorgan Chase's 2022 Form 10-K

[1] Reputational impact is less quantifiable than other risks. Actual losses from historical events that may have impacted the Firm's reputation are captured through the Firm's operational loss forecasting framework; however, the entirety of the reputational impact may not be quantifiable

Key methodologies used in capital adequacy assessment projections

Components	Forecast methodology
PPNR	• Represents total net revenue less noninterest expense; includes operational risk expense and excludes the provision for credit losses • Product-centric models and forecasting frameworks for revenue forecasts are based on JPMorgan Chase's historical experience supplemented by industry data and qualitative model estimation, where appropriate • Granular, LOB-level projections are used for expense forecasts, governed by Firmwide expense reduction guidelines for severe stress environments • Operational risk loss projections utilize multiple approaches. For risks with relatively more frequent losses, the relationship between macroeconomic variables and the Firm's historical loss experience for those risks are utilized to derive loss projections. For idiosyncratic risks with relatively large potential losses, the loss projections rely on subject matter experts' forward-looking assessment of the risk (i.e., scenario analysis, reasonably possible losses)
Provision for credit losses	**Provision on loans and held-to-maturity investment securities** • Projections of net charge-offs, allowances for credit losses, and asset balances are based on the composition and characteristics across asset classes and customer segments of the wholesale and consumer loan portfolios and the held-to-maturity investment securities portfolio and any related hedges • Model-based approach reflects credit migrations and changes in delinquency trends driven by underlying economic factors; additionally, models consider macroeconomic forecasts, characteristics such as credit ratings, geographic distribution, product and industry mix, and collateral type • Utilizes loss experience data relevant to the Firm's asset classes and portfolios **Provision on AFS investment securities** • Projections of losses on AFS positions resulting from credit impairment assumes no investment securities are sold throughout the forecast period • Credit impairment is estimated using credit migration models for non-securitized assets and cash flow simulations for securitized assets
Trading & counterparty losses	• Instantaneous global market shocks with no mitigating actions were applied to trading and counterparty positions as of October 13, 2022; mark-to-market and nine-quarter default losses are reflected in the first quarter of the projection period • Utilizes the existing Firmwide stress framework and models approved for valuation and stress testing to measure the Firm's exposure to changes in the fair value of financial instruments primarily driven by changes in market factors such as credit spreads, equity prices, interest rates, currency rates and commodity prices • Counterparty default assumes the instantaneous and unexpected default of the counterparty which would result in the largest loss across derivatives and securities financing transaction activities after the market shock. In addition, modeled losses related to other traded products and central counterparty clearing exposures are also included

Key methodologies used in capital adequacy assessment projections (cont'd)

Components	Forecast methodology
Other gains/losses	● Projections reflect changes in valuations of HFS loans and commitments pending syndication, as well as loans accounted for under the FVO in the Firm's wholesale loan portfolio and any related hedges ● Projections capture the Firm's exposure to changes in the mark-to-market value of HFS/FVO loans primarily due to credit spreads, default losses and business strategy for the portfolio
RWA	● Projections of risk-weighted assets are calculated under the Basel III Standardized capital risk-based approach ● Credit risk RWA projections utilize forecasted assets, derivatives, and other off-balance sheet items ● Market risk RWA projections reflect relationships between RWA and overall performance of financial markets affected by key macroeconomic drivers using estimation models
AOCI	● AOCI primarily includes the change in unrealized gains and losses on investment securities and the Firm's defined benefit pension and OPEB plans ● Projections are based on estimated changes in value of positions using a combination of full revaluation and sensitivity-based forecasting approaches for AFS investment securities, pension and OPEB plan assets and liabilities
Capital	● Capital projections reflect the standardized set of capital action assumptions that are specified in the Federal Reserve's DFAST Rule

Forward-looking statements

The results presented here contain forward-looking projections that represent estimates based on the hypothetical, severely adverse economic and market scenarios and assumptions under the Supervisory Severely Adverse Scenario prescribed by the Federal Reserve. The stress test results do not represent JPMorgan Chase's forecasts of actual expected gains, losses, pre-provision net revenue, net income before taxes, capital, risk-weighted assets, or capital and leverage ratios. Actual results may differ from those set forth in the forward-looking statements. Factors that could cause JPMorgan Chase & Co.'s actual results to differ materially from those described in the forward-looking statements can be found in JPMorgan Chase & Co.'s Annual Report on Form 10-K for the year ended December 31, 2022, and Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2023, which have been filed with the Securities and Exchange Commission and are available on JPMorgan Chase & Co.'s website (https://jpmorganchaseco.gcs-web.com/ir/sec-other-filings/overview), and on the Securities and Exchange Commission's website (www.sec.gov). JPMorgan Chase & Co. does not undertake to update any forward-looking statements.