2015 DFAST MID-CYCLE STRESS TEST DISCLOSURE

Dodd-Frank Act Stress Test Results
JPMorgan Chase Severely Adverse Scenario

July 21, 2015

JPMorgan Chase & Co.

Agenda

Overview

The 2015 Mid-Cycle Stress Test Disclosure presents results of the mid-cycle stress test conducted by JPMorgan Chase & Co. (“JPMorgan Chase” or the “Firm”) in accordance with the Dodd-Frank Act Stress Test (“DFAST”) requirements. The results reflect certain forecasted financial measures for the nine-quarter period Q2 2015 through Q2 2017 under a Severely Adverse scenario internally developed by JPMorgan Chase’s economists (“JPMorgan Chase Severely Adverse Scenario”).

The results presented were calculated using forecasting models and methodologies developed and employed by JPMorgan Chase. The risks captured in JPMorgan Chase’s 2015 DFAST Mid-Cycle stress test, as well as the methodologies and processes used to execute the stress test, are materially consistent with those used by the Firm in executing the 2015 Comprehensive Capital Analysis and Review (“CCAR”), the results of which were disclosed in the 2015 Annual Stress Disclosure presentation on March 5, 2015.

The results presented reflect specific assumptions regarding planned capital actions as prescribed by the DFAST rule starting with the second quarter of the projection period (“DFAST capital actions”)[1]:

- Common stock dividend payments are assumed to continue at the same dollar amount as the average of the prior-four quarters (Q3 2014 – Q2 2015)
- Scheduled dividend, interest or principal payments for other capital instruments are assumed to be paid
- Repurchases of common stock and redemptions of other capital instruments are assumed to be zero
- Issuance of new common stock, preferred stock, or other capital instruments is assumed to be zero, except for common stock issuance associated with employee compensation

Even though the Firm became subject to the Basel III capital rules effective January 1, 2014, the results presented include both the Tier 1 common ratio calculated using the methodology under the Basel I capital rules and the common equity Tier 1 (“CET1”) capital ratio using the Basel III capital framework, as required under Regulation Y (12 CFR Part 225).[2]

The results presented represent hypothetical estimates under the aforementioned Severely Adverse scenario that was developed internally by JPMorgan Chase’s economists, which reflects an economic outcome that is more adverse than expected, and do not represent JPMorgan Chase's forecasts of currently expected losses, revenue, net income before taxes, capital, risk-weighted assets (“RWA”), or capital ratios.

[1] The first quarter of the projection period (Q2 2015) reflects actual capital actions (e.g., common stock dividends and repurchases, issuances and redemptions of other capital instruments)

[2] See Federal Register Vol. 79, No. 207 (October 27, 2014)

DFAST results under the JPMorgan Chase Severely Adverse Scenario

Capital and RWA projections – JPMorgan Chase & Co.

Firm-calculated projected stressed capital ratios (Q2 2015 – Q2 2017)

	Actual Q1 2015[1]	2015 CCAR Minimums			Stressed capital ratios[2,3]	
		2015	2016	2017	Q2 2017	Minimum
Tier 1 common ratio (%)	11.3%	5.0%	5.0%	5.0%	8.4%	7.6%
Common equity tier 1 capital ratio (%)[4]	10.9%	4.5%	4.5%	4.5%	8.1%	7.2%
Tier 1 risk-based capital ratio (%)	12.3%	6.0%	6.0%	--[5]	9.6%	8.6%
Total risk-based capital ratio (%)	14.5%	8.0%	8.0%	--[5]	11.7%	10.6%
Tier 1 leverage ratio (%)	7.5%	4.0%	4.0%	--[5]	6.7%	6.3%

[1] See note 1 on page 25
[2] Stressed capital ratios are calculated using capital action assumptions prescribed by the Dodd-Frank Act Stress Test rule. These projections represent hypothetical estimates that involve an economic outcome that is more adverse than JPMorgan Chase currently expects. Accordingly, these estimates are not forecasts of JPMorgan Chase currently expected losses, revenues, net income before taxes, capital, RWA, or capital ratios. The minimum capital ratio presented is the lowest quarterly ratio projected during the period Q2 2015 to Q2 2017
[3] The Tier 1 common ratio is calculated using the definition of tier 1 capital and total risk-weighted assets in 12 CFR 225, appendix A. All other ratios are calculated using the definitions of tier 1 capital and approaches to risk-weighting assets that are in effect during a particular planning horizon quarter. See Fed. Reg. Vol. 79, 13498 (March 11, 2014)
[4] JPMorgan Chase, as an advanced approaches bank holding company ("BHC"), is subject to the CET1 ratio for each quarter during the period Q1 2015 through Q2 2017
[5] Regulatory minimums have not yet been published under the Capital Plan and Stress Test Rules for periods beginning January 1, 2017

Firm-calculated projected Q2 2017 risk-weighted assets

	Actual Q1 2015		Projected Q2 2017	
	General approach (Basel I with 2.5)[1]	Basel III Standardized[2]	General approach (Basel I with 2.5)[1]	Basel III Standardized[2]
Risk-weighted assets (billions of dollars)	1,447	$1,537	$1,439	$1,600

[1] Risk-weighted assets reflect Basel I plus 2.5 market risk rules, and are used in calculating the Tier 1 common ratio
[2] Risk-weighted assets are calculated using the Basel III Standardized approach, and are used in calculating the common equity Tier 1, Tier 1 risk-based, and Total risk-based capital ratios. For additional information on the standardized approach, see Regulatory Capital on pages 146–153 of JPMorgan Chase's 2014 Annual Report on Form 10-K ("2014 Form 10-K") and pages 55-61 of JPMorgan Chase's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015 ("1Q15 Form 10-Q")

DFAST results under the JPMorgan Chase Severely Adverse Scenario

Profit & Loss projections – JPMorgan Chase & Co.

Firm-calculated 9-quarter cumulative projected losses, revenues, net income before taxes, and other comprehensive income (Q2 2015 – Q2 2017)

	Billions of dollars	Percent of average assets[1]
Pre-provision net revenue[2]	$50.1	2.1%
Other revenue[3]	0.0	
less		
Provision for loan and lease losses	52.2	
Realized losses/(gains) on securities (AFS/HTM)	2.0	
Trading and counterparty losses[4]	24.8	
Other losses/(gains)[5]	2.7	
equals		
Net income (losses) before taxes	**($31.6)**	**(1.3%)**
Memo items		
Other comprehensive income[6]	*($11.0)*	
Other effects on capital	*Actual Q1 2015*	*Q2 2017*
Accumulated other comprehensive income ("AOCI") in capital (billions of dollars)[7]	*$1.0*	*($3.5)*

[1] Average assets is the nine-quarter average of total assets (from Q2 2015 through Q2 2017)

[2] Pre-provision net revenue (“PPNR”) includes losses from operational-risk events, mortgage repurchase expenses, and other real estate owned (“OREO”) costs

[3] Other revenue includes one-time income and (expense) items not included in pre-provision net revenue

[4] Trading and counterparty losses include mark-to-market (“MTM”) and credit valuation adjustments (“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

[5] Other losses/gains includes projected change in fair value of loans held for sale (“HFS”) and loans held for investment measured under the fair value option (“FVO”)

[6] Other comprehensive income (“OCI”) includes incremental unrealized losses/gains on available-for-sale (“AFS”) securities and on any held-to-maturity (“HTM”) securities that have experienced other than temporary impairment (“OTTI”); the amount shown is on a pretax basis

[7] JPMorgan Chase, as an advanced approaches BHC, is required to transition AOCI related to AFS securities, as well as for pension and other postretirement employee benefit plans, into projected regulatory capital. Those transitions are 40 percent included in projected capital for 2015, 60 percent included in projected capital for 2016, and 80 percent included in projected capital for 2017

DFAST results under the JPMorgan Chase Severely Adverse Scenario

Loan loss projections – JPMorgan Chase & Co.

Firm-calculated 9-quarter cumulative projected loan losses, by type of loan (Q2 2015 – Q2 2017)

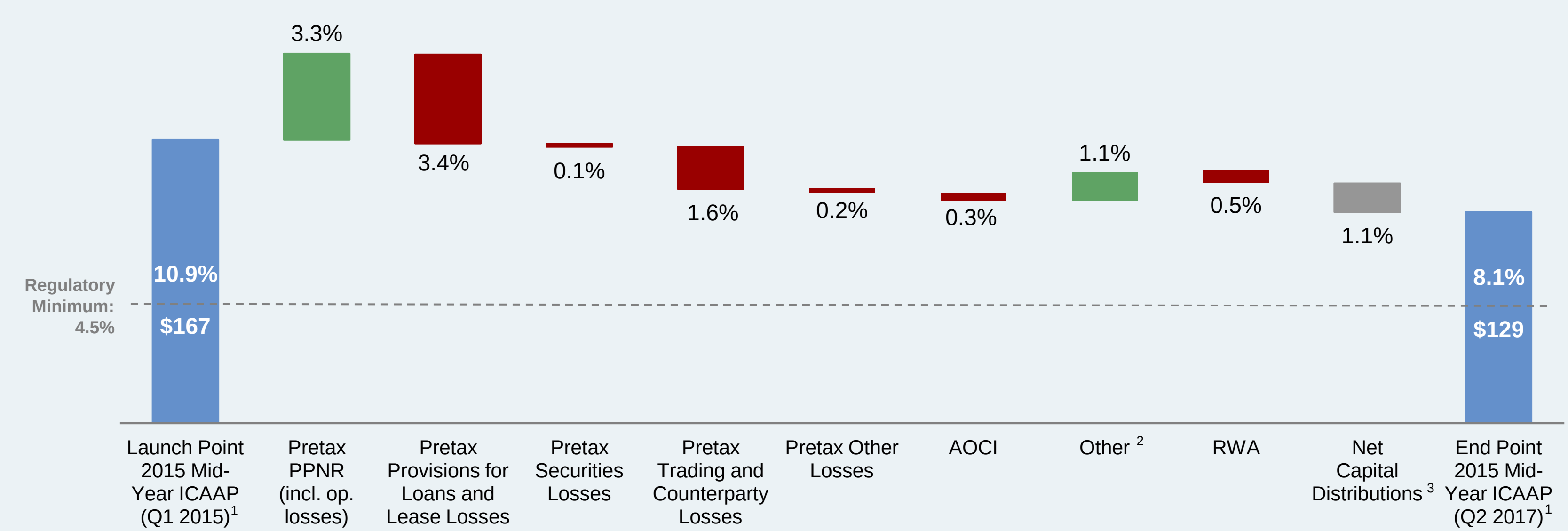
	Billions of dollars	Portfolio loss rates (%)[1]
Loan losses	$40.5	5.2%
First-lien mortgages, domestic	5.3	3.1%
Junior liens and HELOCs, domestic	5.7	10.7%
Commercial and industrial[2]	6.9	4.9%
Commercial real estate, domestic	3.0	3.5%
Credit cards	15.4	13.5%
Other consumer[3]	2.0	3.1%
Other loans[4]	2.3	1.5%

- For purposes of this disclosure, loan losses and loss rates are calculated consistent with the Federal Reserve's methodology[5], which includes impairments in the purchased credit-impaired ("PCI") portfolios as part of loan losses (rather than being included as part of loan loss reserves)

[1] Average loan balances used to calculate portfolio loss rates exclude loans held-for-sale and loans held-for-investment under the fair value option, and are calculated over nine quarters
[2] Commercial and industrial loans include small- and medium-enterprise loans and corporate cards
[3] Other consumer loans include student loans and automobile loans
[4] Other loans include loans to financial institutions
[5] As described in the Federal Reserve's Dodd-Frank Act Stress Test 2015: Supervisory Stress Test Methodology and Results published on March 11, 2015

Key drivers of JPMorgan Chase's 2015 DFAST pro forma CET1 ratio

Firm-calculated CET1 ratio calculated under JPMorgan Chase Severely Adverse Scenario (billions of dollars, except where noted)



	Launch Point	Pretax PPNR	Pretax Provisions	Pretax Securities Losses	Pretax Trading and Counterparty Losses	Pretax Other Losses	AOCI	Other	RWA	Net Capital Distributions	End Point
CET1 impact		**50**	**(52)**	**(2)**	**(25)**	**(3)**	**(5)**	**16**		**(17)**	
B3 Std. Trans RWA ($T)	**1.5**										**1.6**

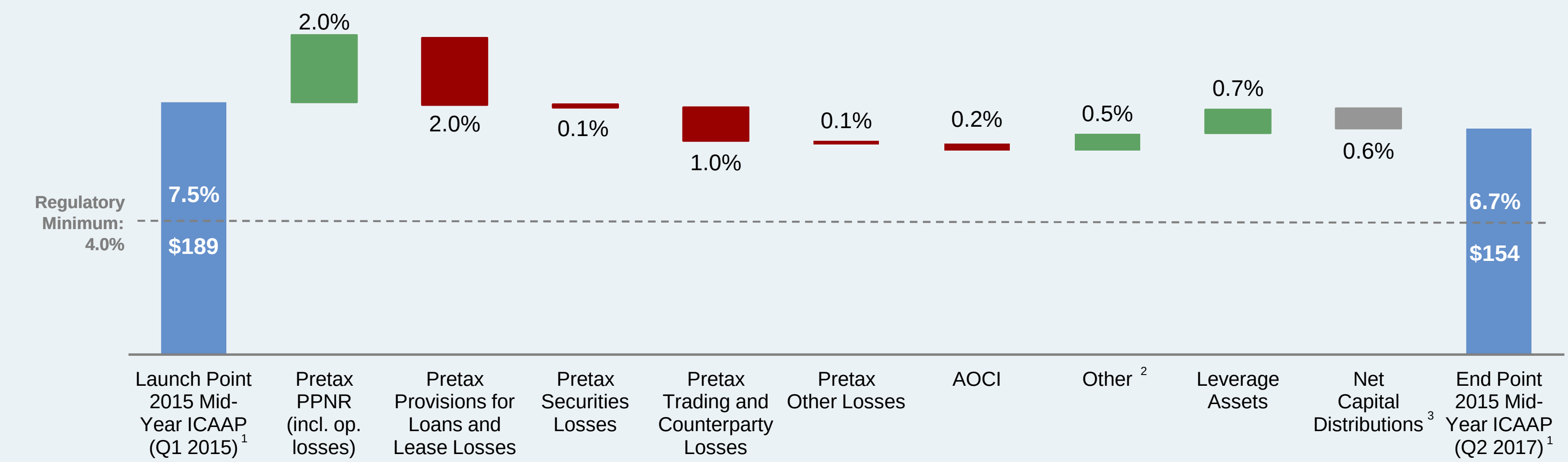
[1] Q1 2015 and Q2 2017 reflect end-of-period amounts. Other amounts represent the cumulative nine-quarter impact

[2] Represents other items, including income taxes, regulatory capital deductions, and goodwill & intangibles net of related deferred tax liabilities

[3] Net capital distributions in the first quarter of the projection period (Q2 2015) reflect actual capital actions (e.g., actual amount of common stock dividends and repurchases, issuances, and redemptions of other capital instruments); the second through ninth quarters (Q3 2015 – Q2 2017) assume no common stock repurchases, common stock dividends are held flat to the average of the prior-four quarters (Q3 2014 – Q2 2015), and no issuances or redemptions of other capital instruments, except for common stock issuance associated with employee compensation

Key drivers of JPMorgan Chase's 2015 DFAST pro forma Tier 1 Leverage ratio

Firm-calculated Tier 1 Leverage ratio calculated under JPMorgan Chase Severely Adverse Scenario (billions of dollars, except where noted)



	Launch Point	Pretax PPNR	Pretax Provisions	Pretax Securities Losses	Pretax Trading and Counterparty Losses	Pretax Other Losses	AOCI	Other	Leverage Assets	Net Capital Distributions	End Point
Tier 1 Leverage impact		**50**	**(52)**	**(2)**	**(25)**	**(3)**	**(5)**	**17**		**(15)**	
Leverage Assets ($T)	**2.5**										**2.3**

[1] Q1 2015 and Q2 2017 reflect end-of-period amounts. Other amounts represent the cumulative nine-quarter impact

[2] Represents other items, including income taxes, regulatory capital deductions, impact of phase-out of non-qualifying trust preferred securities, and goodwill & intangibles net of related deferred tax liabilities

[3] Net capital distributions in the first quarter of the projection period (Q2 2015) reflect actual capital actions (e.g., actual amount of common stock dividends and repurchases, issuances, and redemptions of other capital instruments); the second through ninth quarters (Q3 2015 – Q2 2017) assume no common stock repurchases, common stock dividends are held flat to the average of the prior-four quarters (Q3 2014 – Q2 2015), and no issuances or redemptions of other capital instruments, except for common stock issuance associated with employee compensation

Agenda

Overview of capital adequacy assessment processes

- Both CCAR and DFAST Mid-Cycle stress tests are components of the Firm's Internal Capital Adequacy Assessment Process ("ICAAP")
- Capital adequacy assessment processes are used to evaluate the Firm's capital adequacy by providing management with a view of the impact of severe and unexpected events on earnings, balance sheet positions, reserves, and capital
  - Assesses a broad range of macroeconomic factors, interest rate sensitivities, market stresses, and idiosyncratic risks and events
  - Measures the full impact of these factors on the Firm's earnings, balance sheet positions, reserves, and capital
- Results are assessed relative to internal capital management policies and regulatory capital requirements, and are used in capital and risk management decisions

Key Features

- Semi-annual process
- Centrally-defined economic scenarios applied uniformly across the Firm
  - DFAST Mid-Cycle company-run: 3 scenarios defined by JPMorgan Chase's economists
  - CCAR: 3 scenarios defined by the Federal Reserve, and at least 1 stress scenario defined by JPMorgan Chase's economists
- Granular approach; forecasts and projections developed at the portfolio or line of business ("LOB") level
- Forecasting approaches and results independently assessed by the Central Challenger Team within the Firm's Regulatory Capital Management Office ("RCMO")
- Models independently reviewed and validated by the Firm's Model Risk and Development unit
- Results projected over 2+ year time horizon

Key Resources

- Draws on the collective expertise and resources of the Firm (e.g., people, systems, technology and control functions)
- Leverages employees across LOBs and Firmwide functions, many of whom carry out ICAAP and risk management processes as part of their core responsibilities
- Centrally coordinated and supervised by Corporate Capital Stress Testing Team within the Firm's RCMO

Overall results reviewed with the Firm's Capital Governance Committee and Board of Directors

Capital adequacy assessment governance and control processes

- Capital adequacy, including stress testing, is central to JPMorgan Chase's business strategy and as such is subject to oversight at the most senior levels of the Firm – both the CCAR and DFAST Mid-Cycle stress tests leverage this governance framework

Governance and central processes

Board of Directors	▪ Reviews results of the capital adequacy assessment, which encompasses the effectiveness of the capital adequacy process, the appropriateness of the risk tolerance levels, and the robustness of the control infrastructure ▪ Approves capital management policies ▪ Approves annual capital plan
Capital Governance Committee	▪ Governs the capital adequacy assessment process, including the overall design, assumptions, and risk streams incorporated in the process, and is responsible for ensuring that capital stress test programs are designed to adequately capture the idiosyncratic risks across the Firm's businesses

Regulatory Capital Management Office	▪ Manages and administers the capital adequacy assessment process
	▪ Conducts independent risk-based assessments of the capital adequacy assessment forecasts with the purpose of providing transparency and escalation to the appropriate governing bodies
	▪ Establishes and oversees the control framework for the capital adequacy assessment process, including:
	  ▪ Centrally-provided training and guidance
	  ▪ Weekly senior-level steering committees
	  ▪ Senior-level challenge and approval of material management judgments and assumptions
	  ▪ Associated Risk and Controls Self Assessments, in coordination with the Firmwide Oversight and Control function

LOB Chief Financial / Risk Officers	▪ Responsible for the results of the capital stress testing process for their respective LOB, including adherence to Firmwide guidelines ▪ Manages execution of LOB quality control and assurance processes in accordance with established control standards ▪ Formally attests to LOB capital stress testing control processes, results, and supporting documentation
Model Review	▪ Evaluates the appropriateness of the models utilized within the Firm's capital stress testing process, including each model's suitability for its stated purpose, product and market, and the quality of the model's performance
Internal Audit	▪ Conducts regular audits to assess the adequacy and effectiveness of the controls supporting the Firm's capital planning and forecasting processes, including governance, qualitative assessments, the detail and quality of reporting, and the process by which deficiencies are identified and remediated

Capital management objectives and assessment of results

JPMorgan Chase's capital management objectives are to hold capital sufficient to:

- Cover all material risks underlying the Firm's business activities;
- Maintain "well-capitalized" status under regulatory requirements at the holding company level and across subsidiaries;
- Maintain debt ratings that enable the Firm to optimize its funding mix and liquidity sources while minimizing costs;
- Retain flexibility to take advantage of future investment opportunities;
- Continue to build and invest in its businesses through-the-cycle and in stressed environments; and
- Distribute excess capital to shareholders while balancing other stated objectives

Firmwide capital ratios are assessed relative to:

- Applicable regulatory standards
- CCAR guidelines established by the Federal Reserve
- Internal capital management policies

Results inform

Capital management decisions:

- Through-the-cycle business growth and investment
- Sustainable, upward-trending dividends
- Issuance/redemption plans across capital structure
- Balance sheet management and strategy

Key risks captured in capital adequacy assessment projections

- The below key risks are those inherent in JPMorgan Chase's business activities. The results of the Firm's capital stress tests reflect the majority of these risks:

Capital	The risk the Firm has an insufficient level and composition of capital to support the Firm's business activities and associated risks during normal economic environments and stressed conditions
Compliance	The risk of fines or sanctions or of financial damage or loss due to the failure to comply with laws, rules, and regulations
Country	The risk that a sovereign event or action alters the value or terms of contractual obligations of obligors, counterparties and issuers or adversely affects markets related to a particular country
Credit	The risk of loss arising from the default of a customer, client or counterparty
Fiduciary	The risk of a failure to exercise the applicable high standard of care, to act in the best interests of clients or to treat clients fairly, as required under applicable law or regulation
Legal	The risk of loss or imposition of damages, fines, penalties or other liability arising from failure to comply with a contractual obligation or to comply with laws or regulations to which the Firm is subject
Liquidity	The risk that the Firm will not have the appropriate amount, composition and tenor of funding and liquidity in support of its assets, and that the Firm will be unable to meet its contractual and contingent obligations through normal economic cycles and market stress events
Market	The risk of loss arising from potential adverse changes in the value of the Firm's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices, implied volatilities or credit spreads
Model	The risk of the potential for adverse consequences from decisions based on incorrect or misused model outputs and reports
Non-USD FX	The risk arising from capital investments, forecasted expense and revenue, investment securities portfolio or issuing debt in denominations other than the U.S. dollar
Operational	The risk of loss resulting from inadequate or failed processes or systems or due to external events that are neither market nor credit-related
Principal	The risk of an adverse change in the value of privately-held financial assets and instruments, typically representing an ownership or junior capital position. These positions have unique risks due to their illiquidity or for which there is less observable market or valuation data
Reputation	The risk that an action, transaction, investment or event will reduce the trust that clients, shareholders, employees or the broader public has in the Firm's integrity or competence
Structural Interest Rate	The risk resulting from the Firm's traditional banking activities (both on- and off-balance sheet positions) arising from the extension of loans and credit facilities, taking deposits and issuing debt (collectively referred to as "non-trading activities"), and also the impact from the Chief Investment Office ("CIO") investment securities portfolio and other related CIO and Treasury activities

Source – Enterprise-Wide Risk Management on page 106 of JPMorgan Chase & Co. 2014 Form 10-K

Key risks by business activity captured in capital adequacy assessment projections

	Business activities	Key risks[1]

Consumer & Community Banking	■ Consumer & Business Banking
	  ■ Consumer Banking
	  ■ Business Banking
	  ■ Chase Wealth Management
	■ Mortgage Banking
	  ■ Mortgage Production
	  ■ Mortgage Servicing
	  ■ Real Estate Portfolios
	■ Card, Commerce Solutions & Auto
		■ Credit
		■ Liquidity
		■ Market
		■ Operational, legal, compliance, and fiduciary
		■ Principal
		■ Structural interest rate[2]

Corporate & Investment Bank	■ Banking
	  ■ Investment Banking
	  ■ Treasury Services
	  ■ Lending
	■ Markets & Investor Services
	  ■ Fixed Income / Equity Markets
	  ■ Securities Services
	  ■ Credit Adjustments & Other
		■ Market
		■ Credit
		■ Liquidity
		■ Principal
		■ Operational, legal, compliance, and fiduciary
		■ Structural interest rate[2]

Commercial Banking	■ Middle Market Banking ■ Corporate Client Banking ■ Commercial Term Lending ■ Real Estate Banking	■ Credit ■ Liquidity ■ Market ■ Operational, legal, and compliance ■ Principal ■ Structural interest rate[2]
Asset Management	■ Global Investment Management ■ Global Wealth Management	■ Market ■ Fiduciary, operational, legal, and compliance ■ Credit ■ Liquidity ■ Principal ■ Structural interest rate[2]
Corporate	■ Treasury and CIO ■ Other Corporate	■ Liquidity ■ Market ■ Principal ■ Credit ■ Operational, legal, compliance, and fiduciary ■ Structural interest rate[2]

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

[2] The Firm's structural interest rate risk arises from activities undertaken by its four major reportable business segments and is centrally managed by Treasury and CIO within Corporate

Capital and risk components captured in capital adequacy assessment projections

- Quantitative approach applied across all scenarios; management judgment also a critical component of process
  - Approach employs econometric models and historical regressions where appropriate

	Key risks captured	Capital components
1 Capital (Earnings)	■ Revenue depletion and expense volatility associated with Firm's business activities and products. Risks include: ■ Interest rate duration ■ Equity prices ■ Mortgage repurchase ■ FX ■ Basis ■ Convexity ■ Prepayment ■ Credit-related OTTI losses ■ Changes in credit spreads ■ Operational, legal, compliance, and fiduciary	**PPNR** ■ Product-centric models and forecasting frameworks for revenue forecasts based on JPMorgan Chase's historical experience supplemented by industry data and management judgment, where appropriate ■ Granular, LOB-level projections for expense forecasts, governed by Firmwide expense reduction guidelines for severe stress environments ■ Projections reflect macroeconomic factors, anticipated client behavior, and business activity, etc. **Gains/losses on securities** ■ Projections of gains/losses on AFS and HTM positions **Losses on HFS/FVO loans** ■ Projections of changes in valuations of HFS loans and loans accounted for under FVO
2 Credit	■ Credit risks, which are impacted by: ■ Probability of obligor or counterparty downgrade or default, or sovereign rating downgrade, including as a result of idiosyncratic stress components ■ Loan transition to different payment statuses (i.e., current, delinquent, default) ■ Loss severity ■ Changes in commitment utilization	**Provision for loan and lease losses** ■ Projections of net charge-offs, reserves, and loan balances, based on composition and characteristics of wholesale and consumer loan portfolios across: ■ Wholesale – sector, region, and risk rating segments ■ Consumer – loan level, asset class, and risk segments
3 Market	■ Market risk factors including directional exposure as well as volatility, basis, and issuer default risk ■ Impact on credit valuation adjustments ■ Probability of derivatives and securities financing transactions ("SFT") counterparty defaults	**Trading & counterparty losses (market shock)** ■ Projections of the effect of instantaneous market shocks on trading positions ■ Losses are reflected in first quarter of projection period
4 RWA	■ Market risk factors including directional exposure as well as volatility, basis, and structural risk ■ Credit risk factors affecting balances, including probability of obligor or counterparty downgrade or default, or country risk downgrade	■ Projections of Basel I credit risk, Basel 2.5 market risk, and Basel III Standardized RWA
5 AOCI	■ Market risk factors including interest rates, FX, and credit spreads	■ AOCI projections account for amortization, callability, maturity, and reinvestment of investment securities ■ Reflects application of Basel III transitional provisions
Capital position / actions	■ Capital projections reflect balance sheet management strategies ■ Capital actions reflect specific assumptions prescribed by the DFAST rule	

1 Risks embedded in earnings – PPNR

Scope	■ Represents total net revenue less non-interest expense; includes operational risk expenses; excludes credit costs
Approach	■ Granular forecast across all products by individual PPNR component ■ Loan balances, deposits, net interest income (“NII”), trading revenue, fee revenue, compensation expense, operational losses, and other expenses ■ Projections capture variability of spreads, pricing, prepayments, basis movement, etc., observed in the underlying economic scenarios ■ Projections reflect potential exposure due to failed processes or systems, or external events, and resulting from fines, penalties or other liability arising from failure to comply with a contractual obligation or applicable laws or regulations

Types of risks identified and captured	■ Structural interest rate
	  ■ Consumer and wholesale deposit NII and fees
	  ■ Consumer and wholesale loan NII
	  ■ Sales & trading revenue
	  ■ Investment securities NII
	■ Market
	  ■ Sales & trading revenue
	  ■ Investment banking revenue
	  ■ Investment management revenue
	  ■ Investment services revenue
	  ■ Principal investments
	■ Mortgage repurchase
	■ Mortgage servicing rights (“MSR”) valuation
	■ Prepayment
	  ■ Residential and commercial lending
	■ Operational, legal, compliance, and fiduciary
	  ■ Operational losses

Methodologies	■ Econometric and regression models and forecasting frameworks used, as appropriate, to establish relationships between macroeconomic factors and JPMorgan Chase’s historical experience
	■ P&L and balance sheet projections capture:
	  ■ Interest rate, FX, and basis risks through projections of JPMorgan Chase’s core nontrading business activities
	  ■ Equity risk from direct principal investments in private equity and other equity-like instruments carried at fair value
	  ■ Mortgage repurchase risk due to material breaches of representations and warranties related to loans sold by JPMorgan Chase
	  ■ Expense management actions driven by the underlying economic factors
	■ Operational loss projections based on the relationship between macroeconomic variables and JPMorgan Chase’s historical loss experience where appropriate, as well as scenario analysis and expert judgment to capture potential exposures more aligned to the Firm’s current risk profile

Key management judgments	■ Management judgment is applied, including:
	  ■ To define key business assumptions/inputs, including:
	    – Assumptions related to business activities (e.g., market size, market share, and trading flows)
	    – Assumptions surrounding expense levels in a stressed environment
	  ■ As the primary method to produce projections when statistical models cannot be used due to limited or insufficient data, or when components are not sensitive to changes in the economic environment

1 Risks embedded in earnings – Gains/losses on AFS & HTM securities

Scope	■ Represents OTTI on the investment securities portfolio
Approach	■ Investment securities are assessed for OTTI, and OTTI is recognized when the Firm determines that it does not expect to recover the entire amortized cost of an investment security ■ Separate methodologies developed for individual asset classes ■ Assumes no securities are sold throughout the forecast period
Types of risks identified and captured	■ Potential credit-related OTTI ■ Credit risks, which are impacted by estimates of probability of default, loss given default, and prepayment
Methodologies	■ The methodologies used to assess the portfolio include the following: ■ Issuer credit migrations for non-securitized products (e.g.,corporate debt, non-U.S. government debt, and municipal bonds) – Impairment is assumed on investment securities that migrate from investment-grade ■ Cash flow model-based methodology used for securitized products – Cash flows are projected to identify any principal shortfalls
Key management judgments	■ Management judgment is applied to determine key inputs/assumptions used in the projection of OTTI in lieu of statistical models or where there is limited or insufficient data for certain securities, including: ■ Default rates; ■ Recovery rates; or ■ Prepayment rates for certain securitized products

1 Risks embedded in earnings – Losses on held-for-sale loans and loans accounted for under the fair-value-option

Scope	Represents changes in valuation of HFS loans and pending syndicate commitments as well as loans accounted for under FVO in the Firm's wholesale loan portfolio
Approach	Projections are based on the estimated change in value of loans and commitments (i.e., lower of cost or fair value for HFS loans, and fair value for FVO loans)
Types of risks identified and captured	Market risk resulting from changes in credit spreads
Methodologies	Projections capture the Firm's exposure to changes in the fair value of HFS/FVO loans primarily due to credit spreads based on facility rating
Key management judgments	Management judgment is applied, including: ▪ To determine which credit spread to apply to each loan based on the facility risk rating ▪ To estimate the timing of pending sales over the nine-quarter forecast horizon

2 Credit risk – Provision for loan and lease losses

Scope	■ Represents losses inherent in the Firm's retained loan portfolios and related commitments
Approach	■ Provision projections based on composition and characteristics of wholesale and consumer loan portfolios across all asset classes and customer segments ■ Considers estimated delinquencies, charge-offs/recoveries, and changes in reserves ■ Risks assessed on a risk-rated basis for the wholesale portfolio and on a scored basis for the consumer portfolio

Types of risks identified and captured	■ Credit risk impacted by:
	  ■ Probability of obligor or counterparty downgrade or default, or sovereign rating downgrades, including as a result of the idiosyncratic counterparty default component of the JPMorgan Chase Severely Adverse Scenario
	  ■ Loan transition to different payment statuses (i.e., current, delinquent, default)
	  ■ Loss severity
	  ■ Changes in utilization of commitments

Methodologies	■ Model-based approach, which captures the inherent, idiosyncratic risks that are unique to the Firm's portfolios
	  ■ Reflects credit migration and changes in delinquency trends, driven by the underlying economic factors (e.g., U.S. gross domestic product ("GDP"), unemployment rate, house price index ("HPI"), etc.), which influence the frequency and severity of potential losses
	  ■ Considers characteristics such as credit rating, geographic distribution, product and industry mix, and collateral type
	■ Leverages loss experience data relevant to the Firm's asset classes and portfolios, rather than relying on banking industry averages
	■ Reflects reserve levels calculated in accordance with accounting principles generally accepted in the U.S. ("U.S. GAAP"), regulatory guidelines, and the Firm's internal accounting policies and procedures

Key management judgments	■ Management judgment is applied, including:
	  ■ To define key business assumptions/inputs, including credit quality of new originations
	  ■ To determine the timing of recognition of loan loss reserves builds/releases

3 Market risk – Trading & counterparty losses (market shock)

Scope	■ Represents an instantaneous global market shock applied to trading and counterparty positions at a specific date in the first quarter of the projection period
Approach	■ Instantaneous P&L impact with no re-hedging and no recovery assumed over the forecast period

Types of risks identified and captured	■ Market risks related to trading assets and principal investments carried at fair value, including private equity
	  ■ Market risk factors including directional exposure as well as volatility and basis risks
	■ Counterparty credit risk ("CCR")
	  ■ CVA captures valuation changes which reflect the credit risk of derivative counterparties
	  ■ Counterparty default captures additional projected losses resulting from the instantaneous and unexpected default of certain derivatives and SFT counterparties as a result of the idiosyncratic counterparty default component of the JPMorgan Chase Severely Adverse Scenario
	■ Trading incremental default risk ("IDR") captures additional projected losses from the default of underlying issuers (i.e., obligors) on the Firm's trading and counterparty positions

Methodologies	■ Results measure the Firm's exposure to changes in the fair value of financial instruments primarily due to movements in:
	  ■ Interest rates
	  ■ FX rates
	  ■ Equity prices
	  ■ Credit spreads
	  ■ Commodity prices
	  ■ Implied volatilities
	■ Leverages the existing Firmwide stress framework and methodologies across all LOBs that carry market risk
	■ Trading IDR calculation leverages existing models used for business-as-usual risk management
	■ Trade-level results, reflecting the instantaneous impact of the shock, are aggregated for all counterparties to produce the stressed MTM, CVA, and other credit metrics

Key management judgments	■ No significant management judgment applied

4 RWA

Scope	■ Projections of RWA under Basel I and Basel III Standardized for credit risk and Basel 2.5 for market risk
Approach	■ Credit risk RWA ■ Projections leverage forecasted loan and securities balances ■ Market risk RWA ■ Projections based on historically observed relationships between RWA and key macroeconomic drivers
Types of risks identified and captured	■ Credit risk factors that affect the projections of underlying balances (see: Gains/losses on AFS and HTM securities, Losses on held-for-sale loans and loans accounted for under the fair-value-option and Provision for loan and lease losses on pages 16, 17 and 18 respectively) ■ Market risk factors including directional exposure as well as volatility, basis, and structural risks ■ Impact of country risk classification downgrade by the Organisation for Economic Co-operation and Development (“OECD”)
Methodologies	■ Credit risk RWA ■ Risk weights as prescribed by regulatory rules are applied to projected balances ■ Regression model used to establish relationships between macroeconomic factors and historical country risk classification trends ■ Market risk RWA ■ Econometric and regression models and forecasting frameworks used, as appropriate, to establish relationships between macroeconomic factors and key RWA components, including Value-at-risk (“VaR”), incremental risk charge and comprehensive risk measure
Key management judgments	■ No significant management judgment applied

5 AOCI

Scope	■ Represents AOCI on the investment securities portfolio
Approach	■ Projections are based on the estimated change in value of the existing book and the forecasted reinvestment portfolio
Types of risks identified and captured	■ Market risk factors including interest rates, FX, and credit spreads
Methodologies	■ The forecasting methodologies used vary depending on the type of security to appropriately stress the underlying risks: ■ Agency mortgage-backed securities (“MBS”), municipal bonds, and U.S. Treasuries are based on a full revaluation approach ■ Other securities and FAS 133 swap hedges use a sensitivity-based approach
Key management judgments	■ Management judgment is applied to determine the appropriate parameters for producing spread forecasts for credit sensitive assets

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2015 DFAST Mid-Cycle JPMorgan Chase Severely Adverse Scenario – Overview

- The Firm's internally-developed Severely Adverse Scenario reflects a substantially weakened economic environment
- Results are forecasted over a nine-quarter planning horizon
- Results capture the impact of stressed economic and market conditions on capital and risk-weighted assets, including:
  - Potential losses (due to credit risk, market risk, legal risk, severe interest rate movements, and operational and other risks) on all on- and off-balance sheet positions
  - PPNR
  - AOCI

Key economic variables from the internally-developed JPMorgan Chase Severely Adverse Scenario

- **U.S. real GDP** – GDP declines 5.2% between the first quarter of 2015 and its trough in the second quarter of 2016
- **U.S. inflation rate** – Sustained low oil prices cause the annualized rate of change in the Consumer Price Index ("CPI") to remain low throughout the forecast horizon, with a trough of -0.2% in the second quarter of 2015, subsequently becoming positive by the third quarter of 2015 at 0.7% and ending at 1.6% in the second quarter of 2017
- **U.S. unemployment rate** – Unemployment increases by 4.9 percentage points from its level in the first quarter of 2015, peaking at 10.4% in the fourth quarter of 2016
- **HPI** – House prices in the U.S. decline by approximately 25% during the forecast period, relative to their level in the first quarter of 2015
- **Equity markets** – Equity prices in U.S. markets fall by 52% from the first quarter of 2015 through the trough in the second quarter of 2016, and equity market volatility increases sharply to peak at 76 in the third quarter of 2015
- **Short-term and long-term rates** – The Federal Open Market Committee (FOMC) maintains Fed funds rates at 0.13% throughout the forecast horizon; long-term 10-Year Treasury yields drop to 0.9% in the third quarter of 2015 and rise gradually over the remainder of the forecast period; the 30-year mortgage rate peaks at 4.2% in the third quarter of 2015 and then declines to 4.0% at the end of the second quarter of 2017
- **Credit spreads** – Spreads on BBB investment-grade corporate bonds increase from 204 basis points to 550 basis points and peak in the third quarter of 2015
- **International** – The international component of the scenario features severe recessions in the Euro area, the United Kingdom, and Japan, and below-trend growth in developing Asia

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Notes on non-GAAP financial measures

1. The Tier 1 common ratio is based on Basel I, and it is a non-GAAP financial measure. Basel III rules became effective for the Firm on January 1, 2014. The common equity Tier 1 capital ratio, Tier 1 risk-based capital ratio, Total risk-based capital ratio, and Tier 1 leverage ratio reflect the Basel III Standardized approach. For additional information on Basel III, see Regulatory capital on pages 146-153 of JPMorgan Chase's 2014 Form 10-K and pages 55-61 of JPMorgan Chase's 1Q15 Form 10-Q.

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Forward-looking statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on the current beliefs and expectations of JPMorgan Chase & Co.'s management and are subject to significant risks and uncertainties. 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, 2014, and Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, which has been filed with the Securities and Exchange Commission and is available on JPMorgan Chase & Co.'s website (http://investor.shareholder.com/jpmorganchase), and on the Securities and Exchange Commission's website (www.sec.gov). JPMorgan Chase & Co. does not undertake to update the forward-looking statements to reflect the impact of circumstances or events that may arise after the date of the forward-looking statements.