

Wells Fargo & Company

Annual Company-Run Stress Test Results

Under the Federal Reserve's Assumed Severely Adverse Scenario

March 7, 2013



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In this Report, when we refer to “Wells Fargo,” “the Company,” “we,” “our” or “us”, we mean Wells Fargo & Company and Subsidiaries (consolidated). When we refer to “Wells Fargo Bank, N.A.” or “the Bank,” we mean Wells Fargo Bank, National Association, the Company’s principal subsidiary.

This Report contains forward-looking statements, including projections of our financial results and condition under a hypothetical scenario that incorporates a set of assumed economic and financial conditions prescribed by our regulators. The projections are not intended to be our forecast of expected future economic or financial conditions or our forecast of the Company’s or the Bank’s expected future financial results or condition, but rather reflect possible results under the prescribed hypothetical scenario. Our future financial results and conditions will be influenced by actual economic and financial conditions and various other factors as described in our reports filed with the Securities and Exchange Commission and available at www.sec.gov.

Overview

Wells Fargo & Company is a nationwide, diversified, community-based financial services company with \$1.4 trillion in assets. Founded in 1852 and headquartered in San Francisco, Wells Fargo provides banking, insurance, investments, mortgage, and consumer and commercial finance through more than 9,000 stores, 12,000 ATMs, the Internet (wellsfargo.com), and has offices in more than 35 countries to support our customers who conduct business in the global economy. With more than 265,000 team members, Wells Fargo serves one in three households in the United States. Wells Fargo & Company was ranked No. 26 on *Fortune’s* 2012 rankings of America’s largest corporations. Our vision is to satisfy all our customers’ financial needs and help them succeed financially.

As a large bank holding company, Wells Fargo is subject to the *Supervisory and Company-Run Stress Test Requirements for Covered Companies* rule issued by the Board of Governors of the Federal Reserve System (Federal Reserve) to implement the stress testing and disclosure requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act stress tests). A stress test is defined in that rule as “a process to assess the potential impact of scenarios on the consolidated earnings, losses, and capital of a company over the planning horizon, taking into account its current condition, risks, exposures, strategies, and activities.”

Since the 2008 financial crisis, stress testing has evolved as an important analytical tool for evaluating capital adequacy under adverse conditions. Wells Fargo regularly uses such exercises in its capital planning to measure our exposure to material risks and evaluate the adequacy of capital resources available to absorb potential losses arising from those risks and support operations during adverse economic conditions. We conduct multiple stress tests each year under a range of adverse scenarios.

In this Report, we present the results of our 2013 annual company-run Dodd-Frank Act stress test. This test evaluates the potential impact of the 2013 supervisory severely adverse scenario¹, inclusive of the global market shock components², on the Company's consolidated financial position. The global market shock components are one-time, hypothetical shocks to a set of risk factors. The global shocks in the supervisory severely adverse scenario reflect movements in markets that generally replicate the experience in the second half of 2008, but also incorporate hypothetical Eurozone-based shocks. In this Report, when we refer to "Scenario" we are referring to the 2013 supervisory severely adverse scenario, inclusive of the corresponding severely adverse global market shock components. It is important to note that the supervisory severely adverse scenario is not a forecast but rather a hypothetical scenario with assumed economic and financial conditions designed by the Federal Reserve to assess the strength of banking organizations and their resilience to severely adverse economic environments.

We performed our stress test by projecting losses and related provision, revenue, expenses and capital ratios under the Scenario using models and methodologies developed or selected by us except where the assumptions, practices, or methodologies were specifically prescribed by rules or instructions published by the Federal Reserve³. Because we employ models and methodologies developed by us, our results will differ, potentially significantly, from projections that the Federal Reserve will make of losses and related provision, revenue, expenses, and capital positions for Wells Fargo as part of conducting its own Dodd-Frank Act stress test. The Federal Reserve's projections are based on models and methodologies developed or selected by Federal Reserve staff. The Federal Reserve does not fully disclose these models and methodologies. As a result, we are unable to explain the basis for any variances between our projections and the projections of the Federal Reserve.

Our results reflect certain assumptions and methodologies prescribed by rules or instructions issued by the Federal Reserve that may be inconsistent with our normal business practices or our expected business practices under highly adverse economic and financial conditions. In the global market shock component, for example, the approach specified for valuing certain parts of our securities available-for-sale (AFS) portfolio assigns values based on broadly defined risk characteristics (vintage, product type, credit rating). This valuation approach differs from our approach, which takes into account additional risk factors specific to individual securities (such as expected maturity and level of subordination). In addition, our pro forma capital ratios reflect specific assumptions regarding capital actions that are prescribed by the Dodd-Frank Act stress test rule⁴ (standardized capital actions). The standardized capital actions assume dividend payments are maintained at 2012 levels across the test horizon; while in practice, if this Scenario

¹ For the supervisory severely adverse scenario description and macroeconomic variables, see Board of Governors of the Federal Reserve System, "2013 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule," November 15, 2012, available at <http://www.federalreserve.gov/bankinforeg/stress-tests-capital-planning.htm>.

² Wells Fargo is one of six large bank holding companies with trading activity required to include the global market shock components as part of the severely adverse scenario. The global market shock data published by the Federal Reserve for the 2013 Severely Adverse Scenario is available at <http://www.federalreserve.gov/bankinforeg/stress-tests-capital-planning.htm>.

³ See Board of Governors of the Federal Reserve System, "Comprehensive Capital Analysis and Review 2013 Summary Instructions and Guidance," November 9, 2012, for the CCAR and Dodd-Frank Act stress test instructions.

⁴ The prescribed Dodd-Frank Act capital actions include estimated Q4 2012 capital actions taken by the Company, and for quarters two through nine of the test horizon, no issuance of regulatory capital other than assumed issuance of common stock for employee compensation; payments of common stock dividends equal to the quarterly average dollar amount paid by the Company in the previous year; payments on all other regulatory capital instruments equal to the stated dividend, interest, or principal due during the quarter; and no capital redemptions or repurchases.

were to occur, the Company would take capital conservation actions mandated by internal policy and could change planned dividend distributions.

The stress test results summarized in this Report should not be interpreted as expected or likely outcomes for the Company, but rather as a possible result under hypothetical, highly adverse economic conditions.

The results of our 2013 annual stress test suggest the Company's performance would decline under the assumptions of the Scenario, in response to increased credit related provision expenses, reduced new business volumes, net interest rate margin compression, and market-related losses. For the nine quarter test horizon ranging from October 1, 2012 to December 31, 2014, we projected a cumulative total net loss before tax of \$1.7 billion. The cumulative net loss before tax reflects projected losses of \$57.5 billion, including provision for loan losses, trading and counterparty credit losses, losses on AFS securities, and other losses, primarily market-related losses on assets carried at fair value. It also reflects projected cumulative pre-provision net revenue, which is calculated as projected net interest income plus noninterest income minus noninterest expense, for the nine quarters of \$55.8 billion.

Our pro forma Tier 1 common equity to risk weighted assets ratio⁵ estimated under the Scenario assumptions and reflecting the standardized capital actions decreases from 9.9% at September 30, 2012 to 9.2% at year-end 2014. Despite the projected declines in revenue and significant losses, and the mandated assumption that limited the capital conservation actions that were taken, we maintained a Tier 1 common ratio well above the 5% benchmark minimum ratio established under the Federal Reserve's rule regarding capital plans⁶. The minimum Tier 1 common ratio for any quarter-end during the nine quarter test horizon was 8.3%.

Federal Reserve Severely Adverse Scenario

The severely adverse scenario published by the Federal Reserve, in our view, resembles the "Great Recession" of 2007-09 in many respects, including the timing and depth of the recession, and the downward trend in inflation. Real estate values plummet, down 21% for homes and commercial properties alike, by year-end 2014. The stock market experiences a severe 52% decline by early 2014, though a very strong recovery begins thereafter. In sync with the stock market collapse is a surge in implied volatility. Though implied volatility improves with the economy, it remains elevated through year-end 2014. Unemployment in the scenario rises somewhat less than in that historical period and mortgage interest rates climb, contrasting with the decline during the previous recession.

The global market shock components featured market movements that generally replicate the experience in the second half of 2008, but they also incorporate hypothetical Eurozone-based shocks, including sharp

⁵ Capital projections after Q4 2012 include the final market-risk capital rules that became effective January 1, 2013 (Basel 2.5). 12 C.F.R. pts. 208 and 225 (2013).

⁶ See §225.8(d)(2)(i)(B) of the Capital Plans Rule. 12 C.F.R. 225.8 (2013).

increases in certain government yields, widening corporate spreads and sovereign credit default swap spreads, and large depreciation in the euro against major currencies.

Our stress testing methodologies consider and incorporate the relationships or correlations between several macroeconomic factors (such as gross domestic product (GDP), house prices, and unemployment) and business volumes, revenues, and credit expenses.

Table 1 lists specific values published by the Federal Reserve for macroeconomic variables that are material drivers in our estimation processes.

Table 1 Select Economic Variables Published by the Federal Reserve for the Supervisory Severely Adverse Scenario⁷

Quarter	Unemployment rate	Real GDP growth	3-month Treasury yield	10-year Treasury yield	Mortgage rate	House Price Index	Dow Jones Total Stock Market Index
Q1 2012	8.3	2.0	0.1	2.1	3.9	137.9	14753.1
Q2 2012	8.2	1.3	0.1	1.8	3.7	141.3	14208.6
Q3 2012	8.1	2.0	0.1	1.6	3.5	143.4	14997.8
Q4 2012	8.9	(3.5)	0.1	1.4	4.1	141.6	12105.2
Q1 2013	10.0	(6.1)	0.1	1.2	4.5	137.9	9652.6
Q2 2013	10.7	(4.4)	0.1	1.2	4.7	133.6	9032.8
Q3 2013	11.5	(4.2)	0.1	1.2	4.8	129.0	7269.1
Q4 2013	11.9	(1.2)	0.1	1.2	4.7	124.7	7221.7
Q1 2014	12.0	0.0	0.1	1.2	4.7	120.6	7749.3
Q2 2014	12.1	2.2	0.1	1.5	4.7	117.2	8133.9
Q3 2014	12.0	2.6	0.1	1.7	4.6	115.0	9026.1
Q4 2014	11.9	3.8	0.1	1.9	4.5	113.6	9706.7
Q1 2015	11.7	4.2	0.1	2.0	4.5	113.2	10211.0
Q2 2015	11.5	4.1	0.1	2.1	4.5	113.6	12645.7
Q3 2015	11.4	4.6	0.1	2.2	4.4	114.4	13854.4
Q4 2015	11.1	4.6	0.1	2.2	4.3	115.5	15294.9

In many instances, the relationships are more closely defined by or linked to macroeconomic variables not published by the Federal Reserve as part of the Scenario description. We expand the Scenario economic factors to approximately 4,500 more detailed variables. At the national level we use these published economic variables to develop additional economic variables. We also use these published economic variables to develop regional variables, such as unemployment for all U.S. states and home price indices by Metropolitan Statistical Area (MSA). In all instances, our methodology to expand the published variables is performed in a theoretically sound and empirically rigorous way to ensure consistency throughout the scenario design.

⁷ For the full set of economic variables and scenario descriptions, see Board of Governors of the Federal Reserve, "2013 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule," November 15, 2012, available at <http://www.federalreserve.gov/bankinfo/stress-tests-capital-planning.htm>.

Summary Results

Under the Scenario, the Company's pro forma Tier 1 common equity to risk weighted asset ratio was projected to decline from 9.9% at September 30, 2012 to 9.2% at December 31, 2014, the end of the test horizon. The capital ratio projections include the standardized Dodd-Frank Act stress testing capital distributions and issuances. The minimum Tier 1 common ratio over the nine quarter test horizon was 8.3%, still significantly above the 5% benchmark minimum. As shown in Table 2, the values of all four regulatory capital ratios decline, and then begin to recover before the end of the test horizon. All four ratios remain above regulatory minimum ratios throughout the nine quarter test horizon.

Table 2 Projected Capital Ratios

	Actual	Stressed pro forma ratios ⁽¹⁾		Regulatory
	Sept. 30, 2012	Dec. 31, 2014	Minimum	Minimum ⁽²⁾
Tier 1 common equity ⁽³⁾	9.9 %	9.2	8.3	5.0
Tier 1 risk-based capital	11.5	10.5	9.8	4.0
Total risk-based capital	14.5	13.1	12.4	8.0
Tier 1 leverage	9.4	8.3	8.0	4.0

(1) Capital projections after Q4 2012 include the market-risk capital rules that became effective on January 1, 2013.

(2) Risk-based capital ratios represent minimum requirements per Minimum Supervisory Ratios and Standards (12 CFR part 225, Appendix A) and the Tier 1 common equity benchmark ratio established in the Capital Plans rule. 12 CFR 225.8(d)(2)(i)(B).

(3) Tier 1 common equity is a non-GAAP financial measure that is used by investors, analysts and bank regulatory agencies to assess the capital position of financial services companies.

Our pro forma Tier 1 common equity to risk-weighted assets ratio declined 0.7% over the nine quarter test horizon reflecting both a cumulative reduction in Tier 1 common equity and assumed increases in risk-weighted assets by the end of the test horizon. Pro forma Tier 1 common equity declines primarily as a result of a combination of reduced income estimated under the Scenario conditions and mandated assumed capital distributions. The increase in pro forma risk-weighted assets by the end of the test horizon reflects both assumed balance sheet growth and a shift from assets that carry a higher risk weighting to assets with lower risk-weightings. Pro forma Tier 1 and Total risk-based capital ratios were projected to decline an additional 0.3% and 0.7%, respectively, by the end of the nine quarter period due to amortization of regulatory capital instruments. The 1.1% decrease in pro forma Tier 1 leverage ratio was due to the lower ending Tier 1 capital and assumed growth in average consolidated assets over the stress test horizon.

As shown in Table 3, for the nine quarter test horizon we estimated a cumulative pro forma net loss before taxes of \$1.7 billion.

Table 3 Projected Net Revenue, Losses and Net Income Before Taxes Nine Quarter Cumulative

(in billions)	Nine quarter cumulative, ending Dec. 31, 2014
Pre-provision net revenue (1)	\$ 55.8
Less	
Provision for loan and lease losses (2)	48.3
Realized losses on securities available for sale	2.6
Trading and counterparty losses (3)	6.0
Other losses (4)	0.6
Subtotal of losses	57.5
Net loss before taxes	\$ (1.7)

- (1) Pre-provision net revenue includes losses from operational risk events, mortgage put-back expenses, expenses associated with the change in the allowance for unfunded commitments, and costs associated with other real estate owned.
- (2) Provision for loan and lease losses is reported in accordance with the reporting criteria required in the FR Y-14A.
- (3) Trading and counterparty losses include mark-to-market losses, changes in credit valuation adjustments (CVA), incremental default losses, and losses on non-trading related private equity positions that were subject to the global market shock stress.
- (4) Other losses includes projected change in fair value of loans held for sale and loans held for investment measured under the fair-value option.

Pre-Provision Net Revenue

The estimated stressed pre-provision net revenue of \$55.8 billion reflects declining levels of net interest income over the nine quarter test horizon due primarily to assumed weakened loan demand, consistent with a severe recession. Somewhat offsetting the impacts of the weakened loan demand on net interest income were higher mortgage rates, which influenced the level of assumed interest earned on mortgage-backed assets.

Also reflected in the stressed pre-provision net revenue were lower levels of noninterest income. Mortgage banking fees were significantly impacted by the severely reduced mortgage market resulting from rising mortgage rates. The Scenario's sharp 52% decline in the stock market by early 2014 and decline in real GDP had a significant negative impact on trust and investment fee income levels. Benefits from assumed adjustments to variable expenses to reflect reduced revenues were more than offset by projected increases in operational losses and FDIC deposit insurance assessments in the stressed environment.

Provision for Loan and Lease Losses

The nine quarter cumulative provision for loan and lease losses was estimated at \$48.3 billion and consists of projected loan loss charge-offs of \$32.0 billion and an increase in the allowance for loan and lease losses (ALLL) of \$16.3 billion. While charge-offs represent the realization of loan losses, an increase in ALLL represents the recognition of the loan loss and occurs in advance of the loan loss realization under generally accepted accounting principles (GAAP). The ALLL is management's estimate of credit losses inherent in the loan portfolio at a specified point in time. Changes in the ALLL balance are reflected through the over (under) provision to ensure adequate coverage of losses inherent in the loan

portfolio at the specified point in time. In accordance with the instructions for the FR Y-14A summary template, the projected provision expenses associated with the change in the allowance for unfunded credit commitments, which totaled \$0.4 billion in this Scenario, is included in pre-provision net revenue.

Projected loan losses by type of loan over the nine quarter horizon under the Scenario are presented in Table 4.

Table 4 Projected Loan Losses by Type of Loan for Q4 2012 through Q4 2014 under the Scenario

(in billions)	Nine quarters cumulative Dec. 31, 2014	Cumulative portfolio loss rate ⁽³⁾
First lien mortgages, domestic	\$ 7.4	3.4 %
Junior liens and home equity lines of credit, domestic	8.7	9.5
Commercial and industrial ⁽¹⁾	4.3	2.9
Commercial real estate, domestic	4.3	3.8
Credit card	2.8	11.4
Other consumer	2.9	3.4
All other loans ⁽²⁾	1.6	2.0
Projected loan losses	\$ 32.0	4.2 %

(1) Commercial and industrial (C&I) loans include C&I graded, small business and business card loans.

(2) All other loans are largely commercial loans, and include foreign real estate loans, loans to purchase or hold securities, loans secured by farmland, agriculture loans, loans to various financial institutions, and lease financing receivables.

(3) The cumulative portfolio loss rate is calculated by dividing the nine quarter cumulative net losses by the average loan balances over the same period. Average loan balances used to calculate portfolio loss rates exclude loans held for sale and loans held for investment under the fair-value option.

In total, the Company projected \$32.0 billion of loan losses across the commercial and consumer loan portfolios. The primary driver of the losses across both portfolios was the unemployment rate assumed in the Scenario, which peaked at 12.1% in 2Q 2014 and ended the nine quarter horizon at 11.9%, up from 8.1% in third quarter 2012.

The commercial loan portfolio consists of commercial real estate (CRE) loans, which include CRE construction loans, and commercial non-real estate loans, which include C&I loans, and all other loans. Estimated losses over the nine quarter horizon on the commercial loan portfolio, including all other loans totaled \$10.2 billion or 32% of the total loan losses in the Scenario. The estimated commercial loan losses were primarily influenced by changes in the projected economic variables, particularly the assumed increase in the unemployment rate. Based on strong historically observed relationships between losses and the unemployment rate, the year-over-year changes in the unemployment rate were a key driver for the losses projected in the CRE and C&I portfolios. Assumptions about consumer confidence were also a contributing factor to losses on the small business scored portfolio.

The consumer loan portfolio consists of residential real estate loans (first lien, junior lien and home equity lines of credit), credit cards, and other consumer loans (primarily student loans and auto loans). Estimated losses over the nine quarter horizon on the consumer portfolio totaled \$21.8 billion or 68% of

the total loan losses in the Scenario. The estimated consumer loan losses were primarily influenced by changes in the projected economic variables, notably the unemployment rate and the housing price index (HPI).

Realized Losses on AFS Securities

Other-than-temporary impairment (OTTI) write-downs of AFS securities included in the pro forma income statement for the nine quarter test horizon totaled \$2.6 billion. Projected write-downs were determined by using the prescribed global market price shocks to identify securities with estimated market values below amortized cost and the macroeconomic variables, such as the projected unemployment rate and HPI to estimate expected future cash flows. All securities with a market value below carrying value were evaluated for OTTI.

Trading, Counterparty, and Private Equity Losses

Trading, counterparty credit, and private equity position losses projected under the assumptions and methodologies provided in the global market shock component totaled \$6.0 billion. The global market shock factors generally reflect the price and rate movements that occurred in the second half of 2008, a period featuring severe market dislocations and the failure of a major, globally active financial institution.

Other Losses

Global market risk factor shocks were also required to be used to estimate mark-to-market losses for fair-value assets not held in trading, including loans held for sale or held for investment with the fair-value option. Our loans held for sale and loans accounted for under the fair value option at September 30, 2012 consisted of residential mortgage loans, commercial loans and commercial mortgage backed securities. Projected losses on fair-value loans totaled \$0.6 billion.

Wells Fargo Bank, N.A. Results

Wells Fargo Bank, National Association (Wells Fargo Bank, N.A., or the Bank) is a separate legal entity operating under a national bank charter within the Wells Fargo organizational structure and is the Company's principal subsidiary. In addition to performing Dodd-Frank Act stress testing on the consolidated Company, we also performed the annual stress tests required under rules and guidance published by the Office of the Comptroller of the Currency (OCC) with respect to the Bank.⁸ The rules and guidance (including the macroeconomic severely adverse scenario) provided by the OCC for the Bank stress test were consistent with those provided by the Federal Reserve for the Dodd-Frank Act stress test performed on the consolidated Company.

The Bank accounts for approximately 90% of the Company's overall assets. Accordingly, the results of the Bank's stress test under the same severely adverse scenario, including the global market shock components are similar in terms of the financial results of the consolidated Company, including the

⁸ See 12 C.F.R. pt. 46 (2013).

timing and severity of credit losses, changes in the balance sheet and pre-provision net revenues. In terms of capital ratios, however, there are differences when compared with the Company's capital ratios as the stress testing requirements for the Bank do not require the use of standardized capital actions. Rather, the capital actions reflected in the Bank's pro forma capital ratios reflect management's judgment of the actions the Bank would take to preserve capital under such severe economic conditions.

The results from the Bank's stress test are presented in Table 5.

Table 5 Wells Fargo Bank, N.A. Capital Results

	Actual	Stressed pro forma ratios ⁽¹⁾		Regulatory
	Sept. 30, 2012	Dec. 31, 2014	Minimum	Minimum ⁽²⁾
Tier 1 common equity ⁽³⁾	9.6 %	10.2	8.7	--
Tier 1 risk-based capital	9.7	10.2	8.8	4.0
Total risk-based capital	12.1	13.7	11.1	8.0
Tier 1 leverage	8.2	7.9	7.3	4.0

(1) Capital projections after Q4 2012 include the market-risk capital rules that became effective on January 1, 2013.

(2) Risk-based capital ratios represent minimum requirements per Minimum Capital Ratios (12 CFR 3.6, Part 3).

(3) Tier 1 common equity is a non-GAAP financial measure that is used by investors, analysts and bank regulatory agencies to assess the capital position of financial services companies.

As illustrated in the preceding table, the three risk-based capital ratios grow slightly over the nine quarter test horizon. The growth is driven primarily by modest net income generation over the nine quarter horizon and a shift in balance sheet asset mix to assets with lower risk-weightings. The Tier 1 leverage ratio, which is the ratio of Tier 1 capital to average consolidated assets declines slightly over the test horizon. The slight decline is caused by assumed growth in average consolidated assets that outpaces the growth in Tier 1 capital.

Stress Testing Methodologies

The stress test described in this Report is a forward-looking analysis of the potential impact of the adverse events described previously for the Scenario on the Company's capital adequacy. This section describes key risks considered in the stress test results and the methodologies applied to translate risk measures into estimates of potential losses over the nine quarter test horizon. Among the key risks considered are credit risk, asset/liability interest rate and market risks, and operational risk. Our Board of Directors and executive management have overall and ultimate responsibility for management of these risks, which they carry out through committees with specific and well-defined risk management functions. The Board and its committees work closely with management in overseeing risk. Each board committee receives reports and information regarding risk issues directly from management and, in some cases, management committees have been established to inform the risk management framework and provide governance and

advice regarding risk management functions⁹. We established such a management committee, the Stress Test Steering Committee, to provide appropriate oversight for the company-wide stress testing process. This committee is responsible for the review and approval of stress testing methodologies, oversight of stress test framework development, as well as directing, synthesizing and reviewing the results of stress tests.

This section also describes the methodologies applied to estimate capital resources over the nine quarter test horizon. Key outputs from these processes are pro forma balance sheets and income statements, which are used to produce capital projections, including projections of risk-weighted assets, and all regulatory and other capital ratios. In developing pro forma financial statements, the Company applies accounting practices consistent with the Company's significant accounting policies, GAAP, and regulatory capital rules¹⁰.

Our stress testing methodologies focus on empirically defining the relationship between macroeconomic variables and business volumes, revenues, and losses in order to estimate outcomes that may result from the specific adverse scenario under study. We use a series of models and estimation methodologies, coupled with management judgment, to produce a comprehensive estimate of future business performance. Stress testing methodologies are subject to considerable uncertainties and modeling limitations, including uncertainty about the extent to which historical relationships between macroeconomic factors and business outcomes will continue to be relevant in a severely stressed economic environment and the potential for changes to consumer behavior in response to changes in the environment. We regularly consider uncertainties and the limitations of our estimates when evaluating stress test results.

Pre-Provision Net Revenue

Pre-provision net revenue includes projections of net interest income, noninterest income and noninterest expense. Each of these components has distinct processes to consider a variety of risks, including interest rate risk, liquidity risk, market risk, mortgage repurchase risk, and operational risk in the generation of stress projections for the given test horizon.

Net Interest Income

Interest rate risk

Interest rate risk, which potentially can have a significant earnings impact, is an integral part of being a financial intermediary. We are subject to interest rate risk because:

- Assets and liabilities may mature or reprice at different times (for example, if assets reprice faster than liabilities and interest rates are generally falling, earnings will initially decline);

⁹ For additional discussion of risk management at Wells Fargo, please refer to our 2012 annual report, which is available on the Company's website at https://www.wellsfargo.com/invest_relations/filings

¹⁰ For additional information about Wells Fargo's significant accounting policies, please refer to Note 1 to Consolidated Financial Statements included in our 2012 annual report, which is available on the Company's website at https://www.wellsfargo.com/invest_relations/filings

- Assets and liabilities may reprice at the same time but by different amounts (for example, when the general level of interest rates is falling, we may reduce rates paid on checking and savings deposit accounts by an amount that is less than the general decline in market interest rates);
- Short-term and long-term market interest rates may change by different amounts (for example, the shape of the yield curve may affect new loan yields and funding costs differently);
- The remaining maturity of various assets or liabilities may shorten or lengthen as interest rates change (for example, if long-term mortgage interest rates decline sharply, mortgage backed securities (MBS) held in the AFS securities portfolio may prepay significantly earlier than anticipated, which could reduce portfolio income); or
- Interest rates may also have a direct or indirect effect on loan demand, credit losses, mortgage origination volume, the fair value of mortgage servicing rights (MSRs) and other financial instruments, the value of the pension liability and other items affecting earnings.

The primary method of measuring interest rate risk not associated with mortgage banking is through modeling net interest income. Net interest income is the interest earned on debt securities, loans (including yield-related loan fees), and other interest-earning assets minus the interest paid for deposits, short-term borrowings, and long-term debt. Net interest income is significantly influenced by the mix and overall size of our earning asset portfolio and the cost of funding those assets. In addition, some sources of interest income, such as loan prepayment fees and collection of interest on nonaccrual loans, can vary from period to period. The estimation process for net interest income is built on two fundamental components. The first component is the projection of expected behavior on existing balance sheet portfolios over the test horizon under the given scenario. The second component centers on estimating the expected growth and pricing behavior for new business originated under the given scenario.

To model the expected behavior of the existing balance sheet, instrument details are collected for the Company's investment, loan, deposit, and debt portfolios. This detailed data is used to project the interest income and expense of existing portfolios specific to the scenario conditions. To a large extent, the estimate of net interest income is driven by the contractual features of the underlying balance sheet instruments. Assumptions are made regarding other drivers of earnings and balance sheet composition such as loan origination demand, prepayment speeds, deposit balances and mix, as well as pricing strategies.

The methodology behind behavioral assumptions varies depending on the product being considered. The modeling approach for loan and investment prepayment projections varies by portfolio, but is generally consistent with historical relationships and drivers within the specific portfolio. In the case of estimating administered deposit yields, assumptions made for stress purposes are consistent with management practices and include the consideration of historical experience and current expectations of strategic actions. New business and origination assumptions incorporate a variety of considerations including

historical loan and deposit growth, economic conditions influencing the business environment, observed spreads on new production, and planned strategic actions.

Liquidity Risk

Liquidity risk is the negative impact to capital from actions the Company may take to meet its funding obligations in a period of liquidity stress. We perform a comprehensive analysis to determine the specific liquidity events expected to occur under the conditions specified in the scenario. In our analysis, we quantify the potential outflows of cash and the related impacts to interest income and expense that might arise by considering factors such as the runoff of consumer and commercial deposits, the nonrenewal of maturing wholesale funding sources, the drawdown of committed customer lines of credit, and the need for additional collateral requirements. To gauge the magnitude of these factors, we largely rely on the liquidity experience observed by Wachovia Corporation (Wachovia) during the second half of 2008, including the aftermath of the Lehman Brothers bankruptcy. Much of the data from Wachovia's crisis period prior to its acquisition by Wells Fargo has been preserved to provide empirical evidence for use in our liquidity stress scenario calculations. We also identify the sources needed to satisfy the assumed outflows of cash and quantify the related impacts to interest income and expense as well as the impact of increases in our debt issuance costs.

Noninterest Income

Projected noninterest income largely consists of revenue generated from service charges on deposits, trust and investment fees, card fees, mortgage banking, and all other fees. Loss projections for trading and AFS securities portfolios are presented separately and discussed in the Market Risk Related Losses section. Trust and investment fees are largely derived from providing services to our brokerage customers, managing and administering assets, and investment banking activities. Our all other fees includes charges and fees on loans, insurance, trading and equity gains, life insurance income, and operating lease income. The estimation process for noninterest income is based on macroeconomic and financial market variable assumptions, as well as key business performance metrics. Methodologies to estimate noninterest income vary across the major noninterest income categories and are tailored to the specific, underlying business activity being considered. In addition to models, the approaches include consideration of historical experience, expectations around new business, impact of regulatory changes, and management judgment. In some cases, specific financial market and macroeconomic variables that have been previously identified as key drivers of revenue, such as the Standard & Poor's 500 Stock Price Index and GDP, are incorporated into the projections based on their assumed levels.

Mortgage Banking Interest Rate and Market Risk

Interest rate and market risk can be substantial in the mortgage business. Changes in interest rates may potentially impact total origination and servicing fees, the value of our residential MSRs measured at fair value, the value of mortgages held-for-sale (MHFS) and the associated income and loss reflected in mortgage banking noninterest income, the income and expense associated with instruments used to

hedge changes in the fair value of MSRs and MHFS, and the value of derivative loan commitments (interest rate “locks”) extended to mortgage applicants.

Interest rates affect the amount and timing of origination and servicing fees because consumer demand for new mortgages and the level of refinancing activity are sensitive to changes in mortgage interest rates. Typically, a decline in mortgage interest rates will lead to an increase in mortgage originations and fees and may also lead to an increase in servicing fee income, depending on the level of new loans added to the servicing portfolio and prepayments. The Scenario assumed changes in interest rates drive assumptions around changes in origination market size and loan prepayments. These assumptions are used to project the potential net impact of the Scenario economic conditions on the Company’s balance sheet and income statement.

Mortgage Repurchase Risk

Wells Fargo sells mortgage loans to investors under contractual provisions that may include certain representations and warranties. Repurchase risk arises from the potential that a contractual representation or warranty has been breached and the breach is not remedied within a specified period (usually 90 days or less) after receiving notice of the breach. Wells Fargo establishes repurchase liabilities that reflect management’s estimate of losses for loans for which we could have a repurchase obligation, whether or not we currently service those loans, based on a combination of factors. The repurchase risk typically diminishes over time as customers meet their contractual obligations, gain equity in their home, or both. Our estimates of repurchase risk are projections of repurchase losses by exposure type based on default expectations, estimates of expected investor repurchase demands (influenced by defects, current and expected mortgage loan file requests and mortgage insurance rescission notices, as well as estimated demand to default and file request relationships), and appeals success rates (where the investor rescinds the demand based on a cure of the defect or acknowledges that the loan satisfies the investor’s applicable representations and warranties), reimbursement by correspondent and other third party originators, and projected loss severity. Loss content is in turn driven by macroeconomic assumptions.

Noninterest Expense

Estimates of noninterest expense, primarily personnel-related expenses, are closely associated with the projected level of business activity, the overall strength or weakness of the assumed economic environment, or otherwise based on standard, defined calculations. In addition to routine business driven expenses, consideration is also given to expenses that may materialize from other risks in the stress environment such as operational losses or foreclosed asset related expenses.

Operational Risk

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events and includes legal risk and the risk of regulatory fines and penalties. As evident in the definition, operational risk is broadly defined. The scope includes loss event types that range from highly frequent, but low impact losses to those that are much less frequent, but have

significant financial impacts. It is not uncommon for a few events to generate the majority of financial impact. While the drivers of operational risk can vary by business, the most significant financial impacts often relate to products or business practices resulting in litigation or regulatory actions. Transaction processing errors and fraud events occur much more frequently and can be significant in the aggregate, but generally have less financial impact per event than loss events involving litigation. Lastly, material losses can also arise from rare, externally-driven events such as earthquakes or terrorist attacks.

Operational risk projection is a relatively new discipline and given the difficulty in applying statistical techniques to a small population of loss events, we utilize multiple approaches, such as trending of historical performance, management judgment and statistical modeling to project operational losses in a stress environment. Currently our estimation process for operational risk losses involves three specific methodologies, each reflecting a different perspective on operational risk. One of the methodologies centers on the analysis of historical operational loss data as captured on our internal financial systems. A second methodology leverages the Basel II Advanced Measurement Approaches (AMA) framework used to project operational losses over a one year time horizon. The third methodology generates operational loss projections using statistical techniques to estimate correlation relationships between changes in specific macroeconomic variables on operational loss frequency, essentially incorporating our historical loss experience along with macroeconomic factors to estimate losses under a variety of economic scenarios.

Provision for Loan and Lease Losses

Credit Risk

Loans represent the largest component of assets on our balance sheet and their related credit risk is among the most significant risks we manage. We define credit risk as the risk of loss associated with a borrower or counterparty default (failure to meet obligations in accordance with agreed upon terms). Loss projections for counterparty credit risk are presented separately and discussed in the Market Risk Related Losses section. Credit risk associated with a borrower default is translated to the pro forma income statement through the provision for loan losses reflecting forecasted loan losses that would be realized as charge-offs in accordance with the prescribed scenario and the over (under) provision reflecting the change in ALLL balance to ensure adequacy at the end of each period.

Loan Loss Forecasting

When estimating loan losses, probability of default (PD), exposure at default (EAD), and loss severity (LGD) assumptions are incorporated into the loan loss estimates. Loss estimates take into consideration the unique characteristics of our commercial and consumer loan portfolio segments. For each portfolio segment, losses are estimated collectively for groups of loans with similar risk characteristics.

A variety of models are used to project losses on the loans in the held for investment loan portfolio. While we externally report our loan portfolio by commercial and consumer portfolio segments, for the purpose of stress testing, we segment our portfolios between individually graded commercial loans (Wholesale)

and Retail loans that include both consumer loans and scored small business loans. The methodologies described in this section cover the models developed for the major categories of Wholesale and Retail loans. The loan loss projections take into consideration many factors, including historical performance, the forecasted economic scenarios, current credit characteristics, and loan-level credit quality ratings. Where appropriate, we incorporate state and local economic variables to reflect geographical concentrations within a given loan portfolio.

Wholesale Lending: Individually Graded

Wholesale loss estimation occurs at the asset type level, specifically between CRE and commercial non-real estate (includes C&I, foreign and leasing). We use multiple loss forecasting approaches to mitigate model risk. Wholesale loans are subject to individual risk assessment using our internal borrower and collateral quality ratings. The primary loss model framework relies on risk rating migration matrices where commitments migrate between grades – and eventually to loss – based on changes in the unemployment rate. Commitment utilization is assumed to increase as the loan risk rating deteriorates. Loss severity is assessed on all new nonperforming loans to estimate losses coming from the portfolio in a given quarter. The level of loss severity itself is conditioned on the volume of loans migrating to non-accrual in a given quarter. The loss forecasts from the primary model were supported or benchmarked by other confirming models. Specifically, the CRE portfolio also leveraged loan level models which rely on attributes like loan-to-value, net operating income, maturity, and capitalization rates to calculate default probabilities and losses. The commercial non-real estate model was developed using pooled historical data purchased from industry data aggregators that produces a forecast of expected default frequency.

Retail Lending: Residential Real Estate (First Lien Mortgages and HELOANs, Junior Liens, and HELOCs)

Losses on residential first lien mortgages are projected using a combination of short term and long term loss projection models which project both PD and LGD. The short term models are portfolio-based econometric roll rate models that use economic attributes (such as unemployment rate, retail sales, housing starts, gross state product, and housing price) to condition delinquency-status migration patterns and estimate loss. The long term models for first lien mortgage portfolios incorporate a collection of loan level models that predict the conditional probabilities of reaching loss based on MSA- and state-level economic variables (including unemployment, home price, foreclosures, gross state product) and borrower attributes (for example, loan-to-value).

Our home equity portfolio long term loss forecast model leverages vintage-based econometric models segmented by product type and uses state-weighted variables including unemployment, home price, and housing starts.

Retail Lending: Credit Cards

Losses on the credit card portfolio are based upon borrower characteristics, other account attributes and the impact of forecasted macroeconomic variables on the PD. The majority of the credit card portfolio uses a combination of short term and long term projection models to project losses. The near-term

approach estimates the initial quarter loss using a trended roll rate model based on the trend line of historical vintage roll rates.

The longer term loss projection model is a segment level, scored-based model which assigns each current loan into a risk tier. Transition rates between the segments are driven by portfolio-weighted state-level economic variables, as well as national personal bankruptcy rates.

Retail Lending: Other

The other Retail lending category includes the auto portfolio, student loan portfolio, personal lines and loans portfolio, the scored small business and business card portfolio, and several other smaller portfolios. A variety of techniques are used to project losses across this diverse collection of portfolios, including statistically derived estimation, consideration of historical loss experience, incorporation of current trends in borrower risk and management judgment. In general terms, the techniques used attempt to capture the historical behavior of net charge-offs relative to changes in macroeconomic and loan portfolio characteristics.

Allowance for Loan and Lease Losses

The ALLL is estimated quarterly based on the following current accounting standards:

- ASC 450 (SFAS 5) governs allowance for losses that are probable and estimable
- ASC 310-10-35 and 310-40 (SFAS 114) govern allowance for impaired loans (nonperforming individually graded commercial loans and loans modified under a troubled debt restructuring)
- ASC 310-30 (SOP 03-3) governs allowance for Purchased Credit Impaired (PCI) loans

Our ALLL methodology reflects Wholesale and Retail portfolio segments for stress testing purposes.

Wholesale Portfolio Allowance:

The Wholesale loss forecasting models produce quarterly risk migration matrices to which we then apply stressed commercial loss factors for reserve estimation. Nonperforming loan loss allowance is an estimate of the loss over the life of loan.

Retail Portfolio Allowance:

The Retail loss forecasting models produce quarterly loss estimates. Loans are pooled generally by product type with similar risk characteristics. The allowance is estimated using forecasted losses to represent our best estimate of inherent loss based on historical experience, quantitative and other mathematical techniques over the loss emergence period.

Estimated troubled debt restructuring (TDR) volumes and life of loan reserves are stressed quarterly throughout the observation period. Cashflow shortfalls from PCI mortgages are estimated by life-of-loan models, and related provision expenses are recognized to establish an appropriate allowance.

An incremental estimate for imprecision is applied to both the allowance estimates to reflect inherent uncertainty in the process, judgments and estimates, particularly model risk and unforeseen changes in customer behavior.

Market Risk Related Losses

From a market risk perspective, our net income is exposed to changes in interest rates, credit spreads, foreign exchange rates, equity and commodity prices and their implied volatilities. Market risk related to our AFS securities portfolio is reflected in estimates of OTTI and changes in market values. Market risk related to our trading and derivatives portfolios is reflected in estimates of trading and counterparty credit related losses. Counterparty credit risk arises when a trading partner fails to fulfill its obligations on a transaction or portfolio of transactions, and Wells Fargo must terminate the trade or replace the counterparty at a loss. Market risk is also reflected in estimates of losses related to our private equity portfolios.

The market risk related changes are derived from the global market shock factors and instructions published by the Federal Reserve. The global market shocks include shocks to a large number of risk factors that include a wide range of financial market variables that affect asset prices, such as a credit spread or the yield on a bond, and, in some cases, the value of the position itself (such as the market value of private-equity positions).

Available for Sale Securities

AFS securities consist of debt securities and marketable equity securities. Losses on securities held in the AFS securities portfolio are projected through OTTI over the stress test horizon. Securities with projected market values below carrying values are evaluated for potential OTTI under the stress scenario. Projected market values were derived using the global market shock risk factors.

No future sales of AFS securities were assumed to occur over the test horizon as required by the instructions issued by the Federal Reserve. Therefore, in the stress test we recognize OTTI if under the Scenario conditions we would not expect to recover the entire amortized cost basis of the security. The OTTI write-down is separated into an amount representing the credit loss, which is recognized in earnings, and the amount related to all other factors, which is recognized in other comprehensive income (OCI). The measurement of the credit loss component is equal to the difference between the debt security's cost basis and the present value of its estimated future cash flows discounted at the security's effective yield. The remaining difference between the security's projected fair value and the present value of future expected cash flows is due to factors that are not credit-related and, therefore, are recognized in OCI.

To project the amount, if any, of the security's amortized cost basis we would not expect to recover in the stressed environment, we perform a credit analysis to estimate the performance of the underlying credit or collateral positions under the Scenario's economic conditions. In general, the methodology we use to estimate the credit-related component of OTTI varies based on the type of security under evaluation.

- Assets assumed not to be at risk for OTTI: We assume projected declines in the market values of U.S. Treasury and federal agency obligations as well as federal agency MBS are not due to credit risk given the implicit or explicit guarantees provided by the U.S. government.
- Securitized assets: For securitized assets, detailed cash flow projections are developed for the underlying collateral. The unique credit characteristics of each transaction are analyzed and asset by asset collateral projections are created factoring in the Scenario economic conditions. Key assumptions developed for determining the projected cash flows include default rates, loss severities and prepayment rates. The estimated collateral performance is then used to project cash flows to the various tranches in the security structure to create a set of projected bond cash flows. The debt security's cost basis is compared with the present value of the projected bond cash flows discounted at the security's effective yield and the difference is recognized in the pro forma income statement as credit related OTTI.
- Direct obligation assets: For assets where the credit risk is the direct obligation of the issuer (for example, corporate debt and municipal bonds), for each position we develop projections of credit losses considering the issuer's credit quality, the type of security (secured or unsecured), and the Scenario's economic conditions. The expected credit losses are compared with the security's amortized cost to determine OTTI.
- Market priced assets: For some assets where detailed econometric modeling was not viable, or where the security is accounted for at fair value, we measured OTTI as the decline in the projected market price of the security which is derived from the global market shock risk factors.

Trading and Counterparty Credit Risk

Our approach to projecting market risk trading losses in a stress environment is based upon specifying macroeconomic shifts and then observing their impacts on the firm's performance. The market risk trading stress is computed using a full revaluation methodology in which the portfolio is fully re-priced under the stressed risk factor assumptions. For the specified stress scenario, the shifts of one or more risk drivers are applied simultaneously to the position and the trade is re-priced. The difference between the original transaction value and the post shock value is the stress loss or gain to the transaction. The losses and gains of each transaction are aggregated to determine the stress result for the entire trading portfolio. Specific shifting methodology varies by asset class and related risk driver. For example, the equity asset class has separate shifting methodologies for price and for implied volatility. Interest rates, credit rates and foreign exchange asset classes have separate shifting methodologies for their respective curves/rates and implied volatility surface.

We estimate counterparty losses arising from two sources: (1) the increase in the CVA, which is a measure of mark-to-market expected credit losses, similar to the ALLL; and (2) the losses upon a counterparty default in excess of the losses already recognized through the CVA (referred to as incremental default risk or IDR).

The estimation of counterparty credit risk varies across the different portfolios and is multidimensional in nature to capture the stress of exposures, the stress of credit quality and timing. In general, CVA is calculated either directly in the trading systems or through an expected loss approach. Stressing of exposures predominantly occurs through the application of market shock assumptions, such as shifting rates and prices. Counterparty credit quality is primarily stressed through the combination of market shock factors and internal historical stress experience from fourth quarter 2008.

For the purposes of calculating IDR, losses are assumed to occur at the same rate as evidenced by the Wholesale commercial loan portfolio given the level of commonality of the customer base. These loss rates are applied to the sum of the peak stressed expected exposures in proportion to a grade-based expected loss analysis. The losses allocated to each grade are assumed to be covered by the stressed CVA associated with that grade in proportion to the ratio of stressed CVA to stressed exposure.

Changes in Capital and Capital Ratios

Capital estimates are derived from quarterly pro forma financial statements generated through the stress test projection process. The change in equity capital each quarter reflects the after tax net income (loss) estimate for that quarter adjusted for the standardized capital actions assumed to be taken during that quarter. The resulting equity capital balance for each quarter is adjusted for certain regulatory deductions defined by U.S. regulatory capital rules, such as goodwill and OCI, to arrive at estimated regulatory capital. The pro forma balance sheet is risk weighted from one quarter to the next to account for changes in the overall balance sheet size and mix and for changes in off-balance sheet exposures. Beginning with first quarter 2013 and for all subsequent quarters, risk-weighted asset computations incorporate the application of the final Market Risk Capital rule, which became effective January 1, 2013. The resulting regulatory capital and risk-weighted asset estimates are used to generate pro forma quarterly capital ratios.