Wells Fargo & Company

2013 Mid-Cycle Stress Test Results

Under the Company’s Assumed Severely Adverse Scenario

September 16, 2013
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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 and the Internet (wellsfargo.com), and has offices in more than 35 countries to support Wells Fargo’s customers who conduct business in the global economy. With more than 274,000 active, full-time equivalent team members, Wells Fargo serves one in three households in the United States. Wells Fargo & Company was ranked No. 25 on Fortune’s 2013 rankings of America’s largest corporations. Our vision is to satisfy all our customers’ financial needs, help them succeed financially, be recognized as the premier financial services company in our markets and be one of America’s great companies.

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 to 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 Mid-Cycle Dodd-Frank Act stress test. This test evaluates the potential impact of a Company-defined severely adverse scenario on our consolidated financial position. In this Report, when we refer to “Scenario” we are referring to our Company-defined
2013 Mid-Cycle severely adverse scenario, inclusive of the Company-defined market shock components described in the Severely Adverse Scenario section of this Report.

Our stress testing results in pro forma capital ratios that reflect specific assumptions regarding capital actions that are prescribed by the Dodd-Frank Act stress test rule\(^1\) (standardized capital actions). The standardized capital actions assume dividend payments are maintained at the quarterly average dollar amount for the period Q3 2012 through Q2 2013 across the test horizon; while in practice, if this Scenario were to occur, the Company would take capital conservation actions mandated by internal policy, which include changes in 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 Mid-Cycle 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 margin compression, and market-related losses. For the nine quarter test horizon ranging from April 1, 2013 to June 30, 2015, we project a cumulative total net loss before tax of $3.8 billion. The cumulative net loss before tax reflects projected losses of $56.4 billion, including provision for loan losses, trading and counterparty credit losses, losses on securities available for sale (AFS) (no securities were classified as held to maturity over the planning horizon), 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 $52.6 billion.

Our pro forma Tier 1 common equity ratio\(^2\), calculated under Basel I, estimated under the Scenario assumptions and reflecting the standardized capital actions decreases from 10.4% at March 31, 2013 to 10.3% at June 30, 2015. Despite projected declines in revenue and significant losses, and the mandated assumption that limited capital conservation actions would be taken, we maintained a projected Tier 1 common ratio well above the 5% benchmark minimum ratio established under the Federal Reserve’s rule regarding capital plans\(^3\). The projected minimum Tier 1 common ratio for any quarter-end during the nine quarter test horizon was 9.9%.

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\(^1\) The prescribed Dodd-Frank Act capital actions include estimated Q1 2013 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.

\(^2\) Capital projections 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).

Severely Adverse Scenario

The severely adverse scenario, developed by our internal Corporate Economics Group, assumes an intense recession in the United States due to extreme fiscal tightening domestically and a deep global recession. Domestically, the scenario assumes fiscal policy tightens sharply with a mix of tax hikes and spending cuts that, in turn, lead to reductions in disposable income and spending. Internationally, the scenario assumes the Eurozone faces pressure with yields on peripheral countries’ sovereign debt spiking and counterparty risks among member nation banks increasing, causing a steep economic decline, while China also experiences a slowdown. This combination of fiscal policy eroding growth domestically and weaknesses abroad causes real GDP in the U.S. to decline 4.6% over the first five-quarters of the forecast horizon.

In addition to the projected intense decline in output, aspects of special idiosyncratic importance were stressed beyond the strict modeled value implied by the decline in GDP; for example unemployment surges to 12.6% in 2014, far exceeding the Great Recession’s peak of 9.9%. The confluence of rising unemployment, declining consumer confidence, and restricted credit availability, engendered by the recession, lead to steep slides in the U.S. real estate market, with house prices down 20% and commercial real estate prices down 30%. Key measures of loan performance, including delinquency, foreclosure and bankruptcy rates, suffer accordingly.

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

Table 1 lists specific values projected by our Corporate Economics Group for macroeconomic variables that are material drivers in our estimation processes.

Our economics team uses a robust, top-down approach to develop the projected variables in the severely adverse macroeconomic scenario. The scenario is based upon outputs from a credible, widely-used econometric macro-simulation model that shows an internally consistent evolution of the economy under severely adverse macroeconomic conditions. The variable paths are projected to be consistent and plausible, even in approximating situations that have not occurred previously. The initial set of key variables is selected to ensure the scenario reflects a severe economic downturn which encompasses our idiosyncratic risks, internal policy guidelines for severity and other unique characteristics. Once the macroeconomic forecast summary and the paths of key economic variables are created and internally approved, we use models to develop sub-U.S. level regional economic projections to better address credit risks on a geographically granular basis. Specifically, 140 U.S.-level metrics serve as key drivers of the regional economic model, whose output includes regional projections for all 50 states and the District of Columbia and 384 metropolitan statistical areas (MSAs), culminating in over 4,500 detailed variables utilized for projecting. In all instances, our methodology to create the detailed variables is performed in a theoretically sound and empirically rigorous way to ensure internal consistency and coherence.
Our severely adverse scenario also incorporates market shock components, which are one-time hypothetical shocks to a large set of risk factors. Generally, these shocks involve large and sudden changes in asset prices, rates, and spreads, reflecting general market dislocation and heightened uncertainty. We utilized market risk factor shocks that replicate the impact of the actual market moves encountered in the fourth quarter of 2008, a period with significant disruption in the capital markets, which experienced credit spreads rising, volatility measures increasing, and equity markets falling. We apply these risk factor shocks to the March 31, 2013 trading portfolio by fully revaluing each position for the entire portfolio except for non-agency securitized products that receive market value based shocks. This is executed by taking the current market data (interest rates, equity prices, volatility measures, etc.) and applying the same market shocks that were observed during the historical stress period (i.e., fourth quarter 2008). The difference between the original market value and the post-shock market value is the amount of gain/loss for the stress scenario.

Summary Results

Under the Scenario, the Company’s pro forma Tier 1 common equity ratio, calculated under Basel I, was projected to decline from 10.4% at March 31, 2013 to 10.3% at June 30, 2015, the end of the test horizon. The capital ratio projections include the standardized capital actions. The projected minimum Tier 1 common equity ratio over the nine quarter test horizon was 9.9%, 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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 common equity</td>
<td>10.4 %</td>
<td>10.3</td>
<td>9.9</td>
</tr>
<tr>
<td>Tier 1 risk-based capital</td>
<td>11.8</td>
<td>11.7</td>
<td>11.3</td>
</tr>
<tr>
<td>Total risk-based capital</td>
<td>14.8</td>
<td>14.4</td>
<td>14.2</td>
</tr>
<tr>
<td>Tier 1 leverage</td>
<td>9.5</td>
<td>9.1</td>
<td>9.0</td>
</tr>
</tbody>
</table>

(1) 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 plan rule. 12 CFR 225.8(d)(2)(i)(B).
(2) 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 projected pro forma Tier 1 common equity to risk-weighted assets ratio declined 0.1% over the nine quarter test horizon, reflecting a cumulative reduction in Tier 1 common equity and assumed decreases in risk-weighted assets by the end of the test horizon. Projected pro forma Tier 1 common equity declines primarily as a result of a combination of reduced income estimated under the Scenario conditions and standardized capital distributions. The decrease in projected pro forma risk-weighted assets reflects both assumed balance sheet contraction 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 0.1% and 0.4%, respectively, by the end of the nine quarter period due to changes in the level of Tier 1 common equity, planned redemptions and amortization of regulatory capital instruments. The 0.4% decrease in projected pro forma Tier 1 leverage ratio was due to lower ending Tier 1 capital partially offset by a decline in 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 $3.8 billion.

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

<table>
<thead>
<tr>
<th>(in billions)</th>
<th>Nine quarter cumulative, ending June 30, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-provision net revenue (1)</td>
<td>$ 52.6</td>
</tr>
<tr>
<td>Less</td>
<td></td>
</tr>
<tr>
<td>Provision for loan and lease losses (2)</td>
<td>48.5</td>
</tr>
<tr>
<td>Realized losses on securities available for sale</td>
<td>2.6</td>
</tr>
<tr>
<td>Trading and counterparty losses (3)</td>
<td>5.1</td>
</tr>
<tr>
<td>Other losses (4)</td>
<td>0.2</td>
</tr>
<tr>
<td>Subtotal of losses</td>
<td>56.4</td>
</tr>
<tr>
<td>Net loss before taxes</td>
<td>$ (3.8)</td>
</tr>
</tbody>
</table>

(1) Pre-provision net revenue includes losses from operational risk events, mortgage repurchase expenses, unreimbursed foreclosure costs, 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 include 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 $52.6 billion reflects projected declining levels of net interest income over the nine quarter test horizon due primarily to loan portfolio contraction, margin compression, and faster prepayments of residential mortgages. Stronger residential mortgage origination volumes attributable to the lower mortgage rate environment somewhat offset the impacts of the severe recession.

Also reflected in stressed pre-provision net revenue were lower levels of noninterest income. The Scenario’s sharp stock market drop of 28% in the final quarters of 2013, followed by a further 54% drop in 2014, significantly reduced trust and investment fee income. While mortgage production fees increase driven by the lower mortgage rate environment, they are more than offset by: additional mortgage repurchase liability build driven by higher unemployment and falling home prices, the impact to mortgage servicing rights valuation from higher prepayments resulting from increased refinancing activity, and reduced hedge income. The overall revenue reduction is partially mitigated by reduced noninterest expense. Benefits from lower sales incentives and cost saving actions were partially offset by volume-related mortgage banking expense increases, higher default costs as loan losses increase, and higher FDIC assessments in the stressed environment.

Provision for Loan and Lease Losses

The nine quarter cumulative provision for loan and lease losses was estimated at $48.5 billion and consists of projected loan loss charge-offs of $29.7 billion and an increase in the allowance for loan and lease losses (ALLL) of $18.8 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 provision to ensure adequate coverage of losses inherent in the loan portfolio at the specified point in time. 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 Q2 2013 through Q2 2015 under the Severely Adverse Scenario (1)

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>Nine quarters cumulative June 30, 2015</th>
<th>Cumulative portfolio loss rate (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First lien mortgages, domestic</td>
<td>$5.8</td>
<td>2.6 %</td>
</tr>
<tr>
<td>Junior liens and home equity lines of credit, domestic</td>
<td>6.8</td>
<td>8.4</td>
</tr>
<tr>
<td>Commercial and industrial (2)</td>
<td>4.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Commercial real estate, domestic</td>
<td>4.6</td>
<td>3.9</td>
</tr>
<tr>
<td>Credit card</td>
<td>3.6</td>
<td>13.7</td>
</tr>
<tr>
<td>Other consumer</td>
<td>3.2</td>
<td>3.7</td>
</tr>
<tr>
<td>All other loans (3)</td>
<td>1.7</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Projected loan losses</strong></td>
<td><strong>$29.7</strong></td>
<td><strong>3.9 %</strong></td>
</tr>
</tbody>
</table>

(1) The loan categories presented in Table 4 adhere to FR Y 14A reporting definitions and will not agree to the loan categories presented in our financial reports filed with the SEC.

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

(3) 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.

(4) 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 $29.7 billion of loan losses across the commercial and consumer loan portfolios. A primary driver of the losses across both portfolios was the unemployment rate assumed in the Scenario, which increased 4.6% to peak at 12.6% in 4Q 2014 and ended the nine quarter horizon at 11.7%. Residential real estate price assumptions, with a current-to-trough decline of 20%, also drove projected consumer loan losses.

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 $10.3 billion or 35% 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, the year-over-year changes in the unemployment rate were a key driver for the losses projected in the CRE and C&I portfolios.

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). Projected losses over the nine quarter horizon on the consumer portfolio totaled $19.4 billion or 65% 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 applying market values and credit spreads reflective of market conditions in March 2009 to identify securities with estimated market values below amortized cost, and estimating future cash flows using the macroeconomic variables, such as the projected unemployment rate and HPI. All securities with a market value below carrying value were evaluated for OTTI.

Trading and Counterparty Losses

Trading and counterparty credit losses, which includes mark-to-market losses, changes in credit valuation adjustments (CVA), incremental default losses, and losses on non-trading related private equity positions, projected under our global market shock component totaled $5.1 billion. The global market shock factors generally reflect the price and rate movements that occurred in the fourth quarter 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 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 positions accounted for under the fair value option at March 31, 2013 consisted of residential mortgage loans, commercial loans and commercial mortgage backed securities. Projected losses on fair-value positions totaled $0.2 billion.

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. 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 functions. 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.

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4 For additional discussion of risk management at Wells Fargo, please refer to our 2012 annual report, and our quarterly reports for the first and second quarters of 2013, all of which are available on the Company’s website at https://www.wellsfargo.com/invest_relations/filings
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 GAAP accounting policies, and regulatory capital rules.

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 (other than market risk related losses presented separately in Table 3 above) 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);

- 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);

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5 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 and in our quarterly reports for the first and second quarters of 2013, all of which are available on the Company's website at [https://www.wellsfargo.com/invest_relations/filings](https://www.wellsfargo.com/invest_relations/filings)
• 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 modeling methodology and management judgment applied to behavioral assumptions varies depending on the product being considered. For example, the modeling approach for loan and investment prepayment projections varies by portfolio and is generally based on historical relationships and drivers specific to each individual portfolio. In the case of estimating administered deposit yields, assumptions made for stress test 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. In all cases, the resulting forecast of product behaviors in each scenario is
evaluated relative to the Company's experience in various relevant economic environments and for consistency with business strategy.

**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 provided empirical data for 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 below. 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 impact total origination and servicing fees, the fair value of our residential MSRs, the fair 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 income and net mortgage servicing fees because consumer demand for new mortgages and the level of refinancing activity are sensitive to changes in mortgage interest rates. The sensitivity to interest rates is much greater when prevailing mortgage rates are at or below the average rate on the total mortgage debt outstanding. Typically, a decline in mortgage interest rates will lead to an increase in mortgage originations and fees, and a decrease in net mortgage servicing fees. The Scenario interest rates drive assumptions around changes in origination market size and loan prepayments. These assumptions are used to project the potential net impact 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. Where noninterest expense relationships are indeterminate with economic drivers or financial market variable assumptions, management judgment is employed.

**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. Given the reliance on historical losses across our operational risk methodologies, our operational risk projections do not explicitly incorporate risks or events that have not manifested themselves. However, to ensure a sound projection, we judgmentally assess our operational loss projection for appropriate conservatism and the ability to accommodate events that may potentially occur.

**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 projected loan losses that would be realized as charge-offs in accordance with the prescribed scenario and the provision reflecting the change appropriate to ensure adequacy of the ALLL 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 for Wholesale loans, loan-level credit quality ratings. Where appropriate, we incorporate state and local economic variables to reflect geographical concentrations within a given loan portfolio. Management adjusts primary modeled results largely based on information provided by alternative models - though less significant adjustments based on knowledge of recent trends, considerations related to loan modifications, or other factors not captured by models are also included in the final estimates.

**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 applied to 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 utilized loan-level models which rely on attributes such as projected loan-to-value, net operating income, maturity, and capitalization rates to calculate default probabilities and losses. The commercial non-real estate confirming model was developed using pooled historical data purchased from industry data aggregators that produce a forecast of expected default frequency.

**Retail Lending: Residential Real Estate (First Lien Mortgages and Home Equity Loans, Junior Liens, and Home Equity Lines of Credit)**

Losses on residential first lien mortgages are projected using loss projection models which project both PD and LGD. The loss forecast 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. Adjustments to primary modeled output include incremental loss content indicated by an econometric loss rate model that is based on risk groups determined by CLTV and FICO score. Additionally, less significant adjustments related to accelerated losses for Chapter 7 bankrupt customers based on recent regulatory guidance and additional defaults due to payment increases associated with that portion of the population due to experience an end-of-draw were reflected in our forecasted losses. Additional information on end of draw risk, which represents the transition of a home equity line of credit to a fixed, amortizing payment, is available in the Risk Management—Credit Risk Management section of the Wells Fargo Annual Report for 2012 and in the Wells Fargo quarterly reports for the first and second quarters of 2013.

Retail Lending: Credit Cards
Projected 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 based on a customized credit score. 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 models are used to project losses across this diverse collection of portfolios, and model results are subject to adjustment based on consideration of historical loss experience, incorporation of current trends in borrower risk and management judgment. For our Auto portfolio, we also make assumptions about changes in used car prices that would lead to lower recoveries and therefore higher losses under stressed conditions. 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.

6 For additional information about Wells Fargo’s end of draw risk, please refer to the Risk Management—Credit Risk Management section in our 2012 annual report and in our quarterly reports for the first and second quarters of 2013, all of which are available on the Company’s website at https://www.wellsfargo.com/invest_relations/filings
**Allowance for Loan and Lease Losses**

The Company estimates the ALLL for each period of the nine quarter forecast horizon, using a methodology consistent with the following accounting standards:

- ASC 450 (SFAS 5) governs allowance attributable to non-impaired loans 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. While we attribute portions of the allowance to our respective wholesale and retail portfolio segments, the entire allowance is available to absorb credit losses inherent in the total loan portfolio.

**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 ASC 450 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 losses 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 added to both Wholesale and Retail 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.

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 our global market shock risk factors.

No future sales of AFS securities were assumed to occur over the test horizon. Therefore, in the stress test we recognize OTTI if under 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 projected 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 security-level collateral projections are created factoring in 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
projected 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 our 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 trade value and the post shock value is the stress loss or gain to the trade position. The losses and gains of each trade position 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 prescriptions, shifting rates and prices. The method for stressing the credit component of CVA depends upon whether the counterparty has observable market instruments which price credit, either liquid credit default swap (CDS) markets or observable bond prices. Counterparty names which have observable market instruments are referred to as the liquid portfolio, and the liquid portfolio stressed CVA is derived by widening spreads based on ratings-based market proxies for each scenario. Counterparties which do not have observable market instruments are referred to as the illiquid portfolio, and stressing of the credit quality for the illiquid portfolio involves stressing the market based component of the curves by the shifts prescribed blended with internal probability of default based on the Company’s specific stress experience.

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. The remaining loss is recognized as IDR.

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.