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Overview and Cautionary Notice

Section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and related regulations require bank holding companies and insured depository institutions with total consolidated assets of more than \$10 billion—such as UMB Financial Corporation (the Company) and UMB Bank, National Association (the Bank)—to conduct annual stress tests and to disclose specified results from those tests.

The annual stress tests are forward-looking exercises that require the Company and the Bank to estimate the impact of hypothetical macroeconomic scenarios on their financial conditions and regulatory capital ratios over a nine quarter stress period.

This disclosure relates to the annual stress tests (the 2015 Stress Test) that were conducted by the Company and the Bank using (1) their balance sheets as of Sept. 30, 2014, and their actual financial performance through only that date, (2) a stress period lasting from Oct. 1, 2014, through Dec. 31, 2016 (the Stress Period), and (3) the supervisory severely adverse scenario (the 2015 Severely Adverse Scenario) that was developed and supplied by the Board of Governors of the Federal Reserve System (the FRB)¹ and the Office of the Comptroller of the Currency (the OCC). The Company and the Bank submitted the final results of the 2015 Stress Test to the FRB and the OCC on March 30, 2015.

The final results of the 2015 Stress Test indicate that, in every quarter of the Stress Period, the Company and the Bank each would withstand the 2015 Severely Adverse Scenario with regulatory capital in excess of the levels required by the FRB and the OCC.

It should be noted that, when supplied, the 2015 Severely Adverse Scenario was expressly disclaimed by the FRB and the OCC as a forecast. Rather, according to the FRB and the OCC, the 2015 Severely Adverse Scenario described a hypothetical set of conditions that were designed to assess the strength of banking organizations and their resilience to a severely adverse economic environment characterized by a deep and prolonged recession. In addition, the FRB and the OCC did not permit the 2015 Stress Test to incorporate capital actions that the Company might well be expected to take during the Stress Period in response to the 2015 Severely Adverse Scenario.

Accordingly, the 2015 Stress Test and its results do not represent forecasts by, or reflect the current expectations or plans of, the Company or the Bank in connection with future businesses, revenues, expenses, gains, losses, assets, liabilities or capital ratios. The assumptions in the 2015 Stress Test,

¹ The macroeconomic scenarios can be found at www.federalreserve.gov/bankinforeg/dfa-stress-tests.htm.

moreover, may not reflect the actions, decisions not to act or other responses of the Company or the Bank if severely adverse economic conditions were to arise.

Still, this disclosure may be considered to contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements can be identified by the fact that they do not relate strictly to historical or current facts—such as statements that describe the assumptions in the 2015 Stress Test or its results. You should not rely on the 2015 Stress Test, its results or any other statement of a forward-looking nature in this disclosure as a forecast by the Company or the Bank or as a prediction or guarantee about the future. Actual future objectives, strategies, plans, prospects, performance, condition or results of the Company or the Bank may differ materially from those set forth in any forward-looking statement. Some of the factors that may cause actual results or other future events, circumstances or aspirations to differ from those in forward-looking statements are described in the Company’s Annual Report on Form 10-K for the year ended Dec. 31, 2014, subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K or other applicable documents that are filed or furnished with the U.S. Securities and Exchange Commission (the SEC). Any forward-looking statement speaks only as of the date that it was made. Neither the Company nor the Bank undertakes to update any forward-looking statement to reflect the impact of events, circumstances or results that arise after the date that the statement was made.

Background on the Company and the Bank

The Company is a diversified financial holding company that is headquartered in Kansas City, Mo. Together with its subsidiaries, the Company supplies banking services, institutional investment management, asset servicing and payment solutions to its customers in the U.S. and around the globe. The Company’s common stock is listed with The NASDAQ Stock Market LLC (NASDAQ: UMBF).

The Bank, which is a subsidiary of the Company, has its principal office in Missouri and also has branches in Arizona, Colorado, Illinois, Kansas, Nebraska, Oklahoma and Texas. The Bank offers a full complement of banking services to commercial, retail, government and correspondent bank customers, including a wide range of asset management, trust, bank card and cash management services.

The Company’s significant nonbank subsidiaries include the following:

- Scout Investments, Inc. (Scout) is an institutional asset-management company that is headquartered in Kansas City, Mo. Scout offers domestic and international equity strategies through its Scout Asset Management Division and fixed income strategies through its Reams Asset Management Division.
- UMB Fund Services, Inc. (UMBFS) is located in Milwaukee, Wis.; Kansas City, Mo; Chadds Ford, Pa.; and Ogden, Utah. It provides fund accounting, transfer agency and other services to mutual fund and alternative investment groups.

On May 31, 2015, the Company closed its previously announced acquisition of Marquette Financial Companies (MFC), a privately held \$1.4 billion financial-services company, in an all-stock transaction. Because the acquisition closed after Sept. 30, 2014, neither MFC’s financial performance nor any of MFC’s financial or operational data was incorporated into the 2015 Stress Test.

Additional information about the Company and its business can be found in its 2014 Annual Report on Form 10-K, subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and other documents that are filed or furnished with the SEC.

Stress Test Methodology

For each quarter of the Stress Period, the Company and the Bank estimated losses, pre-provision net revenue (PPNR)², provision for loan and lease losses and net income, based on the impact of the considerations included in the FRB's and the OCC's 2015 Severely Adverse Scenario. The primary losses that the Company and the Bank experienced in the 2015 Severely Adverse Scenario are credit losses in the loan portfolio. Other estimated losses include operational losses and credit losses in the investment portfolio.

The Company and the Bank utilized a mix of quantitative and qualitative approaches in the 2015 Stress Test. The approach varied depending on the risk and the exposure being analyzed.

Where practical, a quantitative approach was utilized, most often using econometric models. Other statistical approaches, such as historical trend analysis, were used when econometric modeling was not practical.

Qualitative approaches were employed when appropriate to supplement modeled results or when a quantitative approach was not practical—for example, when historical data was inadequate to support an estimate. All qualitative inputs were based on conservative assumptions and subject matter expertise.

The Company and the Bank have a robust governance process in place for their stress test processes. This includes a review, challenge and approval process that involves multiple levels of the organization and occurs throughout the stress test process. Any feedback received during this process is incorporated into the stress test processes as appropriate.

Based on regulatory guidance, the Company incorporated prescribed capital actions into the 2015 Stress Test. These include:

- For the first quarter of the Stress Period, the Company must use its actual capital actions during that quarter.
- For all other quarters of the Stress Period, the Company must use its average common stock dividend over the most recent four quarter period.
- Lastly, the Company must assume that no redemptions, repurchases or issuances of any capital instrument are made during the Stress Period.

Description of Risks Included in the 2015 Stress Test

The Company and the Bank maintain an enterprise risk management program that is designed to identify, quantify, monitor, report and control the risks that they face. The Company and the Bank seek to mitigate adverse variations in earnings and capital by identifying and managing risk exposures and preserving appropriate levels of capital during periods of growth and stress. The following is a list of risks that are either explicitly or implicitly included in the 2015 Stress Test:

² Pre-provision net revenue is defined as net interest income plus noninterest income minus noninterest expense.

Credit Risk – the risk to current or anticipated earnings or capital arising from an obligor’s failure to meet the terms of any contract or otherwise perform as agreed. Credit risk is found in all activities in which settlement or repayment depends on counterparty, issuer or borrower performance. It exists any time bank funds are extended, committed, invested or otherwise exposed through actual or implied contractual agreements, whether reflected on or off the balance sheet.

Market Risk (Price) – the risk to current or anticipated earnings or capital arising from changes in the value of either trading portfolios or other obligations that are entered into as part of distributing risk. These portfolios typically are subject to daily price movements and are accounted for primarily on a mark-to-market basis. This risk occurs most significantly from market making, dealing and position-taking in interest rate, foreign exchange, equity, commodities and credit markets.

Interest Rate Risk – the risk to current or anticipated earnings or capital arising from movements in interest rates. Interest rate risk results from differences between the timing of rate changes and the timing of cash flows (repricing risk); from changing rate relationships among different yield curves, indices or spread relationships affecting bank activities (basis risk); from changing rate relationships across the spectrum of maturities (yield curve risk); and from interest-related options embedded in bank products (options risk).

Operational Risk – the risk to current or anticipated earnings or capital arising from inadequate or failed internal processes or systems, human errors or misconduct or adverse external events. Operational losses result from internal fraud; external fraud; inadequate or inappropriate employment practices and workplace safety; failure to meet professional obligations involving clients, products and business practices; damage to physical assets; business disruption and systems failures; and failures in execution, delivery and process management. Operational losses do not include opportunity costs, forgone revenue or costs related to risk management and control enhancements implemented to prevent future operational losses.

Liquidity Risk – the risk to current or anticipated earnings or capital arising from an inability to meet obligations when they come due without incurring unacceptable losses. Liquidity risk includes the inability to access funding sources or manage fluctuations in funding levels. Liquidity risk also results from a bank’s failure to recognize or address changes in market conditions that affect its ability to liquidate assets quickly and with minimal loss in value.

Strategic Risk – the risk to current or anticipated earnings, capital or franchise or enterprise value arising from adverse business decisions, poor implementation of business decisions or lack of responsiveness to changes in the financial services industry and operating environment. This risk is a function of the compatibility of the Company’s strategic goals, business strategies, resources and quality of implementation. The resources needed to carry out business strategies are both tangible and intangible. They include communication channels, operating systems, delivery networks and managerial capacities and capabilities.

Reputational Risk – the risk to current or anticipated earnings, capital or franchise or enterprise value arising from negative public opinion or damaged relationships. This risk may impair a bank’s competitiveness by affecting its ability to establish new relationships or services or continue servicing existing relationships. Reputation risk is inherent in all bank activities and requires management to exercise an abundance of caution in dealing with customers, counterparties, correspondents, investors and the community.

Compliance Risk – the risk to current or anticipated earnings or capital arising from violations of laws, rules or regulations, or from nonconformance with prescribed practices, internal policies and procedures

or ethical standards. This risk exposes a company to fines, civil money penalties, payment of damages and the voiding of contracts. Compliance risk can result in diminished reputation, reduced franchise or enterprise value, limited business opportunities and lessened expansion potential. Compliance risk is not limited to risk from failure to comply with consumer protection laws; it encompasses the risk of noncompliance with all laws and regulations, including financial reporting rules, as well as prudent ethical standards and contractual obligations. It also includes the exposure to litigation (known as legal risk) from all aspects of financial services, traditional and nontraditional.

Overview of the 2015 Severely Adverse Scenario

The 2015 Severely Adverse Scenario features a substantial weakening in global economic activity, accompanied by large reductions in asset prices. In the scenario, the U.S. corporate sector experiences increases in financial distress that are even larger than would be expected in a severe recession, together with a widening in corporate bond spreads and a decline in equity prices. The scenario also includes a rise in oil prices (Brent crude) to approximately \$110 per barrel.

The severely adverse scenario for the U.S. is characterized by a deep and prolonged recession in which the unemployment rate increases by 4 percentage points from its level in the third quarter of 2014, peaking at 10 percent in the middle of 2016. In terms of both the peak level reached by the unemployment rate and its total increase, this shock is of a similar magnitude to those experienced in severe U.S. contractions during the past half century. By the end of 2015, the level of real GDP is approximately 4.5 percent lower than its level in the third quarter of 2014; it begins to recover thereafter. Despite this decline in real activity, higher oil prices cause the annualized rate of change in the CPI to reach 4.25 percent in the near term, before subsequently falling back.

In response to this economic contraction—and despite the higher near-term path of CPI inflation—Treasury yields of all maturities are significantly lower throughout the scenario than in the baseline. Short-term interest rates remain near zero through 2017; long-term Treasury yields drop to 1 percent in the fourth quarter of 2014 and then edge up slowly over the remainder of the scenario period. Driven by the assumed decline in corporate credit quality, spreads on investment-grade corporate bonds jump from about 170 basis points to 500 basis points at their peak. As a result, despite lower long-term Treasury yields, corporate financial conditions tighten significantly in 2015 and the yield on investment-grade corporate bonds is higher than the baseline until the fourth quarter of 2016. Mortgage rates also increase over the course of 2015, driven by some widening in spreads.

Consistent with these developments, asset prices contract sharply in the scenario. Equity prices fall by approximately 60 percent from the third quarter of 2014 through the fourth quarter of 2015, and equity market volatility increases sharply. House prices decline by approximately 25 percent during the scenario period relative to their level in the third quarter of 2014, while commercial real estate prices are more than 30 percent lower at their trough.

Results of the 2015 Stress Test in the 2015 Severely Adverse Scenario

Results for the Company

Table 1 depicts a breakdown of net income for the Company over the Stress Period. Cumulative PPNR over the Stress Period amounts to \$246.7 million, which represents a decline from levels leading up to the first quarter of the Stress Period. Indeed, the Company's actual cumulative PPNR over the nine quarters ending Sept. 30, 2014 totaled \$402.5 million. The primary driver of lower PPNR in the 2015 Severely Adverse Scenario was lower noninterest income at the Company's nonbank subsidiaries, although lower net interest income and noninterest income at the Bank also negatively impacted the results.

In addition to lower PPNR, net income also was negatively impacted by a significant increase in provision expense for loan losses. Though net income declined in the 2015 Stress Test, the Company had sufficient income to cover assumed dividend payments throughout the Stress Period.

Table 1: Net Income (000)	9 Quarter Sum
Pre-Provision Net Revenue ³	\$246,684
Provision Expense	\$105,703
Realized Gains/Losses on Securities	\$0
<u>Taxes</u>	<u>\$24,604</u>
Net Income	\$116,377

Total loan and lease charge-offs amount to \$81.3 million⁴ in the Stress Period, which is a significantly higher level than the Company typically experiences. For reference, net charge-offs for the worst nine quarter period since Jan. 1, 2007 totaled \$52.0 million⁵. In the 2015 Stress Test, higher levels of charge-offs were driven primarily by credit cards and commercial and industrial (C&I) loans. The Company did not assume any recoveries on its credit losses in its stress test projections. This approach was selected because of the difficulty in anticipating the timing of recoveries and because the Company believes this assumption to be a more conservative approach.

Table 2 depicts beginning, ending and minimum capital ratios observed during the Stress Period. The Company's Tier 1 Risk-Based Capital Ratio is projected to decline by 121 basis points from Sept. 2014 to the trough in Sept. 2016. The primary drivers of the decline in capital ratios in the 2015 Severely Adverse Scenario are a decline in noninterest income at the Company's nonbank subsidiaries, increased credit losses at the Bank and an increase in risk-weighted assets at the Bank. The increase in risk-weighted assets is largely the result of an increase in deposits during the Stress Period that acts to inflate the Company's balance sheet. As a result of these items, the Company's capital ratios experience deterioration during the Stress Period.

Table 2: Capital Ratios (%)	Beginning	Minimum	Ending
Common Equity Tier 1 Risk-Based Capital Ratio	N/A ⁶	12.51	12.64
Tier 1 Risk-Based Capital Ratio	13.72	12.51	12.64
Tier 1 Leverage Ratio	8.90	7.52	7.52
Total Risk-Based Capital Ratio	14.51	13.48	13.57

Results for the Bank

Table 3 depicts a breakdown of net income for the Bank over the Stress Period. Cumulative PPNR over the Stress Period amounts to \$227.1 million, which represents a decline from levels leading up to the first quarter of the Stress Period. Indeed, the Bank's actual cumulative PPNR over the nine quarters ending Sept. 30, 2014 totaled \$295.6 million. The primary driver of lower PPNR in the 2015 Severely Adverse Scenario was a combination of lower net interest income and lower noninterest income. Lower PPNR, in addition to a significant increase in provision expense for loan losses, negatively impacted net income.

³ PPNR for the Company includes \$20.7 million in operational losses.

⁴ The Bank accounts for all of the loan and lease charge-offs at the Company.

⁵ This nine quarter period is the quarter ending Dec. 31, 2009 through the quarter ending Dec. 31, 2011.

⁶ The Company was not required to report Common Equity Tier 1 capital as of Sept. 30, 2014.

Table 3: Net Income (000)	9 Quarter Sum
Pre-Provision Net Revenue ⁷	\$227,050
Provision Expense	\$105,703
Realized Gains/Losses on Securities	\$0
Taxes	\$17,604
Net Income	\$103,743

Total loan and lease charge-offs amount to \$81.3 million in the Stress Period, which is a significantly higher level than the Bank typically experiences. For reference, net charge-offs for the worst nine quarter period since Jan. 1, 2007 totaled \$52.0 million⁸. In the 2015 Stress Test, higher levels of charge-offs were driven primarily by credit cards and C&I loans. The Bank did not assume any recoveries on its credit losses in its stress test projections. This approach was selected because of the difficulty in anticipating the timing of recoveries and because the Bank believes this assumption to be a conservative approach.

Table 4 depicts beginning, ending and minimum capital ratios observed during the Stress Period. The Bank's Tier 1 Risk-Based Capital Ratio is projected to decline by 32 basis points from Sept. 2014 to the trough in Sept. 2015. The primary drivers of the decline in capital ratios in the 2015 Severely Adverse Scenario are increased credit losses and an increase in risk-weighted assets. The increase in risk-weighted assets is largely the result of an increase in deposits during the Stress Period that acts to inflate the Bank's balance sheet. As a result of these items, the Bank's capital ratios experience deterioration during the Stress Period but remain above regulatory well-capitalized levels.

Table 4: Capital Ratios (%)	Beginning	Minimum	Ending
Common Equity Tier 1 Risk-Based Capital Ratio	N/A ⁹	11.55	11.78
Tier 1 Risk-Based Capital Ratio	11.87	11.55	11.78
Tier 1 Leverage Ratio	7.66	7.01	7.01
Total Risk-Based Capital Ratio	12.68	12.55	12.71

Conclusion

Despite the decline in capital ratios in the 2015 Severely Adverse Scenario, the results of the 2015 Stress Test demonstrates that, for every ratio in every quarter of the Stress Period, the Company and the Bank each would maintain regulatory capital in excess of the levels required by the FRB and the OCC.

⁷ PPNR for the Bank includes \$20.7 million in operational losses.

⁸ The nine quarter period is the quarter ending Dec. 31, 2009 through the quarter ending Dec. 31, 2011.

⁹ The Bank was not required to report Common Equity Tier 1 capital as of Sept. 30, 2014.