

Focused on more.



2016 ANNUAL REPORT

Industry

2016 industry median data as reported
by SNL Financial as of February 15, 2017

UMBF

UMB data as of December 31, 2016

+5.0%

Dividend Growth

Full-year 2006 through full-year 2016.

+92.2%

Dividend Growth

UMB increased its dividend 4.1 percent in 2016, the 12th time in the past 10 years, for a total increase of 92.2 percent.

0.94%

Nonperforming Loans To Total Loans

0.67%

Nonperforming Loans To Total Loans

We continue to maintain strong asset quality regardless of the economic environment.

88.9%

Loan-To-Deposit Ratio

63.6%

Loan-To-Deposit Ratio

In 2016, deposits increased 9.8 percent, which allows us plenty of liquidity to meet our customers' needs.

12.19%

Common Equity Tier 1 Capital Ratio

11.80%

Common Equity Tier 1 Capital Ratio

Our Common Equity Tier 1 capital ratio is well above regulatory minimums.

+28.1%

Net Interest Income Growth

For the five years ended
December 31, 2016

+56.3%

Net Interest Income Growth

Our net interest income during the last five years has been driven by our growing loan portfolio and our ongoing efforts to optimize our balance sheet.

Focused on You

Our brand promise, *Count on more*,[®] is at the core of everything we do. *More* truly defines UMB and the way we work on behalf of our customers. We believe you deserve more and you can depend on us to be more nimble, more accessible and more responsive.

Focused on Service

We believe customers deserve a relationship with their financial partner that isn't just transactional—a relationship built on integrity and trust. Our 3,688 associates strive to deliver *the* unparalleled customer experience every day to our customers and to each other.

Focused on Efficiency

In 2016, we made positive progress on our initiative to reach \$32.9 million in expense savings. We remain dedicated to this work because it is a renewed focus on how we do business, not just a one-time effort. Our efforts will reduce the pace of expense growth, drive positive operating leverage and increase overall improvements in performance metrics over time.

Focused on Diversity

The diversity of our business model sets us apart in the industry. With 49.0 percent of our revenue coming from fee-based businesses, paired with our commitment to a strong balance sheet, we have a solid foundation that will help ensure the long-term success of UMB.

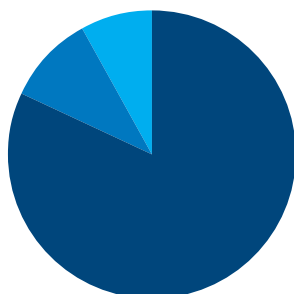
Focused on the Future

We are focused on growing our businesses in the most efficient, healthy and profitable way possible, without compromising our underlying values. We never make short-term decisions that will negatively impact our customers or the long-term value of our franchise.

UMB Financial Corporation

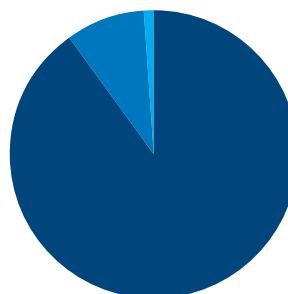
We are a diversified financial services holding company aligned into three strategic business segments to best serve our customers and achieve long-term growth opportunities.

Revenue by Segment



- 82.0% UMB Bank
- 10.2% UMB Fund Services
- 7.8% Scout Investments

Net Income by Segment



- 89.9% UMB Bank
- 9.1% UMB Fund Services
- 1.0% Scout Investments

2016 numbers as of December 31, 2016. 2015 numbers as of December 31, 2015.

Total Revenue **\$971.4M**
2015 \$878.5M

Earnings Per Share (Diluted) **\$3.22**
2015 \$2.44

Market Cap **\$3.8B**
2015 \$2.3B

5-Year Earnings Per Share Growth (CAGR) (Diluted) **+4.1%**
2015 +1.5%

Total Assets **\$20.7B**
2015 \$19.1B

Dividends Per Share **\$.99**
2015 \$.95

Investment Assets Under Management **\$40.9B**
2015 \$40.0B

Price-to-Earnings Ratio **23.9**
2015 19.0

Percentage Noninterest Bearing Deposits **40.2%**
2015 41.8%

Percent Revenue From Fees **49.0%**
2015 53.1%



RAM SHANKAR
Chief Financial Officer,
UMB Financial Corporation

MARINER KEMPER
Chairman, UMB Bank, n.a.;
Chairman, President and
Chief Executive Officer,
UMB Financial Corporation

MICHAEL HAGEDORN
Chairman and Chief Executive
Officer, UMB Bank n.a.;
Vice Chairman,
UMB Financial Corporation

Focused on more.

Dear fellow shareholders,

Our customers are telling us 2017 is a year full of potential for positive change. Most individuals and businesses are optimistic about economic prospects and the potential for pro-growth policies. The industry is hopeful for a gradual return to more normal interest rates. Uncertainties persist, but we are all moving forward and we remain laser focused on delivering *more* to our customers.

Customers are always at the center of UMB's attention. Our promise—*Count on more*—means we fix our sights on delivering service that exceeds expectations. *More* helps businesses and consumers achieve their goals and dreams for the future. That's our focus, day in and day out.

For UMB, 2016 was a year of great progress. We recorded record revenue, improved net income and renewed our commitment to operational efficiency and financial discipline. Changes across our diversified financial services business drove growth and improved returns.

We continue to focus on the right things to create a bright future for our customers and shareholders.

MILESTONES OF 2016

I am incredibly proud of the results UMB associates delivered in 2016.

Among our milestones:

- Revenue grew to a record level,

propelled by double-digit expansion in loans and net interest income, plus a modest increase in fee income.

- We maintained our focus on efficiency and reduced our ratio of expenses to revenue.
- We improved profitability by working to optimize the asset mix on our balance sheet.
- We managed capital effectively to fund growth and potential new opportunities.

UMB shareholders benefited from a 32.1 percent increase in earnings per share in 2016, and we increased the dividend 4.1 percent going into 2017. Our hard work is showing in the bottom line and we still have opportunity ahead of us in 2017.

GROWING ROBUSTLY

UMB's diversified financial services model, along with the strategic actions we have taken in recent years, drove robust growth in assets, revenue and earnings in 2016.

2016 Highlights

FEB

NEARLY 9,000 CUSTOMERS CONVERTED IN ACQUISITION INTEGRATION

Following the 2015 acquisition of Marquette Financial Companies, UMB successfully converted all Meridian Bank and Meridian Bank Texas customers in February 2016.

JUNE

\$10 BILLION IN TOTAL LOANS

UMB Financial Corporation's total loans surpassed \$10 billion in the second quarter of 2016 for the first time in the company's history.

AUG

UMB FORMS NEW HEALTHCARE SERVICES STRATEGIC ADVISORY COUNCIL

This council is intended to examine various healthcare topics, including policy, payments, innovation, consumer trends and benefit accounts to benefit UMB's strategic direction and future growth in the industry.

SEPT

SAME-DAY ACH

UMB began processing same-day ACH credit origination for its customers on day one of the new feature's implementation by the National Automated Clearing House (NACHA).

OCT

NAMED TOP 25 FARM LENDER

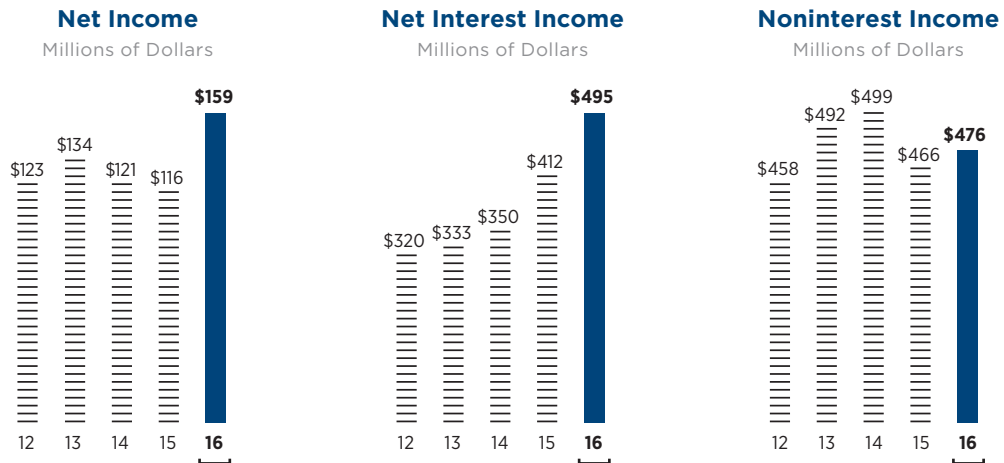
UMB's Agribusiness division rose from the top 50 U.S. farm lenders to number 23 on the list as of third quarter 2016.

Source: American Bankers Association (ABA).

DEC

\$20 BILLION IN TOTAL ASSETS

UMB Financial Corporation's total assets exceeded \$20 billion at end of year 2016—a company record.



UMB Bank led the expansion with an 18.6 percent year-over-year increase in average loans, to more than \$9.0 billion. The Marquette acquisition in mid-2015 doubled our presence in the Arizona and Texas markets, and our other regions continued to deliver solid growth. Our combined banking teams across the footprint now offer a broader line of financial services to the customer base.

Several fee-based businesses—healthcare and card services, institutional banking and asset servicing—also delivered profitable growth, more than offsetting a decline in institutional investment management revenue following large equity outflows and the resulting change in asset mix. Investment performance in our institutional investment management segment improved, and fund flows may turn around as investors respond.

MORE GROWTH

I have been known to say we run our company for the long haul, not the quarter. Like many of our customers, we seek to increase the value of our business by steady, long-term growth. Key metrics indicate our success over the past five years (compound annual growth rates):

- Average total assets grew at a 9.6 percent rate from 2011 to 2016;
- Average loans increased at an industry-leading 16.0 percent;
- Net interest income grew 9.3 percent;
- Noninterest income experienced 2.8 percent growth; and,
- Book value per share grew 6.0 percent.

Another important part of our growth comes from our strong, diverse deposit base. UMB excels in gathering core deposits from commercial, consumer, institutional and our health savings accounts (HSAs). These deposits provide low-cost funding for loans and other assets, creating a competitive advantage.

When you have been in business for more than a century, people get to know you, and you get to know them. Relationships with customers drive success. Many of our associates have been with us 20 or 30 years, so they know our customers and can help solve problems or address needs as they develop. UMB's experienced bankers are accessible, responsive and dedicated to service.

“We are focused on strengthening our base of services, growing into new markets and increasing efficiency—UMB’s future is bright.”

MORE EFFICIENT

We announced efficiency initiatives in mid-2015, targeting \$32.9 million in cost savings and outlining actions to improve our efficiency ratio to 70 percent. We continue to execute on those initiatives and closed on our near-term goals with a cumulative \$29.9 million in efficiencies accomplished by 2016 year-end, and a full-year efficiency ratio of 72.4 percent in 2016 vs. 77.6 percent in 2015.

We have become more disciplined than ever and are committed to maintaining strong operating leverage. We are evolving into a performance culture. All across UMB, I see associates asking how we can be smarter, bolder and more innovative, and they are making operational improvements, small and large. It’s an entrepreneurial attitude, and I couldn’t be more proud.

Part of this new energy and attitude is the work we did around branch optimization. We call it the “4K” delivery model which takes a look at everything including changes in staffing, hours and incentives—resulting in initial improvements of 20-30 percent in branch-level efficiency. In addition, in 2016, we closed 10 smaller, less

profitable branches and opened one strategic new location.

DIVERSE BASE FOR GROWTH

The diversity of UMB’s business goes beyond our roughly fifty-fifty split between interest and fee-based income. Our bank segment spans four lines of business: Commercial Banking, Personal Banking, Institutional Banking and Healthcare Services. These four lines of business broaden UMB’s customer base and enhance our geographic diversity. We also have diversified lending by building industry specialties such as commercial real estate, aviation and agribusiness. Two national specialty-lending platforms acquired with Marquette Financial Companies in 2015 are growing customer relationships for accounts receivable financing and asset-based lending. And these businesses are creating cross-selling opportunities with complementary UMB services.

Part of our diverse business model success is due to our fee-based businesses that cross a number of services and industries. Fee income has remained stable even as market cycles impacted our institutional investment management business.

2016 Average Loan Growth

+18.6%

2016 Total Deposit Growth

+9.8%

2016 Total Asset Growth

+8.3%

2016 Loan-to-Deposit Ratio

+63.6%

UMB Healthcare Services continues to grow rapidly as one of the top HSA custodians in the nation. At year-end 2016, we held \$1.8 billion in HSA deposits and investment assets, up 36.6 percent from a year earlier. The number of HSA accounts rose 22 percent to 982,000. According to industry reports, UMB holds a 5 percent share of the nationwide HSA market, ranking fifth by number of accounts and sixth by deposits and investment assets.

Our Institutional Banking businesses are performing well, including rapid growth in our \$51.9 billion FDIC sweep program, which offers broker-dealer clients a liquid alternative to overnight money funds. We opened a New York investment banking office in 2016 for underwriting, trading and distribution of bonds to institutional clients, as well as corporate trust activities.

Institutional investment management assets under management were flat as volatility in the recent market cycle hurt some strategies. Improving performance is our priority in an effort to turn around fund flows. We hope stronger performance numbers will lead to stronger flows in 2017.

The asset servicing segment delivered steady results, with UMB Fund Services assets under administration growing modestly. The number of alternative investment funds serviced grew 11.5 percent in 2016, including noticeable growth in private equity funds.

Our strength in fee revenue remains a differentiator and a focus. Noninterest income represented 49.0 percent of our total revenue in 2016 compared to a peer median of 18.6 percent. We believe a broad base in our business empowers long-term value creation for our shareholders.

OPTIMIZING OUR BALANCE SHEET

An ongoing strategy for UMB is adjusting the asset mix on our balance sheet to optimize returns, and 2016 brought tangible progress. Most of our emphasis has been on growing UMB's loan portfolio to shift interest-earning assets from relatively low-yield securities to higher-earning loan relationships and from variable to fixed rates which can carry higher yields—without sacrificing our culture of strong credit underwriting.

In 2016, UMB Bank increased average loans by \$1.6 billion, or 18.6 percent,

2016 Total Revenue Growth

+10.6%

2016 Book Value Per Share Growth

+3.1%

2016 Net Interest Income Growth

+20.2%

2016 Total Card Purchase Volume Growth

+7.6%

contributing to a strong year-over-year increase in net interest income. Our focus on specialized loan verticals, with experienced lenders cultivating client relationships to meet industry-specific needs, has worked well for UMB.

For example, we added \$828 million in commercial real estate and construction loans in 2016, funding projects such as office buildings, senior housing, multifamily and industrial development. We reaped additional yield while applying our usual risk management and underwriting disciplines.

In addition, our lending teams have increased discipline around pricing, leading to better risk-adjusted returns. While working to reduce the size of our securities portfolio relative to loans, we have also achieved modest increases in yield as we reinvested cash when older, lower-yielding securities rolled off.

Net interest margin for 2016 was 2.88 percent, an improvement of 24 basis points from 2015. Increased volume and a changing mix of assets drove most of that increase, while rising interest rates (including the impact of

the December 2016 Fed increase and higher LIBOR rates) also benefited us.

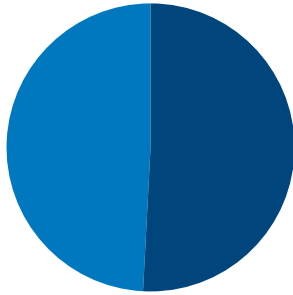
RUNWAY FOR GROWTH

Based on strategic actions we have taken in recent years, UMB has a long runway for growth. Our diversified business gives us more levers to pull than many competitors. Three factors hold special potential for organic growth or expansion:

Geographic markets. For UMB Bank, the Kansas City region is the metropolitan area where we have our largest presence—the No. 1 market share, with just fewer than 20 percent of deposits. The next two are the Denver/Colorado Springs and St. Louis markets, where UMB has less than a 2 percent share. In Phoenix-Scottsdale and Dallas-Fort Worth, even after doubling our presence, we have very small market shares. Each of these large markets offers us the opportunity to achieve outsized growth. We believe we have the right people on the ground to compete and succeed.

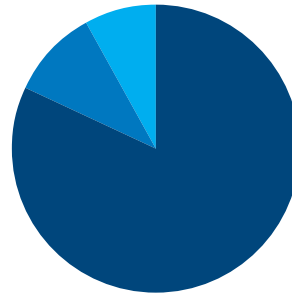
Loan verticals. As I mentioned, we have built skilled teams of specialists with relationships in commercial real estate and construction, aviation and agribusiness—industries where unmet

Diverse Income Revenue Streams



■ 51% Net Interest Income
■ 49% Noninterest Income

Revenue by Segment



■ 82.0% UMB Bank
■ 10.2% UMB Fund Services
■ 7.8% Scout Investments

customer needs create opportunities. Combining entrepreneurial drive with our long-standing emphasis on prudent underwriting, we will continue to focus on growth in these verticals.

The right products and services.

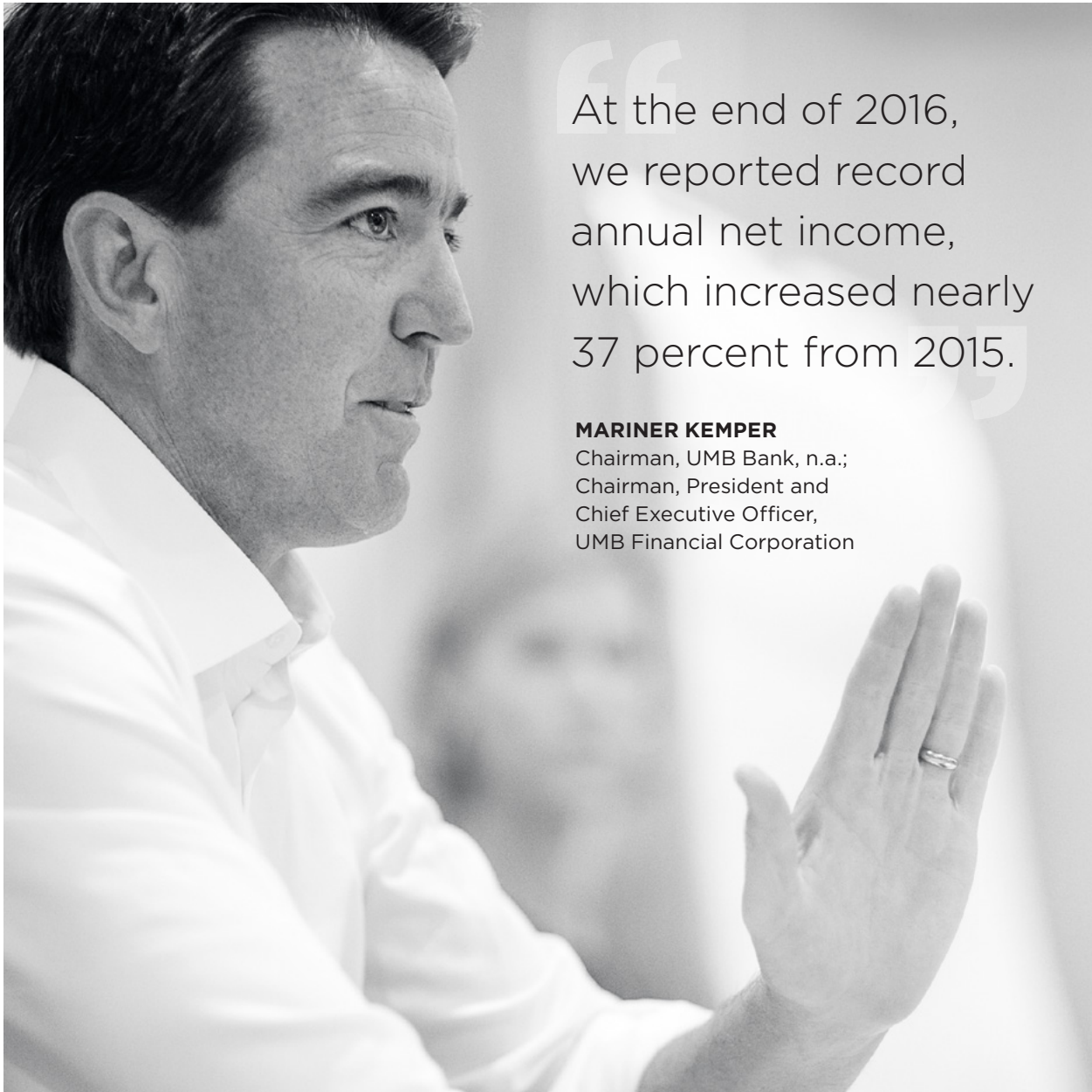
Customer relationships are our constant focus, and we work to ensure UMB provides a depth and breadth of products and services that can meet our customers' needs. From accounts receivable financing to healthcare plans, and from treasury solutions to capital markets, we can deliver options and opportunities.

PRIORITIES FOR 2017

No question, 2017 is a time of transitions. Post-election political change and regulatory reforms may accelerate U.S. economic growth. Already influenced by the strength of the economy, the Federal Reserve is shifting from a "lower-for-longer" interest rate policy to gradual normalization. How these macroeconomic shifts will impact UMB is hard to quantify, but the economic trends could be good for lending and net interest margin. Additionally, healthcare reform could benefit HSA demand.

As we have always said, though, UMB does not depend on what comes out of Washington D.C.—or on economic cycles—to determine our success. Our emphasis in 2017 is to focus and continue executing on our strategic priorities. Among them:

- *Customer experience.* We continue to focus on delivering *the* unparalleled customer experience. Our associates have the authority to make quick decisions, are highly accessible and go the extra mile in service. We are also investing in technology to upgrade the online and mobile experience, which will come with the side benefit of freeing associates' time to help customers personally.
- *Performance culture.* Across the business, we are focused on improving operating leverage by growing revenue and managing expenses closely. All of our teams are paying attention to performance metrics including our efficiency ratio and return on equity.
- *Asset mix.* We will continue to optimize our balance sheet to improve net interest margin. UMB's above-market growth in loans deploys deposits into higher-yielding assets, and we continue to seek incremental risk-adjusted returns in our securities portfolio.



“At the end of 2016,
we reported record
annual net income,
which increased nearly
37 percent from 2015.”

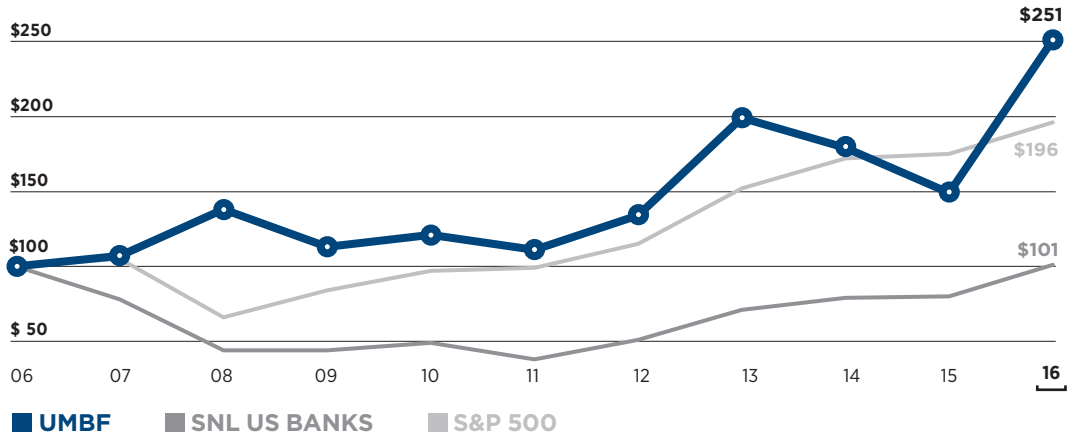
MARINER KEMPER

Chairman, UMB Bank, n.a.;
Chairman, President and
Chief Executive Officer,
UMB Financial Corporation

2016 was an interesting year for the banking industry, with the continued low-rate outlook turning to a more positive sentiment almost overnight. Paired with our progress—double digit year-over-year loan growth and continued improvement on our profitability measures—we are ready to take on the year ahead.

Ten-Year Total Return

UMBF vs. SNL US Banks Index and S&P 500



This summarizes the cumulative return experienced by UMBF shareholders for the years 2007 through 2016, compared to the S&P 500 Stock Index and the SNL US Banks Index. In all cases, the return assumes a reinvestment of dividends. Source: SNL Financial

- *Financial strength.* We are committed to effectively managing capital to keep UMB among the strongest U.S. financial institutions. Our capital position provides funding for organic business growth and potential future acquisitions, and our focus is on continuing to be good stewards.

OUR PEOPLE AND CORE VALUES

At the end of the day, all this translates to *more* for you. Behind all that UMB does to create value for our customers and shareholders are 3,688 hardworking associates across our diverse businesses. We share core values of integrity and respect, appreciation of entrepreneurs and families, and strong credit standards. We hire the best people, and they stay with UMB—resulting in long-tenured associates with deep expertise.

Most trends in the 2017 business environment are encouraging. Of course, political and global tensions continue to cause anxiety, but Americans are resilient, and entrepreneurial businesses excel at adapting to challenges. UMB associates embrace that same spirit.

I see daily signs that our performance culture is progressing. We are focused

on strengthening our base of services, growing into new markets and increasing efficiency—UMB's future is bright.

Thank you for your continued support. We all look forward to delivering *more* in 2017.

Sincerely,

Mariner Kemper

Chairman, UMB Bank, n.a.;
Chairman, President and
Chief Executive Officer,
UMB Financial Corporation

March 2, 2017



“ We remain focused on loan growth, expense control and growing our business in new markets, which has positioned us well for 2017. ”

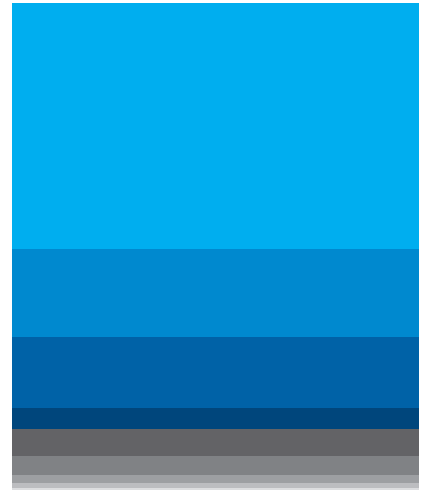
MICHAEL HAGEDORN
Chairman and Chief Executive Officer,
UMB Bank n.a.; Vice Chairman,
UMB Financial Corporation

With dedicated associates across the country, UMB Bank continues to provide meaningful solutions and service to our customers while improving our operational efficiency and growth momentum.

UMB offers a comprehensive suite of commercial, small business and consumer banking services, as well as full-service investment and private wealth management capabilities.

Percent of Noninterest Income

- 50.4% Trust & Securities Processing
- 18.2% Deposit Service Charges
- 14.4% Bankcard Fees
- 4.5% Trading & Investment Banking
- 5.5% Other
- 3.7% Brokerage Fees
- 1.8% Gains on Securities Sales
- 0.9% Insurance Fees
- 0.6% Equity Earnings on Alternative Investment



\$15.3B

Average Total Deposits

Average deposit growth was 9.0 percent in 2016.

\$10.0B

Average Loans

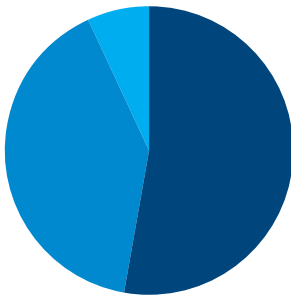
Average loans grew 18.6 percent in 2016.

\$2.4B

Loan Production

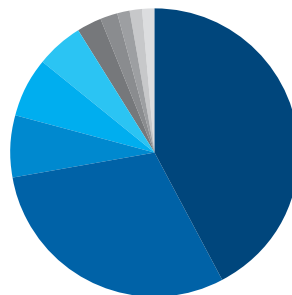
Total gross loan production grew 7.9 percent compared to 2015.

Deposit Composition



- 53.0% Interest-Bearing Demand and Savings Deposits
- 40.2% Noninterest-Bearing Demand Deposits
- 6.8% Time Deposits

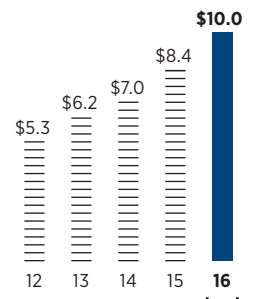
Loan Composition



- 42.3% Commercial & Industrial
- 30.0% Real Estate — Commercial
- 7.0% Real Estate — Construction
- 6.8% Real Estate — HELOC
- 5.2% Real Estate — Residential
- 2.6% Consumer Credit Card
- 2.1% Asset Based Loans
- 1.3% Other Consumer
- 1.4% Commercial Credit Card
- 1.3% Factoring Loans

Average Loans

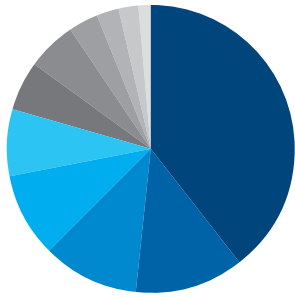
Billions of Dollars



During the past five years, our average loans have grown at a 16.0 percent compound annual growth rate.

UMB Commercial Banking

UMB offers a diverse range of commercial banking solutions for discerning business customers looking for personal attention and custom offerings. Our team is dedicated to helping clients grow and succeed in the most efficient, healthy and profitable way possible.

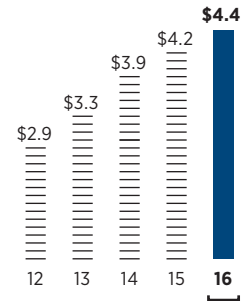


Commercial Loans by Region

- 39.5% Kansas City
- 12.3% Colorado
- 10.9% St. Louis
- 9.4% Arizona
- 7.6% Greater MO
- 5.5% Texas
- 5.4% Kansas
- 3.4% Oklahoma
- 2.5% Nebraska
- 2.2% Marquette Business Credit
- 1.3% Marquette Transportation Finance

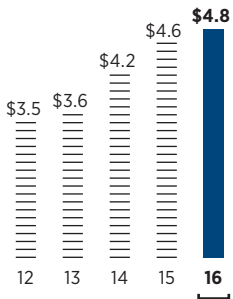
Commercial & Industrial Loans

Billions of Dollars



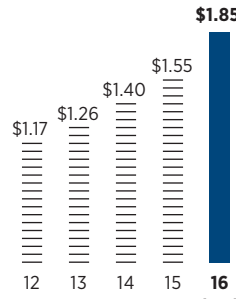
Average Commercial Deposits

Billions of Dollars



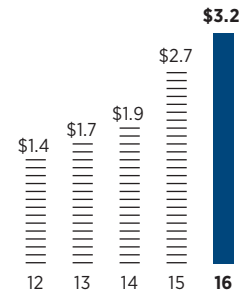
Commercial Cardholder Purchase Volume

Billions of Dollars



Commercial Real Estate Loans

Billions of Dollars



“

Our relationships with our customers are our number one focus, and we have expanded services to meet their varying needs, including increasing our capital markets and business banking solutions.

”

JIM RINE

President, Western Region,
Commercial Banking



+43.6%

Growth in Business Banking earning assets.

+53.5%

Healthcare Banking loan growth.

\$1.7B

Growth in total Commercial earning assets.

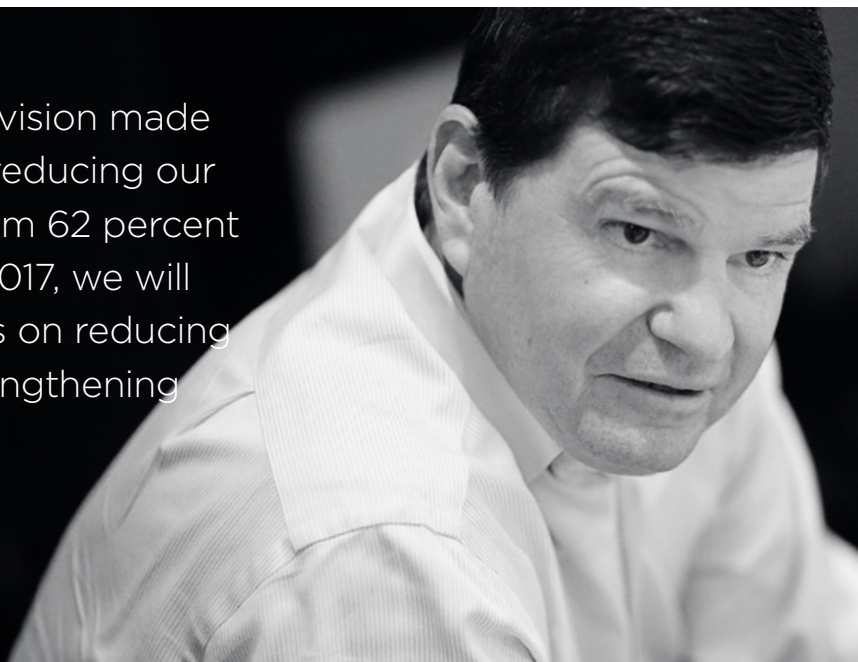
“

The commercial division made progress in 2016, reducing our efficiency ratio from 62 percent to 57 percent. In 2017, we will maintain our focus on reducing expenses and strengthening our business.

”

CRAIG ANDERSON

President, Eastern Region,
Commercial Banking



Specialty Lending

+54.3%

Growth in actual loan balance as of 12/31/16 compared to prior year for Marquette Transportation Finance.

+20.1%

Growth in average size of new deals compared to 2015 for Marquette Business Credit.

No. 23

U.S. Banks for Farm Lending.

Source: ABA, as of September 30, 2016

17

New business accounts gained in 2016 for UMB Capital Markets.

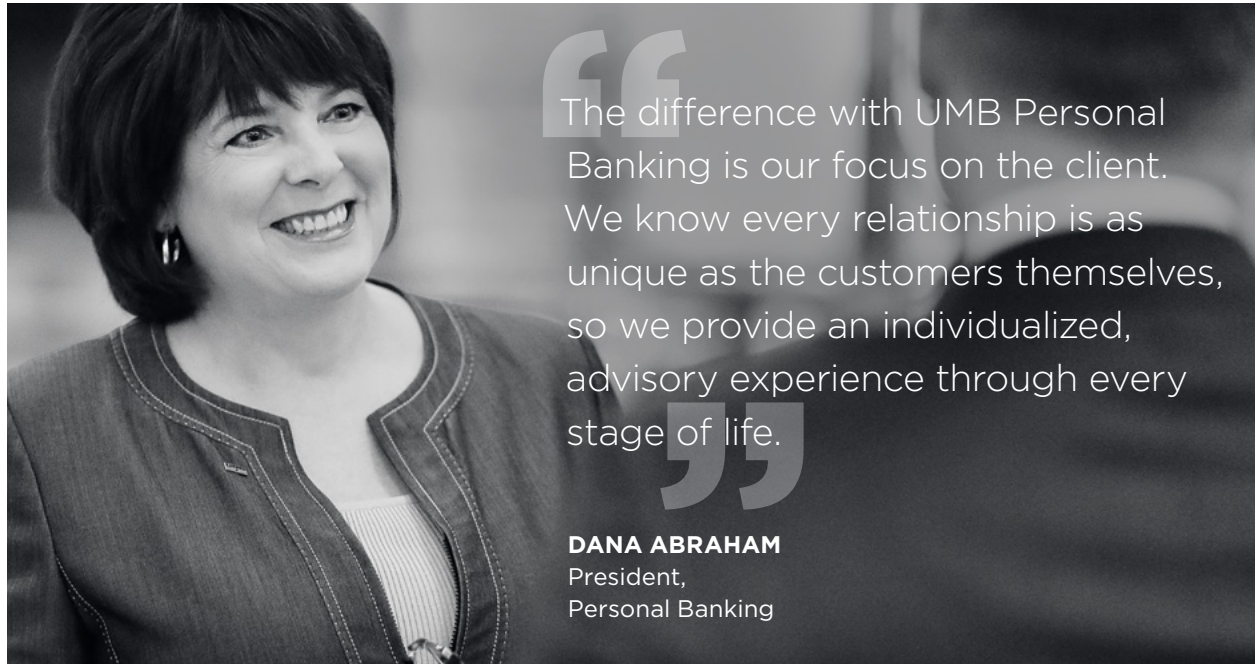
Top 25

U.S. Banks for Automated Clearing House origination.

Source: NACHA

UMB Personal Banking

UMB offers financial solutions to customers who value an individualized relationship and advisory experience. For more than a century, we've invested in our people as a resource who can help clients achieve their unique financial and lifestyle goals.



No. 1

Kansas City market share leader in deposits for the sixth year in a row at 19.6%.

Source: FDIC 2016 Market Share Report



UMB Personal Banking added a Private Wealth Management team in Dallas and Ft. Worth, Texas, while also expanding service offerings.

2.7%

Total deposit growth in 2016 for consumer and small business.



We continue to make progress on our banking center and delivery channel efficiency program which includes changes to staffing, operating hours and associate incentive structures.

In 2016, UMB Bank opened a new banking center in Olathe, Kansas which was designed and built from the ground-up with our customers' experience in mind.

Private Wealth Management
Your Story. Our Focus.™

Private Banking Focused on You

Personal credit and banking solutions customized for your financial goals and fit for your lifestyle.

Investment Management Built for Your Needs

Our research-driven investment options, backed by experienced portfolio managers, deliver tailored strategies that meet your long-term goals.

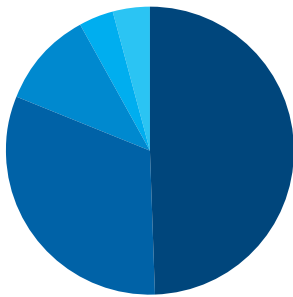
Trust and Lifestyle Management Requires Experience

Our advisors understand the value of protecting and growing your hard-earned assets. Discover how they can help you manage your legacy.

Managing Risk Creates Confidence

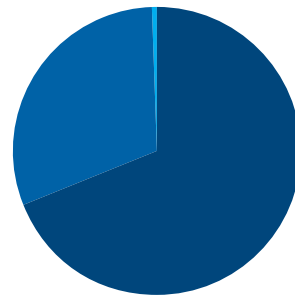
Protect your legacy with a comprehensive risk management strategy that ensures you can support your loved ones for years to come.

Assets Under Management by Type
Excluding Scout Investments



- 50% Trust
- 32% Investment Advisory
- 11% Charitable
- 4% IRAs
- 4% Other

Assets Under Management by Business
 Billions of Dollars
Excluding Scout Investments



- \$9.5 Private Wealth, Marquette Asset Management & Institutional Asset Management
- \$3.7 Prairie Capital Management
- \$0.4 UMB Financial Services, Inc.

“At UMB you are not just a number like other institutions. They take pride in knowing their customers by name and genuinely care about you as a customer.”

C. AND B. LAURITA
 Golden, Colorado
 Private Wealth Management Clients

\$1.1 Billion

Total Private Wealth Management deposits as of December 31, 2016.

+26.1%

Growth in average Private Banking loans which increased from \$519 million in 2015 to \$654 million in 2016.

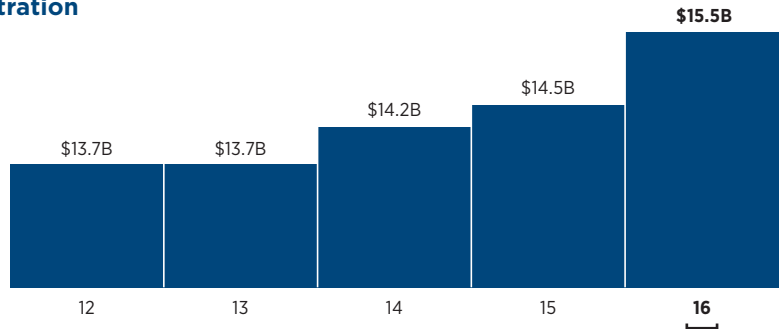
UMB Institutional Banking

UMB Institutional Banking is committed to delivering solutions and performance with integrity, and we strive to maintain the highest standard of service for our institutional clients throughout the U.S.

Total Corporate Trusts Under Administration and Money Market Funds

Billions of Dollars

Excluding Scout Investments



Our commitment to teamwork is what drives us to succeed and has enabled us to provide our clients with the solutions and level of service they deserve. We look forward to continued expansion and success in 2017.

JIM CORNELIUS
President,
Institutional Banking

\$51.9_B

Total of FDIC-Insured Deposit Sweep Program at the end of 2016.

\$23.7_B

Par value of bonds traded for investment banking in 2016.

Top 15%

In the last 10 years, UMB has ranked as one of the country's top managing bank qualified underwriters.

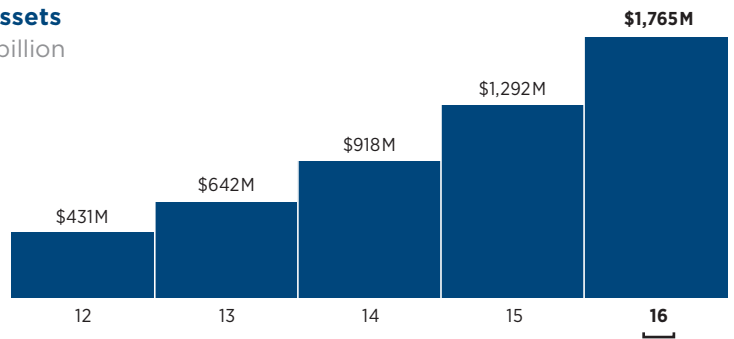
Source: Bloomberg

UMB Healthcare Services

UMB Healthcare Services provides experience and powerful processing capabilities to deliver healthcare payment solutions, including custodial services for health savings accounts (HSAs) and benefit cards, to our healthcare partners.

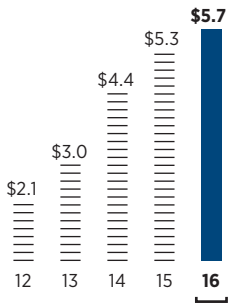
Healthcare Savings Account Deposits & Assets

Total deposits and assets increased to \$1.8 billion in 2016.



Total Purchase Volume

Billions of Dollars



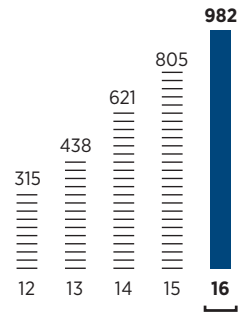
No. 5

HSA provider in the U.S. in total number of accounts.

Source: 2016 Devenir Year-end HSA Market Statistics & Trends Report

Health Savings Accounts

Thousands of Accounts



+36.6%

Growth in assets and deposits compared to 2015.

“We kept our momentum throughout 2016, ending the year with 22 percent growth in health savings accounts, and we will continue to provide exceptional services to our clients and accountholders.”

BEGONYA KLUMB
Chief Executive Officer,
Healthcare Services



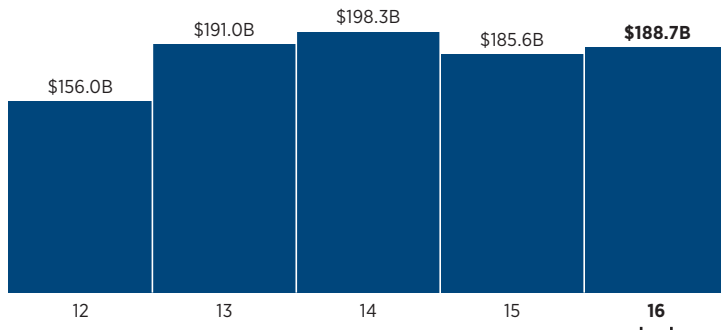
“The Fund Services team excels at adapting in an ever-changing market environment. This agility positions our operation to take advantage of opportunities and meet client needs now and in the future.”

TONY FISCHER
President,
UMB Fund Services

In 2016, market challenges persisted for the asset management industry, yet UMB Fund Services was able to deliver year-over-year revenue growth. Earnings were a result of performance paired with efficiency initiatives. Moving forward, continuous process improvements are part of our DNA, and we've set the foundation for the next stage of our growth.

Asset Servicing

UMB Fund Services offers a broad array of services for mutual funds and alternative investments—as well as turnkey solutions to help our clients bring new products to market.



Total Assets Under Administration

Includes fund clients receiving custody services from UMB Bank, n.a.

+11.5%

The number of alternative investment funds serviced increased from 610 in 2015 to 680 in 2016.

No. 1

Transfer agent for U.S. closed-end mutual funds, based on number of accounts.

Source: 2016 Mutual Fund Service Guide

+25.7%

The number of private equity funds serviced increased by 25.7%, from 257 funds in 2015 to 323 in 2016.

Top Ten

- Transfer Agent
- Fund Accountant

Source: 2016 Mutual Fund Service Guide

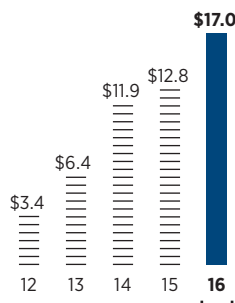
Top Workplace

for the 7th straight year

Source: Milwaukee Journal Sentinel

Investment Managers Series Trust Assets

Billions of Dollars



Assets under administration in the Investment Managers Series Trusts grew to \$17 billion in 2016, a 33% increase over 2015. We helped clients launch 12 new mutual funds through the Trusts.



“ Our firm delivered strong results in 2016 despite significant market headwinds starting the year. As we continue to focus on implementing our investment processes, I’m confident we can deliver value for our clients. ”

ANDREW ISEMAN
Chief Executive Officer,
Scout Investments

Important Disclosures

Risk considerations: Mid-cap stocks may temporarily fall out of favor or perform poorly relative to other types of investments. While stocks of mid-cap companies may be slightly less volatile than those of small-cap companies, they still involve substantial risk. Real Estate Investment Trusts (REITS) may be affected by economic conditions including credit risk, interest rate risk and other factors that affect property values, rents or occupancies of real estate. Foreign investments present additional risks due to currency fluctuations, economic and political factors, government regulations, differences in accounting standards and other factors. Investments in emerging markets involve even greater risks. Groups of stocks, such as value and growth, go in and out of favor, which may cause certain funds to underperform other equity funds.

The Fund may, at times, experience higher-than-average portfolio turnover which may generate significant taxable gains and increased trading expenses which in turn may lower the Fund’s return. Diversification does not guarantee a profit or guarantee against a loss.

“Scout” and “Scout” design are registered service marks of UMB Financial Corporation.

The Scout Funds are distributed by UMB Distribution Services, LLC, 235 West Galena Street, Milwaukee, WI, 53212 an affiliate of UMB Financial Corporation, and managed by Scout Investments, Inc., a subsidiary of UMB Financial Corporation.

Scout, Scout Investments - Reg U.S. Tm. Off.

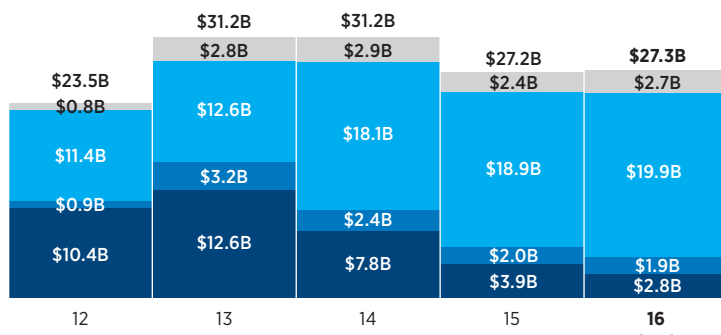
NOT FDIC INSURED · MAY LOSE VALUE · NO BANK GUARANTEE

Scout Investments provides equity and fixed income strategies for institutional clients, investment professionals and individual investors. Active investment management expertise is at the core of our success.

Total Assets Under Management

Billions of Dollars

- Fixed Income Mutual Funds
- Fixed Income Institutional & Other
- Equity Institutional & Other
- Equity Mutual Funds



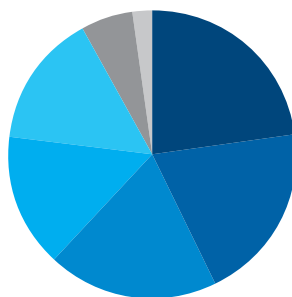
Scout Equity Strategies

- International Equity
- International Equity ADR
- Emerging Markets Equity
- Global Equity
- Equity Opportunity
- Mid Cap Equity
- Small Cap Equity

Reams Fixed Income Strategies

- Ultra Low Duration
- Low Duration
- Intermediate
- Core
- Core Plus
- Long Duration
- Unconstrained

Client Assets by Type



- 23% Sub-Advisory
- 20% Mutual Funds
- 19% Non-Profit / Other
- 15% Public
- 15% Corporate
- 6% Endowment & Foundations
- 2% Taft-Hartley

\$27.3B

Assets Under Management

Total Scout Investments assets under management at the end of 2016.

UMBMX Ranks #1

The Scout Mid Cap Fund ranked #1 for the 10-year period ending December 31, 2016.

For the 10-year time period ending December 31, 2016, there were 218 funds in the Lipper Mid Cap Core Classification and the Scout Mid Cap Fund was ranked number one in the group. Lipper rankings for total return reflect the fund's historical total return performance for 10 years relative to peers in the Lipper Mid Core category as of December 31, 2016. Lipper rankings are not intended to predict future results and Lipper does not guarantee the accuracy of this information. Lipper Copyright 2016, Reuters, All Rights Reserved.

The Fund may have experienced negative performance during one or more of the time periods represented by the Lipper ranking shown.

Past performance is no guarantee of future results.

The Fund's Prospectus or Summary Prospectus, which is available by calling 800.996.2862 or by visiting www.scoutinv.com, includes investment objectives, risks, fees, expenses, and other information that you should read and consider carefully before investing.

See important disclosures page 22.



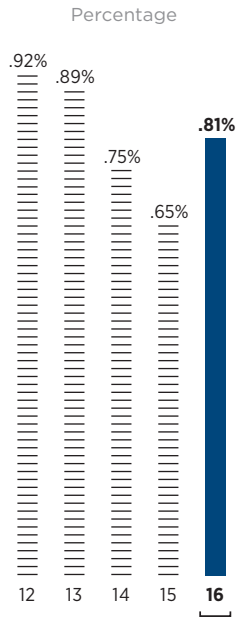
“ We delivered 10.6 percent revenue growth in 2016 while maintaining our commitment to efficiency —both of which have improved our operating leverage.”

RAM SHANKAR
Chief Financial Officer,
UMB Financial Corporation

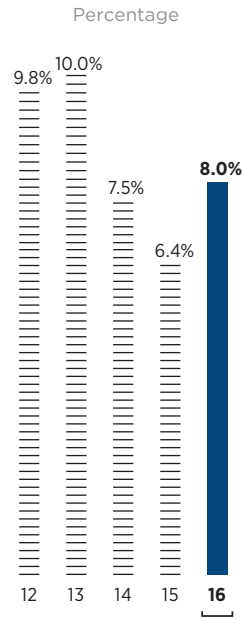
In 2016, we made progress in optimizing our balance sheet by shifting other earning assets into loans, which resulted in improved net interest margin as well as effectively managed capital to enable profitable growth. This sets the company up well for delivering on the runway potential ahead of us in 2017.

SELECTED FINANCIAL HIGHLIGHTS

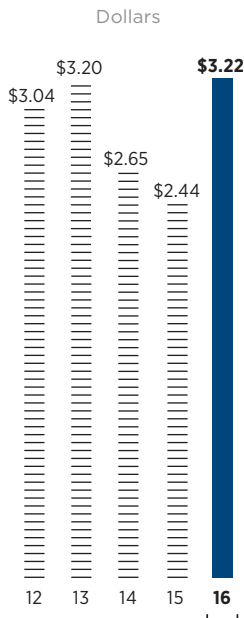
Return On Average Assets



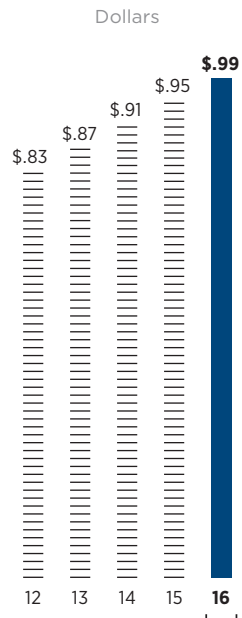
Return On Average Equity



Diluted Earnings Per Share



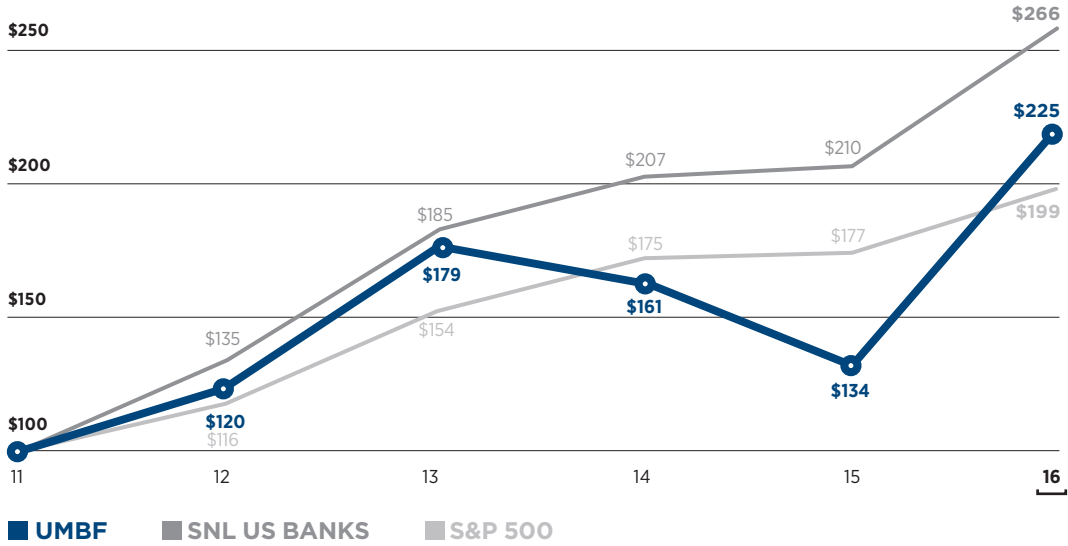
Dividends Paid Per Share



SELECTED FINANCIAL HIGHLIGHTS

Five-Year Total Return

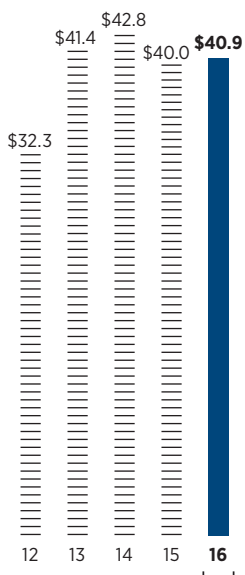
UMBF vs. SNL US Banks Index and S&P 500



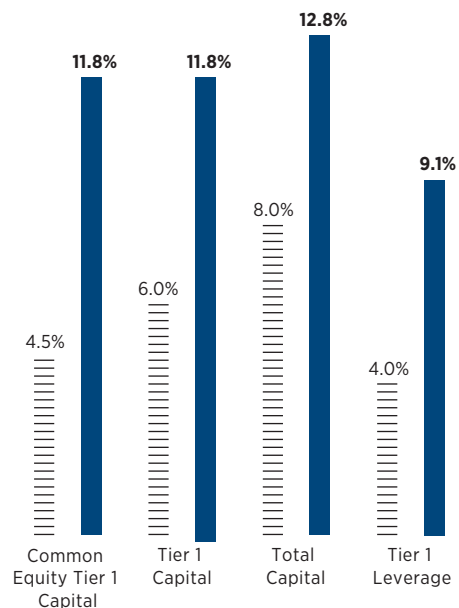
This summarizes the cumulative return experienced by UMBF shareholders for the years 2012 through 2016, compared to the S&P 500 Stock Index and the SNL US Banks Index. In all cases, the return assumes a reinvestment of dividends. *Source: SNL Financial*

UMBF Total Assets Under Management

Billions of Dollars



Risk-Based Capital Ratios



Regulatory Minimum UMB

FIVE-YEAR FINANCIAL SUMMARY

Dollars In Thousands Except Per Share Data

Earnings	2016	2015	2014	2013	2012
Interest income	\$ 523,031	\$ 430,681	\$ 363,871	\$ 348,341	\$ 339,685
Interest expense	27,708	18,614	13,816	15,072	19,629
Net interest income	495,323	412,067	350,055	333,269	320,056
Provision for loan losses	32,500	15,500	17,000	17,500	17,500
Noninterest income	476,075	466,454	498,688	491,833	458,122
Noninterest expense	731,894	703,736	665,680	624,178	590,454
Net income	158,801	116,073	120,655	133,965	122,717
Average Balances					
Assets	\$ 19,592,685	\$ 17,786,442	\$ 15,898,983	\$ 15,030,762	\$ 13,389,192
Loans, net of unearned interest	9,992,874	8,425,107	6,975,338	6,221,318	5,251,278
Securities	7,665,012	7,330,246	7,053,837	7,034,542	6,528,523
Interest-bearing due from banks	410,163	664,752	843,134	663,818	547,817
Deposits	15,338,741	14,078,290	12,691,273	11,930,318	10,521,658
Long-term debt	81,905	57,321	6,059	4,748	5,879
Shareholders' equity	1,983,749	1,805,856	1,599,765	1,337,107	1,258,284
Year-End Balances					
Assets	\$ 20,682,532	\$ 19,094,245	\$ 17,500,960	\$ 16,911,852	\$ 14,927,196
Loans, net of unearned interest	10,545,662	9,431,350	7,466,418	6,521,869	5,690,626
Securities	7,690,108	7,568,870	7,285,667	7,051,127	7,134,316
Interest-bearing due from banks	715,823	522,877	1,539,386	2,093,467	720,500
Deposits	16,570,614	15,092,752	13,616,859	13,640,766	11,653,365
Long-term debt	76,772	86,070	8,810	5,055	5,879
Shareholders' equity	1,962,384	1,893,694	1,643,758	1,506,065	1,279,345
Nonperforming loans	70,259	61,206	27,382	30,706	28,103
Allowance for loan losses	91,649	81,143	76,140	74,751	71,426
Per Share Data					
Earnings - basic	\$ 3.25	\$ 2.46	\$ 2.69	\$ 3.25	\$ 3.07
Earnings - diluted	3.22	2.44	2.65	3.20	3.04
Cash dividends	0.99	0.95	0.91	0.87	0.83
Dividend payout ratio	30.46 %	38.62 %	33.83 %	26.77 %	27.04 %
Book value	\$ 39.51	\$ 38.34	\$ 36.10	\$ 33.30	\$ 31.71
Market price					
High	\$ 81.11	\$ 58.84	\$ 68.27	\$ 65.44	\$ 52.61
Low	39.55	45.14	51.87	43.27	37.68
Close	77.12	46.55	56.89	64.28	43.82
Ratios					
Return on average assets	0.81 %	0.65 %	0.75 %	0.89 %	0.92 %
Return on average equity	8.01	6.43	7.54	10.02	9.75
As a % of loans:					
Allowance for loan losses	0.87	0.86	1.02	1.15	1.26
Nonperforming loans	0.67	0.65	0.37	0.47	0.49
Risk-based capital:					
Common Equity Tier 1*	11.80	11.74	-	-	-
Tier 1	11.80	11.86	13.29	13.61	11.05
Total	12.87	12.80	14.04	14.43	11.92
Average equity to average assets	10.12	10.15	8.72	8.90	9.40

Please refer to 10-K filing for additional information.

*Common Equity Tier 1 ratio required beginning January 1, 2015 upon the company's adoption of Basel III.

CONSOLIDATED BALANCE SHEETS

Dollars in Thousands Except Per Share and Share Data

December 31,

December 31,

Assets	2016	2015
Loans	\$ 10,540,383	\$ 9,430,761
Allowance for loan losses	(91,649)	(81,143)
Net loans	10,448,734	9,349,618
Loans held for sale	5,279	589
Investment securities:		
Available for sale	6,466,334	6,806,949
Held to maturity (market value of \$1,106,027 and \$691,379 respectively)	1,115,932	667,106
Trading securities	39,536	29,617
Federal Reserve Bank stock and other	68,306	65,198
Total investment securities	7,690,108	7,568,870
Federal funds sold and securities purchased under agreements to resell	324,327	173,627
Interest-bearing due from banks	715,823	522,877
Cash and due from banks	422,117	458,217
Bank premises and equipment, net	289,007	281,471
Accrued income	99,045	90,127
Goodwill	228,396	228,346
Other intangibles	34,491	46,782
Other assets	425,205	373,721
Total assets	\$ 20,682,532	\$ 19,094,245
Liabilities		
Deposits:		
Noninterest-bearing demand	\$ 6,654,584	\$ 6,306,895
Interest-bearing demand and savings	8,780,309	7,529,972
Time deposits under \$250,000	613,589	771,973
Time deposits of \$250,000 or more	522,132	483,912
Total deposits	16,570,614	15,092,752
Federal funds purchased and repurchase agreements	1,856,937	1,818,062
Short-term debt	-	5,009
Long-term debt	76,772	86,070
Accrued expenses and taxes	172,967	161,245
Other liabilities	42,858	37,413
Total liabilities	18,720,148	17,200,551
Shareholders' Equity		
Common stock, \$1.00 par value; 80,000,000 shares authorized, 55,056,730 shares issued and 49,673,056 and 49,396,366 shares outstanding, respectively	55,057	55,057
Capital surplus	1,033,419	1,019,889
Retained earnings	1,142,887	1,033,990
Accumulated other comprehensive income	(57,542)	(3,718)
Treasury stock, 5,383,674 and 5,660,364 shares, at cost, respectively	(211,437)	(211,524)
Total shareholders' equity	1,962,384	1,893,694
Noninterest-bearing demand	\$ 20,682,532	\$ 19,094,245

Please refer to 10-K filing for additional information.

CONSOLIDATED STATEMENT OF INCOME

Dollars in Thousands Except Per Share and Share Data

Years Ended December 31,

Interest Income	2016	2015	2014
Loans	\$ 386,274	\$ 308,325	\$ 245,278
Securities:			
Taxable interest	73,560	75,327	76,204
Tax-exempt interest	57,516	43,598	39,209
Total securities income	131,076	118,925	115,413
Federal funds and resell agreements	2,708	697	259
Interest-bearing due from banks	2,341	2,356	2,525
Trading securities	632	378	396
Total interest income	523,031	430,681	363,871
Interest Expense			
Deposits	17,936	14,269	12,242
Federal funds and repurchase agreements	6,524	1,785	1,616
Other	3,248	2,560	(42)
Total interest expense	27,708	18,614	13,816
Net interest income	495,323	412,067	350,055
Provision for loan losses	32,500	15,500	17,000
Net interest income after provision for loan losses	462,823	396,567	333,055
Noninterest Income			
Trust and securities processing	239,879	262,056	288,054
Trading and investment banking	21,422	20,218	19,398
Service charges on deposits	86,662	86,460	85,299
Insurance fees and commissions	4,188	2,530	3,011
Brokerage fees	17,833	11,753	10,761
Bankcard fees	68,749	69,211	67,250
Gains on sales of securities available for sale	8,509	10,402	4,127
Equity earnings (loss) on alternative investments	2,695	(12,188)	3,975
Other	26,138	16,012	16,813
Total noninterest income	476,075	466,454	498,688
Noninterest Expense			
Salaries and employee benefits	432,754	406,472	358,569
Occupancy, net	44,926	43,861	40,197
Equipment	67,271	63,533	53,609
Supplies, postage and telephone	19,080	18,579	20,411
Marketing and business development	22,342	23,730	24,148
Processing fees	45,235	51,328	56,049
Legal and consulting	21,242	26,390	20,407
Bankcard	20,757	20,288	19,594
Amortization of other intangible assets	12,291	12,090	12,193
Regulatory fees	14,178	12,125	10,445
Contingency Reserve	-	-	20,272
Other	31,818	25,340	29,786
Total noninterest expense	731,894	703,736	665,680
Income before income taxes	207,004	159,285	166,063
Income tax expense	48,203	43,212	45,408
Net Income	\$ 158,801	\$ 116,073	\$ 120,655
Per Share Data (except shares outstanding)			
Net income - basic	\$ 3.25	\$ 2.46	\$ 2.69
Net income - diluted	3.22	2.44	2.65
Dividends	0.99	.95	.91
Weighted average shares outstanding - basic	48,828,313	47,126,252	44,844,578

Please refer to 10-K filing for additional information.

UMB FINANCIAL CORPORATION BOARD OF DIRECTORS

Robin C. Beery ^{2,4,5}

Consultant,
Investment Industry Executive

Nancy K. Buese ^{2,5,6}

Executive Vice President,
Chief Financial Officer,
Newmont Mining Corporation

Terrence P. Dunn ³

Chairman and Director,
TechAccel, LCC

K.C. Gallagher ^{2,5}

Chairman,
Gallagher Industries, LLC;
Chief Executive Officer,
Little Pub Holdings, LLC

Gregory M. Graves ^{3,4}

Chairman, Chief Executive
Officer and President,
Burns and McDonnell
Engineering Company, Inc.

Michael D. Hagedorn ¹

President and Chief Executive
Officer, UMB Bank, n.a.;
Vice Chairman,
UMB Financial Corporation

Alexander C. Kemper

Chairman and Chief
Executive Officer,
C2FO

Mariner Kemper ⁶

Chairman, UMB Bank, n.a.;
Chairman, President and
Chief Executive Officer,
UMB Financial Corporation

Timothy R. Murphy ^{3,4}

Chairman and Chief
Executive Officer,
Murphy-Hoffman Company

Kris A. Robbins ^{2,5,6}

Principal,
KARobbins, LLC

L. Joshua Sosland ^{3,4}

President,
Sosland Companies, Inc.

Paul Uhlmann III ^{3,4}

President and Chief
Executive Officer,
The Uhlmann Company

Leroy J. Williams, Jr. ^{2,4}

Chief Executive Officer,
CyberTek IQ

Thomas J. Wood III ¹

Investor

To view a full list of UMB's advisory
boards, visit UMB.com/AdvisoryBoards

UMB FINANCIAL COMMUNITY INVOLVEMENT

UMB Financial Corporation's community involvement philosophy guides how the company and associates invest their time and talent, and helps determine where sponsorships and donations are made. More than any one value, UMB is dedicated to the prosperity of every community it serves. We continuously contribute to the vibrancy and success of these communities by supporting:

- Agriculture
- Financial Education
- Arts
- Self Sufficiency

1,112

UMB associates volunteered their time in 2016.

\$231k

Estimated economic value of UMB associates' volunteer hours in 2016.

Source: Independent Sector

9,809

Hours of qualified volunteer time off in 2016.

450+

Organizations where UMB associates volunteered.

1,528

Tons of recycled paper in 2016, saving an estimated 36,665 trees, 34,913,306 gallons of water, 2,935,950 pounds of solid waste, 49,736 million BTUs of energy, and 8,557,021 pounds of greenhouse gases.

The paper, paper mill and printer for this publication are certified to meet the strict standards of the Forest Stewardship Council (FSC).

 Printed on recycled paper.

CORPORATE INFORMATION

Notice of Annual Meeting

Tuesday, April 25, 2017
UMB Financial Corporation
1010 Grand Boulevard
Kansas City, MO 64106

10-K Request

We will furnish, without charge, a copy of our 2016 Report to the SEC (Form 10-K) to any shareholder upon written request. Please specify Form 10-K when requesting.

The report and 10-K filing will also be available online at UMBFinancial.com.

Transfer Agent

Computershare Trust
Company, n.a.
P.O. Box 43078
Providence, RI 02940-3078
800.884.4225

UMB Financial Corporation

1010 Grand Boulevard
P.O. Box 419226
Kansas City, MO 64141-6226
UMBFinancial.com

Stock Quotation Symbol

UMBF
NASDAQ OMX

Investor Relations

Kay Gregory
Vice President,
Investor Relations

Financial Information

Ram Shankar
Chief Financial Officer,
UMB Financial Corporation

To contact us, please call

816.860.7000 or 800.821.2171

For other inquiries

Marketing Communication
Marketing@UMB.com

Cautionary Notice About Forward-Looking Statements

This document contains 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. All forward-looking statements are subject to assumptions, risks, and uncertainties, which may change over time and many of which are beyond our control. You should not rely on any forward-looking statement as a prediction or guarantee about the future. Our actual future objectives, strategies, plans, prospects, performance, condition, or results 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 our Annual Report on Form 10-K for the year ended December 31, 2016, our 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 Securities and Exchange Commission (SEC). Any forward-looking statement made by us or on our behalf speaks only as of the date that it was made. We do not undertake 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. You, however, should consult further disclosures (including disclosures of a forward-looking nature) that we may make in any subsequent Quarterly Report on Form 10-Q, Current Report on Form 8-K, or other applicable document that is filed or furnished with the SEC.

A FOCUS ON QUALITY

We believe quality prevails over quantity. Our time-tested approach will always be anchored in quality, and we will never chase short-term earnings or growth at the expense of our future.

UMB Financial Corporation (NASDAQ: UMBF) Credit Ratings as of 02/17/16

Credit Ratings	S&P	Fitch
Long-term Issuer	A- / Stable	A / Stable
Short-term/Commercial Paper	A-2	F1
Bank Individual	-	a+
Bank Support	-	5

Credit Ratings (Subsidiaries)	S&P	Fitch
UMB Bank, National Association		
Certificate of Deposit	-	AA-
Bank Individual	-	a+
Bank Support	-	5

Count on more.



UMBFINANCIAL.COM