

# BankDirector®

## IT'S A GOLDEN AGE OF BANKING, BUT HOW LONG WILL IT LAST?

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### PRESENTATION BY:

STEVEN D. HOVDE  
CHAIRMAN & CEO  
HOVDE GROUP, LLC



# TABLE OF CONTENTS

| SECTION | CONTENTS   | PAGE |
|---------|--|------|
| I       | It's a Golden Age of Banking   | 3    |
| II      | But What Could Negatively Impact Banking?  | 12   |
| III     | As the Banking Industry Continues to Shrink – We Will See a Resurgence of Large Bank M&A | 54   |
| IV      | The Outlook for M&A  | 66   |

## I IT'S A GOLDEN AGE OF BANKING

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# PROSPECTS FOR THE U.S. BANK SECTOR ARE VERY ENCOURAGING

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**“You have a golden age of banking”**

-Jamie Dimon, CEO, JP Morgan Chase

■ **Post-recession regulatory constraints are easing considerably**

- SIFI threshold to \$250B from \$50B; Elimination of stress testing for banks \$10B+
- Volcker rule weakened and smaller banks exempt entirely
- CFPB has been rendered impotent
- Merger approval process more streamlined for all banks
- Anecdotal reports suggest a lighter regulatory hand across the board

■ **The macro backdrop is very healthy**

- Unemployment nearing record-low levels
- Pace of economic growth is improving steadily, though not intemperately
- Capital expenditures, business and consumer confidence, household formation, wage income, and auto and retail sales evidence continued momentum

■ **Profitability measures are approaching historical norms**

- Tax reform has provided a key offset to other areas (margins, loan growth, efficiency) that remain below historical norms, helping to drive profitability bank to pre-Recession levels

## PROSPECTS FOR THE U.S. BANK SECTOR ARE VERY ENCOURAGING

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**“You have a golden age of banking”**

-Jamie Dimon, CEO, JP Morgan Chase

■ **Valuations are higher, but bank stocks aren't euphorically priced**

- Bank stocks are justifiably trading at or slightly above the long-term average, but aren't fully priced for the current “Goldilocks” environment

■ **Risks are generally manageable, muting the potential for a steep sector-wide decline...**

- Insufficient capital and problematic asset quality are the primary drivers of bank stock price declines historically, and neither is an issue for the foreseeable future
- Constantly shifting political winds are a wildcard (2018 mid-term elections and 2020 presidential election are up next), but new handcuffs are unlikely absent a new crisis

■ **... but for a new emerging group of “have-nots,” the future isn't quite as rosy**

- The fight for the quality depository funding is the next major battleground for banks
- Clear winners and loser are likely to emerge in the coming year, and carry with it a bifurcated outcome for the sector

# DEREGULATION IS A MAJOR POSITIVE DEVELOPMENT, WITH PROFOUND IMPLICATIONS FOR BANK STOCK INVESTING

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## ■ While the benefits from deregulation are fairly straightforward...

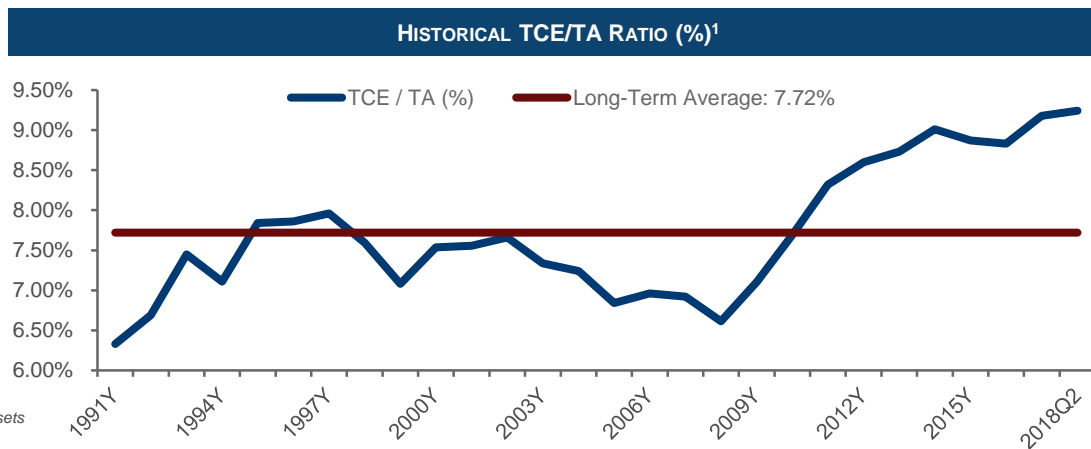
- The pace of increase in compliance-related costs should level off in the near-term, and will likely decline over time, translating to improved efficiency
- The business model for smaller banks is now more viable, given the disproportionate impact of higher compliance costs on these institutions in recent years
- The increase in the SIFI threshold and a more streamlined merger approval process should expand the pool of eligible acquirers and potential sellers (including potentially some former SIFI banks)

## ■ ... The dynamics of bank stock investing will be profoundly altered, mostly for the better

- More optimized expense structure and efficiency gains should drive profitability improvement over time, which, in turn, augurs for sector valuation enhancement
- Takeout premiums should increasingly build into larger community and small-to-medium-sized regional bank stocks, as these companies were not acquirable in the prior regulatory regime
- Most notably, the “sweet spot” for bank stock investing in the post-recession environment – roughly \$5B to \$10B in asset size – should expand considerably in both directions, perhaps ranging to as wide as \$1B to \$100B as the new “rules of the road” are better defined
  - Disproportionate benefits from deregulations should better equip small bank to compete, driving measures of profitability closer to larger peers
  - Aside from Durbin, which can arguably be offset by increased scale, banks over \$10B are now on a level playing field with smaller brethren
  - Over time, we think valuation stratifications based on size – a major investment theme in the post-recession environment – will largely disappear for all but the very largest and smallest banks

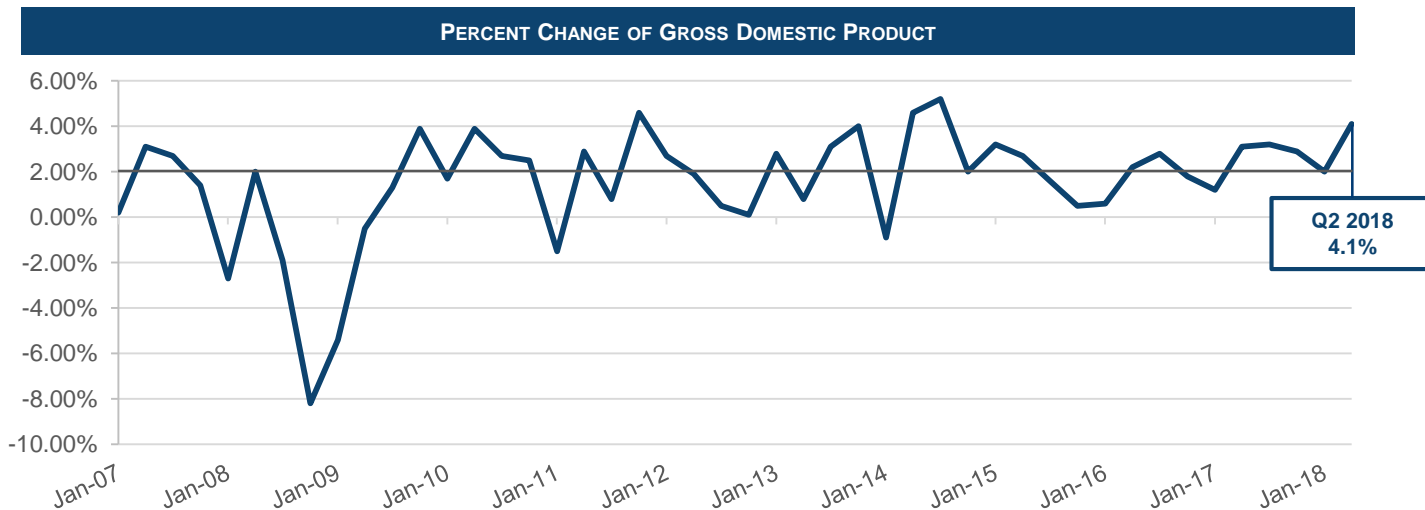
## BROADER RISKS ARE MANAGEABLE, MUTING THE LIKELIHOOD OF A STEEP SECTOR DECLINE

- Insufficient capital and problematic asset quality are the typical drivers of large-scale sector declines historically, and neither is an issue today or for the foreseeable future
  - Bank capital levels have never been stronger or of higher quality
  - Fed stress tests are more severe than actual loss experienced during the Great Recession
  - Banks can absorb a real estate crisis similar in magnitude to the last one and still have more capital than pre-Great Recession
  - Few, if any, macro developments can compare to the devastation wrought from a national real estate crisis
    - 2/3 of sector revenues are tied in some way to real estate
    - Energy, or any other areas that have been of concern in recent years just doesn't compare
  - Bottom line, regional / specific asset class issues are unlikely to drive bank stocks as a group meaningfully lower
  - Even in the worst of times for banks, there are places to hide, and not just in retrospect
    - Banks impacted by Katrina; Others in non-boom/bust areas (Upstate NY, for example) fared quite well through the Great Recession



## THE MACRO BACKDROP SEEMS STABLE

- The sustained GDP growth of ~2%+ has not been all that exciting, but not all that worrisome either. In Q2 we saw that number jump to 4.1%.
- Loan growth trends for banks nationwide are generally mirroring the macro backdrop.
  - Banks reported a steady acceleration in loan demand prior to the election, followed by a post-election pick-up driven by commercial middle market, spec fin and business banking.
  - Commentary on CRE was not as encouraging, with virtually all large banks reporting a slowdown, which begs the question: Are smaller banks stretching for growth?
  - Consumer also sluggish, mostly led by auto.





# BANKS TEND TO MIRROR THE PERFORMANCE OF THE BROADER ECONOMY, AND KEY MACRO INDICATORS IMPLY A STURDY MARKET BACKDROP

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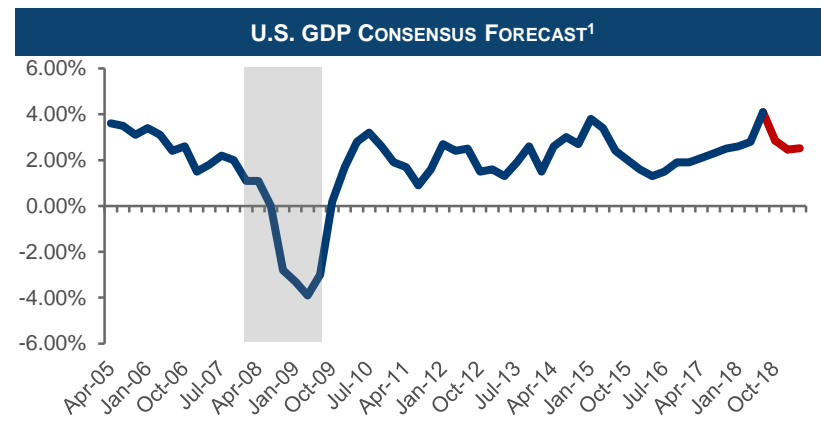
## ■ Unemployment nearing record-low levels

- Simply put, when people are working, they tend to pay their bills (auto, mortgage, credit cards, etc.)
- Generally speaking, credit loss trends for banks roughly track unemployment

## ■ A steady, but not intemperate, pace of economic growth bodes well for longer-term credit stability

- Steady economic growth should help temper the more destructive impulses that can accompany hyper-growth
- Cycles of credit distress historically tend to follow a period of irrational exuberance (large corporate in early 2000's following tech bubble, real estate crisis in 2008, etc.)

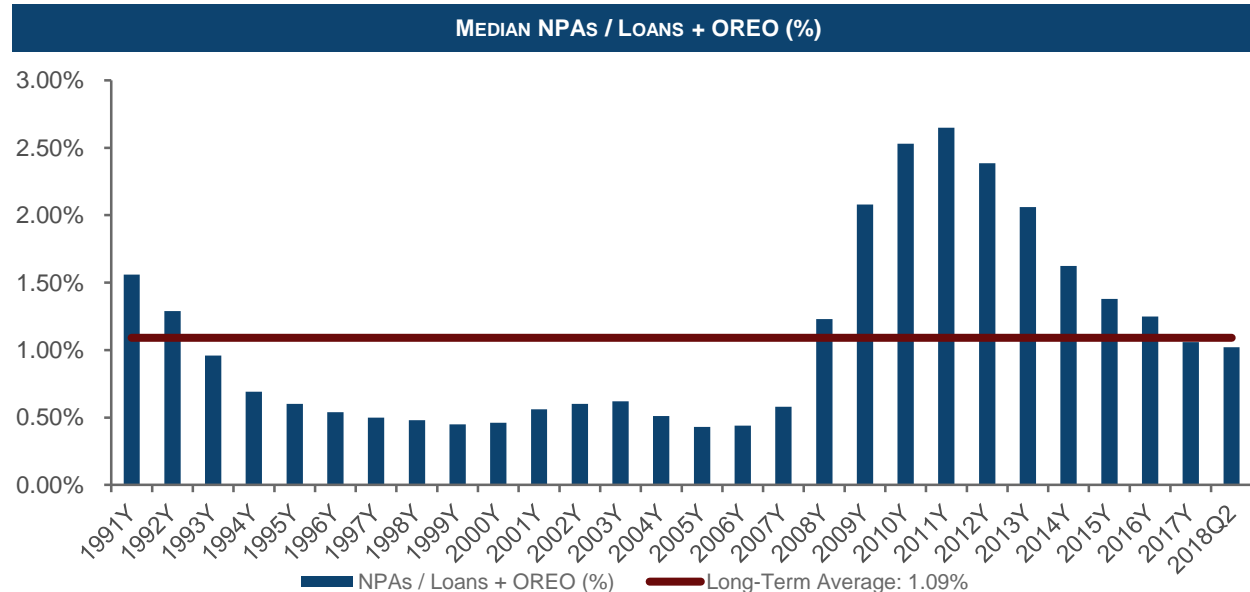
## ■ Capital expenditures, business and consumer confidence, commercial loan pipelines for banks, wage growth, and auto and retail sales evidence continued economic momentum



# WHILE IT SEEMS LOGICAL TO ASSUME THAT THE INFLECTION POINT IN THE CREDIT CYCLE WILL SOON BE UPON US...

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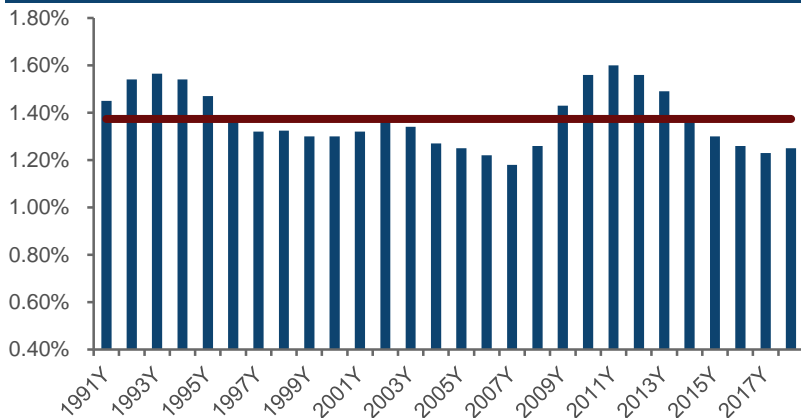
- Anecdotally, banks are reporting still-intense loan pricing competition, and deterioration in underwriting terms and conditions.
- Historically, we tend to see the ramifications of these developments within about 18 months of the anecdotal observation and/or the beginning of a Fed tightening cycle.
  - Some 59% of private-sector economists surveyed believe the current economic expansion is most likely to end in 2020 and another 22% foresee a contraction beginning in 2021. 62% of this same group of economists believed the primary cause of the next downturn would be an overheating economy leading to Fed Tightening.
  - The economists predictions show a consensus among professional forecasters: "A recession isn't imminent, but the expansion won't last forever."



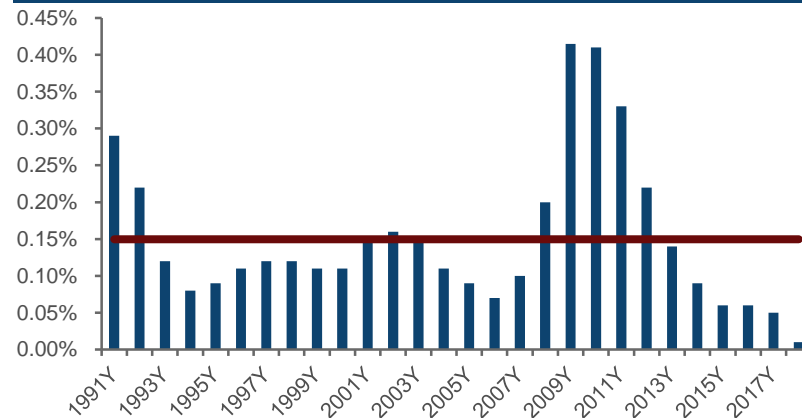
## ... WE SEE NO LOOMING CREDIT-RELATED STORM CLOUDS ON THE IMMEDIATE HORIZON

- The data is simply not yet suggestive of a material decline in asset quality.
- Large banks tend to be a leading indicator of problems, and have been upbeat in their commentary across the board, with several reporting record low problem loans and loss metrics.
- As recently as Q1 2018, WFC's CEO said that they had "very strong credit quality with net charge-offs at historically low levels."
  - And WFC's CFO comments on the Q2 2018 results that "continued to reflect strong credit quality."
- The consumer is generally pretty healthy aside from certain products in the subprime space and early signs of normalization in credit card delinquency trends.
- There is some concern around the retail CRE, but these issues are likely to take some time to play out.

**MEDIAN RESERVES / LOANS (%)**



**MEDIAN NET CHARGE-OFFS / AVERAGE LOANS (%)**



## II BUT WHAT COULD NEGATIVELY IMPACT BANKING?

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A) WHAT IS THE FUTURE FOR BANK EARNINGS  
- WILL ROA CONTINUE TO CLIMB?

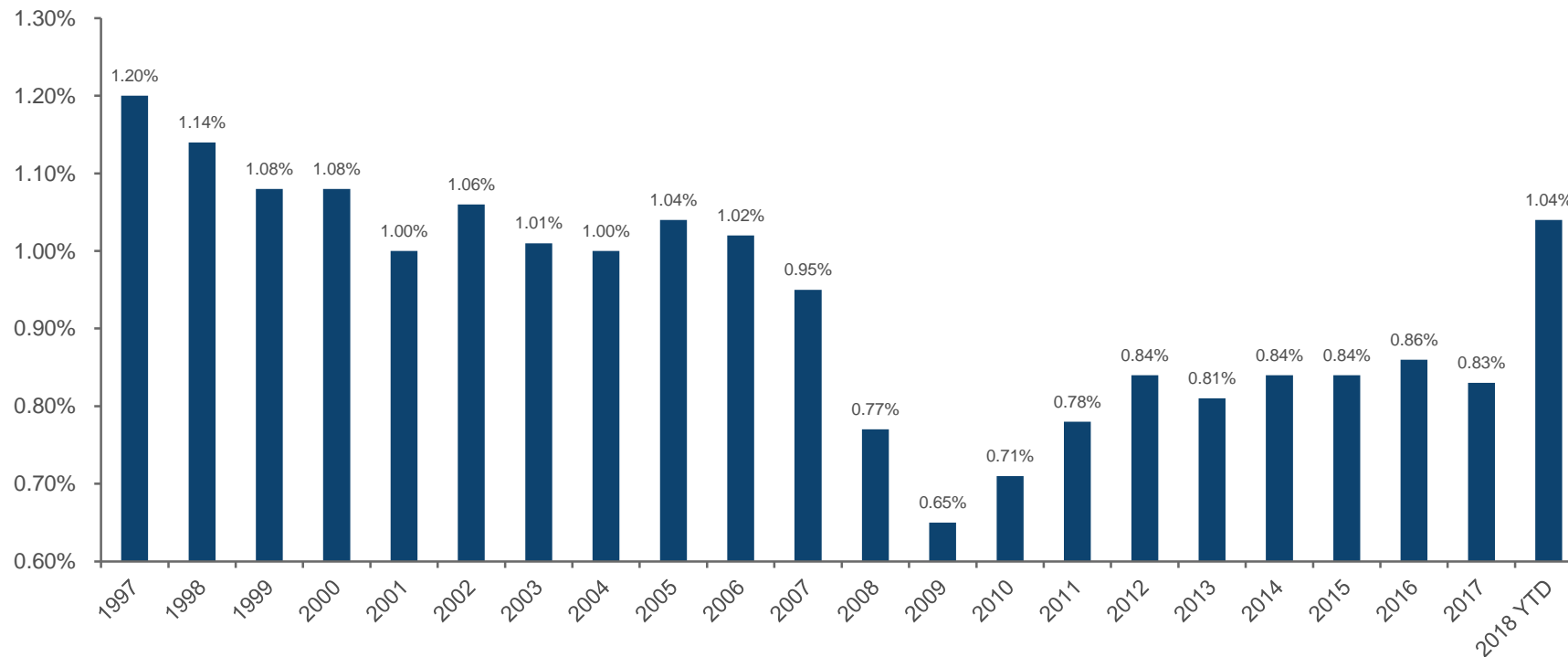
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## IS THERE ROOM FOR ROAA TO CONTINUE TO GROW?

- The median ROAA over the first two quarters of 2018 was 1.04% which is still below pre-recession levels, but the financial industry has seen steady increases since its low of 0.65% ROAA in 2009. Tax reform should help propel ROAA's closer to historical norms, but will above 1.00% ROAA's become the new norm?

### MEDIAN YEARLY BANK INDUSTRY ROAA

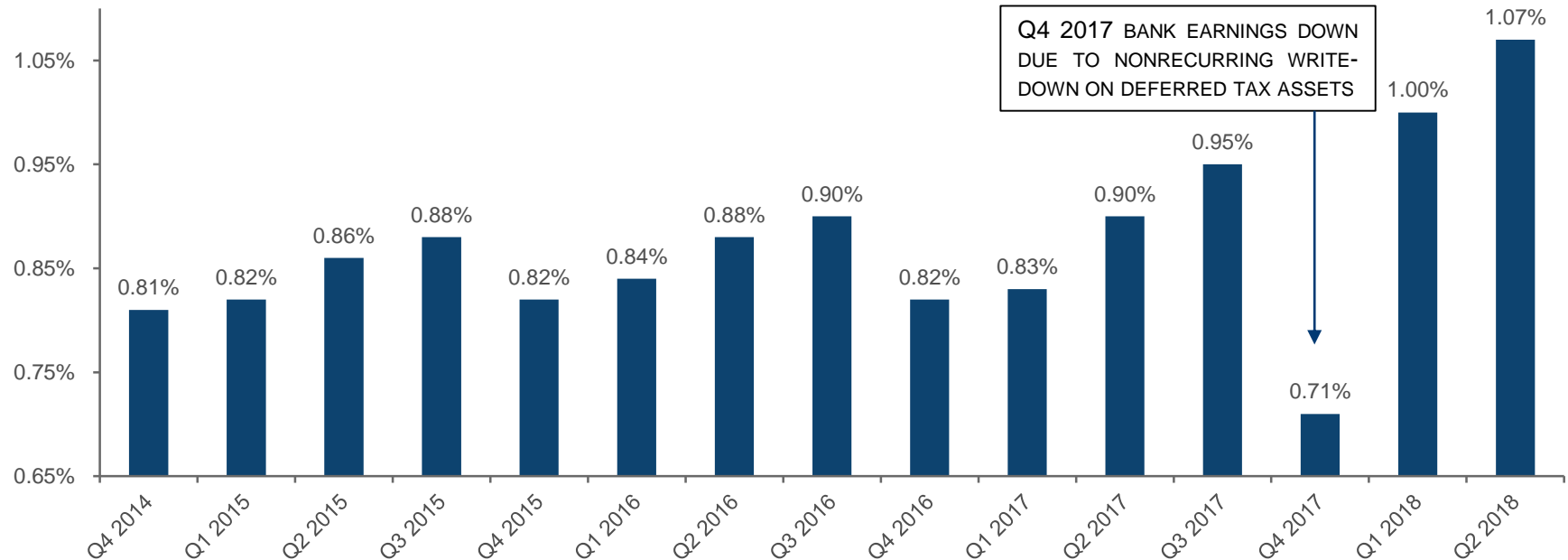


# TAX REFORM HELPS PROPEL SECTOR PROFITABILITY BACK TO HISTORICAL NORMS, BUT HOW LONG WILL THE INCREASING ROAA TREND LAST?

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- Low interest rates, a sluggish economic recovery, and overly burdensome regulations translated to lower-than-normal margins, a slower pace of loan growth, and higher expenses in the post-Recession environment
  - These are the primary reasons why banks have been unable to drive profitability back to pre-Recession levels
- More recently, higher rates, an increasingly robust economic backdrop, and de-regulation have helped to narrow (but not entirely eliminate) the profitability gap
- However, tax reform has further catalyzed profitability, which has returned to pre-Recession levels, despite still-lower-than-normal margins and subpar efficiency.

## MEDIAN QUARTERLY BANK INDUSTRY ROAA



## ASSET SIZE FOR HIGHEST EARNING POWER

- The “sweet spot” for most profitable banks had been in the \$5 billion to \$10 billion range.
  - While that range still performs well, in recent quarters the \$50 billion to \$100 billion range has been outperforming its peers. It should be noted that we have seen an uptick across all asset ranges.

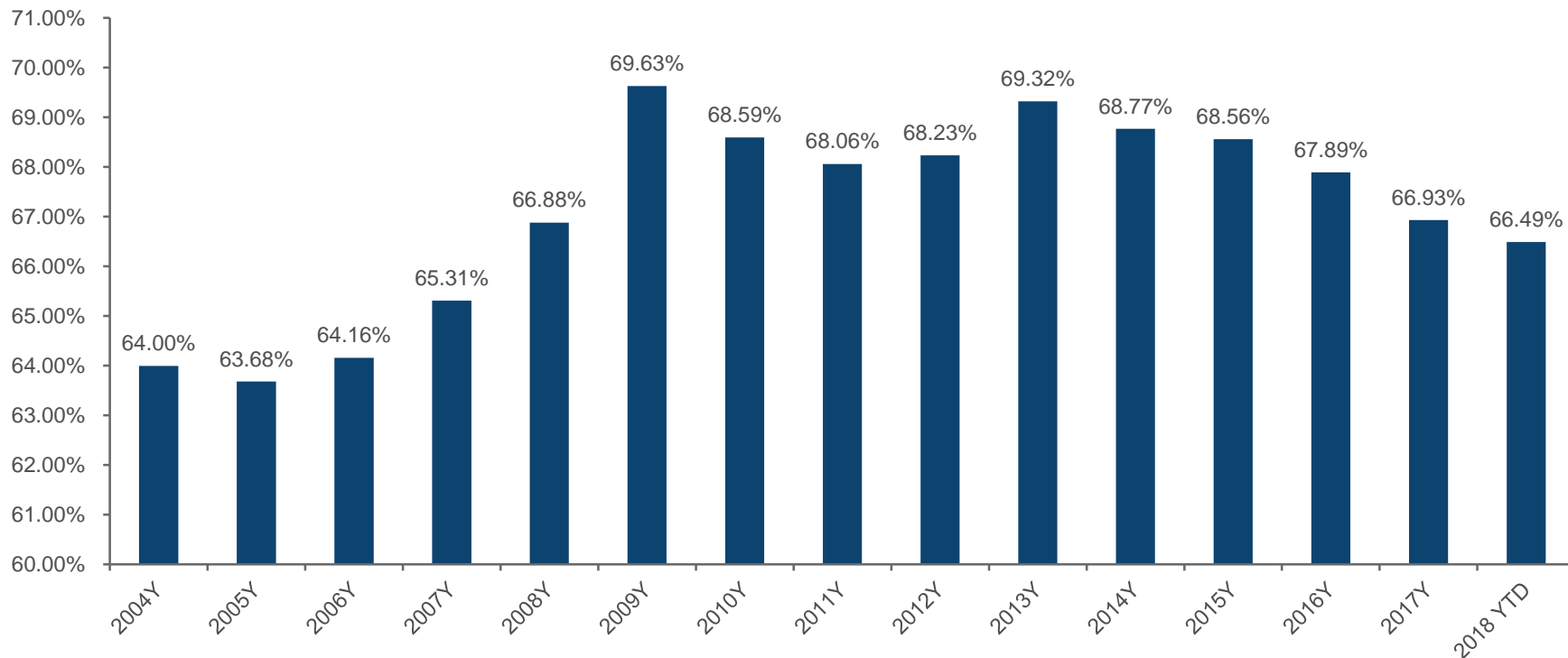
| Median ROAA (%) |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Asset Size      | 2014Q4 | 2015Q1 | 2015Q2 | 2015Q3 | 2015Q4 | 2016Q1 | 2016Q2 | 2016Q3 | 2016Q4 | 2017Q1 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 |
| <\$500M         | 0.79   | 0.80   | 0.83   | 0.86   | 0.79   | 0.82   | 0.85   | 0.88   | 0.77   | 0.79   | 0.87   | 0.91   | 0.71   | 0.96   | 1.04   |
| \$500M-\$1B     | 0.91   | 0.88   | 0.96   | 0.96   | 0.88   | 0.88   | 0.96   | 0.96   | 0.94   | 0.90   | 0.96   | 1.01   | 0.76   | 1.07   | 1.17   |
| \$1B-\$5B       | 0.88   | 0.88   | 0.93   | 0.91   | 0.88   | 0.88   | 0.92   | 0.94   | 0.92   | 0.91   | 0.96   | 1.02   | 0.61   | 1.11   | 1.14   |
| \$5B-\$10B      | 1.03   | 0.98   | 1.05   | 1.04   | 1.00   | 1.01   | 1.08   | 1.07   | 1.03   | 1.07   | 1.05   | 1.08   | 0.74   | 1.19   | 1.21   |
| \$10B-\$25B     | 1.00   | 0.96   | 1.01   | 1.03   | 1.04   | 0.92   | 1.02   | 1.09   | 1.04   | 1.00   | 1.06   | 1.08   | 0.68   | 1.27   | 1.42   |
| \$25B-\$50B     | 0.83   | 0.89   | 1.01   | 0.94   | 0.81   | 0.74   | 0.86   | 0.85   | 0.89   | 0.90   | 0.96   | 0.97   | 0.77   | 1.06   | 1.21   |
| \$50B-\$100B    | 1.01   | 0.97   | 1.01   | 0.93   | 0.71   | 0.86   | 0.87   | 0.85   | 0.92   | 1.10   | 1.14   | 1.09   | 0.84   | 1.46   | 0.93   |
| >\$100B         | 0.82   | 0.92   | 0.93   | 0.90   | 0.87   | 0.85   | 0.93   | 0.94   | 0.88   | 0.91   | 0.95   | 1.00   | 0.57   | 1.20   | 1.29   |



## CAN EFFICIENCY RATIO GET BACK TO PRE-RECESSION LEVELS?

■ Banks are still above pre-recession efficiency ratio levels, but have been on a steady decline since 2013.

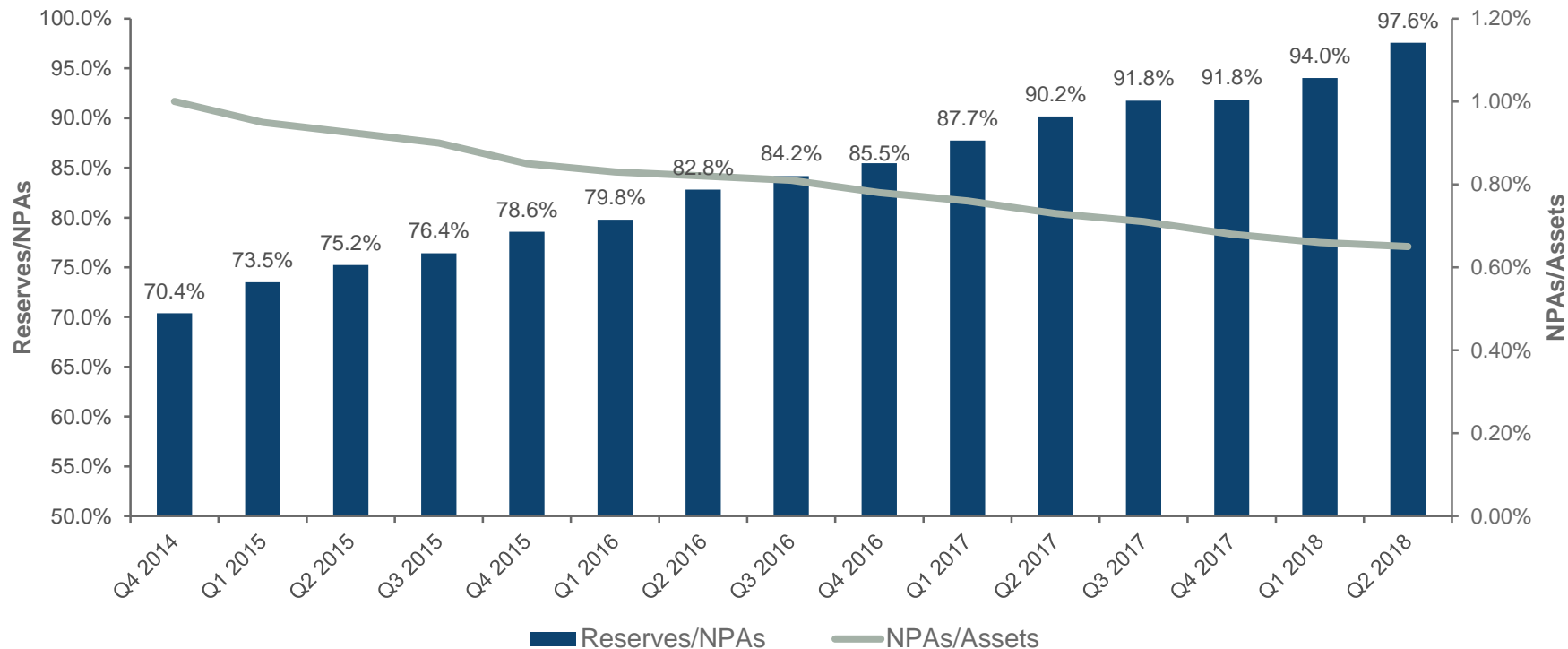
### MEDIAN YEARLY BANK INDUSTRY EFFICIENCY RATIO



## HOW WELL RESERVED ARE BANKS CURRENTLY?

- As banks continue to shrink the amount of non performing assets on the balance sheet, will we begin to see more aggressive lending chasing higher yields?

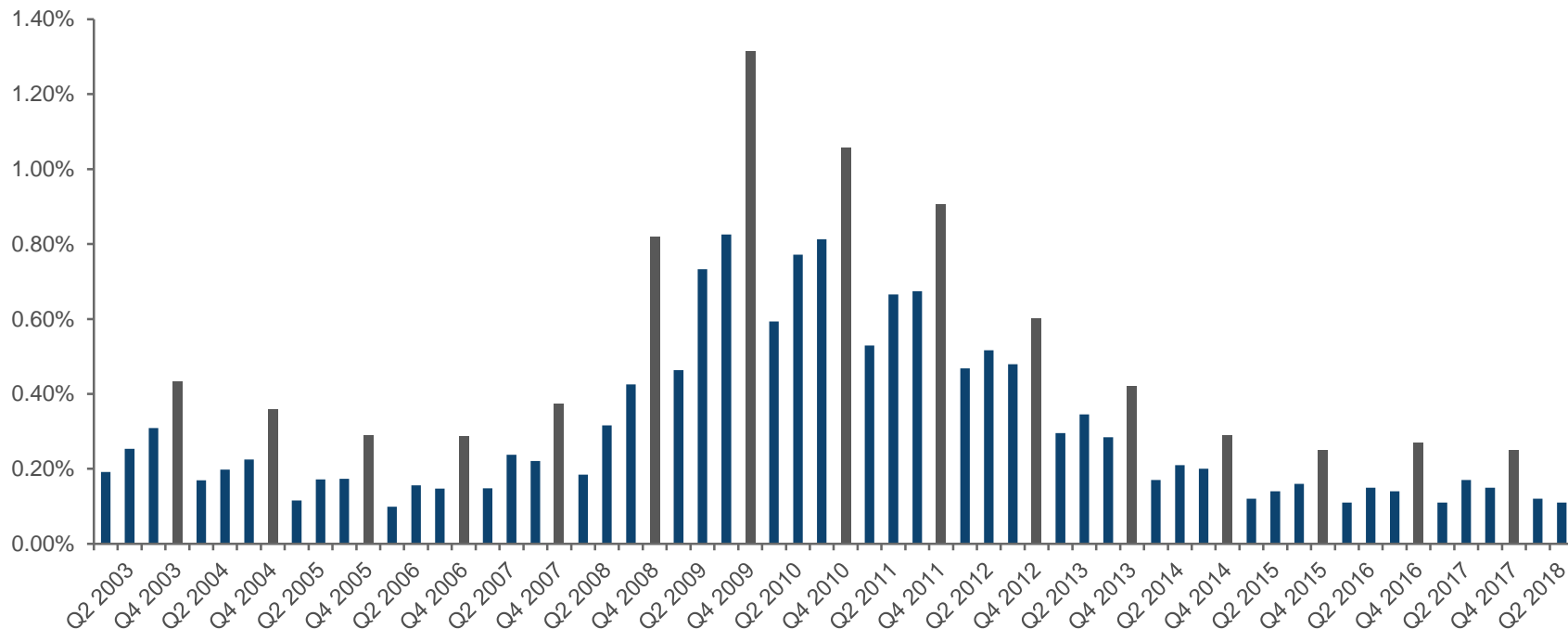
**MEDIAN QUARTERLY BANK INDUSTRY RESERVES/NPAs VS NPAs/ASSETS**



## Q OVER Q CHARGE-OFFS HAVE BEEN STEADILY DECREASING SINCE 2009, UNTIL RECENTLY

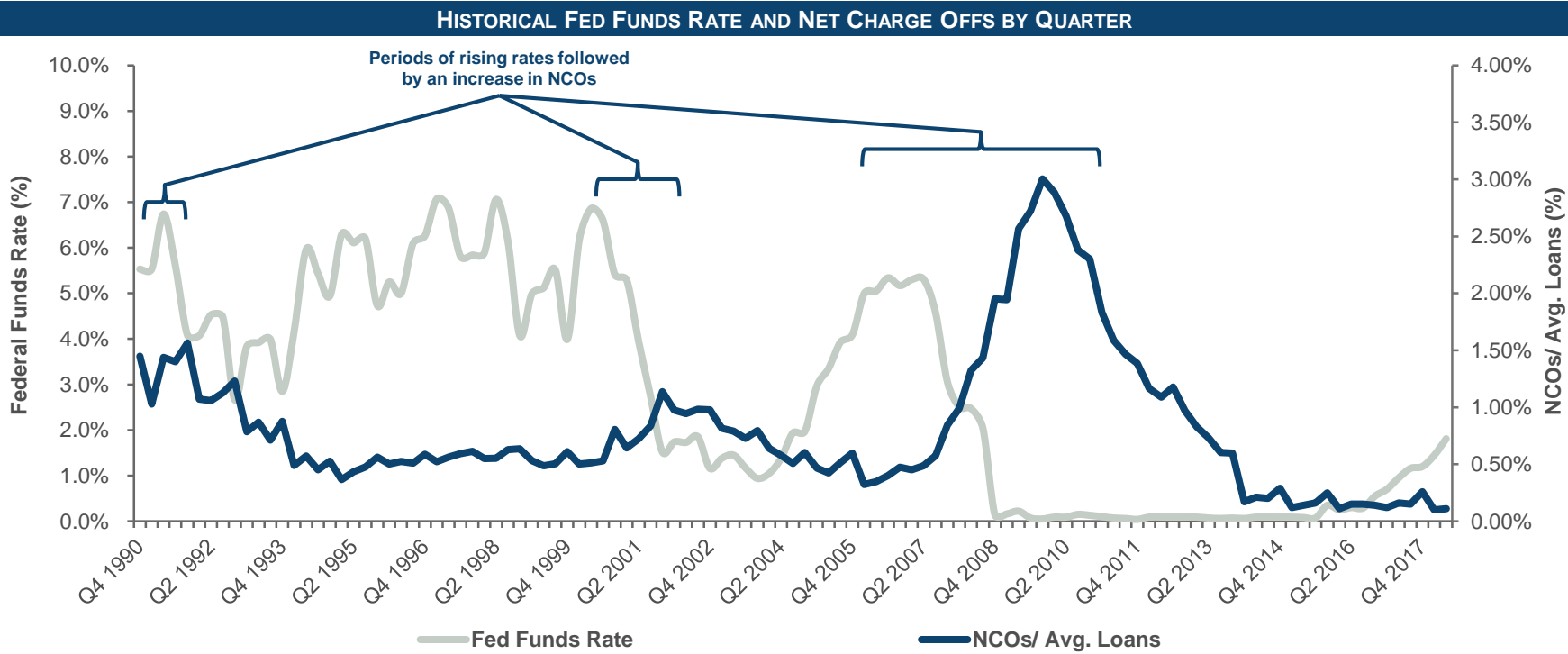
- NCOs/ Average Loans as of Q2 2018 was 0.11% compared to 1.31% in Q4 2009
- Depicted as gray bars in the chart below, banks tend to take higher charge-offs in Q4 of each year

AVERAGE HISTORICAL NCOs/ AVERAGE LOANS



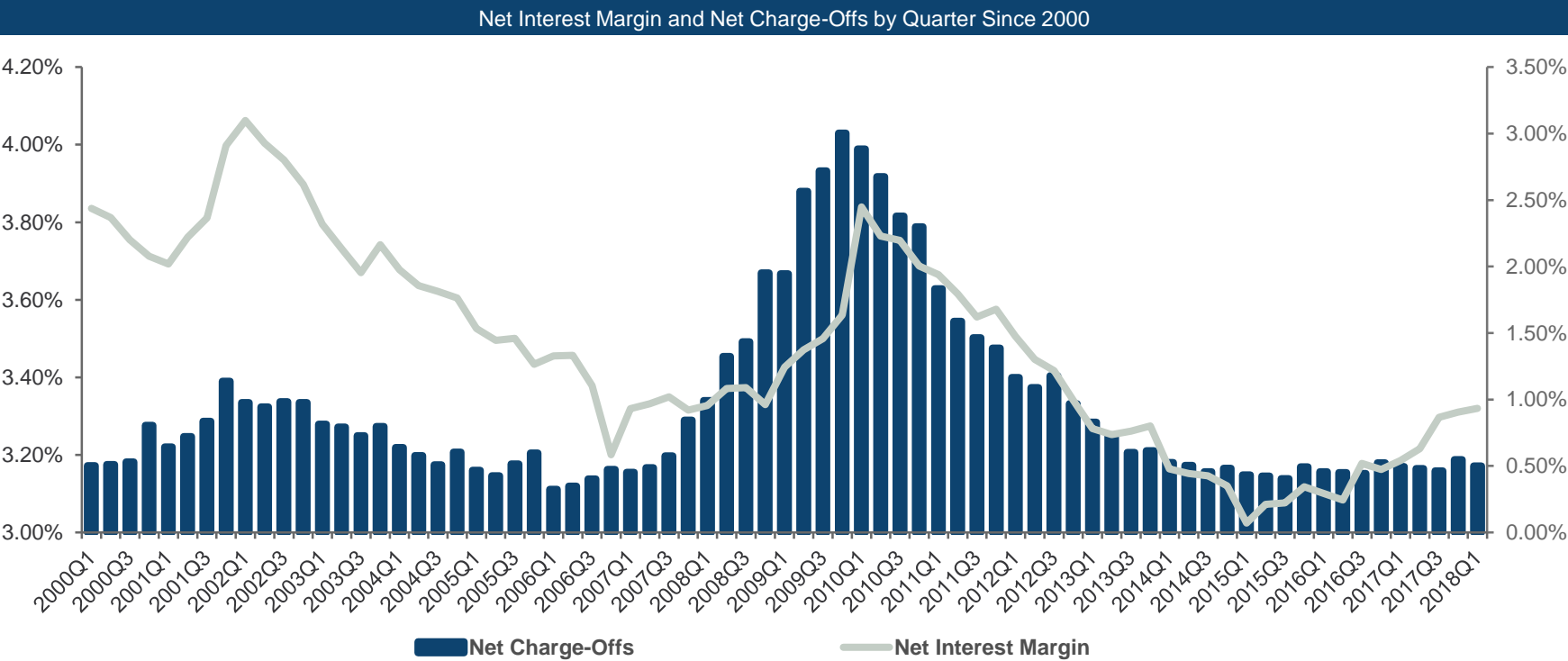
# RISING INTEREST RATES CAN LEAD TO AN INCREASE IN NET CHARGE OFFS

■ While an increase in the Fed Funds rate would improve interest margins, historically, many periods of rising interest rates are followed by increases in net charge offs — most notably during the Great Recession.



# CAN A HIGHER NIM OFFSET LOWER CREDIT QUALITY?

■ Historically the banking industry's net interest margin moves in conjunction with net charge-offs. The question is, will interest margins grow large enough to offset any losses due to an increase in net charge-offs?



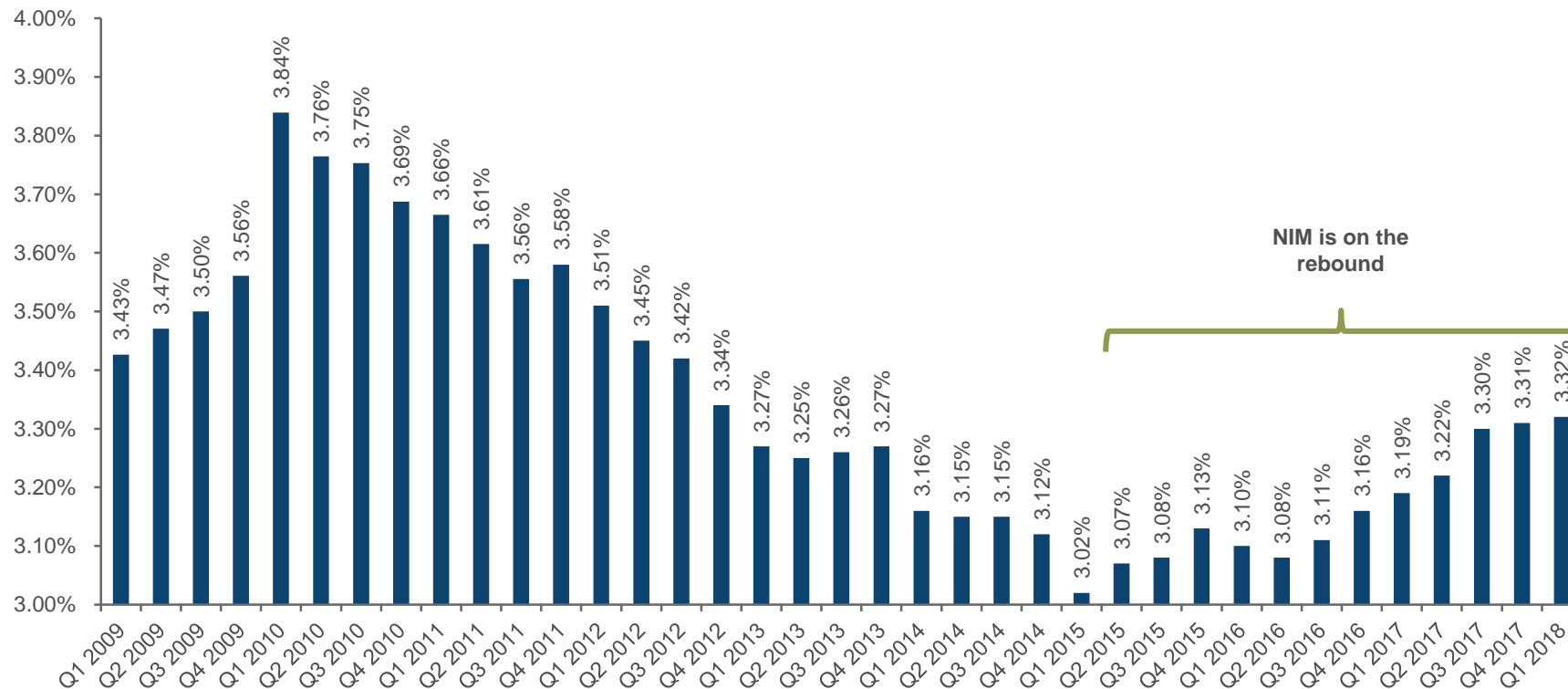
B) IS A RISING RATE ENVIRONMENT REALLY ALWAYS GOOD FOR BANKS?  
- WILL NIM CONTINUE TO RISE?

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# NIM BOTTOMED OUT AND IS ON THE RISE, BUT FOR HOW LONG?

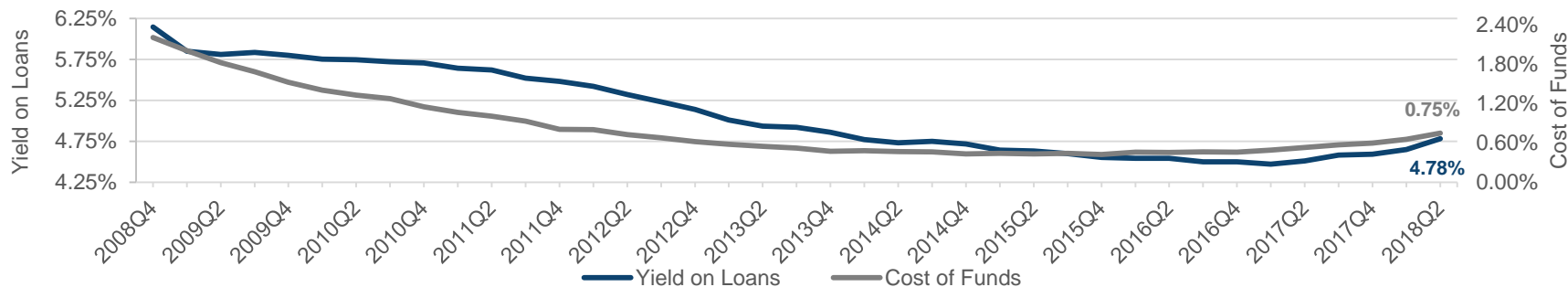
## QUARTERLY BANK INDUSTRY NET INTEREST MARGIN



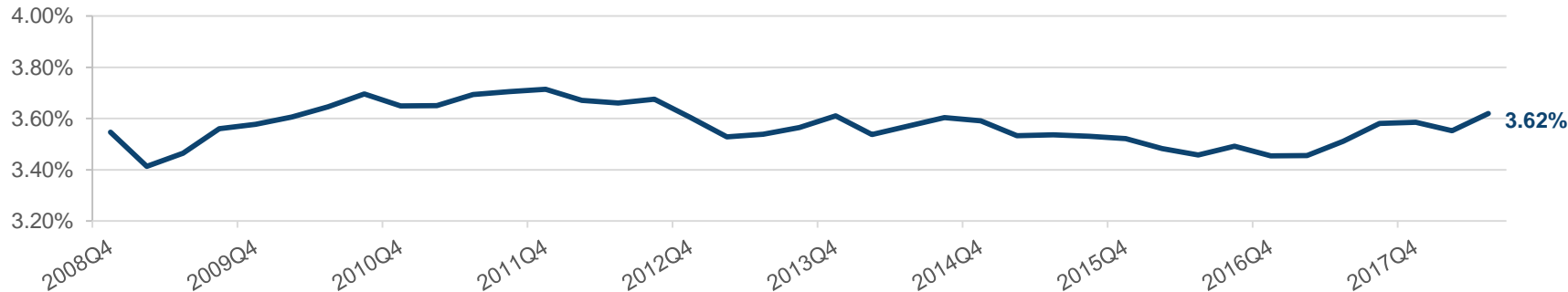
## YIELD AND INCOME REACTIONS TO RATE HIKES

- Since the 2016 presidential election, the Fed has raised the federal funds target rate six times for a total increase of 1.50%.
- Even with these target increases, the median yield on loans has only increased 28bps since Q3 2016 for all major exchange traded banks and during that same period the median cost of funds increased by the same 28bps leading to a very modest net interest margin expansion of just 13bps.

### MEDIAN YIELD ON LOANS VS. COST OF FUNDS<sup>1</sup>



### MEDIAN NET INTEREST MARGIN<sup>1</sup>

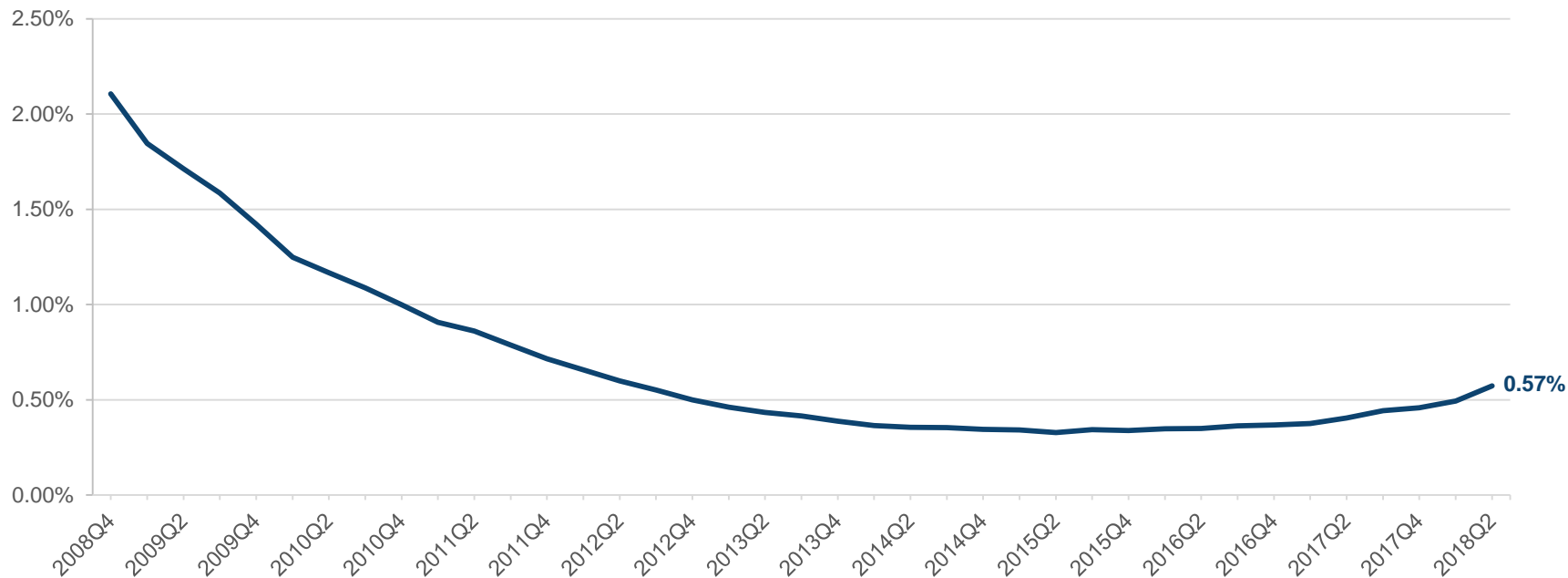




## COST OF DEPOSITS IN A RISING INTEREST RATE ENVIRONMENT

- Cost of deposits mirror short term interest rates, so as the short term rates have increased so have banks' cost of deposits.
- The median costs of deposits for major exchange traded banks was 0.57% for Q2 2018, up 21bps or 57.4% since the Q3 2016.
- While deposit costs are still well below historical level norms, further rate hikes will put upward pressure on deposit costs and without significant improvement in loan yields, margin growth will be difficult.

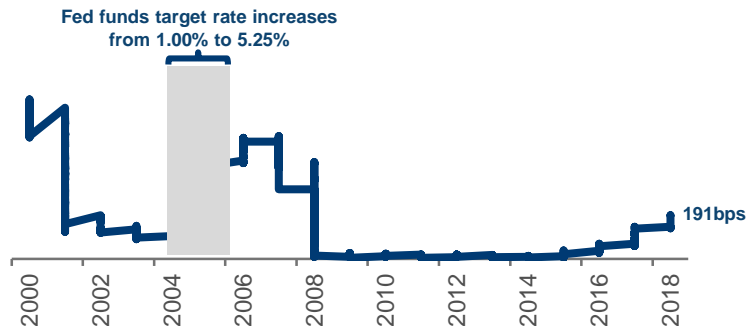
### MEDIAN COST OF DEPOSITS<sup>1</sup>



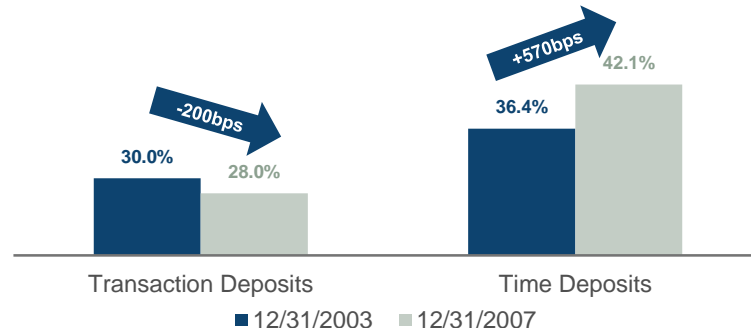
<sup>1</sup>) Includes only major exchange traded banks  
Financial data as of 6/30/2018  
Source: S&P Global

# HISTORICAL LESSONS FROM THE 2004-2006 RISING INTEREST RATE ENVIRONMENT

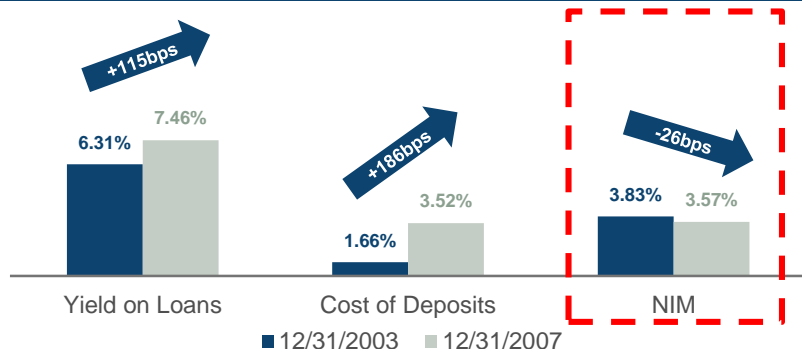
## FED FUNDS RATE SINCE 2000



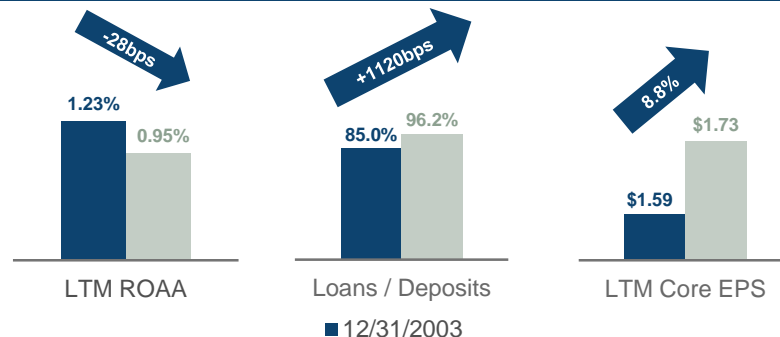
## DEPOSITS<sup>1</sup> MIGRATED TO HIGHER YIELDING PRODUCTS...



## ...OFFSETTING THE BENEFIT FROM HIGH LOAN YIELDS<sup>1</sup>

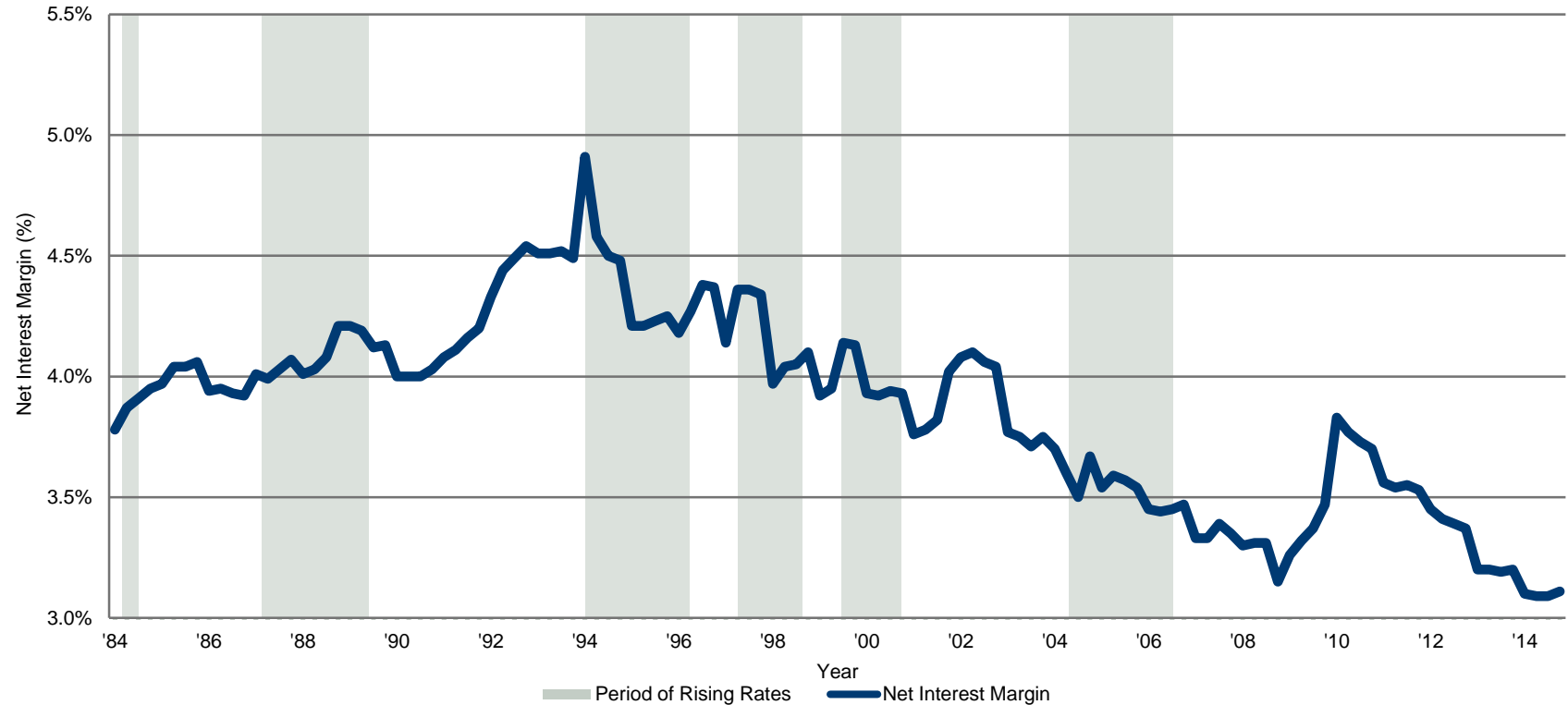


## BANKS GREW LOANS TO COMBAT DECLINING MARGINS<sup>1</sup>



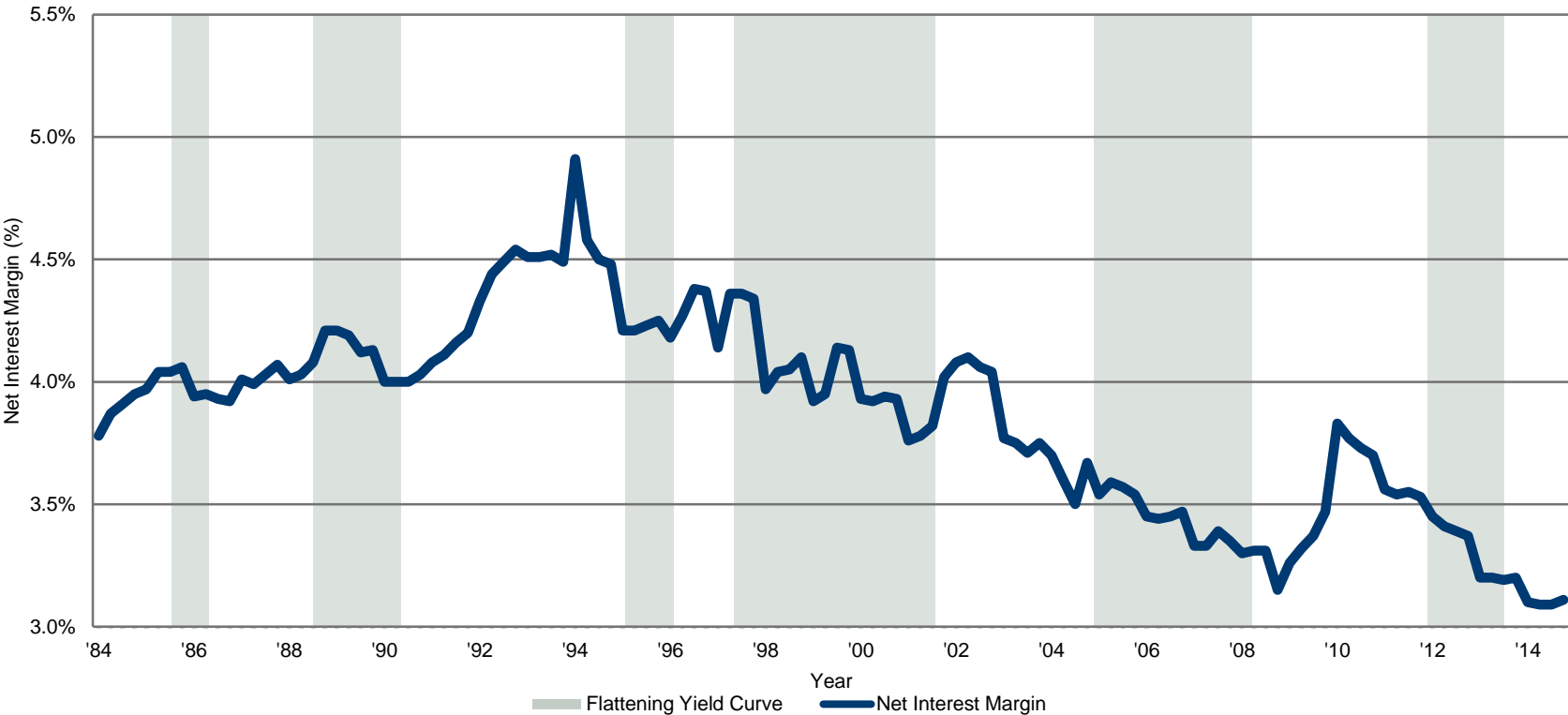
# NET INTEREST MARGINS AND PERIODS OF RISING INTEREST RATES

## NET INTEREST MARGINS AND PERIODS OF RISING INTEREST RATES



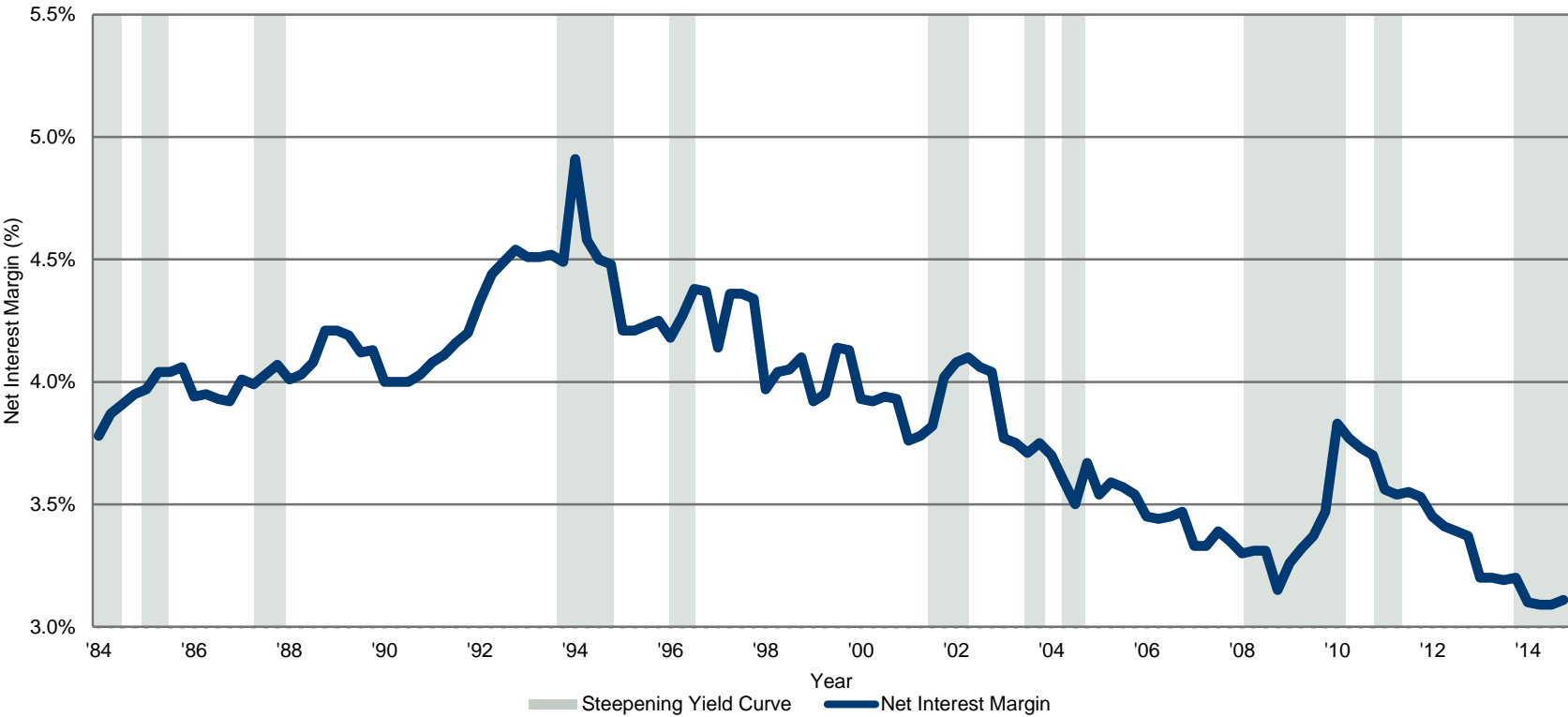
# NET INTEREST MARGINS AND FLATTENING YIELD CURVES

## NET INTEREST MARGINS AND FLATTENING YIELD CURVES



# NET INTEREST MARGINS AND STEEPENING YIELD CURVES

## NET INTEREST MARGINS AND STEEPENING YIELD CURVES



# 10-YEAR HISTORICAL TREASURY YIELD

- The Federal Reserve has increased their economic outlook, we should expect more rate hikes.

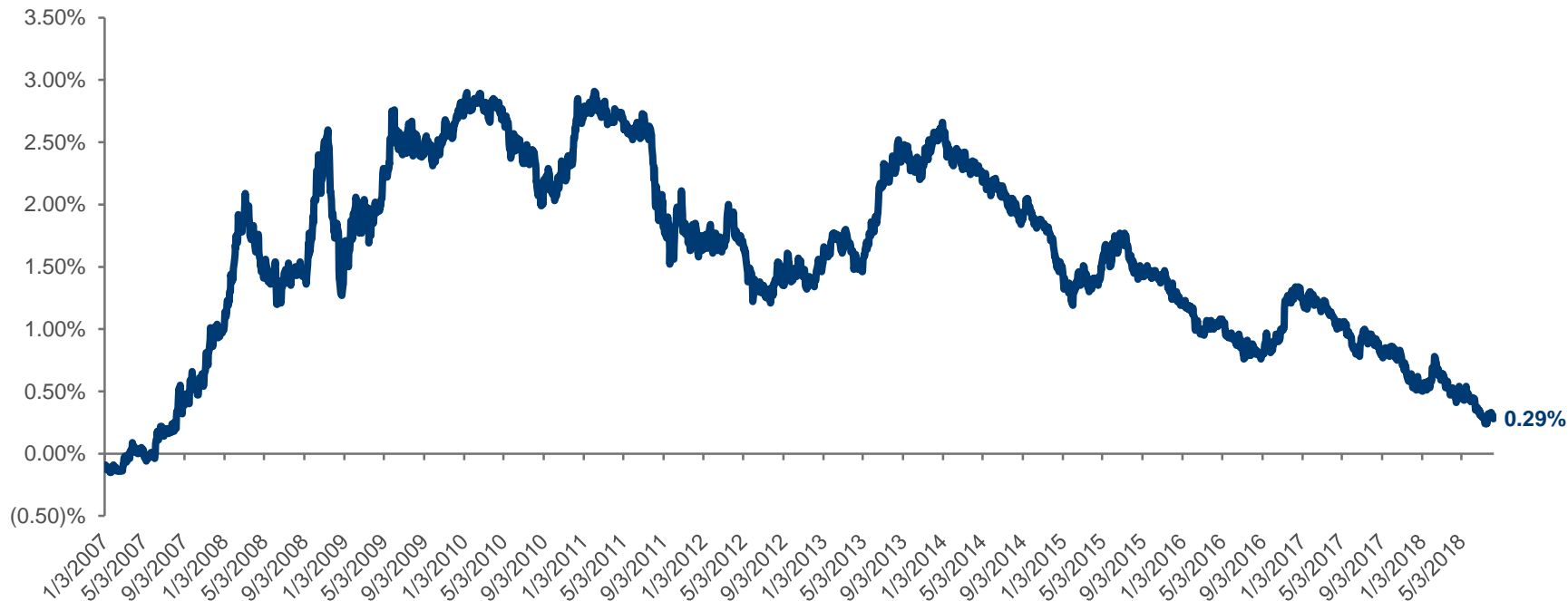
## 10-YEAR TREASURY YIELD



## TEN AND TWO-YEAR TREASURY SPREAD AT ITS LOWEST LEVELS SINCE 2007

- The spread between long and short-term Treasury yields has been steadily declining over the past four years. That gap is sitting at 29 basis points on August 9<sup>th</sup> of this year, close to its lowest level since 2007. An inversion of these two yields has been indicative of a recession in the past.

### 10 AND 2-YEAR TREASURY SPREAD



## INVERTED YIELD CURVE: HISTORY TENDS TO REPEAT ITSELF

■ Recent history shows that a recession follows an inversion in an average of 16 months and that the set back tends to be relatively short (average of 12 months)

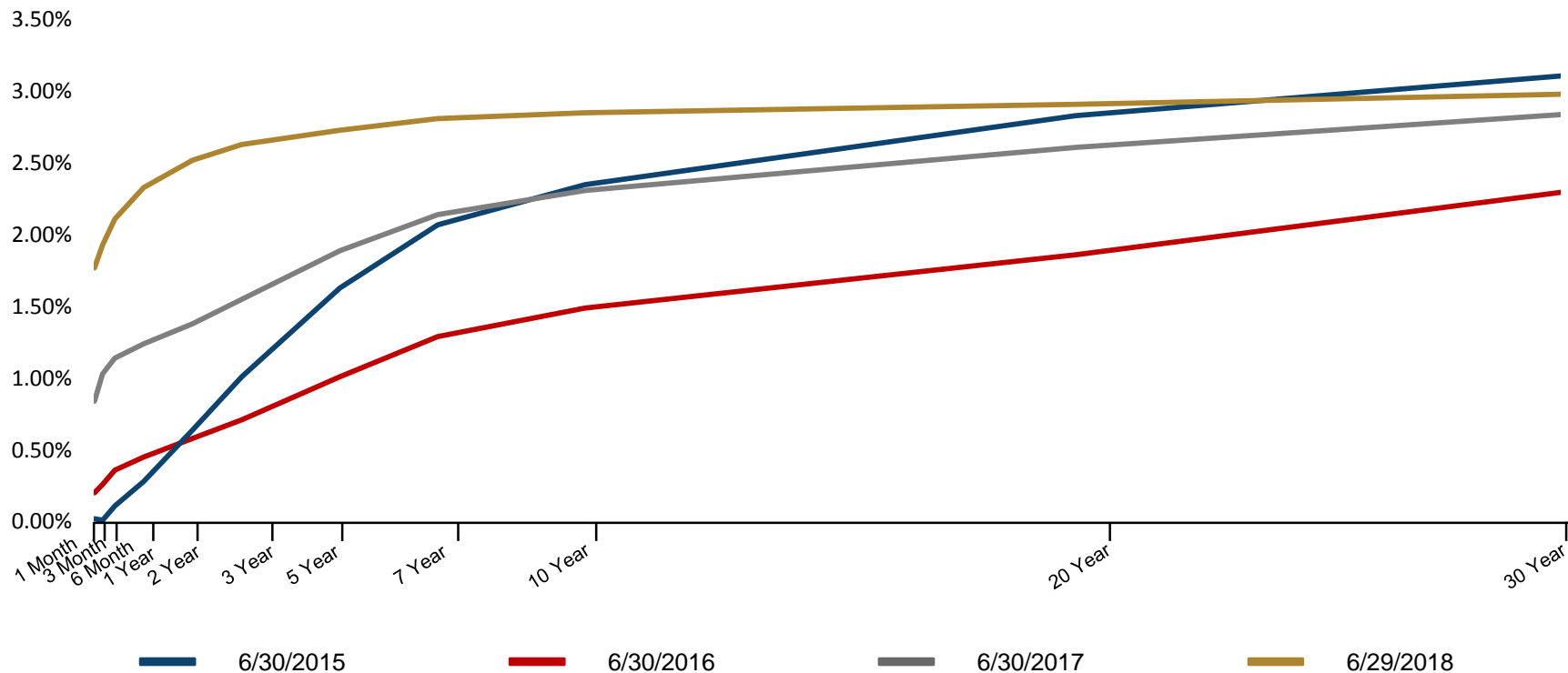
### 10 AND 2-YEAR TREASURY SPREAD





## YIELD CURVE IS FLATTENING – WILL IT INVERT?

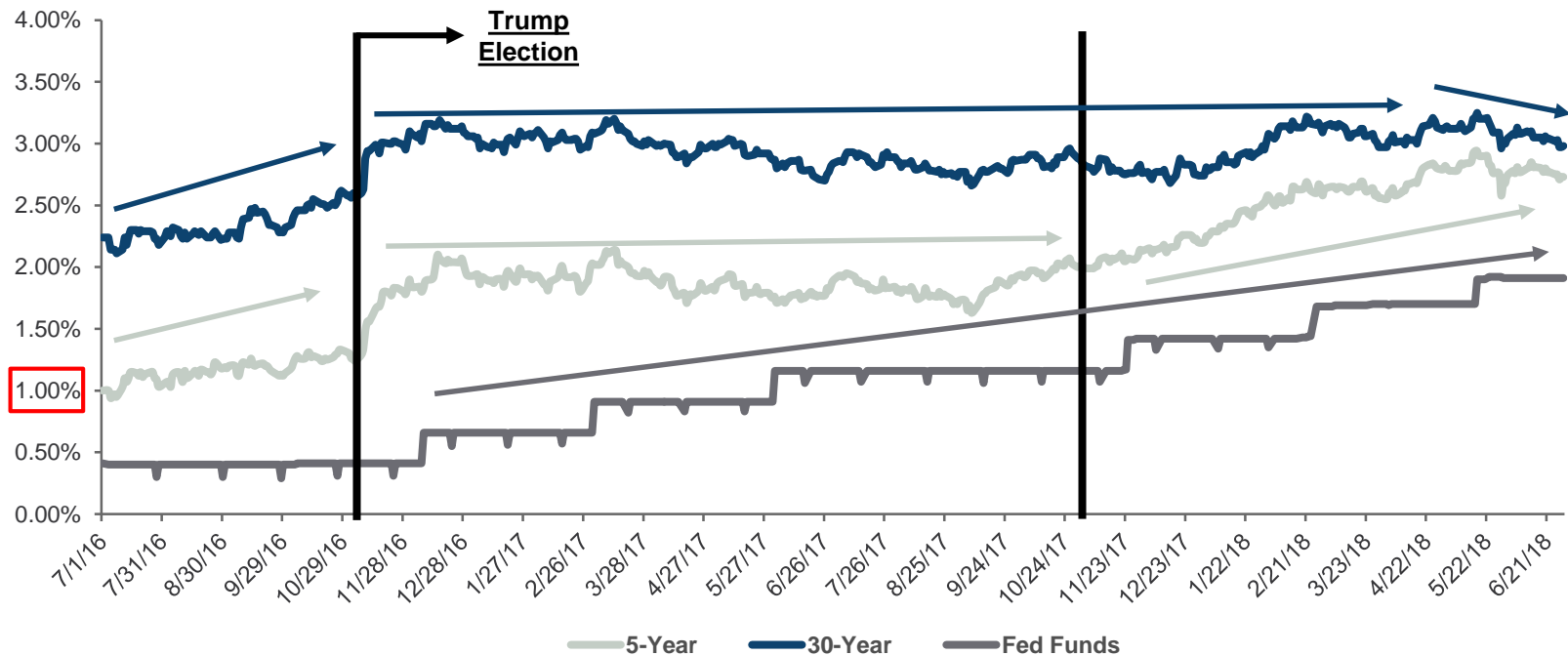
U.S. YIELD CURVE (CURRENT, 1 YEAR AGO, 2 YEARS AGO AND 3 YEARS AGO)



## INVERTED YIELD CURVE IN THE U.S?

- Short-term interest rates are projected to increase steadily over the next few years while long-term rates are facing downward pressure due to a stagnant global and national economy, and political uncertainty.

YIELD CURVE CHANGE PRE & POST TRUMP ELECTION



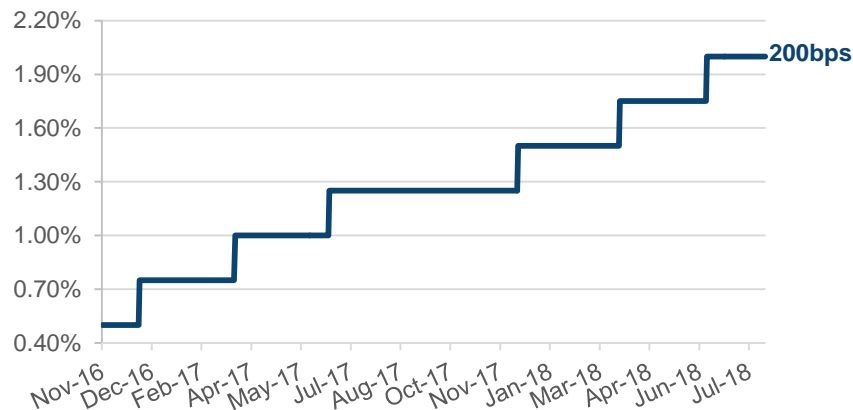
## WHO WILL PROVE TO BE TRULY ASSET SENSITIVE?

- The value of core funding has been masked since the Great Recession by a combination of low interest rates and muted lending demand. This should change as the economy strengthens and interest rates head higher.
- Over the course of this year, bank valuations are likely to bifurcate – the “haves” will prove to be truly asset sensitive as rates rise; the “have nots” will struggle to keep pace and will likely emerge as the next wave of consolidation targets.

### A PORTION OF TAX REFORM BENEFITS IS COMPETED AWAY

- In an effort to drive loan demand, banks are highly likely (we are already hearing about this anecdotally) to compete on rate, using savings from tax reform as the justification.
- This is likely to further mute any hoped-for NIM expansion among banks with average to sub-par core funding profiles.
- The end result is that only a fraction of the sector will truly prove to be “asset sensitive.”

### FEDERAL FUNDS TARGET RATE SINCE ELECTION



## THE FUTURE ISN'T QUITE AS ROSY FOR A NEW EMERGING GROUP OF “HAVE-NOTS”

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- **A more accommodative interest rate environment has been the single most important fundamental driver of improved investor sentiment toward banks, particularly among generalists**
- The early stages of this tightening cycle have been a “nirvana” period for banks, with the vast majority showing NIM expansion to date
  - Funding costs hadn't yet moved materially, while a pick-up in loan growth, a positive shift in earning asset mix (lower yielding investments and cash to higher yielding loans), and an uptick in new asset yields drove margin expansion
  - Most banks have largely benefited from higher short- and long-term interest rates thus far to date
- Generalist investors tend to be attracted to sectors showing margin expansion
- **But higher rates are not a longer-term panacea for all, and we believe an inflection point is close at hand, from which clear winners and losers are likely to emerge**
  - We see the fight for low cost, high quality funding as the next major battleground issue for banks
  - Certain measures of balance sheet sensitivity are prone to manipulation and misinterpretation, with many banks appearing to be better positioned than they actually are for the next phase of the rate cycle
  - Elevated loans-to-deposit ratios will prove to be a constraint on loan growth for some, further exacerbating margin challenges as rates rise
  - Rates have never been this low for this long, likely making credit distortions that will become more apparent as rates near equilibrium

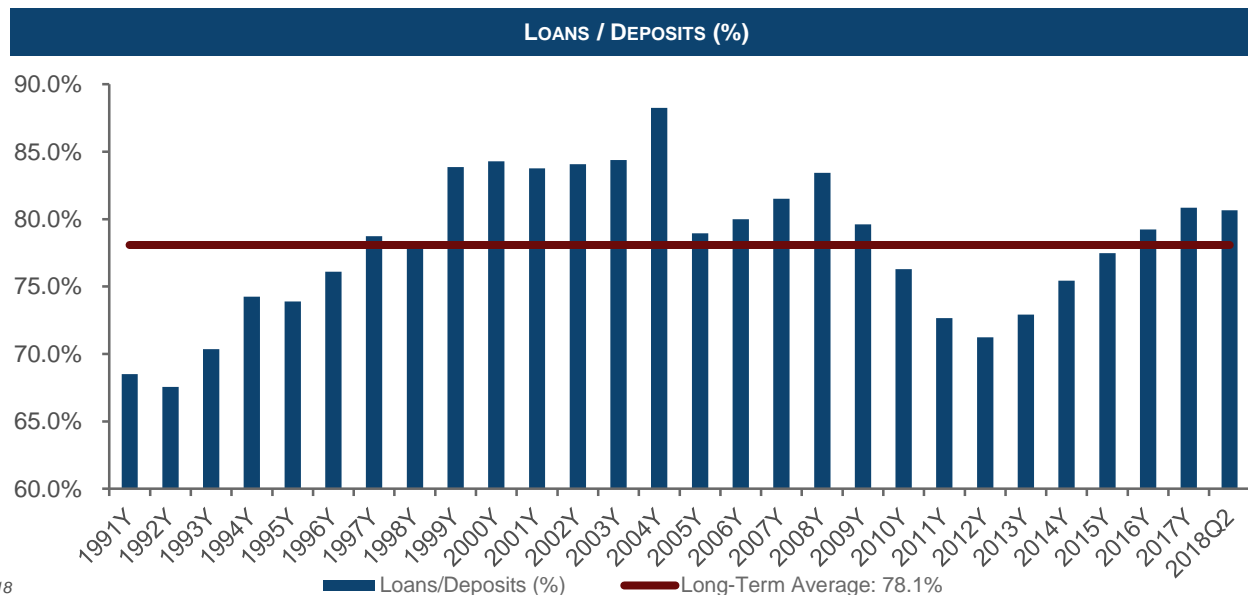
## THE FUTURE ISN'T QUITE AS ROSY FOR A NEW EMERGING GROUP OF “HAVE-NOTS”

### ■ Valuations aren't currently reflective of a potentially bifurcated outcome for the sector

- We see minimal valuation disparity between likely winners and losers, and therein lies an opportunity

### ■ Against this backdrop, we like banks that are truly core funded, with the capability, and room, to grow

- Look to simple metrics, such as the “all-in” cost of deposits, the loan-to-deposit ratio, and a demonstrated ability to grow while adequately controlling risk
- We favor banks with balance sheets that are positioned to withstand interest rate volatility through cycles and differentiate themselves by actions that are more under their control, such as quality of management, risk profile, efficiency, strategy, etc.



## C) MACROECONOMIC ENVIRONMENT – THE GOOD TIMES CAN'T LAST FOREVER

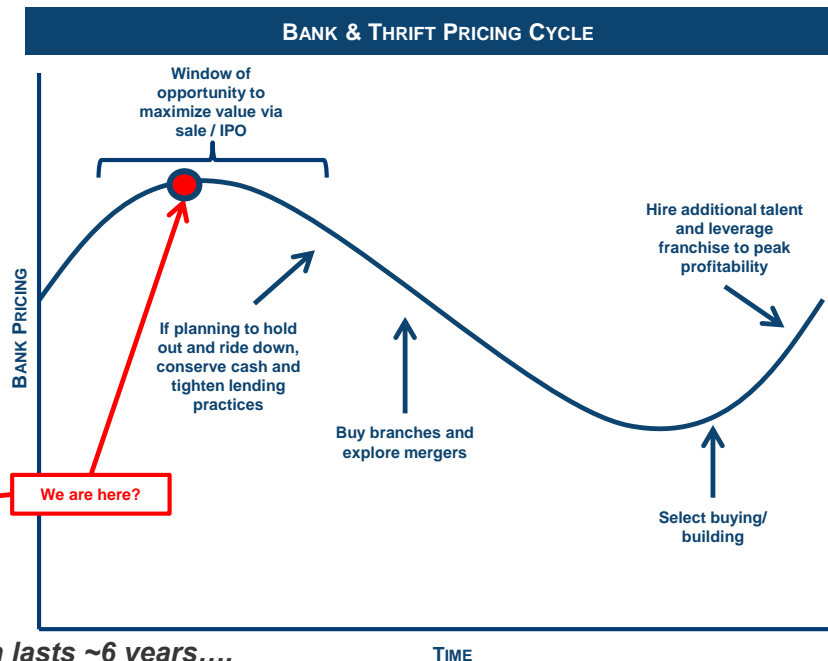
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# MACROECONOMIC ENVIRONMENT: BANK BUSINESS CYCLE

- The average time for a cycle is 6 years. The market is 9.4 years into the current bull market.

| MKT PEAK                          | MKT LOW | BEAR RET. | LENGTH OF DEC. | BULL RUN RET. | LENGTH OF BULL RUN | YEARS TO REACH PREVIOUS PEAK |
|-----------------------------------|---------|-----------|----------------|---------------|--------------------|------------------------------|
| '46                               | '47     | -29%      | 12             | 258%          | 124                | 3.1                          |
| '57                               | '57     | -21%      | 3              | 86%           | 50                 | 0.9                          |
| '61                               | '62     | -28%      | 7              | 80%           | 44                 | 1.2                          |
| '66                               | '66     | -22%      | 8              | 48%           | 26                 | 0.6                          |
| '68                               | '70     | -36%      | 18             | 74%           | 31                 | 1.8                          |
| '73                               | '74     | -48%      | 21             | 126%          | 75                 | 5.8                          |
| '80                               | '82     | -27%      | 21             | 229%          | 61                 | 0.2                          |
| '87                               | '87     | -34%      | 3              | 582%          | 150                | 1.6                          |
| '00                               | '02     | -49%      | 31             | 102%          | 60                 | 4.6                          |
| '07                               | '09     | -57%      | 17             | 251%          | 113                | 4.1                          |
| Average                           |         | -35%      | 14             | 184%          | 73                 | 2.4                          |
| Average Cycle Length <sup>1</sup> |         |           | 69.0 Months    |               | 6 Years            |                              |



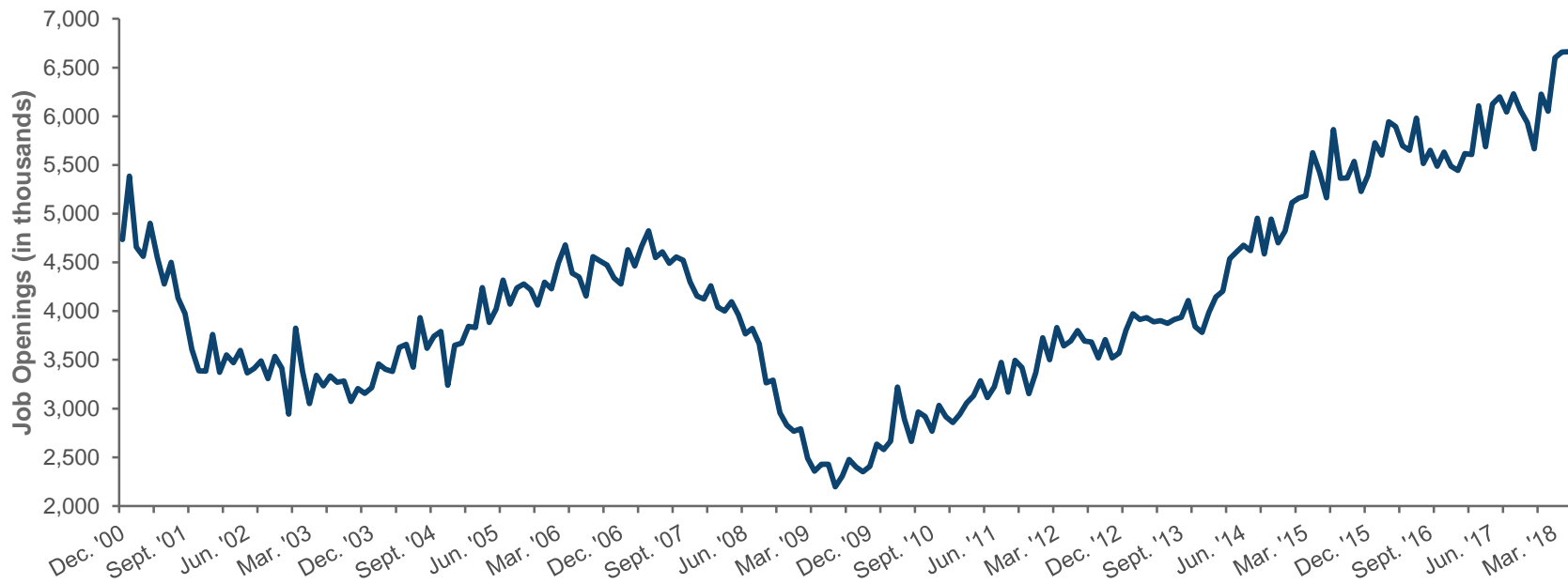
The average bull run lasts ~6 years....  
 ....we are over 9 years into the current bull run....  
 How much longer can this last?

**59% of private-sector economists surveyed said the expansion was most likely to end in 2020.**  
**Over 80% predict that the next recession will begin before Q4 2021<sup>2</sup>**

## HAVE JOB OPENINGS REACHED THEIR PEAK?

- The last peak in job openings was April 2007 when there were 4.8 million job openings that month eight months prior to the beginning of the recession December 2007. A similar story occurred in the early 2000s with the collapse of the dot-com bubble and the September 11<sup>th</sup> attacks.
- How close are we to the next peak? June 2018 had 6.7 million job openings, which amounts to more than 1.9 million more openings than the last peak.

JOB OPENINGS (IN THOUSANDS)





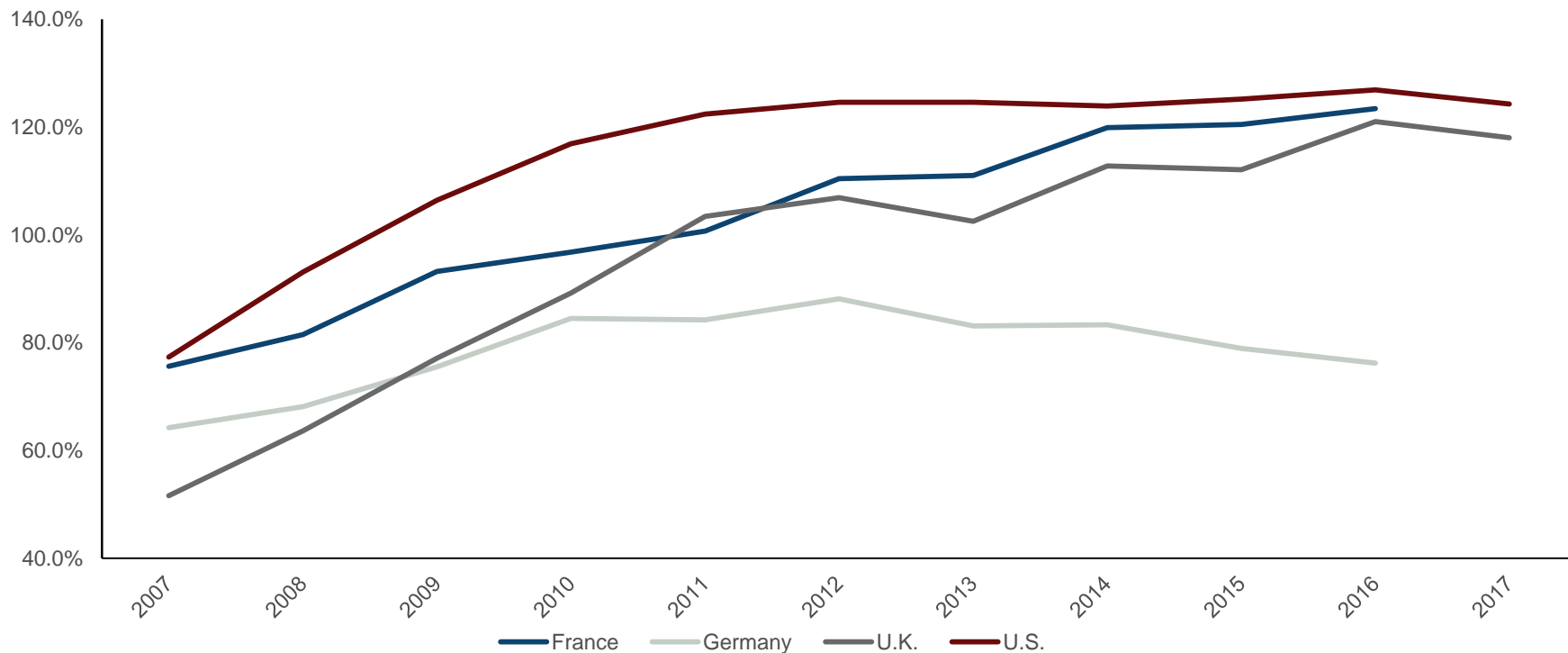
D) DEBT LEVELS WILL CONTINUE TO RISE AND MAY BECOME UNSUSTAINABLE



## GOVERNMENT DEBT IS ON THE RISE

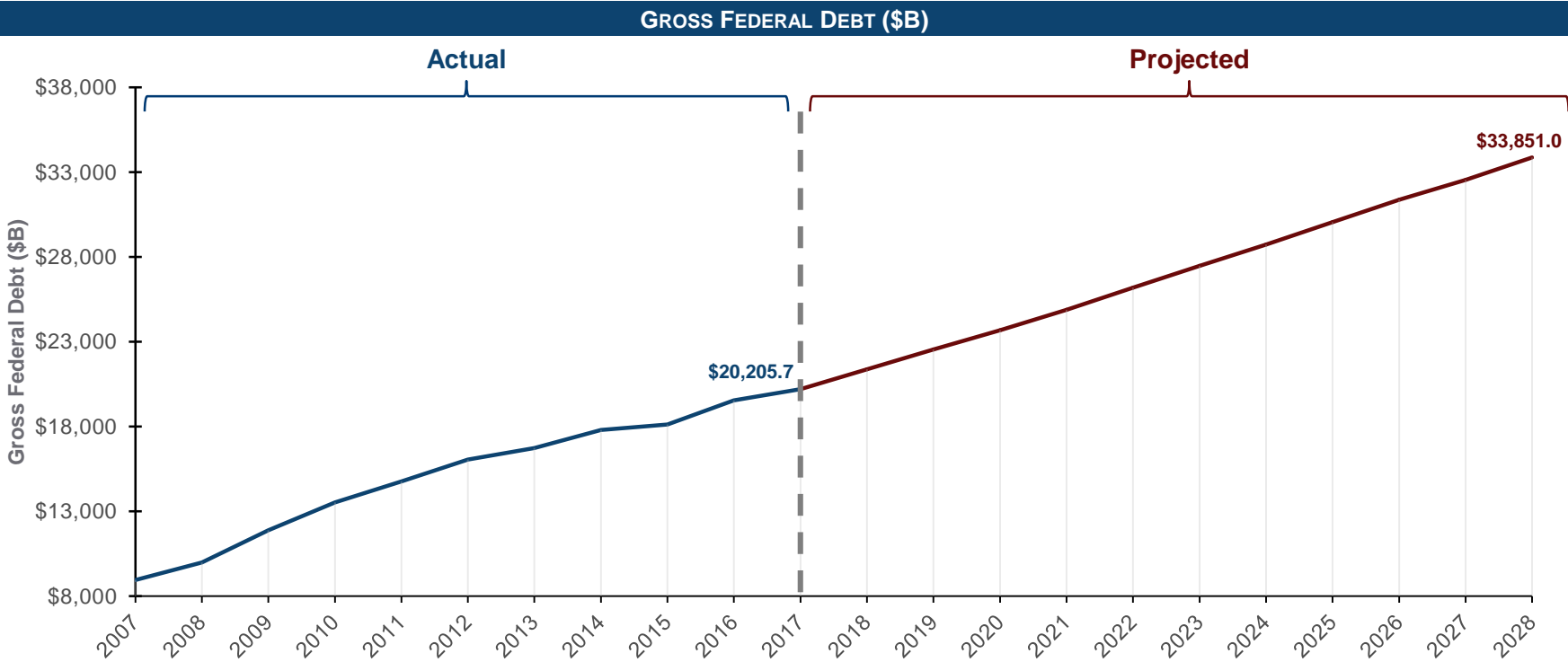
■ Worldwide government debt has continued to rise since the Great Recession as governments have attempted to stimulate local economies

### GROSS GOVERNMENT DEBT TO GDP



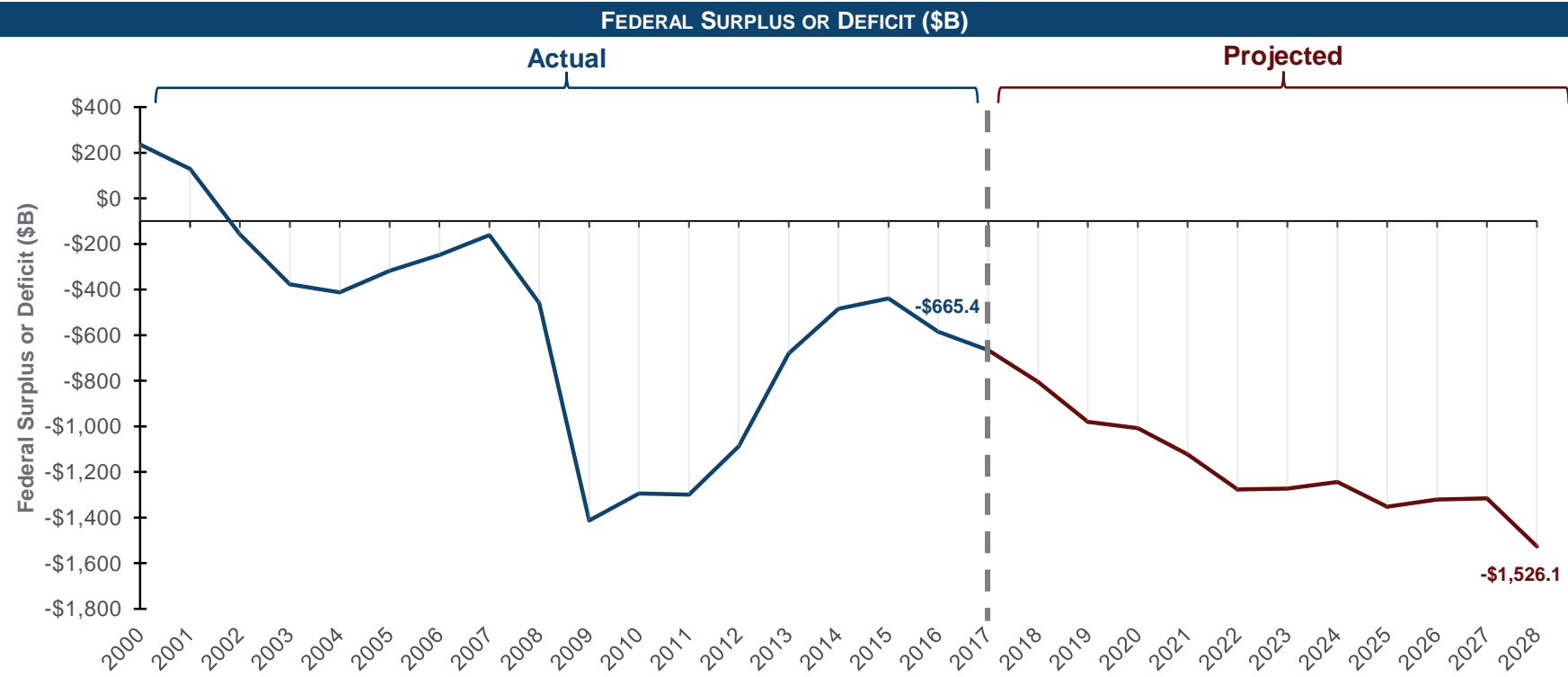
# RISING U.S. DEBT

- We have seen a steep increase in debt. In 2007 gross federal debt was under \$9.0 trillion and in 2017 we saw it increase to over \$20.2 trillion.
- The Congressional Budget Office expects gross federal debt to increase another 68% to \$33.9 trillion by 2028.



# HISTORICAL BUDGET DEFICITS AND PROJECTED INCREASES

■ The United States long-term average budget deficit is \$394.7 billion<sup>1</sup>, and currently we are 69% above that budget with a \$665.4 billion deficit in 2017 and the Congressional Budget Office projects that number to more than double by 2028.



1) Average annual deficit since 1990  
 Data as of 9/30/2017  
 Source: Federal Reserve Bank of St. Louis; Congressional Budget Office

## SPEND NOW, WORRY LATER

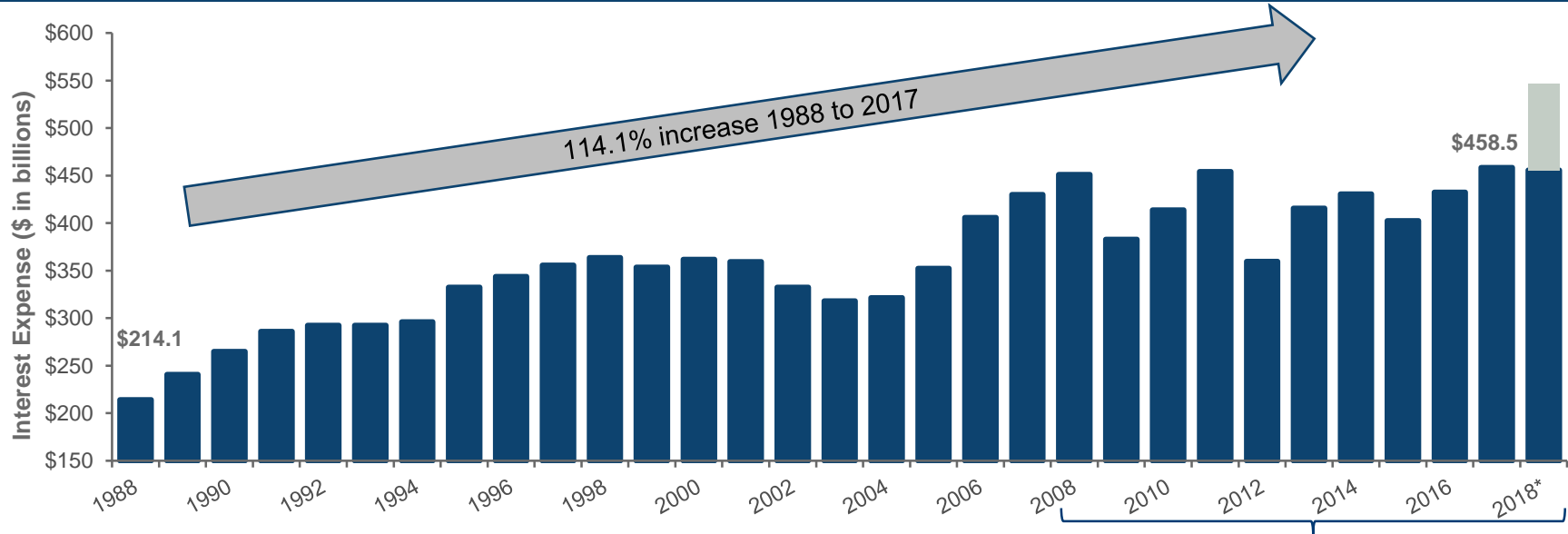
- When will we have to pay the tab for the “free-lunch” attitudes of our government officials?
  - In the short term the tax-cuts Congress passed are rejoiced by companies and investors alike, but they are projected to slash revenue to a mere 16% of GDP. All the while in March Congress passes an omnibus \$1.3 trillion spending bill to get us to September.
  - Moody's still rates the United States credit as AAA, the highest possible, as interest payments amounted to 8% of federal revenue last year and as interest rates and debt amounts rise so to will our governments interest payments. Moody's predicts it could be roughly 21% of federal revenue as early as 2027.
    - Moody's William Foster notes that “As interest is rising, that crowds out other spending.” This could have major implications for how our government could handle future crises such as natural disasters, a war or the next economic downturn.
  - The upward pressure on social spending comes from irreversible aging, which may have to be cut in the future.
    - The United States debt is projected to increase nearly 20% over the next decade. There is also a real potential that funds for major highways, Medicare and social security programs will run out of full funding sometime over the next 13 years.
- We are already seeing issues with infrastructure as Mississippi is forced to close bridges due to severe decay. The American Society of Civil Engineers gave U.S. Infrastructure a “D+” and an estimated \$123 billion price tag to repair our nation's bridges alone.



## INTEREST PAYMENTS ON THE RISE

- Over the course of three decades the United States yearly interest expense payments have grown by \$244.4 billion in 2017, 2.6% CAGR or 114.1% over this period.
- What will be the impact on the financial industry as the country assumes a larger Debt / GDP ratio?

### INTEREST EXPENSE ON DEBT OUTSTANDING (\$ IN BILLIONS)<sup>1</sup>



This is during a period of super low interest rates – what happens if there is a return to historical funding costs?

<sup>1</sup> Interest payments include interest paid on U.S. treasury notes and bonds, foreign and domestic series certificates of indebtedness, notes and bonds, savings bonds, government account series and state and local government series and other special purpose securities

\*Annualized based on the first ten months of fiscal year 2018

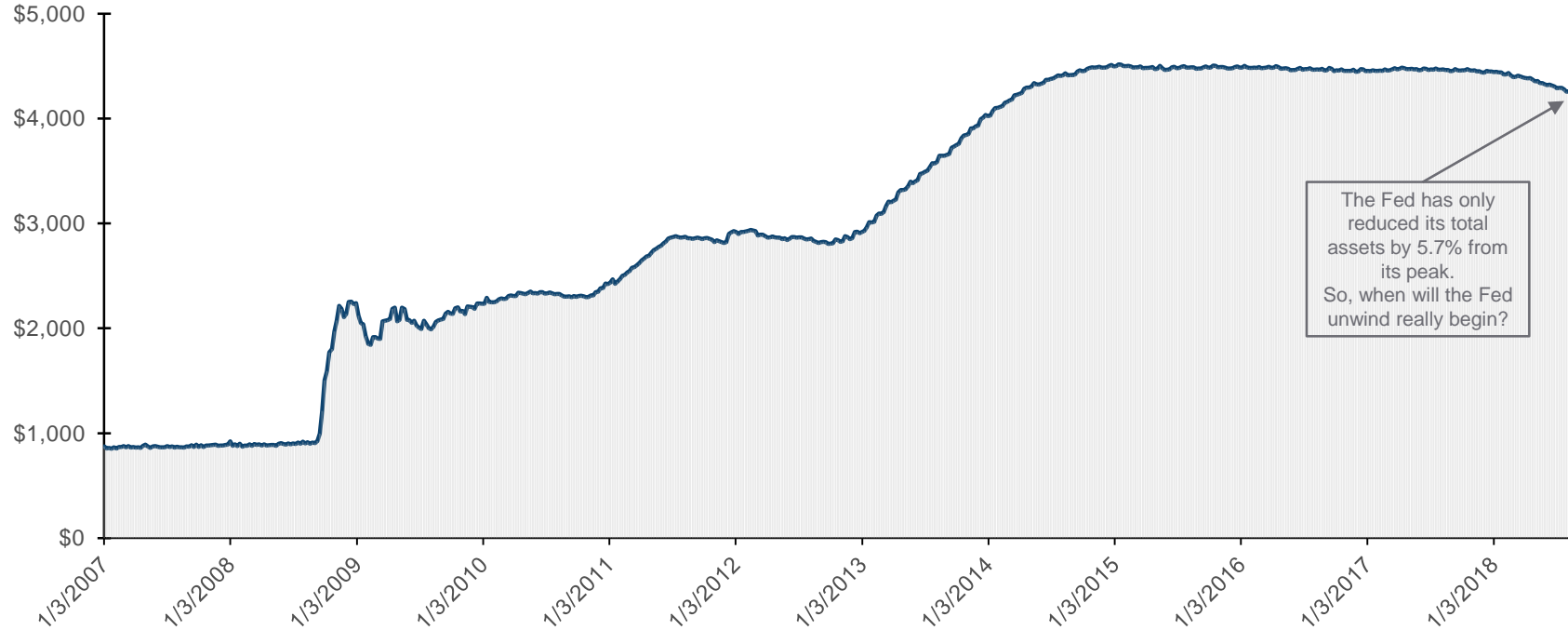
Source: Treasurydirect.gov

# CENTRAL BANKS ACTED AS A BUFFER IN THE LAST RECESSION, BUT ARE OUT OF “ARROWS”

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- The FOMC has stated that it is ready to reduce its asset purchases this year or next year. However, such large balance sheets will inhibit the Fed's ability to act as a buffer for the next recession.

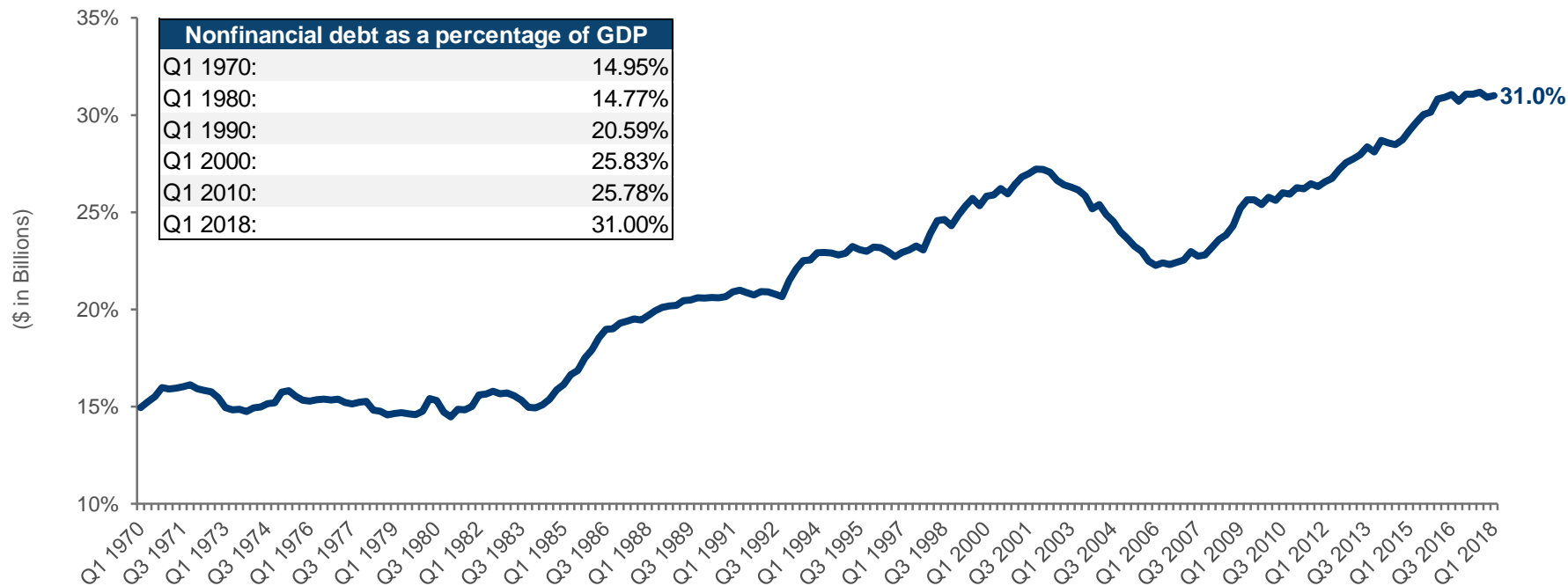
**TOTAL ASSETS (\$B): ALL FEDERAL RESERVE BANKS**



# U.S. CORPORATIONS HAVE THE HIGHEST LEVEL OF DEBT EVER

- U.S. corporations have the highest level of debt ever. All corporate debt amounts to 45.4% of gross domestic product according to David Adler, chief macro strategist at Informa Financial Intelligence.
- It is important to note that high levels of debt have preceded the last two recessions.

## NONFINANCIAL CORPORATE DEBT AS A PERCENTAGE OF GDP





E) FINTECH WILL LIKELY CONTINUE TO DISRUPT THE BANKING INDUSTRY

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# TECHNOLOGY IS DIRECTLY IMPACTING ALL INDUSTRIES

HISTORICAL  
BUSINESSES



TECHNOLOGY  
DISRUPTER

**Bloomberg**



# FINTECH'S DISRUPTION OF THE BANKING INDUSTRY

## Lending



## Banking



## Payments/Money Transfer



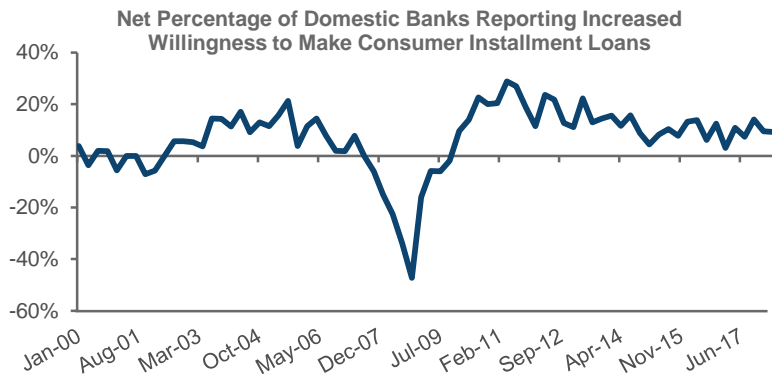
## Asset Management



# FORECASTING THE CREDIT CYCLE & THE RISE OF TECHNOLOGY

## THE NEXT CREDIT CYCLE IS FURTHER AWAY THAN EXPECTED

- In the post-crisis years, underwriting standards may have rationalized to the point that a nationwide, full-blown recession that severely impacts bank balance sheets is unlikely.
- Future setbacks could more resemble the recent energy crisis, and be more regionally concentrated, with little impact to the rest of the country.
- With two thirds of bank revenues tied in some way to real estate, nothing can be more devastating to the bank sector than a nationwide real estate-led recession, anything short of that should be very manageable.
- The bank sector is sufficiently capitalized to withstand losses in line with the Great Recession and still have more capital than it did heading into the financial crisis.



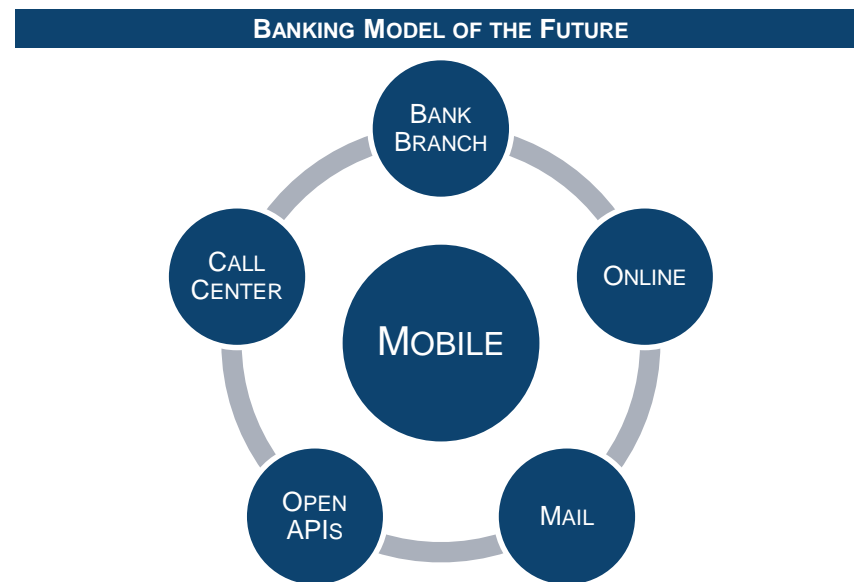
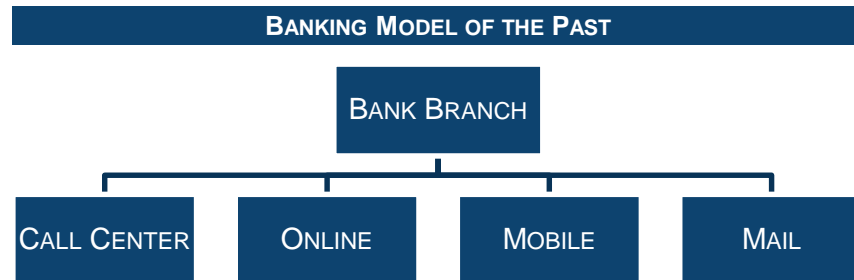
## LOSS OF RELIANCE ON TRADITIONAL BANKS

- Rise in peer-to-peer payments and cryptocurrency leads to less reliance on traditional banks, while online mortgage providers become the dominant source of residential lending.
  - Given the advantage of deposit insurance, banks are likely to remain the primary financial intermediaries for the economy.
- More likely is that over the longer-term, a new, more diverse generation of leadership emerges, and refocuses the industry to be more relevant to younger generations and more responsive to technological challenges.
  - The average age of a current bank CEO is 60 – this has crept higher in recent years due to the financial crisis and a dearth of younger management talent in the banking industry, along with insufficient training programs, while, at the same time, it's a harder game today.



## BIG TECH AND FINTECHS ENTERING THE MARKETS

- Fintechs continue to lead innovation in the banking industry by sharpening their focus on customer experience.
- **Banks face a number of choices:**
  - Replicate what fintechs are doing
  - Respond with equally innovate solutions
  - Become more symbiotic and less competitive
  - Pursue a mix of these strategies that fit their unique capabilities and market positions
- **Incumbents will likely maintain market leadership due to three factors:**
  - Regulatory barriers to entry
  - The natural inertia of customers to switch
  - The capital to absorb, partner with, or replicate fintechs



III AS THE BANKING INDUSTRY CONTINUES TO SHRINK  
- WE WILL SEE A RESURGENCE OF LARGE BANK M&A

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A) THE BANKING INDUSTRY WILL CONTINUE TO SHRINK

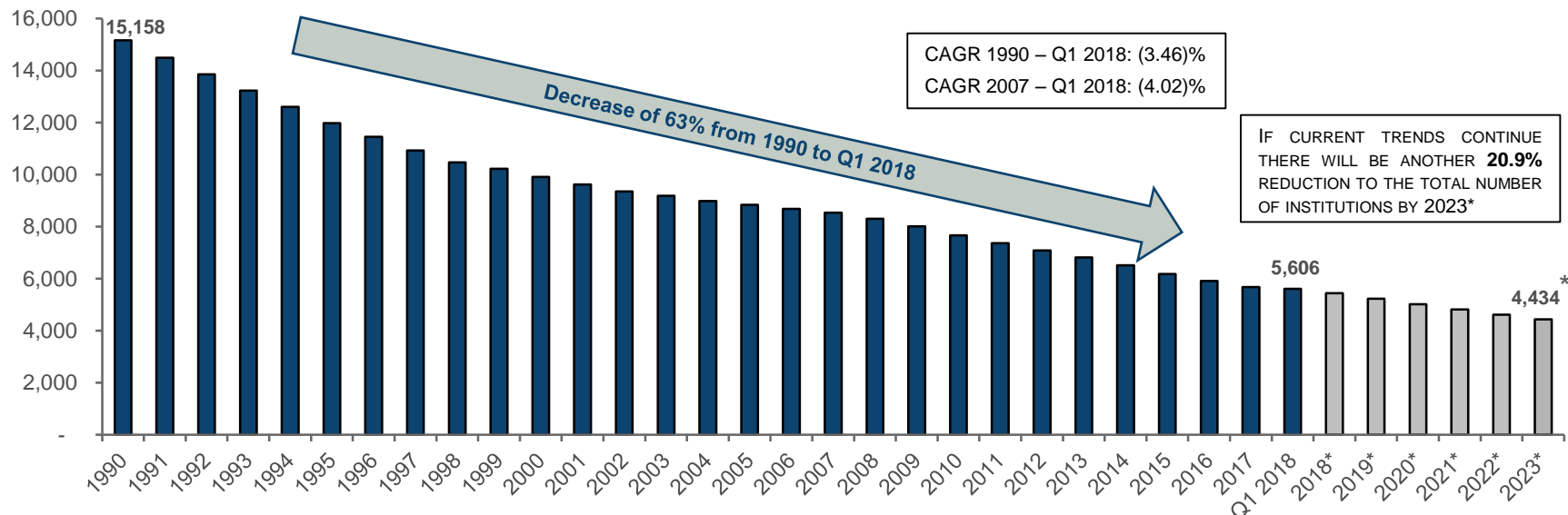
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## THE OVERALL NUMBER OF BANKS IS DECLINING STEADILY...

- Structural changes in the economy imply there is excess capacity in the banking system. Slower GDP growth translates to slower responsible loan growth, which means there isn't as much to go around.
- If the U.S. is entering a mature growth stage, then we are clearly overbanked. Consider the following: The U.S. with a population of 325 million has about 5,600 banks. On a combined basis, Japan, Canada, Germany, France, Spain, China, Mexico, and Brazil – with population exceeding 2 billion – have about 725 banks.

NUMBER OF COMMERCIAL AND SAVINGS BANKS IN THE UNITED STATES OVER TIME



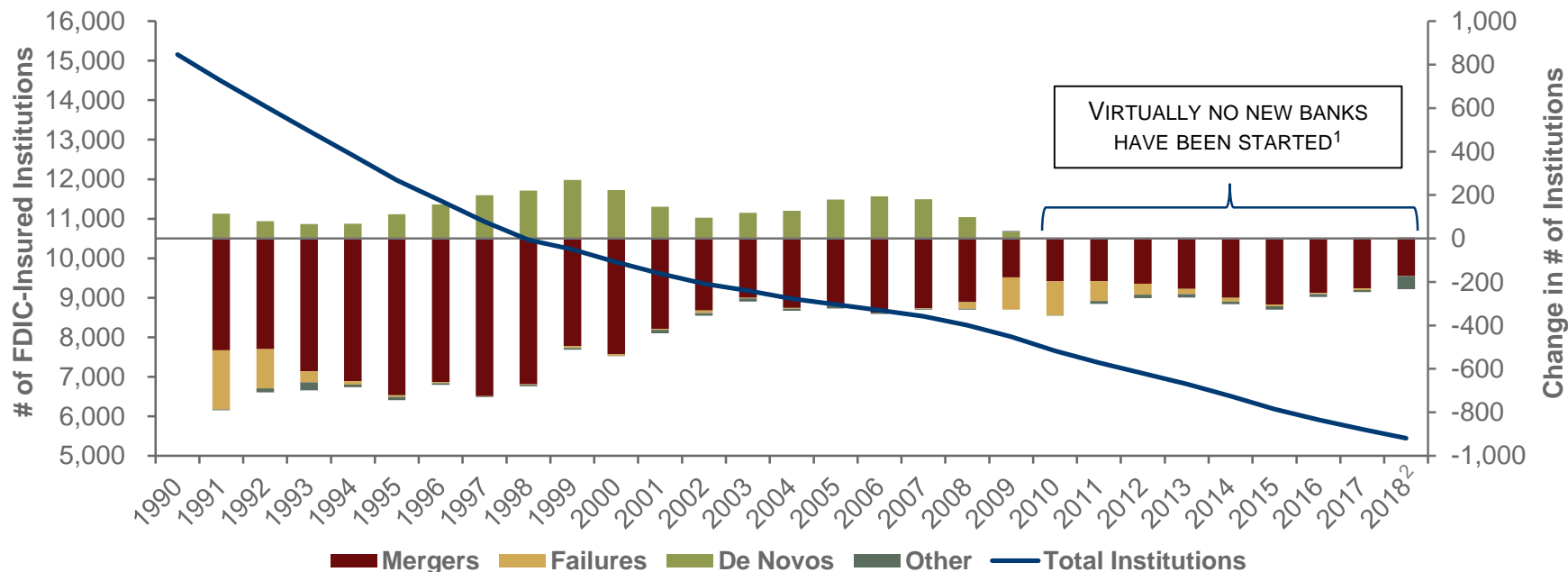
\*Estimated using the compound annual growth rate since 2007  
Note: Includes all FDIC-insured institutions  
Source: FDIC; Data as of 3/31/2018



## ... AND ARE NOT BEING REPLENISHED AT THE SAME PACE AS PRE CRISIS LEVELS

- Historically, de novo banks replenished 1% of banks each year, but new bank starts are at an all-time low.
- Until recently, de novo bank valuations post an initial loss period were roughly at parity with valuations of established banks. Overly burdensome regulations, and additional cost barriers (technology, infrastructure, lack of scale), also limited the attractiveness of starting a new bank.
- Low interest rates, sluggish loan demand, and narrow margins have kept bank profitability ratios below pre-crisis levels.

### BANK INDUSTRY CONSOLIDATION TRENDS



1) There have only been fourteen de novos since January 1, 2010

2) Estimated 2018 total FDIC-insured institutions with "Other" representing the difference between YTD mergers and estimated total institutions

Note: Includes all FDIC-insured institutions

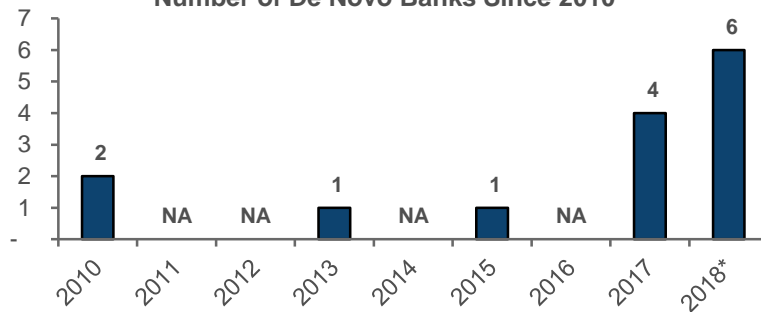
Source: FDIC, S&P Global; Data as of 8/10/2018

# MORE RECENTLY, DE NOVO BANK FORMATION HAS PICKED UP, BUT SO HAS M&A ACTIVITY

## CONTINUED PICK-UP IN THE PACE OF DE NOVO FORMATION

- A pick-up in the formation of de novo banks will be driven by the de-regulation of the industry, which will result in lower costs of entry and ongoing costs.
- Higher bank valuations will increase the attractiveness of establishing a new bank at book value.
- The unknown is whether small banks can solve for the ever-evolving technological challenges such as mobile banking and cyber threats.
- Investment in de novo institutions is likely to be at the local level, with less involvement from investment professionals, though this can change as the return profile of new bank formation is perhaps further enhanced.

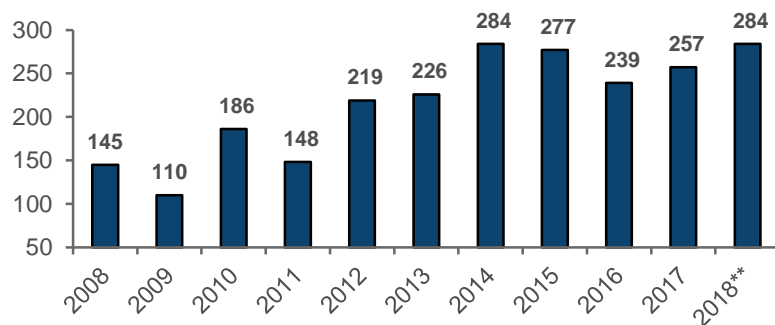
Number of De Novo Banks Since 2010



## CONTINUED PICK-UP IN THE PACE OF M&A ACTIVITY

- The conditions for M&A are ripe – stock values are higher, the economy is healthy, and many CEO's are nearing retirement age, with no obvious or capable successor in place.
- We see an increased pace of M&A, but whether or not we see a groundswell is still to be determined.
- For instance, some banks may want to reap the benefits of tax reform and de-regulation for themselves, rather than transfer those benefits to an acquirer.
- The timeline to the next credit cycle will also be a determining factor – if still years away, the pace of M&A could step up more significantly; if more imminent, we could see more of a pause.
- Banking is fun again, following a long period where the opposite was true, which could lead some bankers to stick around.

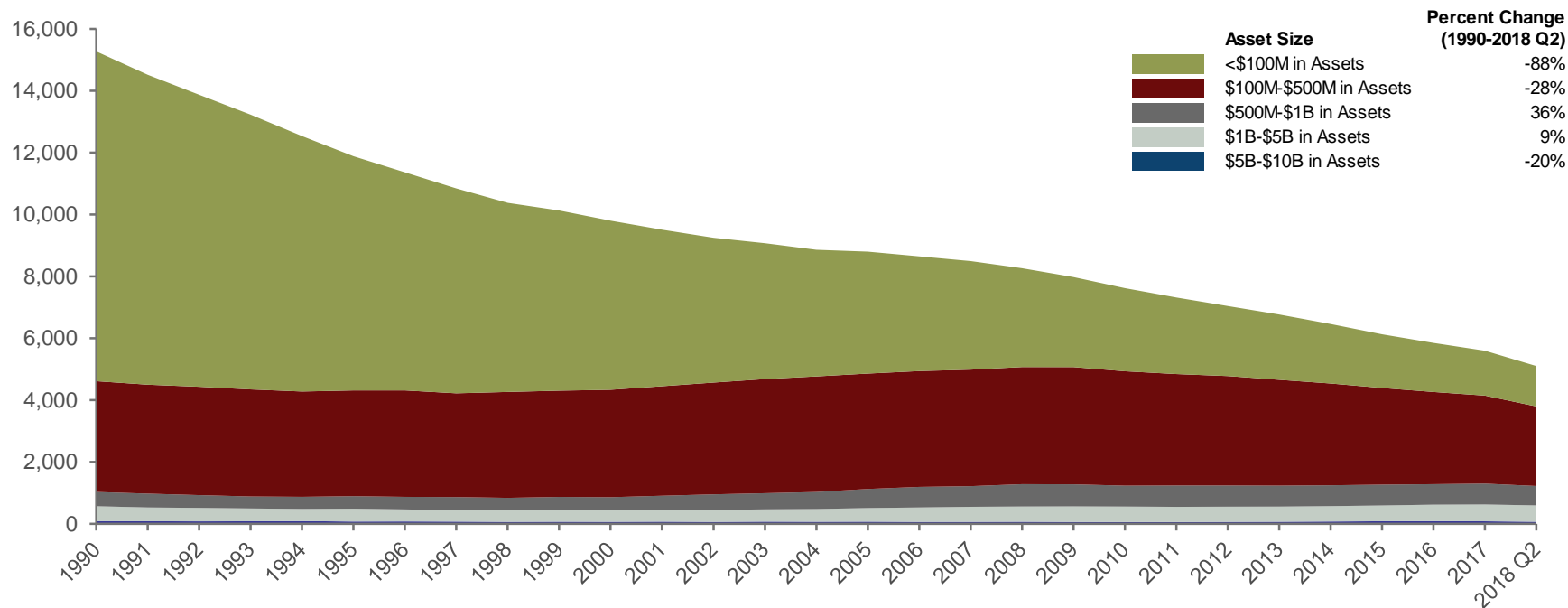
Number of M&A Transactions Since 2008



## INDUSTRY CONSOLIDATION PRIMARILY AMONG SMALLEST BANKS

- Since 1990, the number of banks with less than \$100 million in assets have fallen dramatically.
- 2014 & 2015 saw the greatest number of announced mergers since 2006 – as the regulatory and operating environment remains difficult to maneuver for smaller banks, we expect deal activity for smaller institutions to continue as they search for greater efficiencies.

**TOTAL NUMBER OF BANKS BY ASSET SIZE**



B) THE BIG WILL CONTINUE TO GET BIGGER, AND  
WE WILL SEE A RESURGENCE IN “LARGE BANK M&A”

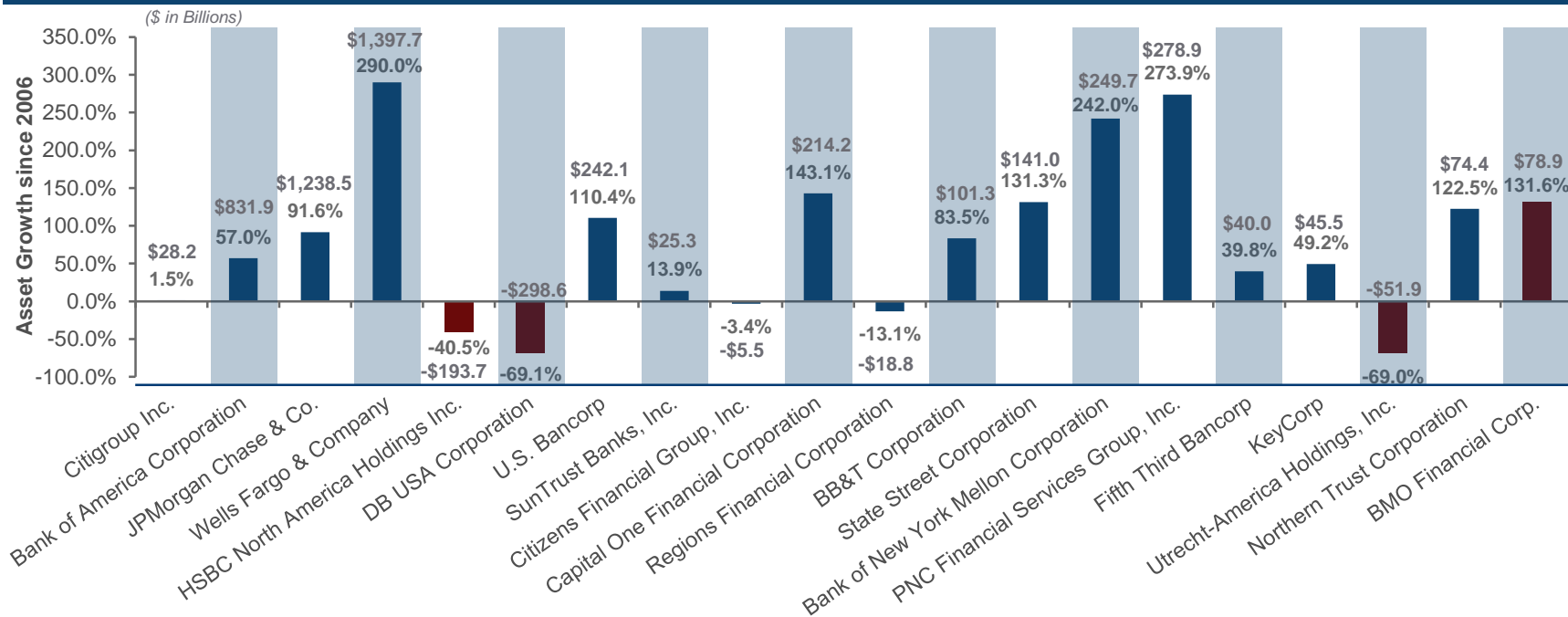
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## THE LARGER BANKS BECAME MUCH LARGER DURING THE CRISIS YEARS

- While some banks have shed assets since the end of 2006 the majority of major banks piled on more. Between 2006 and Q2 2018 the twenty largest banks have grown assets by 156.9%.
- They also grew loans by 151.7% and, ever more important, deposits increased over 200%.

### MAJOR GROWTH AMONG THE 20 LARGEST BANKS AS OF 12/31/2006



Note: Banks are ordered descending from largest 2006 total assets to least from left to right

Note: Red bars represent banks with a parent company based outside the United States

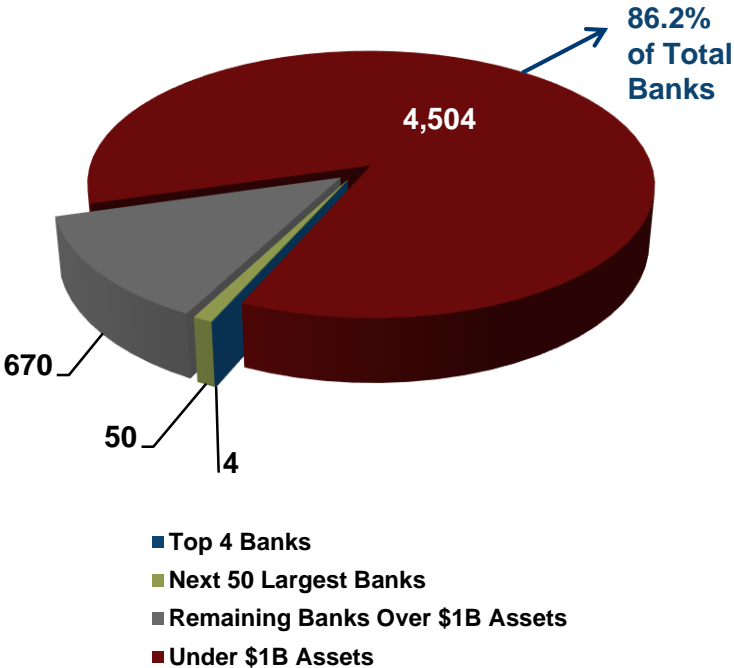
Note: DB USA Corp., Utrecht-America Holdings, Inc., and BMO Financial Corp financial data as of Q1 2018

Source: S&P Global Market Intelligence; Data as of 6/30/2018

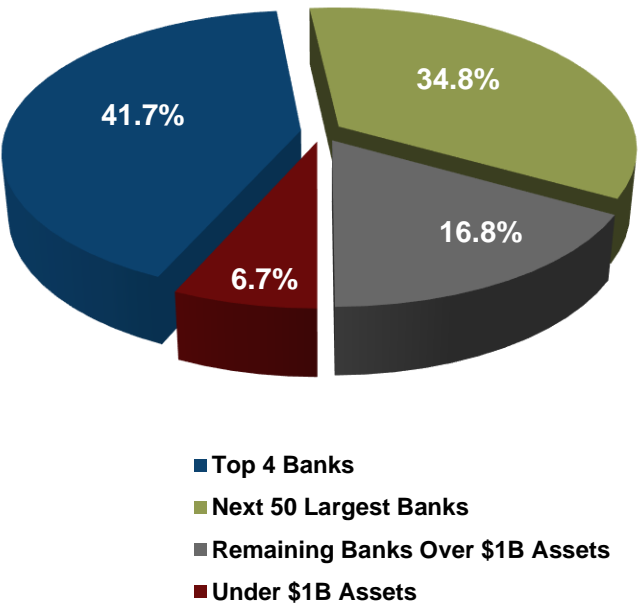
# MARKET SHARE DECREASES AT SMALLEST INSTITUTIONS

■ Despite totaling 86.2% of all banks, institutions under \$1B in assets hold only 6.7% of the industry's assets.

NUMBER OF BANKS BY ASSET SIZE – 6/30/2018



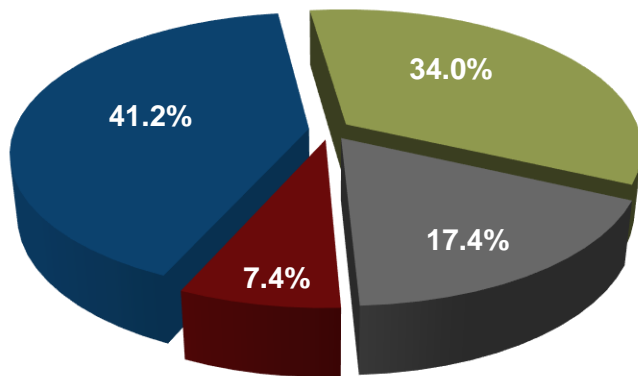
TOTAL ASSETS BY BANK SIZE – 6/30/2018



## A SIMILAR STORY: DEPOSIT DOMINANCE

- Consolidation is being driven by a two pronged attack. First, to no surprise is acquisitions. More surprisingly, the second is the customers' attraction to latest and greatest in banking technology and the abundance of branches.
- In 2017, roughly 45% of new checking accounts were opened at three national banks even though they only represent 24% of the branches. In contrast, regional and community banks control 76% of the branches but only captured 48% of the new accounts.<sup>1</sup>

**NATIONAL DEPOSIT MARKET SHARE – 6/30/2018**



- Top 4 Banks
- Next 50 Largest Banks
- Remaining Banks Over \$1B Assets
- Under \$1B Assets

**DOMESTIC DEPOSIT GROWTH SINCE 2007**



- Top 4 Banks
- Next 50 Largest Banks
- Remaining Banks Over \$1B Assets
- Under \$1B Assets

1) Source: Wall Street Journal

Note: Number of banks include commercial banks and savings banks with 6/30/2018 assets reported; Groupings based on 6/30/2018 assets

Source: S&P Global; Data as of 6/30/2018

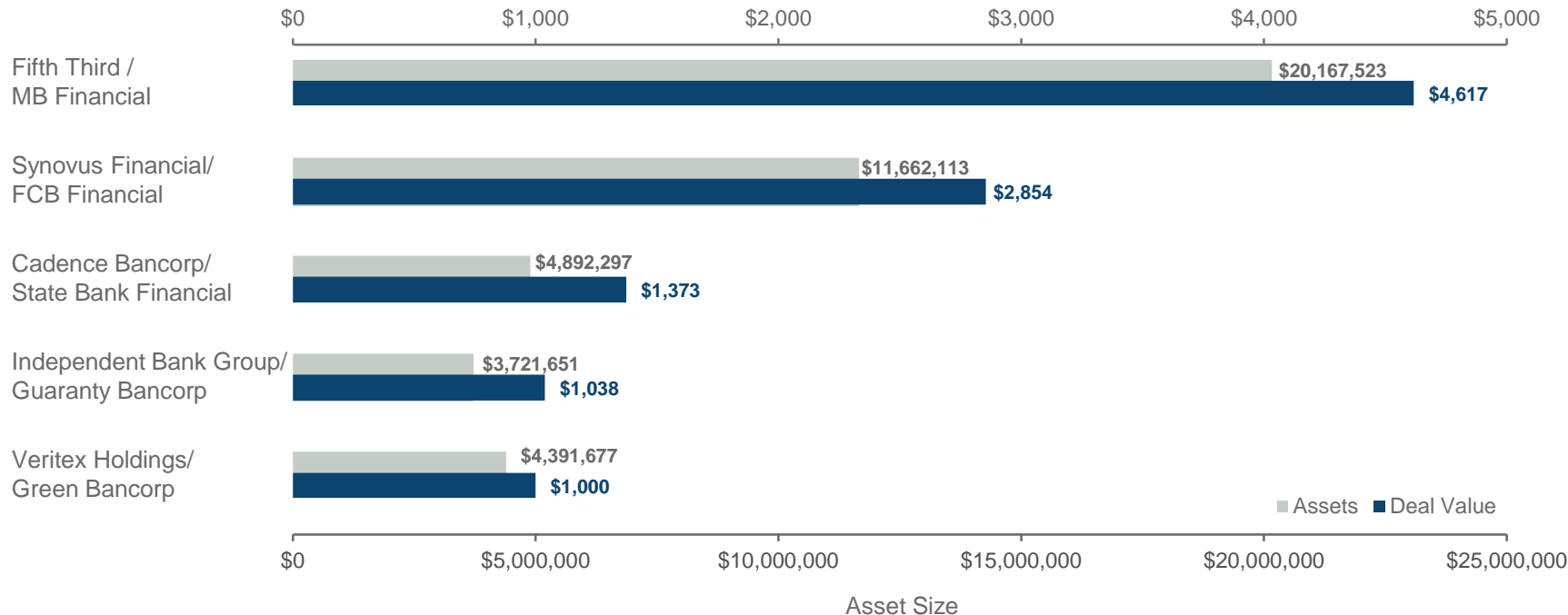
## WE HAVE ALREADY SEEN A WAVE OF MASSIVE M&A TRANSACTIONS IN 2018

■ In 2018, we have already seen five banks to sell for over \$1 billion. Together these five deals represent nearly \$11 billion in deal value.

### DEALS WITH TRANSACTION VALUE OVER \$1 BILLION<sup>1</sup>

(\$ in billions)

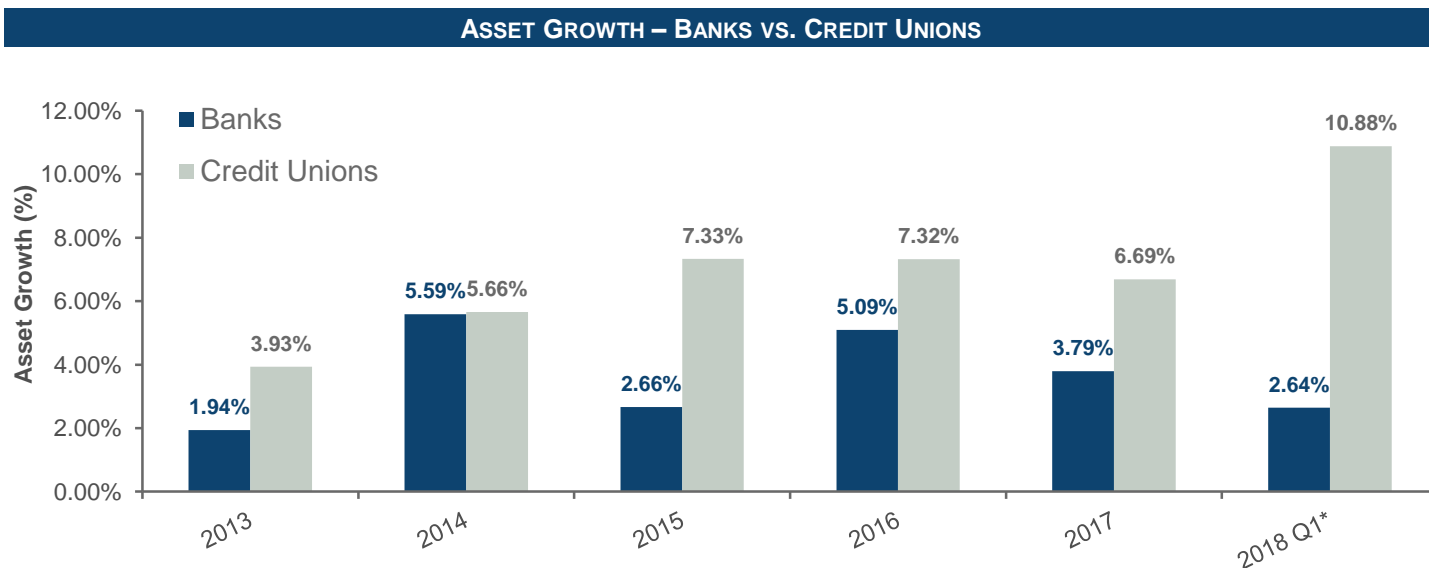
Deal Value





## CREDIT UNIONS CAPTURING MORE ASSETS

- As of March 31, 2018 banks still vastly outpace credit unions in assets held. NCUA-insured credit unions have total assets of \$1.4 trillion while FDIC-insured banks hold \$17.5 trillion in assets, but in recent years credit union asset growth has been much faster than its counterpart.
  - Credit unions, like banks, are shrinking rapidly as larger institutions continue to consolidate in search of greater efficiencies. At the end of Q1 2018, there were 5,530 credit unions in the U.S., which represents a 31.3% decline from ten years earlier.
  - As credit unions continue to get larger and lend more, it creates more demand for funding which drives funding costs higher for banks and credit unions alike.



\*2018 Q1 data has been annualized

Note: Banks includes all FDIC-Insured institutions; Credit unions include all NCUA-insured institutions

Source: NCUA; FDIC; American Banker; Data as of 3/31/2018

## IV THE OUTLOOK FOR M&A

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# AN INFLECTION POINT IN THE M&A CYCLE IS UPON US, AND THE NEXT PHASE WILL LIKELY PROVE CHALLENGING TO NAVIGATE

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- For several years following the Great Recession, stocks of the most active acquirers outperformed the broader group, and significantly so in some instances
  - Active acquirers traded at premium valuations and targets were distressed and traded at a discount, which translated to favorable “deal math”
- Valuation parity has led to more level playing field, with most stocks now trading within a relatively tight range
  - However, targets still need a premium, making the deal math more challenging
  - As a result, stocks of all but the most disciplined of acquirers have underperformed more recently, and we see this trend continuing for the rest of the cycle
  - Making matters more difficult, it appears as though the market is also skeptical of high TBV-priced deals, even if the deal math works
- The good news is that deregulation should result in takeout premiums building into larger community and regional bank stocks (\$10B up to perhaps \$100B over time)
  - But until large bank stock multiples improve, these deals won't work for the acquirers, and our sense is that investors will remain less tolerant of undisciplined acquirers than they were in prior cycles
- Conclusion: We are increasingly avoiding stocks of all but the most disciplined of acquirers

| Average Stock Price Performance vs. KRE Index |  |        |         |         |          |  |
|---|--|--------|---------|---------|----------|--|
| TBV   | Average Performance vs. Index <sup>1</sup> |        |         |         |          |  |
|   | 1 day                                      | 1 week | 3 month | 6 month | 12 month |  |
| 2.50x   | -1.7%                                      | -1.1%  | -1.7%   | -5.4%   | -10.5%   |  |
| 2.30x   | -1.5%                                      | -1.2%  | -3.0%   | -5.3%   | -12.3%   |  |
| 2.10x   | -1.3%                                      | -1.0%  | -2.4%   | -4.2%   | -9.5%    |  |
| 1.90x   | -1.0%                                      | -0.1%  | -0.2%   | -2.2%   | -6.6%    |  |
| 1.70x   | -0.5%                                      | 0.7%   | 1.0%    | -0.9%   | -3.6%    |  |

Source: SNL Financial, FactSet

<sup>1</sup> All whole bank M&A transactions since 2010 with target assets over \$1 bil. and target representing at least 10% of buyers assets.

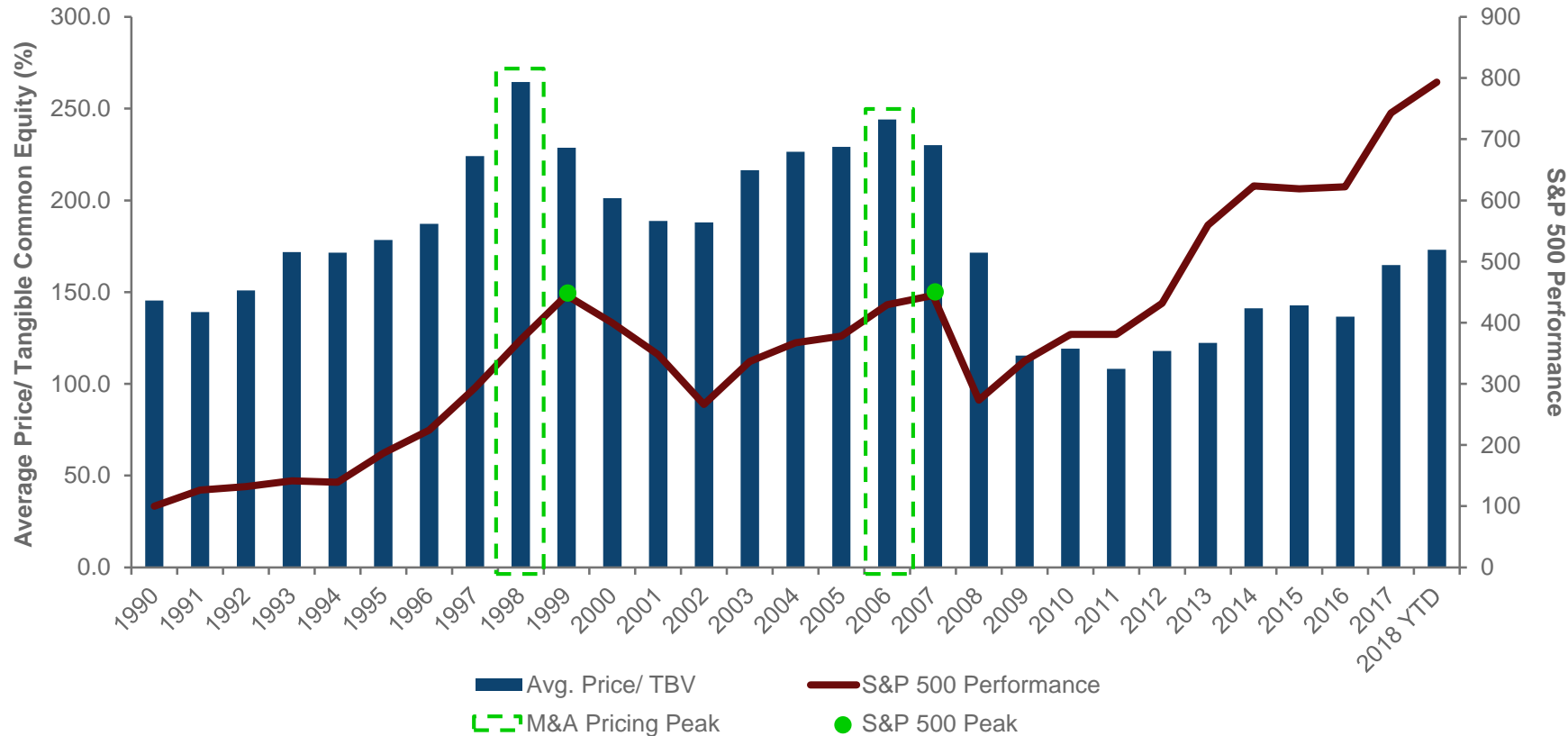
| Average Underperformance Post Deal Announcement |   |        |         |         |          |  |
|---|---|--------|---------|---------|----------|--|
| TBV   | Average Underperformance vs. Index <sup>1</sup> |        |         |         |          |  |
|   | 1 day   | 1 week | 3 month | 6 month | 12 month |  |
| 2.50x   | 66.7%   | 60.0%  | 69.2%   | 80.0%   | 87.5%    |  |
| 2.30x   | 69.2%   | 61.5%  | 72.7%   | 84.2%   | 86.7%    |  |
| 2.10x   | 64.3%   | 59.5%  | 67.6%   | 75.0%   | 78.6%    |  |
| 1.90x   | 59.7%   | 51.6%  | 60.0%   | 70.0%   | 73.8%    |  |
| 1.70x   | 52.3%   | 45.3%  | 49.4%   | 60.8%   | 66.7%    |  |

Source: SNL Financial, FactSet

<sup>1</sup> All whole bank M&A transactions since 2010 with target assets over \$1 bil. and target representing at least 10% of buyers assets.

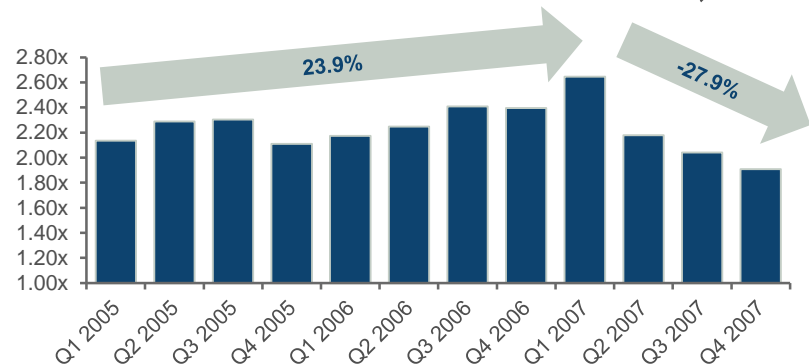
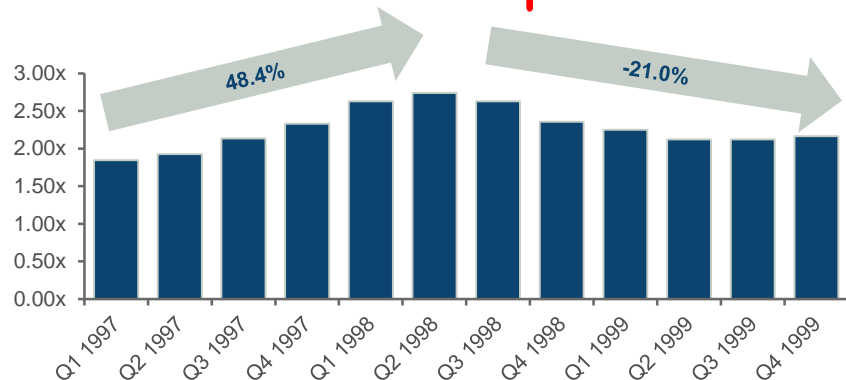
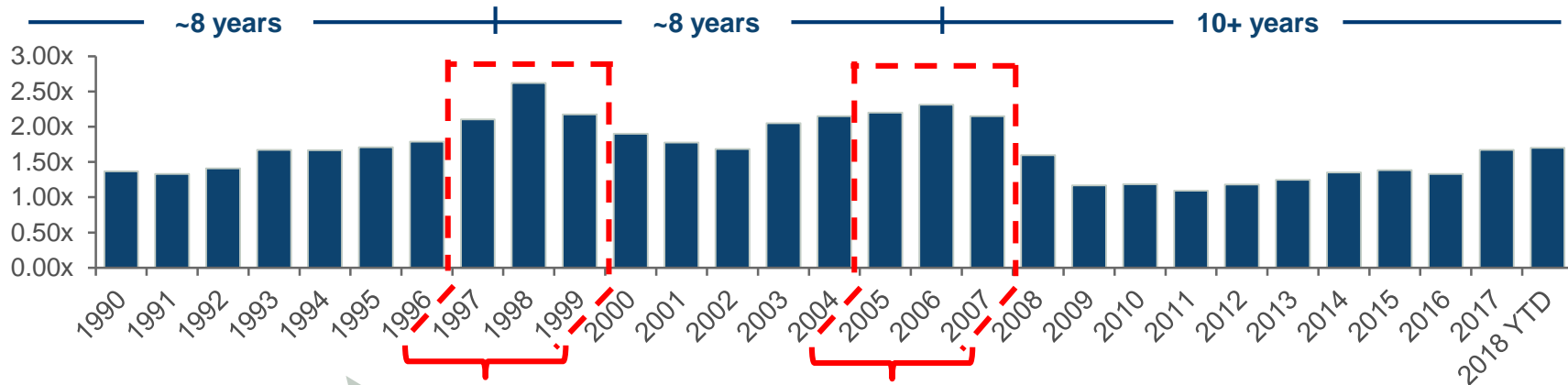
# NATIONWIDE DEAL ACTIVITY – A HISTORICAL PERSPECTIVE

ANNUAL DEAL PRICING VS. THE MARKET RETURN (1990 – 2018 YTD)



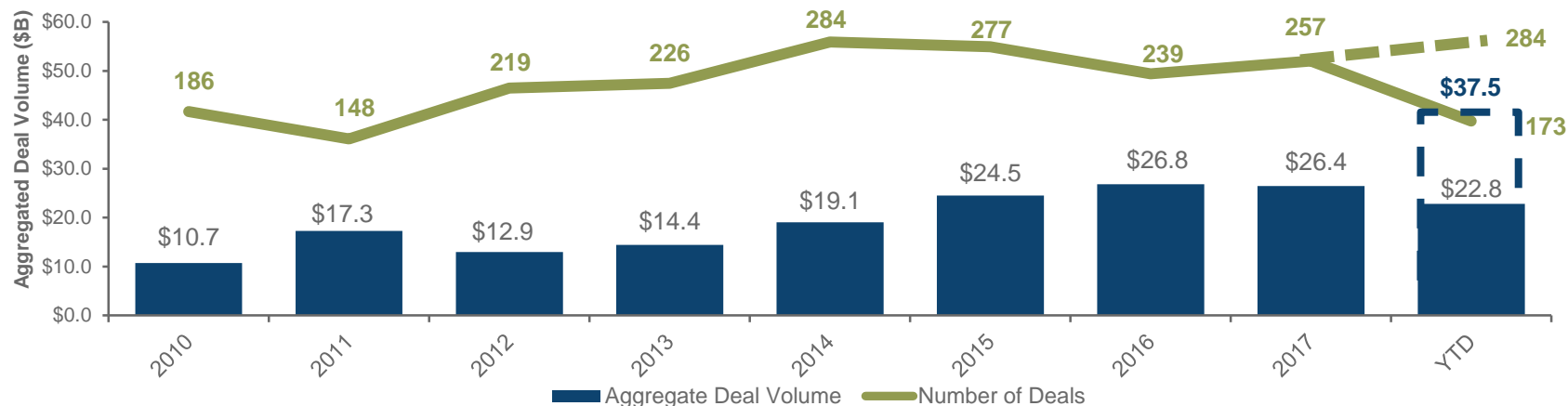
# BANK & THRIFT M&A IS CYCLICAL (TRENDS SINCE 1990)

## MEDIAN P / TBV

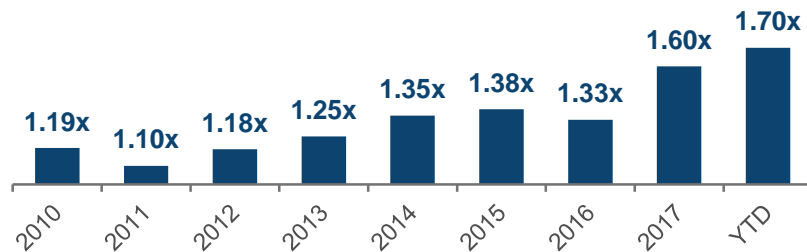


# POST-CRISIS M&A VOLUME AND PRICING TRENDS

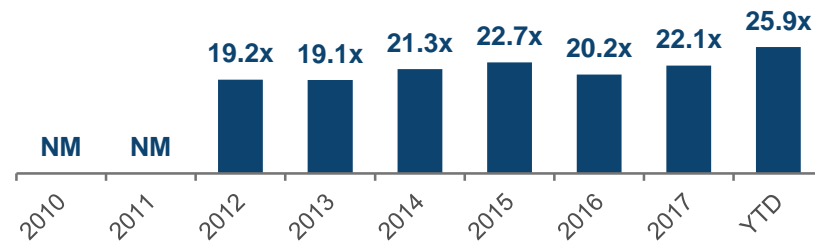
## M&A VOLUME SINCE 2010



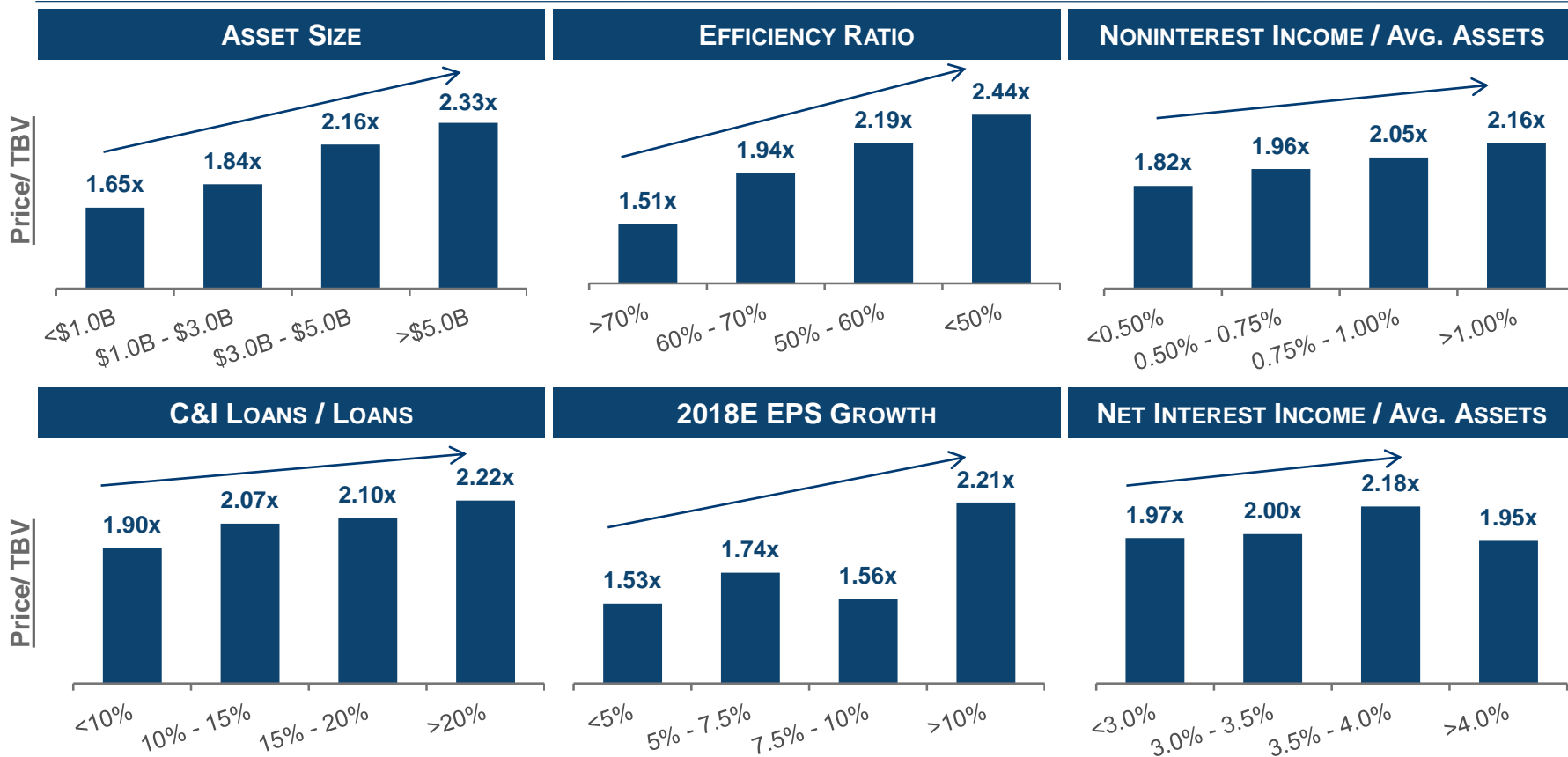
## MEDIAN PURCHASE P/TBV



## MEDIAN PURCHASE P/ LTM EARNINGS

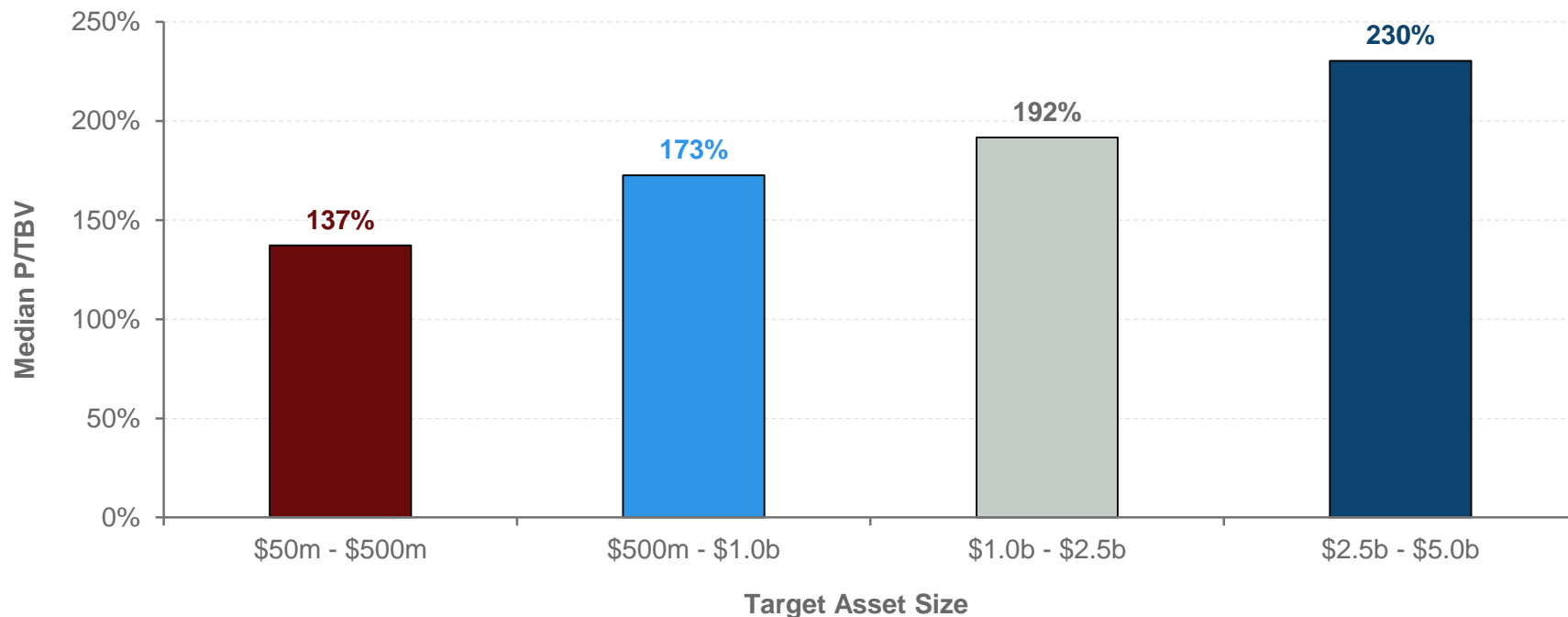


# WHAT ARE THE KEY VALUATION DRIVERS?



## LARGER BANKS CONTINUE TO COMMAND THE HIGHEST PREMIUMS

MEDIAN P/TBV BY TARGET ASSET SIZE SINCE JANUARY 1, 2015



**Median ROAA:**

**0.68%**

**0.81%**

**0.88%**

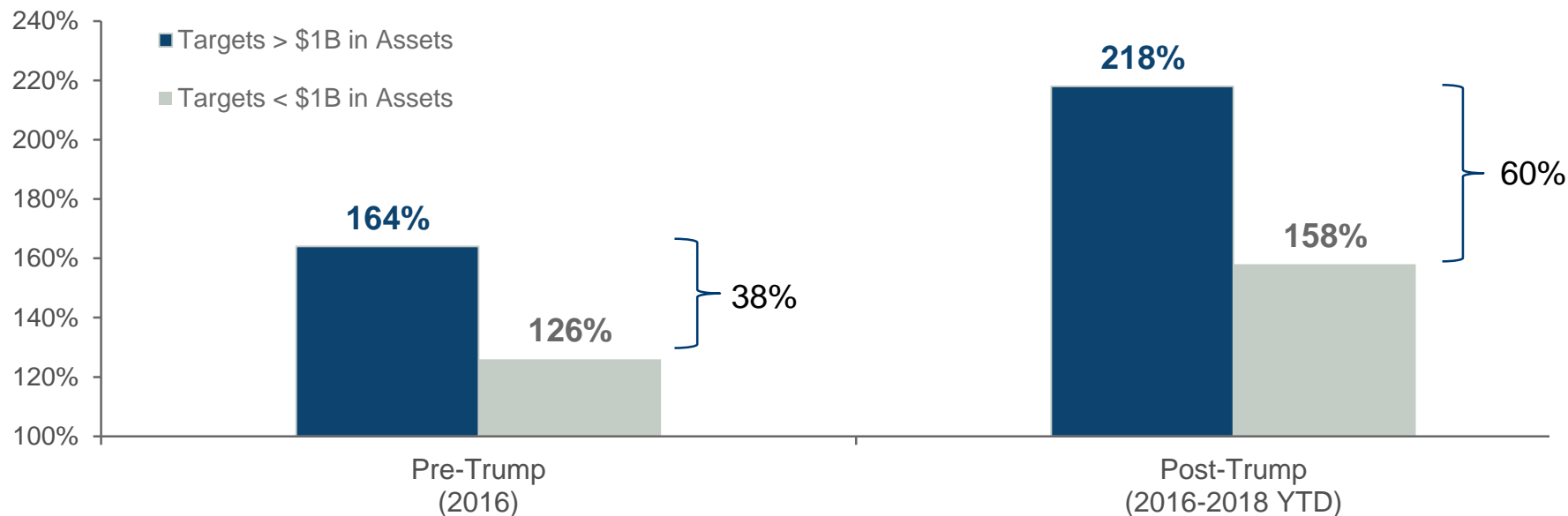
**0.96%**



## LARGER BANKS HAVE BENEFITTED THE MOST FROM THE RECENT RUN-UP IN BANK STOCKS

- Even though M&A prices have risen across the board, banks over \$1.0 billion in assets have benefited the most since the presidential election. The median P/TBV spread increased 57.9% for targets greater than \$1.0 billion in assets over targets with less than \$1.0 billion in assets.
- Public currencies have increased to such a level that they can afford to pay targets higher premiums to entice them to sell and the deal would still be accretive.

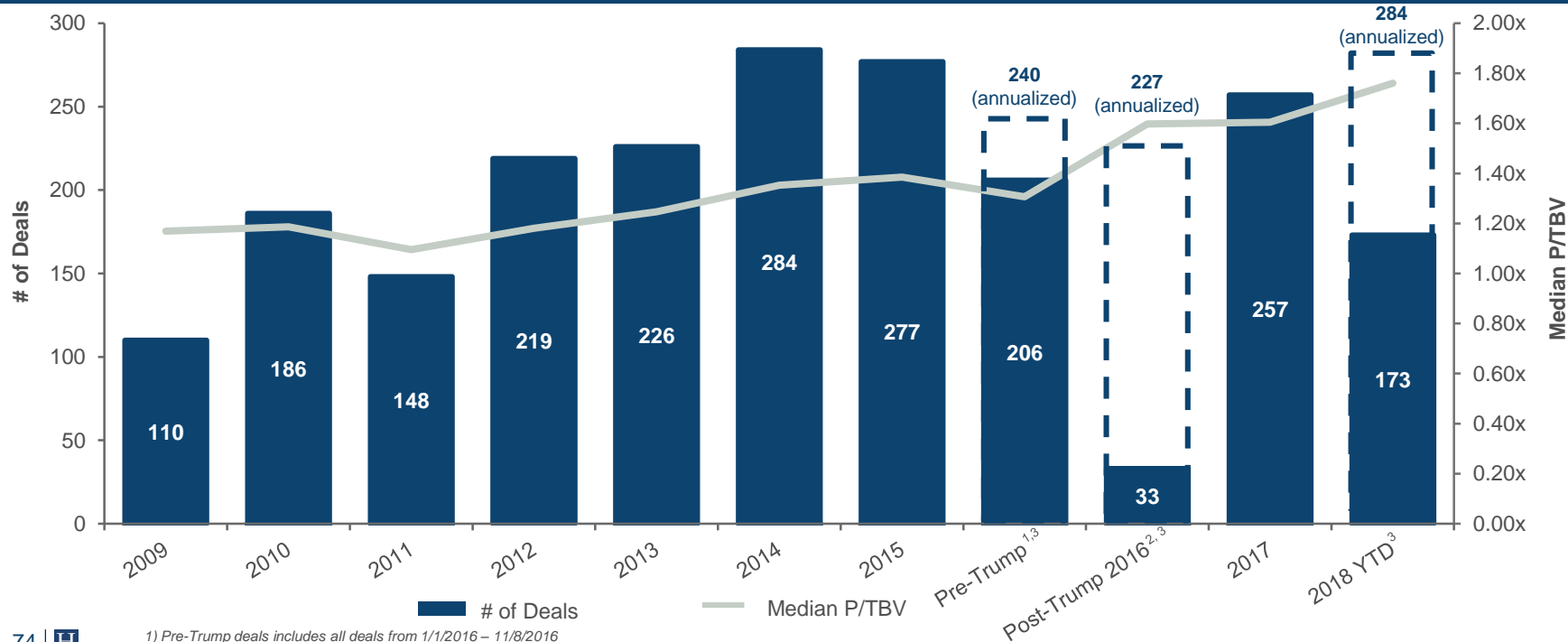
### MEDIAN P / TBV



## M&A VALUES ARE RISING

- Since the election (11/9/2016 – 8/10/2018) the median M&A P / TBV is 1.63x
  - This represents a 24.4% increase from 1.31x; the median M&A P / TBV for pre-election deals (1/1/2016 – 11/8/2016)
  - Traditionally, investors pay for earnings, so the pick-up in P/TBV could be explained by the benefits from tax reform.

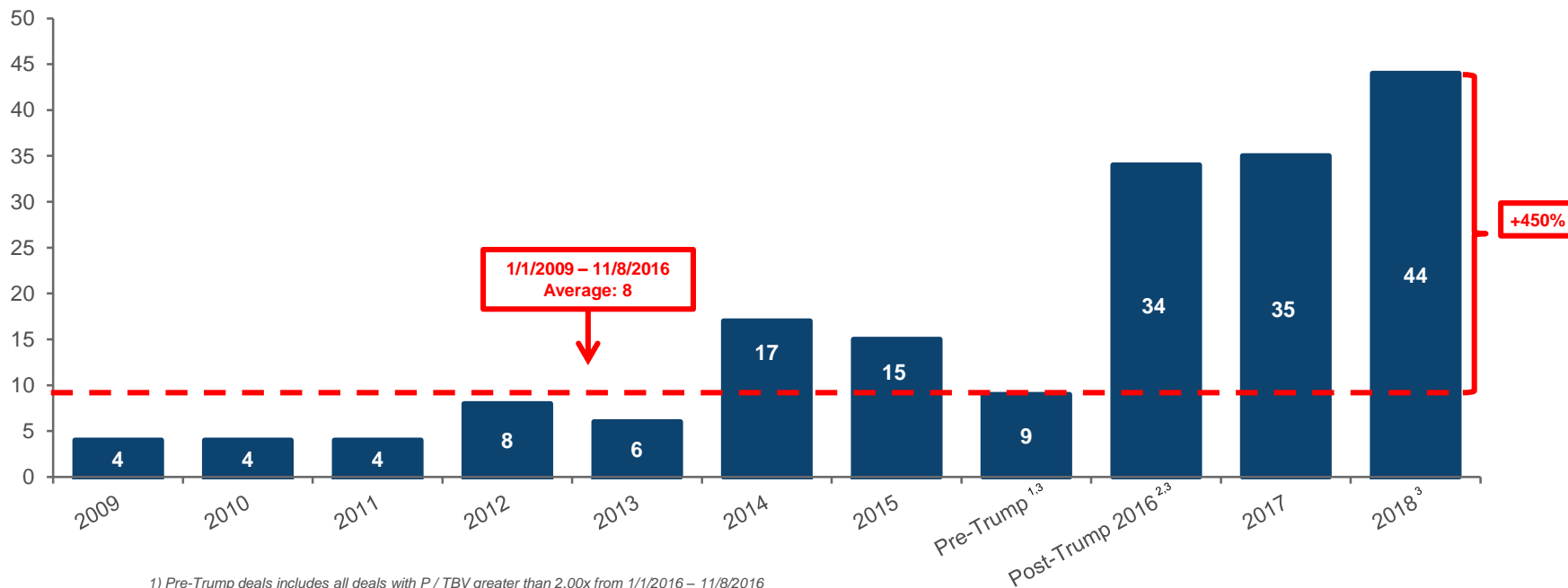
# OF DEALS AND MEDIAN P / TBV



# HIGH PRICED M&A TRANSACTIONS: PRE-TRUMP VS. POST-TRUMP

- Since the election (11/9/2016 – 8/10/2018) there have been 67 transactions with a P / TBV > 2.00x
  - In 2018 there have been 27 deals with a P / TBV > 2.00x. On an annualized basis this represents 44 transactions or a 450% increase from the annual average of 8 from 1/1/2009 – 11/8/2016

# OF DEALS WITH P / TBV > 2.00x



1) Pre-Trump deals includes all deals with P / TBV greater than 2.00x from 1/1/2016 – 11/8/2016  
 2) Post-Trump deals includes all deals with P / TBV greater than 2.00x from 11/9/2016 – 12/31/2016  
 3) Data is annualized  
 Source: S&P Global Market Intelligence; Data as of 8/10/2018

# CAPITAL MARKETS IN THE TRUMP ERA ARE ROBUST

■ Since the “Trump Bump”, banks nationwide raised common equity north of 2x tangible book value (mostly for acquisitions) 49 times

| Issuer Summary          |   |        |    |                       | Offering Summary                 |                 |                  | Offering Price Data  |                     |                       |                        |                            |
|-------------------------|---|--------|----|-----------------------|----------------------------------|-----------------|------------------|----------------------|---------------------|-----------------------|------------------------|----------------------------|
| Offering Announced Date | Institution                             | Ticker | ST | Total Assets (\$000s) | Type of Offering                 | Market Exchange | % of Shares Sold | Capital Raised (\$M) | Offering Price (\$) | Offering Price/BV (%) | Offering Price/TBV (%) | Offering Price/MRQ EPS (x) |
| 8/8/2017                | Live Oak Bancshares, Inc.               | LOB    | NC | 2,198,107             | Follow-On                        | NASDAQ          | 14.9             | 103.5                | 23.0                | 335.3                 | 354.0                  | 20.7                       |
| 2/28/2017               | Ameris Bancorp                          | ABCB   | GA | 6,992,031             | Follow-On                        | NASDAQ          | 5.76             | 81.4                 | 46.5                | 251.2                 | 322.5                  | 18.0                       |
| 1/23/2017               | Pinnacle Financial Partners, Inc.       | PNFP   | TN | 11,932,633            | Follow-On                        | NASDAQ          | 6.95             | 175.0                | 62.5                | 193.6                 | 311.6                  | 18.7                       |
| 12/16/2016              | United Bankshares, Inc.                 | UBSI   | WV | 14,344,696            | Follow-On                        | NASDAQ          | 5.66             | 199.9                | 46.2                | 174.0                 | 310.3                  | 20.7                       |
| 1/24/2017               | First Hawaiian, Inc.                    | FHB    | HI | 19,661,829            | Follow-On                        | NASDAQ          | 20.6             | 800.0                | 32.0                | 180.3                 | 301.5                  | 19.8                       |
| 10/3/2017               | Preferred Bank                          | PFBC   | CA | 3,665,472             | Common Stock - At-the-Market     | NASDAQ          | 0.71             | 6.50                 | 62.9                | 289.1                 | 290.0                  | 16.7                       |
| 10/3/2017               | Preferred Bank                          | PFBC   | CA | 3,665,472             | Common Stock - At-the-Market     | NASDAQ          | 1.05             | 9.51                 | 62.4                | 286.4                 | 287.4                  | 16.6                       |
| 11/28/2017              | Independent Bank Group, Inc.            | IBTX   | TX | 8,891,114             | Follow-On                        | NASDAQ          | 8.45             | 136.7                | 64.0                | 138.9                 | 283.6                  | 16.9                       |
| 10/3/2017               | Preferred Bank                          | PFBC   | CA | 3,665,472             | Common Stock - At-the-Market     | NASDAQ          | 1.97             | 17.5                 | 61.1                | 280.5                 | 281.4                  | 16.2                       |
| 5/21/2018               | FB Financial Corporation                | FBK    | TN | 4,725,416             | Follow-On                        | NYSE            | 12.0             | 132.0                | 41.3                | 207.0                 | 275.1                  | 15.1                       |
| 11/16/2016              | Sterling Bancorp                        | STL    | NY | 13,617,228            | Follow-On                        | NYSE            | 3.34             | 79.6                 | 21.0                | 155.3                 | 274.3                  | 17.2                       |
| 5/26/2017               | FB Financial Corporation                | FBK    | TN | 3,166,459             | Private Placement - Common Stock | NYSE            | 19.9             | 158.6                | 33.0                | 233.0                 | 273.8                  | 19.5                       |
| 6/6/2018                | Carolina Financial Corporation          | CARO   | SC | 3,553,076             | Follow-On                        | NASDAQ          | 7.58             | 67.4                 | 42.3                | 187.3                 | 270.7                  | 13.4                       |
| 12/13/2016              | Renasant Corporation                    | RNST   | MS | 8,542,471             | Follow-On                        | NASDAQ          | 5.07             | 78.9                 | 41.5                | 153.0                 | 270.5                  | 17.9                       |
| 7/26/2018               | State Street Corporation                | STT    | MA | 248,308,000           | Follow-On                        | NYSE            | 3.62             | 1,151.3              | 86.9                | 164.1                 | 267.2                  | 11.1                       |
| 3/6/2017                | First Republic Bank                     | FRC    | CA | 73,277,772            | Follow-On                        | NYSE            | 1.62             | 233.9                | 93.6                | 250.2                 | 264.7                  | 22.1                       |
| 1/9/2017                | CenterState Bank Corporation            | CSFL   | FL | 5,014,512             | Follow-On                        | NASDAQ          | 5.61             | 57.8                 | 23.6                | 204.8                 | 263.1                  | 17.4                       |
| 11/22/2016              | Independent Bank Group, Inc.            | IBTX   | TX | 5,667,195             | Private Placement - Common Stock | NASDAQ          | 2.16             | 21.0                 | 52.5                | 150.9                 | 262.2                  | 16.2                       |
| 12/5/2016               | Southside Bancshares, Inc.              | SBSI   | TX | 5,464,903             | Follow-On                        | NASDAQ          | 8.11             | 69.4                 | 36.5                | 208.1                 | 261.5                  | 21.0                       |
| 7/29/2018               | First Hawaiian, Inc.                    | FHB    | HI | 20,479,719            | Follow-On                        | NASDAQ          | 14.6             | 558.0                | 27.9                | 155.0                 | 260.5                  | 13.8                       |
| 5/24/2017               | Bank OZK                                | OZK    | AR | 19,152,212            | Follow-On                        | NASDAQ          | 5.43             | 300.0                | 45.5                | 192.3                 | 256.4                  | 15.2                       |
| 5/8/2018                | First Hawaiian, Inc.                    | FHB    | HI | 20,242,942            | Follow-On                        | NASDAQ          | 12.1             | 424.6                | 27.8                | 153.7                 | 254.0                  | 14.1                       |
| 5/2/2017                | Seacoast Commerce Banc Holdings         | SCBH   | CA | 590,008               | Private Placement - Common Stock | OTC Pink        | 9.03             | 10.0                 | 18.5                | 249.7                 | 249.7                  | NA                         |
| 10/23/2017              | First Republic Bank                     | FRC    | CA | 84,320,096            | Follow-On                        | NYSE            | 1.82             | 239.5                | 95.8                | 235.0                 | 246.3                  | 20.7                       |
| 11/14/2016              | First Republic Bank                     | FRC    | CA | 67,983,547            | Follow-On                        | NYSE            | 2.68             | 283.0                | 80.9                | 228.8                 | 242.1                  | 19.7                       |
| 8/24/2017               | FVCBancorp, Inc.                        | FVCB   | VA | 970,896               | Private Placement - Common Stock | OTC Pink        | 4.89             | 10.0                 | 20.0                | 240.5                 | 240.8                  | 26.2                       |
| 2/14/2017               | Seacoast Banking Corporation of Florida | SBCF   | FL | 4,680,932             | Follow-On                        | NASDAQ          | 23.4             | 172.4                | 22.3                | 194.3                 | 237.5                  | 18.3                       |
| 1/31/2018               | Green Bancorp, Inc.                     | GNBC   | TX | 4,261,916             | Follow-On                        | NASDAQ          | 8.09             | 69.8                 | 23.3                | 186.0                 | 233.1                  | 24.3                       |
| 6/6/2017                | National Commerce Corporation           | NCOM   | AL | 2,445,149             | Follow-On                        | NASDAQ          | 8.53             | 35.5                 | 37.0                | 154.6                 | 232.0                  | 20.6                       |
| 5/21/2018               | Cadence Bancorporation                  | CADE   | TX | 10,999,382            | Follow-On                        | NYSE            | 24.8             | 504.0                | 28.0                | 172.5                 | 227.4                  | 14.0                       |
| 1/23/2018               | Union Bankshares Corporation            | UBSH   | VA | 9,315,179             | Follow-On                        | NASDAQ          | 18.1             | 301.4                | 38.0                | 158.9                 | 226.8                  | 17.5                       |
| 1/19/2017               | Carolina Financial Corporation          | CARO   | SC | 1,683,736             | Follow-On                        | NASDAQ          | 14.4             | 44.0                 | 28.0                | 215.3                 | 226.3                  | 16.4                       |
| 5/23/2018               | Green Bancorp, Inc.                     | GNBC   | TX | 4,225,247             | Follow-On                        | NASDAQ          | 5.37             | 45.6                 | 22.8                | 181.1                 | 226.1                  | 21.9                       |
| 12/9/2016               | Lakeland Bancorp, Inc.                  | LBAI   | NJ | 4,904,291             | Common Stock - At-the-Market     | NASDAQ          | 6.16             | 50.0                 | 18.3                | 162.6                 | 226.1                  | 17.2                       |
| 5/22/2018               | TriState Capital Holdings, Inc.         | TSC    | PA | 4,906,753             | Follow-On                        | NASDAQ          | 7.59             | 56.6                 | 25.7                | 185.4                 | 221.1                  | 17.3                       |
| 7/24/2018               | Cadence Bancorporation                  | CADE   | TX | 11,305,528            | Follow-On                        | NYSE            | 14.9             | 355.0                | 28.4                | 170.9                 | 221.1                  | 12.3                       |
| 2/16/2018               | Bridgewater Bancshares, Inc.            | BWB    | MN | 1,616,612             | IPO                              | NASDAQ          | 31.2             | 78.7                 | 11.8                | 211.4                 | 217.6                  | NA                         |
| 11/29/2017              | Univest Corporation of Pennsylvania     | UVSP   | PA | 4,417,363             | Follow-On                        | NASDAQ          | 9.92             | 65.0                 | 28.3                | 142.5                 | 216.4                  | 16.2                       |
| 11/21/2016              | Bridge Bancorp, Inc.                    | BDGE   | NY | 3,834,001             | Follow-On                        | NASDAQ          | 9.23             | 50.0                 | 31.0                | 149.4                 | 215.8                  | 15.0                       |
| 12/14/2016              | Veritex Holdings, Inc.                  | VBTX   | TX | 1,269,194             | Follow-On                        | NASDAQ          | 41.4             | 87.0                 | 22.5                | 169.6                 | 212.1                  | 16.6                       |
| 12/13/2016              | ConnectOne Bancorp, Inc.                | CNOB   | NJ | 4,327,804             | Follow-On                        | NASDAQ          | 5.50             | 35.0                 | 24.3                | 146.6                 | 209.0                  | 19.8                       |
| 6/19/2018               | First Western Financial, Inc.           | MYFW   | CO | 1,045,073             | IPO                              | NASDAQ          | 38.4             | 37.5                 | 19.0                | 141.0                 | 207.6                  | NA                         |
| 12/8/2016               | Valley National Bancorp                 | VLY    | NJ | 22,368,453            | Follow-On                        | NYSE            | 3.63             | 97.0                 | 11.6                | 137.0                 | 205.7                  | 18.0                       |
| 1/31/2017               | CNB Financial Corporation               | CNBE   | PA | 2,573,821             | Common Stock - At-the-Market     | NASDAQ          | 5.77             | 20.0                 | 24.0                | 163.7                 | 203.7                  | 16.2                       |
| 11/28/2016              | Texas Capital Bancshares, Inc.          | TCBI   | TX | 22,216,388            | Follow-On                        | NASDAQ          | 7.50             | 206.0                | 68.7                | 200.4                 | 203.0                  | 19.7                       |
| 2/1/2018                | Cadence Bancorporation                  | CADE   | TX | 10,948,826            | Follow-On                        | NYSE            | 11.0             | 200.0                | 25.0                | 153.8                 | 202.8                  | 14.8                       |
| 10/13/2017              | CBTX, Inc.                              | CBTX   | TX | 2,940,877             | IPO                              | NASDAQ          | 12.5             | 62.4                 | 26.0                | 154.2                 | 202.9                  | 16.4                       |
| 2/15/2017               | Civista Bancshares, Inc.                | CNB    | OH | 1,377,263             | Follow-On                        | NASDAQ          | 19.3             | 30.5                 | 21.8                | 152.9                 | 200.6                  | 16.0                       |
| 3/17/2017               | Cadence Bancorporation                  | CADE   | TX | 9,530,888             | IPO                              | NYSE            | 11.5             | 150.0                | 20.0                | 138.8                 | 200.6                  | NA                         |
| Median                  |   |        |    | 4,906,753             |                                  |                 | 8.09             | 79.6                 |                     | 180.3                 | 242.1                  | 17.2                       |

1) Capital Raised includes overallotment

2) MRQ EPS = most recent quarter core EPS annualized

Source: S&P Global Market Intelligence

# M&A SHOULD BE FOCUSED ON WHAT IS LIKELY TO BE THE NEXT BATTLEGROUND FOR BANKS: DEPOSITS

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## ■ Unlike other “hoped-for” developments (like regulatory relief), rates have moved, and banks are seeing the benefit

- We see a more accommodative rate environment as the single most important fundamental driver of improved investor sentiment toward banks.
- The early stages of this tightening cycle are the “nirvana” period for banks.
  - Funding costs haven't yet moved materially, while a mix shift in earning assets and an uptick in asset yields drive NIM expansion.
  - Examples: Citigroup's CFO told investors, “As we continue to get rate increases and the rate increases increase also in frequency, you're going to see pressure on those deposit betas. It's just inevitable, and it's going to happen. Hasn't happened yet.”; Wells Fargo's Loan yields up for the 8<sup>th</sup> out of 10<sup>th</sup> consecutive quarter in Q2 2018.

## ■ But looking out longer-term, we're still in uncharted waters, given considerations that are unique to this cycle

- Following an unprecedented period of low rates, are deposit beta assumptions over the medium-term too optimistic?
- Will elevated loan-to-deposit ratios prove to be a constraint on loan growth and/or will higher incremental funding costs dampen NIM expansion potential?
- Rates have never been this low for this long, and persistently low rates tend to mask credit distortions.
- Will we see a pick-up in the long-end of the yield curve, or are we in a long-term deflationary cycle?
- Banks tend not to be as asset sensitive as internal modeling would seem to suggest.

## ■ Against this backdrop, we like banks that are truly core funded, with the capability and room, to grow

- Focus on “all-in” cost of deposits and loan to deposit ratio, with a demonstrated ability to grow while adequately controlling risk.

## BIOGRAPHY

### STEVEN D. HOVDE, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, DIRECTOR OF INVESTMENT BANKING OPERATIONS



As Chairman and CEO of Hovde Group, Mr. Hovde is responsible for overseeing the firm's strategic growth initiatives, as well as playing a very active role in many of the firm's key client relationships. In addition, Mr. Hovde plays an integral role in assisting the firm's clients with their most important business transactions, be it issuing capital or pursuing M&A.

In addition to being an investment banker, Mr. Hovde with his brother Eric, have owned controlling interests in banks throughout the United States. Currently they own Sunwest Bank, headquartered in Irvine, CA, which has approximately \$1.3 billion in assets and \$150 million in equity. Also they recently sold Bay Bank in the Baltimore area, which had approximately \$650 million in assets and \$70 million in equity to Old Line Bancshares an approximately \$2.2 billion asset NASDAQ traded bank which H Bancorp is now a major shareholder. As bankers, they see all the issues that management and board members of banks wrestle with daily.

Mr. Hovde is also on the board of directors of a \$1.9 billion asset community bank in the Chicago area, and a \$850 million asset bank in the Seattle area. He also serves as a trustee of several charitable foundations.

Before co-founding Hovde in 1987, Mr. Hovde was Regional General Counsel and Vice President of a national commercial real estate development firm, Vantage Companies. Previous to that, Mr. Hovde served as an attorney with a 200-member law firm based in Chicago, Rudnick & Wolfe, which is today DLA Piper, specializing in real estate law. Prior to that, Mr. Hovde practiced accounting in Chicago as a Certified Public Accountant with one of the former "Big Eight" public accounting firms, Touche Ross LLP, which is today Deloitte & Touche LLP.

Mr. Hovde graduated summa cum laude with a Bachelor of Business Administration, majoring in Accounting, from the School of Business at the University of Wisconsin, Madison. He also earned his law degree, cum laude, at Northwestern University in Chicago, Illinois.