

2019 **LIFE &  
ANNUITY**

SYMPOSIUM

May 20–21 • Tampa, FL



## Session 5: Market Discussion on Interest Rates and Market

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Society of Actuaries

2019 SOA Life & Annuity Symposium

May 2019

# 2019 Outlook

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**Global growth has downshifted but should remain sturdy**

**US growth and inflation to moderate**

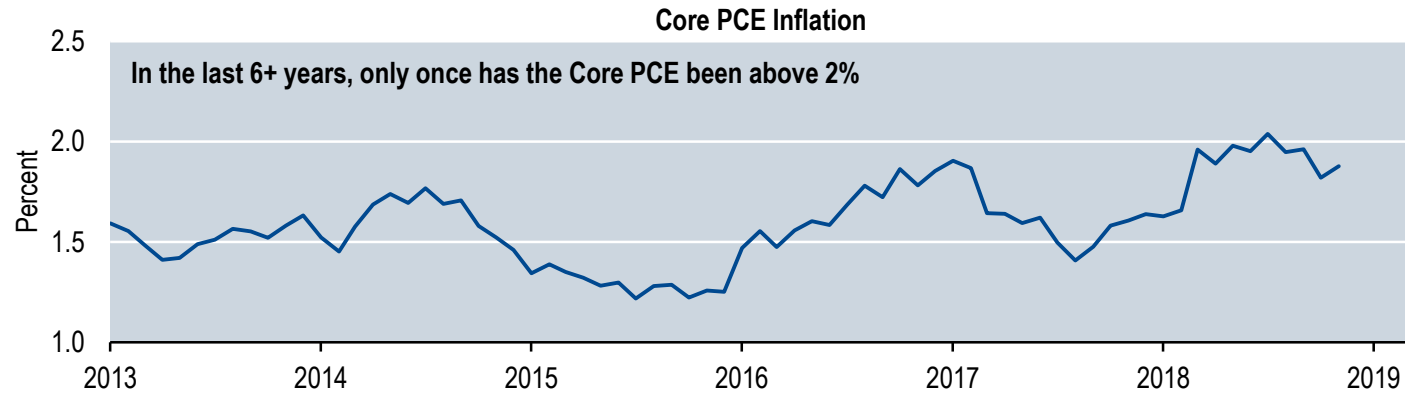
**Central bank policy will be focused on accommodation**

**Trade policy poses substantial risks**

**Spread products should recover relative to Treasuries and sovereign bonds**

**Emerging markets, though volatile, should outperform**

# Inflation Refuses to Follow the Script

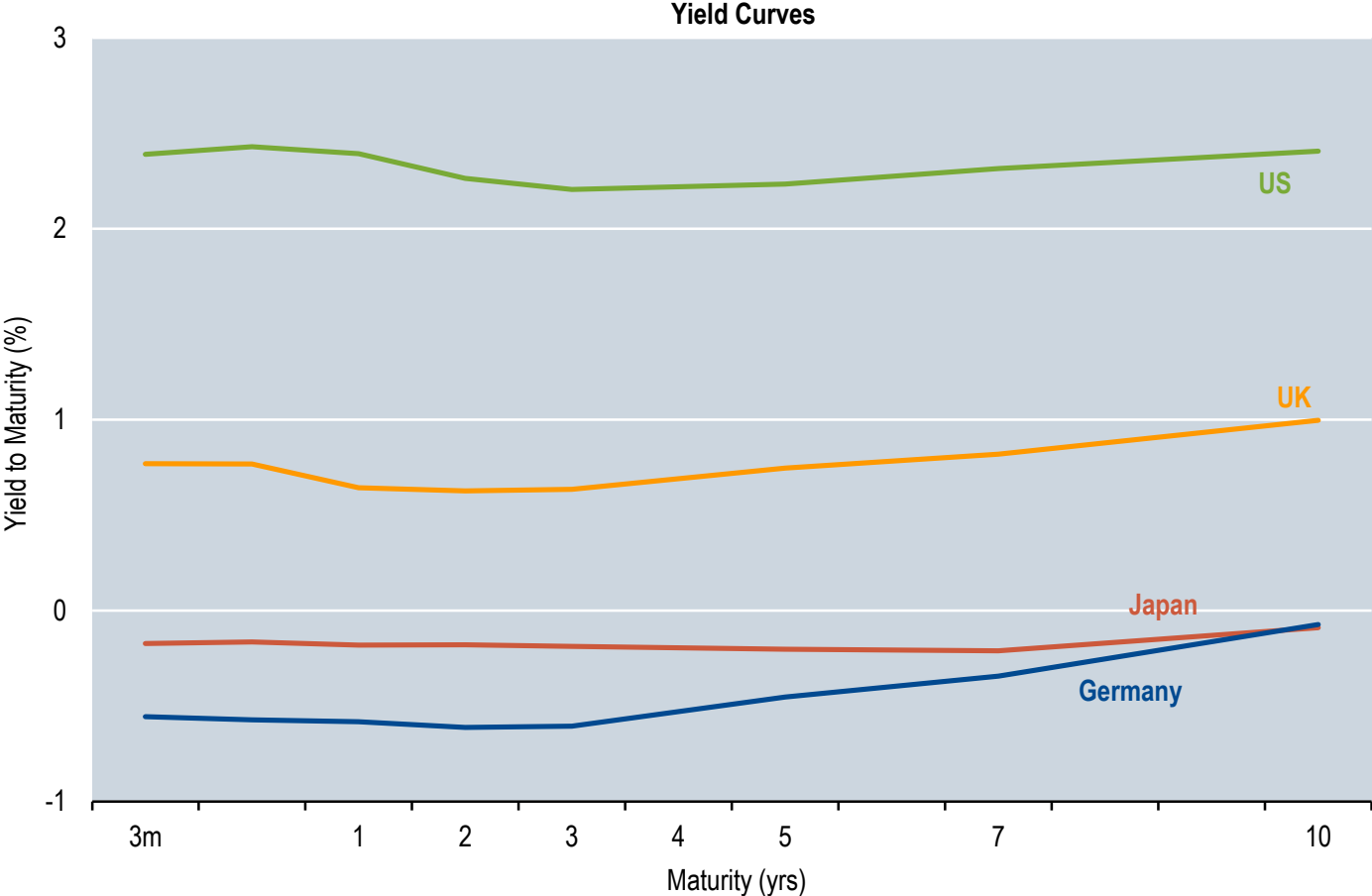


Source: Bureau of Economic Analysis. As of 30 Nov 18

**“Ironically, the problem we need to solve these days is  
the risk of inflation that is persistently too low, rather than too high.”**

*– John Williams  
President, NY Fed  
December 6, 2018*

# US Interest Rates Remain Attractive Relative to Most of the Developed World



Source: Bloomberg. As of 31 Mar 19

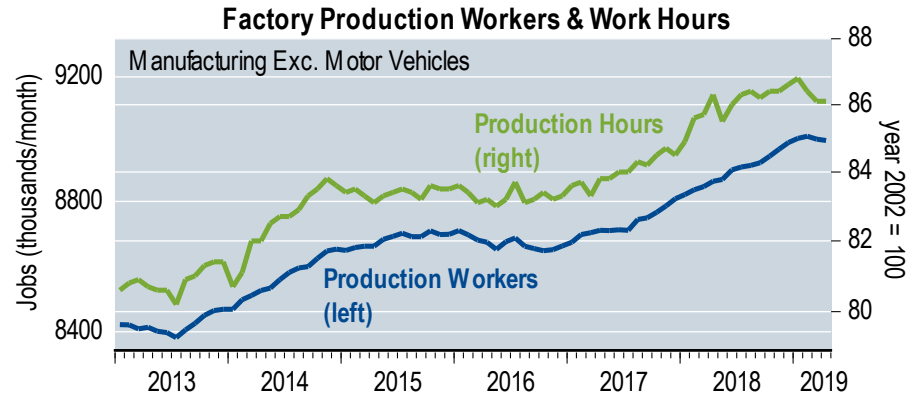
# Moderate US Economic Growth to Continue (2.0% – 2.25%)

Better US growth in last two years has been wholly contained in goods-producing sectors: manufacturing and mining (oil).



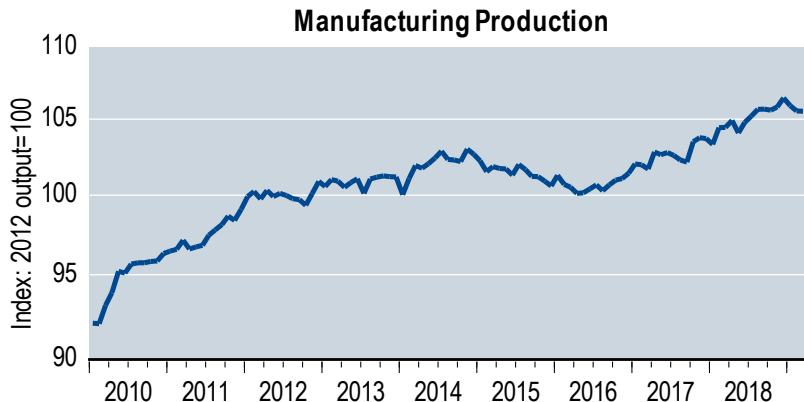
Source: Bureau of Economic Analysis. As of 31 Mar 19  
 Note: 4-Quarter Growth Rates in Real GDP By Major Sector

While manufacturing and oil have slowed some recently, they are still performing better than they did in 2015-16, which was NOT a recession.



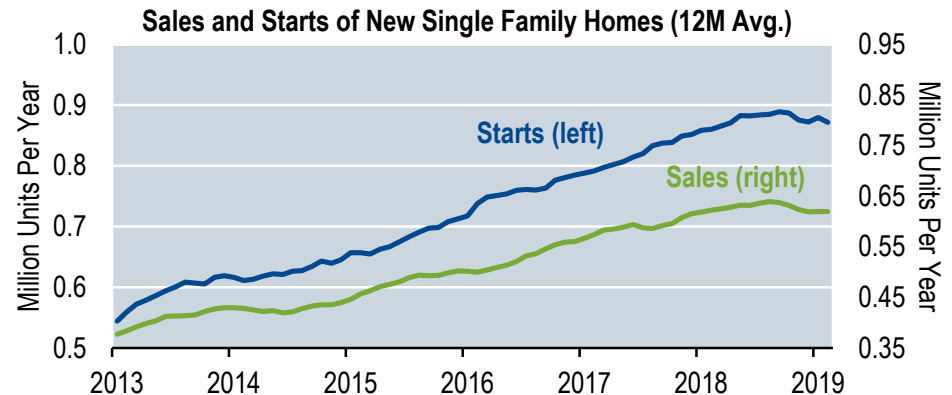
Source: Bureau of Labor Statistics. As of 31 Apr 19

Factory sector rebounding recently after five years of stagnation, so the “late cycle” story is not applicable/relevant.



Source: Federal Reserve Board. As of 31 Mar 19

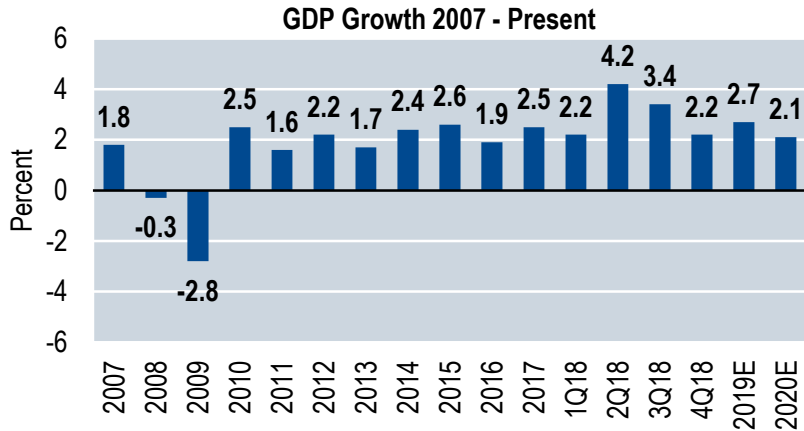
Declines in homebuilding are also holding down US growth, but here too, the declines look like an inventory correction, not a rout (starts declining only mildly, sales holding up relatively well).



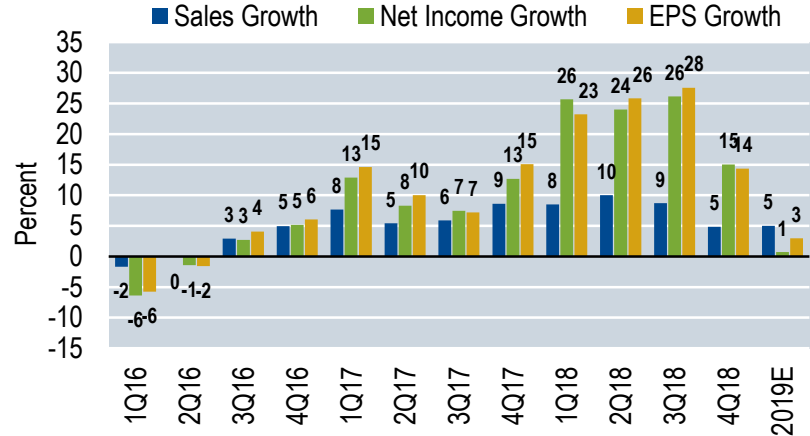
Source: Census Bureau. As of 28 Feb 19

# Credit Cycle Has Continued Runway

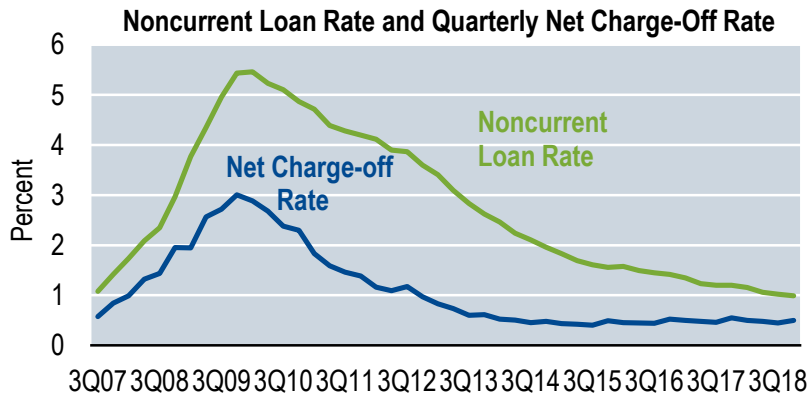
Economic growth, corporate earnings, bank asset quality and lending standards all remain supportive



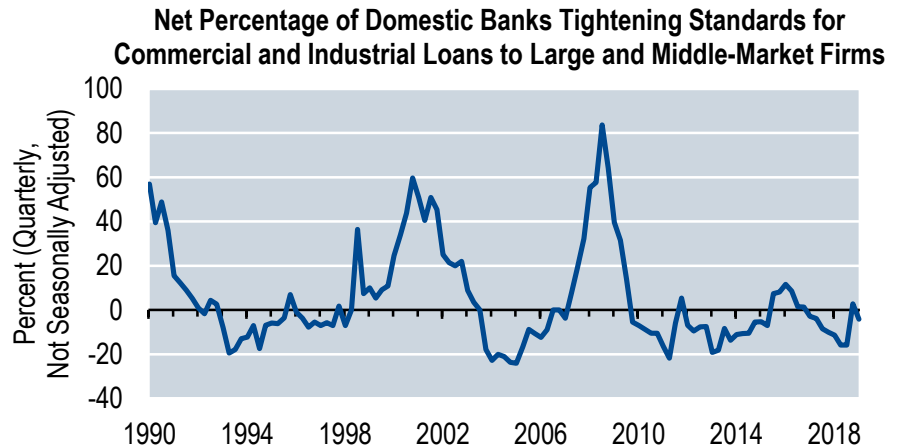
Source: Bureau of Economic Analysis (BEA), World Bank, The Conference Board. As of 31 Mar 19



Source: J.P. Morgan. As of 31 Mar 19



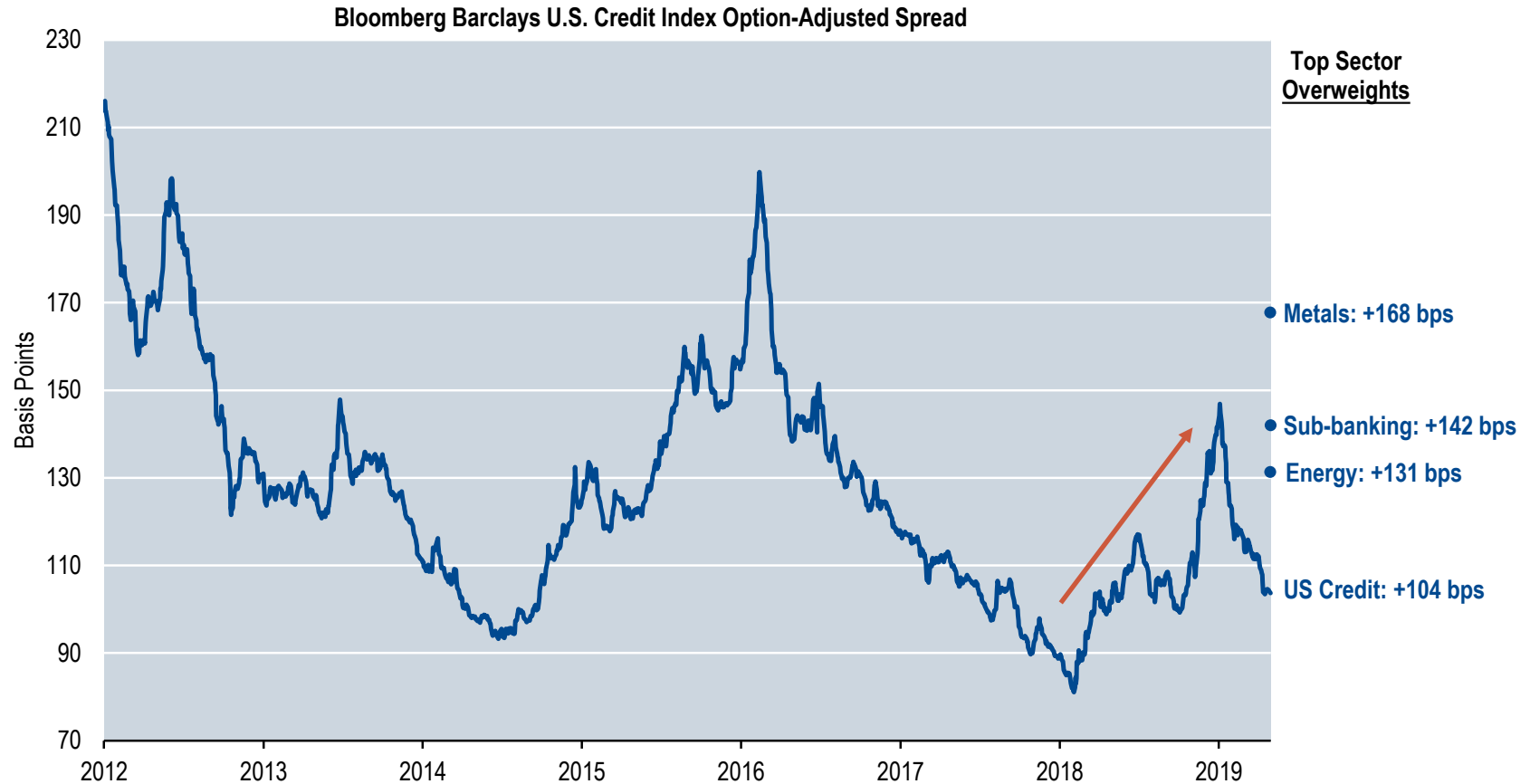
Source: FDIC. As of 31 Dec 18



Source: Federal Reserve Bank of St. Louis. As of 01 Apr 19

# Investment-Grade Credit

Spreads 54 bps wider in 2018 provided an opportunity. Subsector overweights still have room to run.



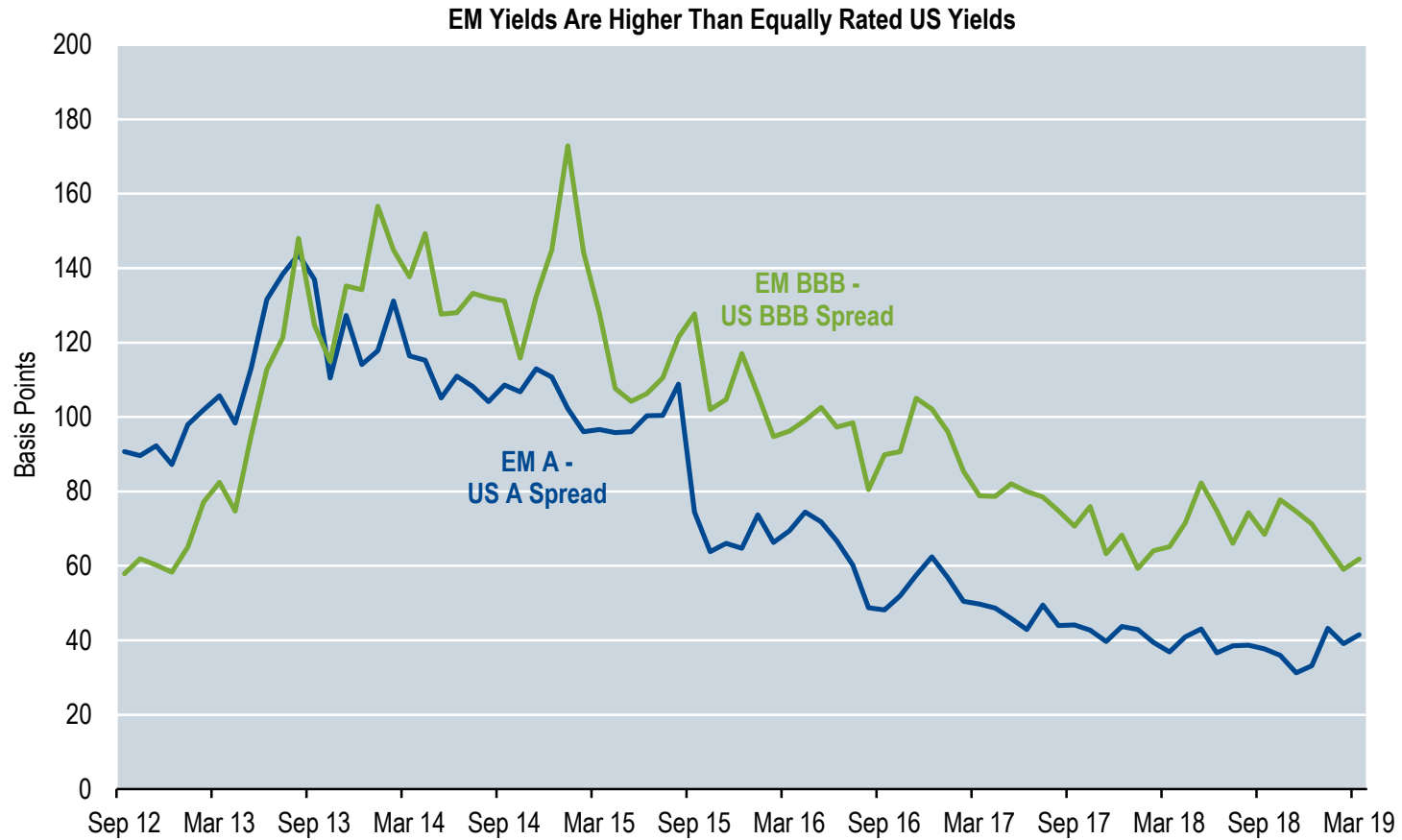
Source: Bloomberg Barclays. As of 29 Apr 19

Excess return is the difference between total returns of the security and an implied Treasury portfolio matching the term-structure profile of that security.



# Dollar-Denominated Emerging Markets

Wider spread per rating provide a compelling value proposition for insurance companies



Source: Bloomberg Barclays, J.P. Morgan. As of 31 Mar 19

# Outlook for Fixed-Income Spread Sectors

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- **Pessimism and fear held markets hostage for most of 2018. After a strong rebound year to date, what's next?**
- **Global growth and credit cycle prospects are not as dire as some would suggest**
- **In our view, “carry” will be the theme in 2019**
- **We are maintaining our overweight to spread products and looking to take advantage of relative value opportunities across:**
  - Bank loans and collateralized loan obligations (CLOs)
  - BBB rated investment-grade credit
  - USD emerging markets

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# Managing Credit Risk at the Tail End of a Credit Cycle

# Preamble

Rising level of corporate debt a risk to global economy - OECD

Companies around world need to repay or refinance as much as \$4tn over next three years

- » Real risk or fear mongering?
- » Implications for credit risk management?

WHAT COULD GO WRONG?

## The \$1.3 trillion loan market that's spooking everyone right now

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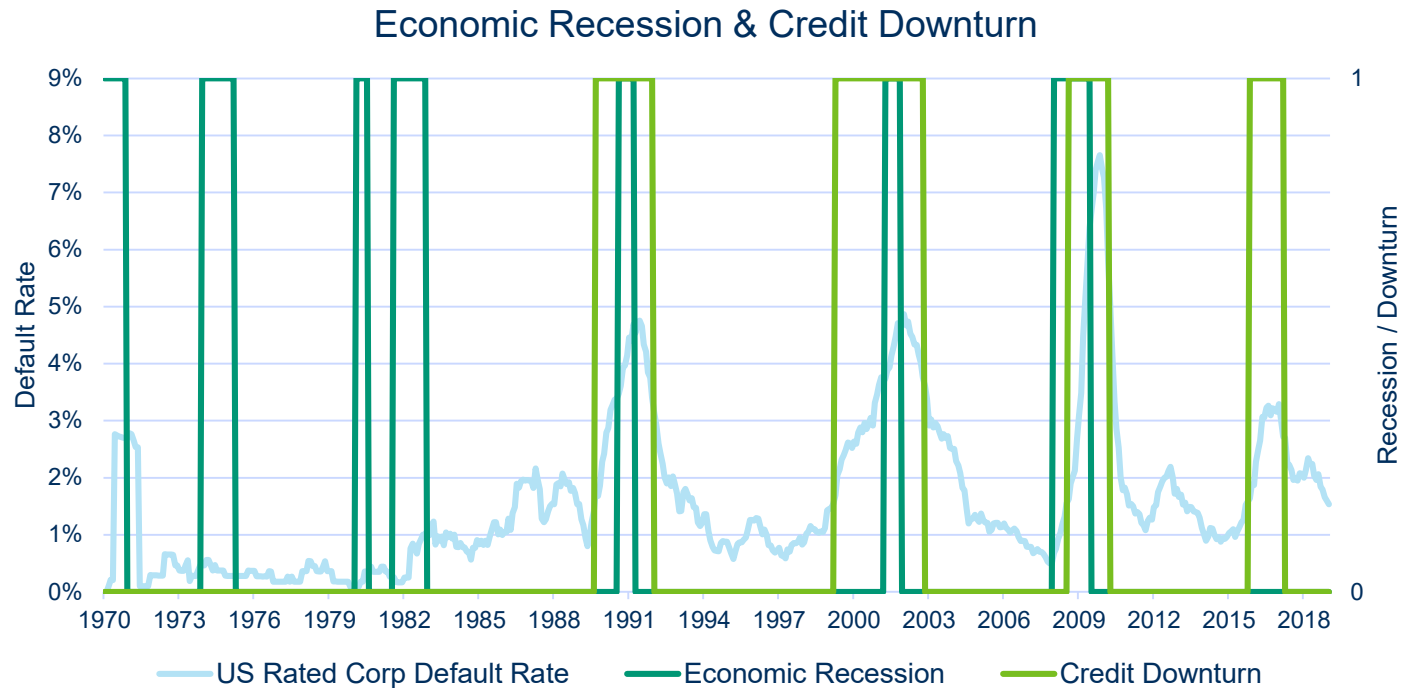
Finance

## The Bomb That Blew Up in 2008? We're Planting Another One

Collateralized loan obligations may look safe, but they pose risks that are poorly appreciated.

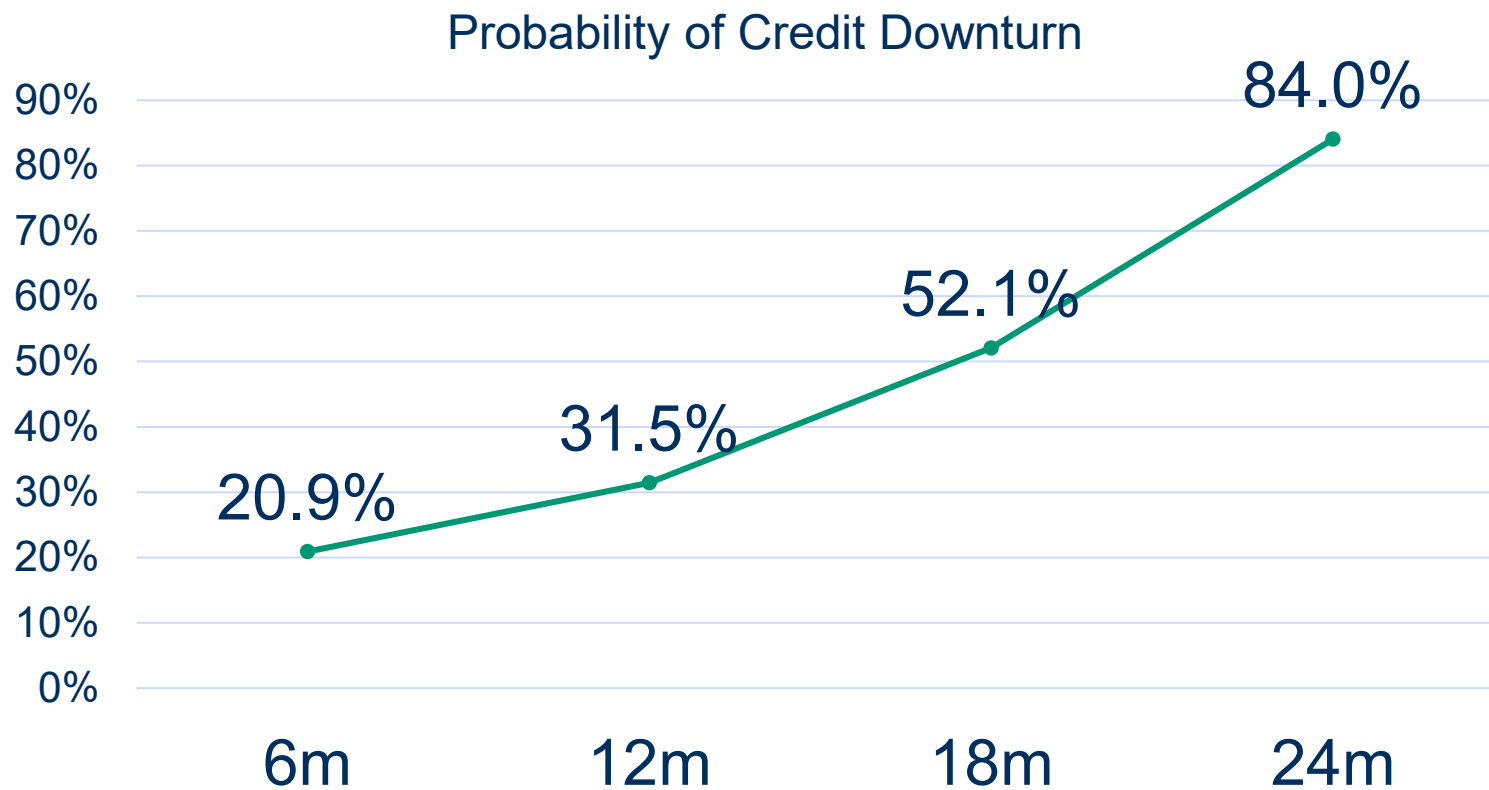
# Economic Recessions & Credit Downturns

- 7 Economic Recessions and 4 Credit Downturns since 1970
- Credit Downturns led Economic Recessions in 1989 and 1999.
- The 2015 mild Credit Downturn was industry specific - Energy.



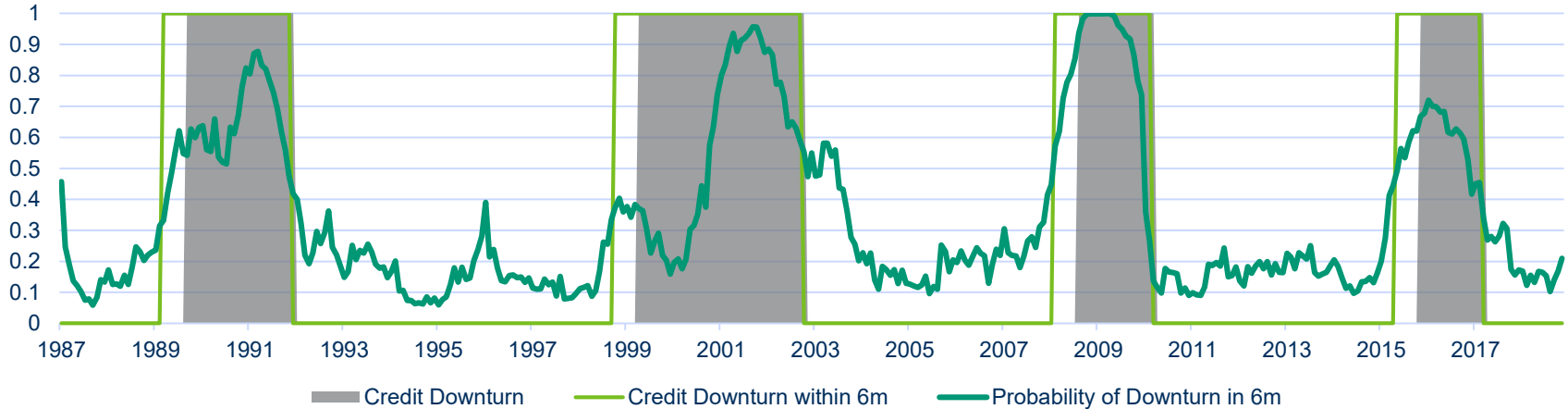
# Probability of Credit Downturn

Downturn in 6, 12, 18 and 24 months

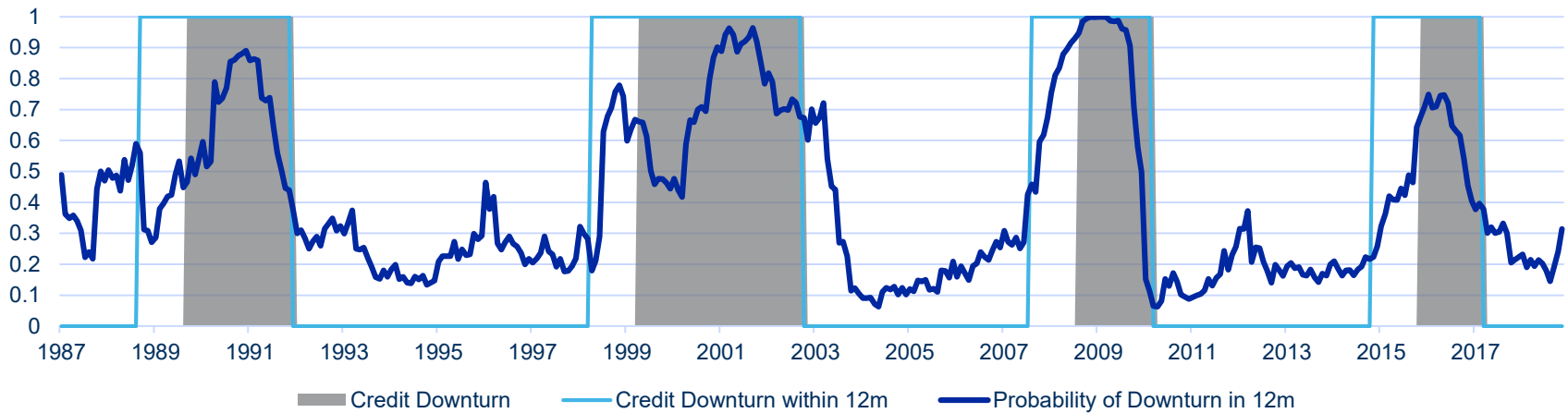


# Credit Downturn Probabilities in 6 & 12 months

Probability (Downturn within 6 months) = 20.9% @Nov. 2018

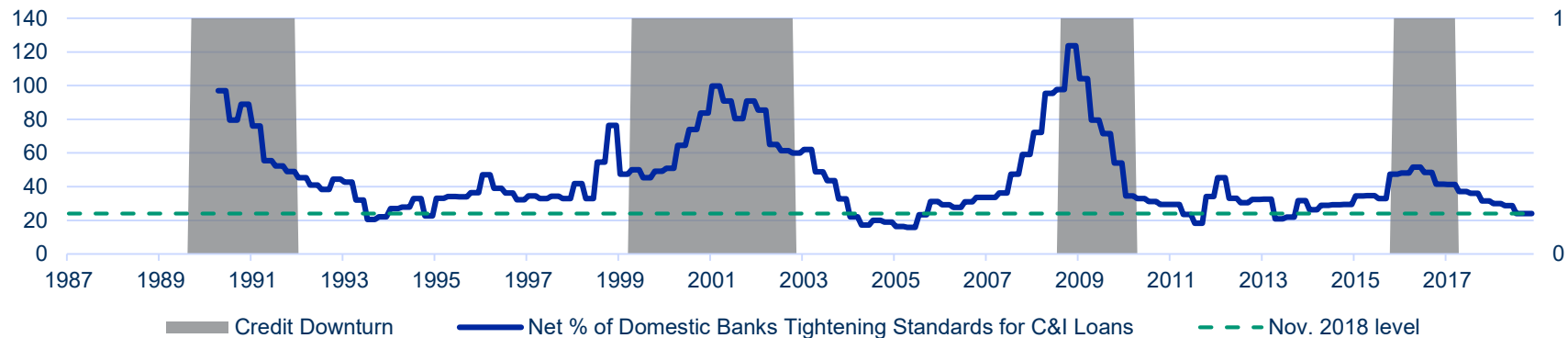
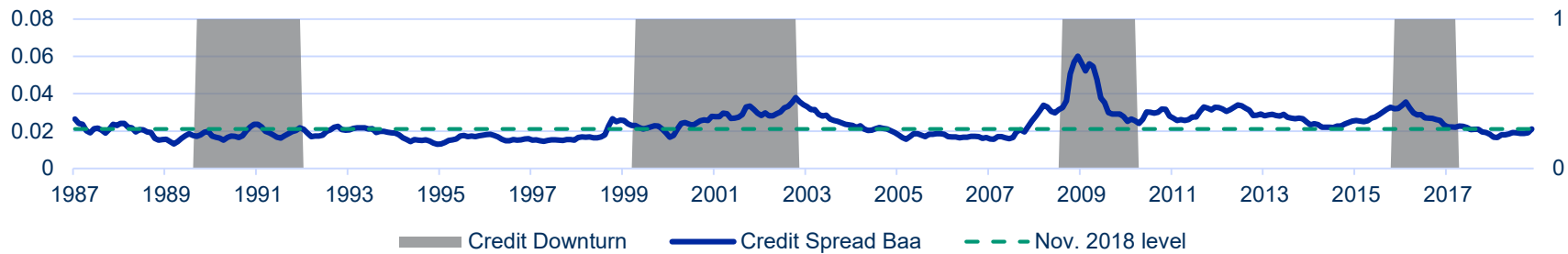
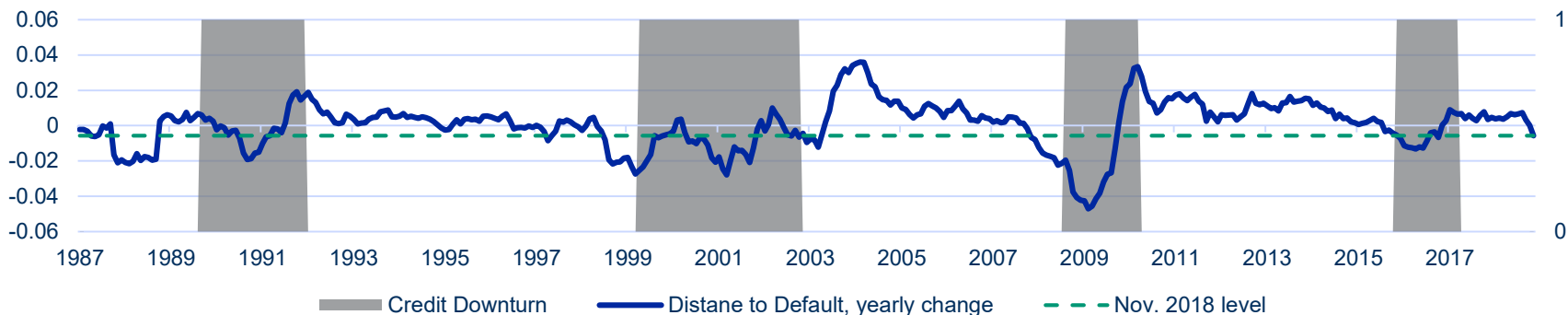


Probability(Downturn within 12 months) = 31.5% @Nov. 2018



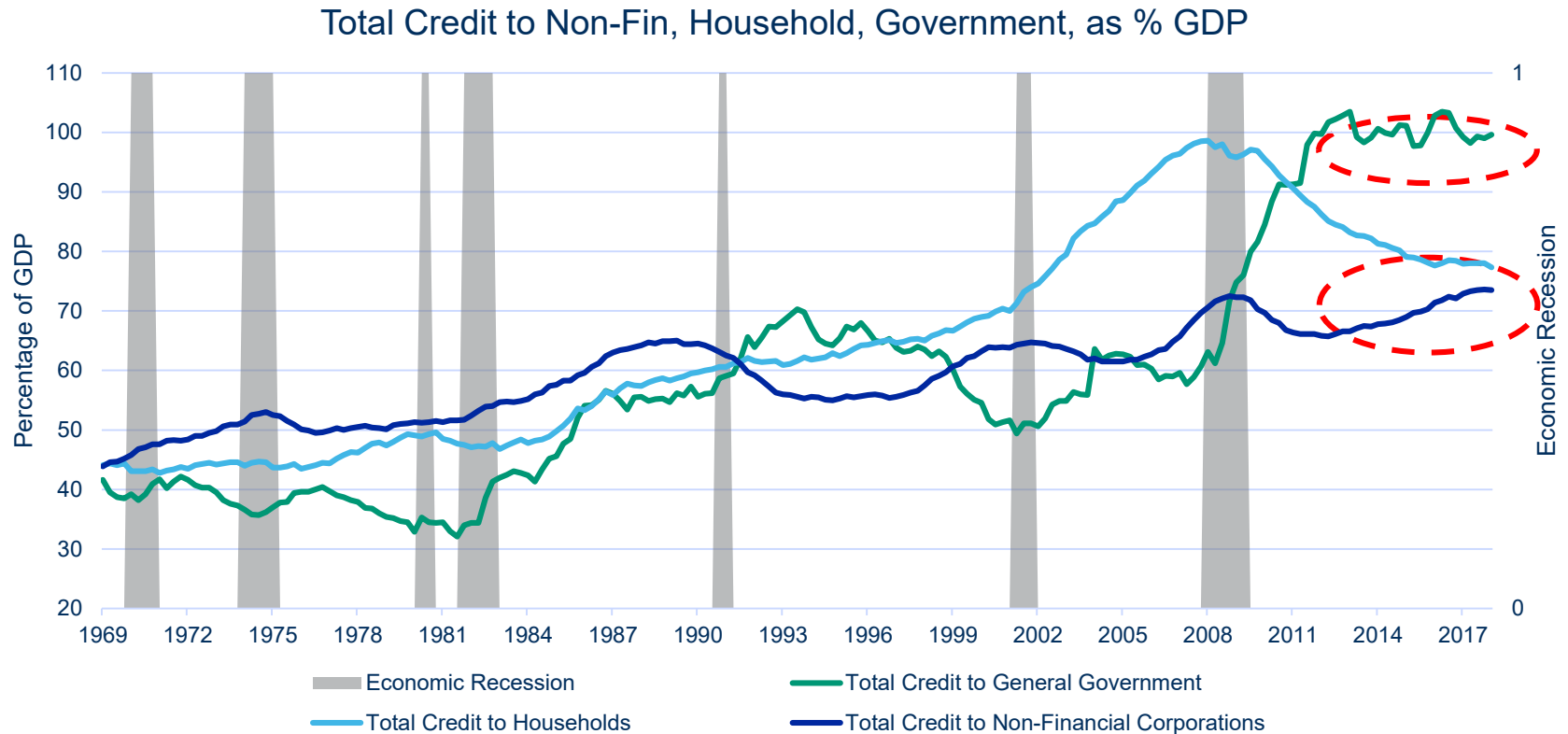


# Credit Downturn indicators—a Few Examples



# Rising Debt Levels

Total Credit to Non-Fin, Household, Government, as %GDP



Total Credit to Government and Non-Financial Corporations are at historical high.

Source: Fed  
MOODY'S ANALYTICS

# Widely Cited Vulnerabilities in Corporate Credit

- » **Significant rise in non-financial corporate credit**
  - At over 70% of GDP, credit to US U.S. non-financial business is higher than it was at the onset of the great financial crisis
- » **Prolonged decline in overall borrower quality**
  - Increasing the borrowers are of lower credit quality, for both the investment grade and non investment grade
  - Widely cited concerns about leveraged loans
- » **Decrease in covenant protection**
- » **Record level of repayment and debt rollover ahead, especially in the next 2 to 3 years**
- » **Rising borrowing costs could do serious damage**

*Sources: Fed, OECD, IIF, OFR, BIS, IMF, Moody's Analytics*

# More Context Is Needed Here...

## Questions to ponder

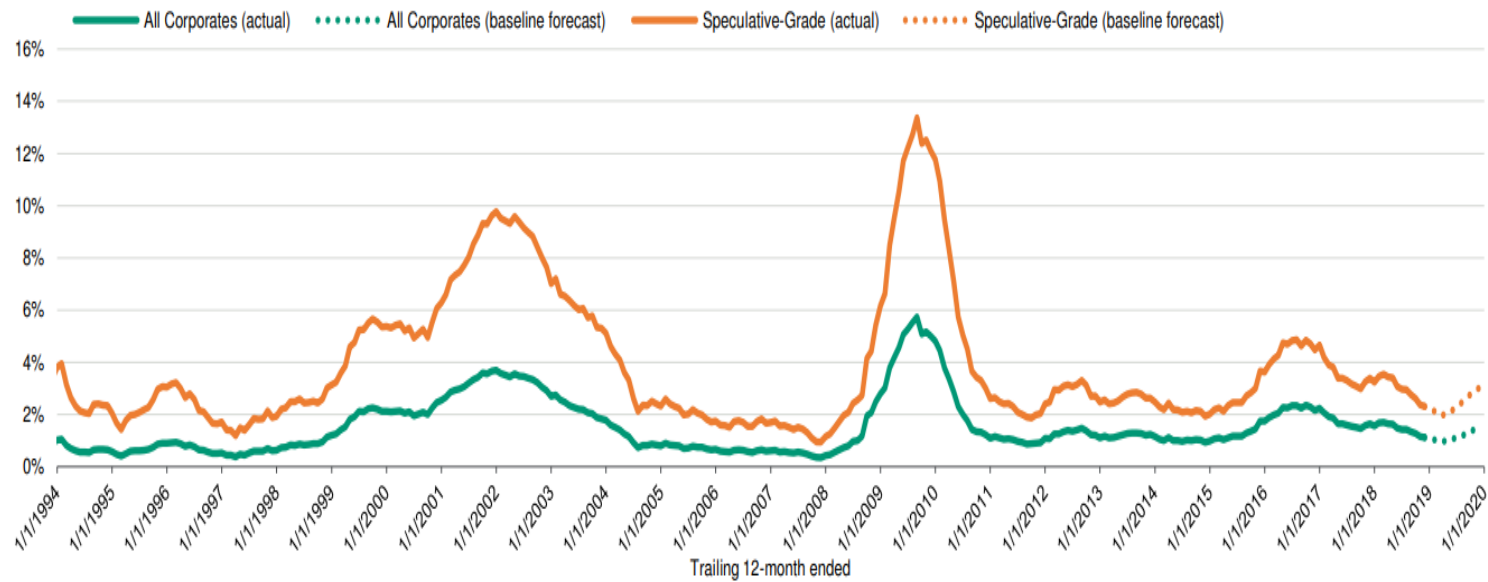
- » What do realized default rates and forward looking measure say about the level of credit risk now?
- » What drives the significant expansion of corporate credit?
- » Have the borrowers been putting debt into productive use?
- » Can the borrowers service and repay the debt, in both current and stressed economic conditions?

*To put some perspectives around these questions, we examine the universe of publically traded firms in US*

# Speculative Grade Default Rates Are Still Low by Historical Standard

Exhibit 11

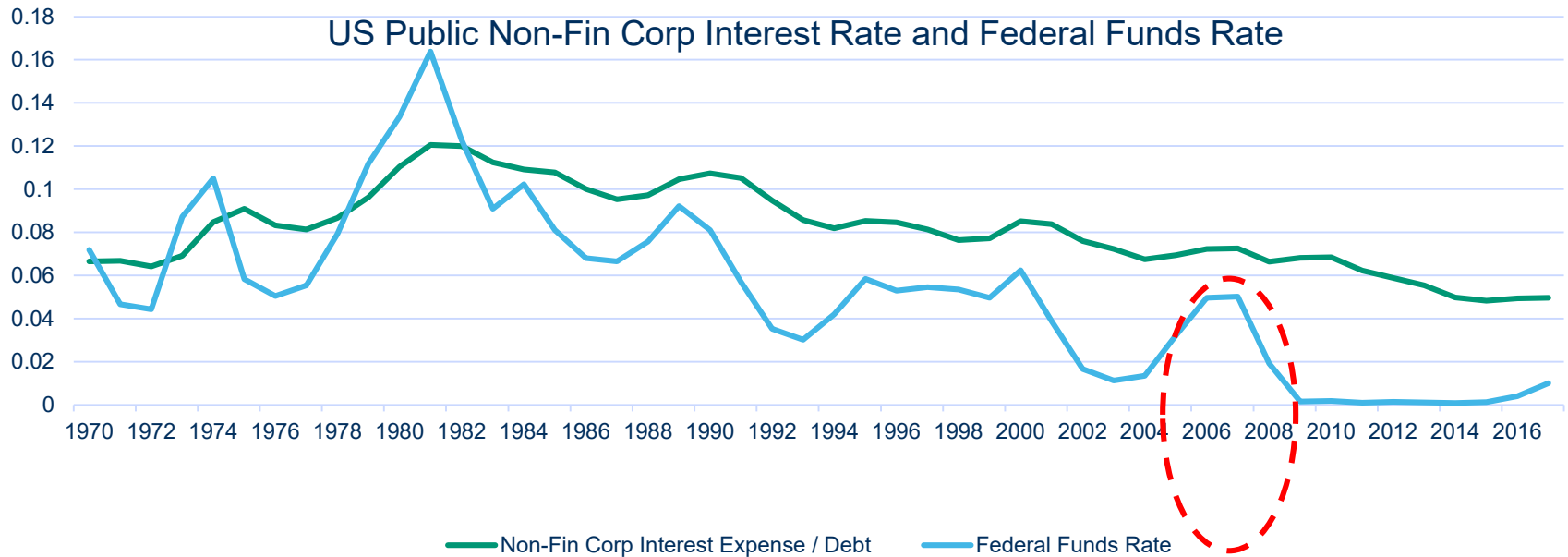
Default rates to trend up in the second half of 2019



Source: Moody's Investors Service

# Persistently Low Interest Rate

## Interest expense/Debt and Federal Funds Rate



- » Fed Funds Rate is at 2.5%, close to that in 2004. With 8 hikes in 2005 and 4 hikes in 2006, the actual interest rate on corporate debts changed little.
- » For the current interest expense to reach 2008 level, Fed fund rate needs to increase by 200bps, by our calculation

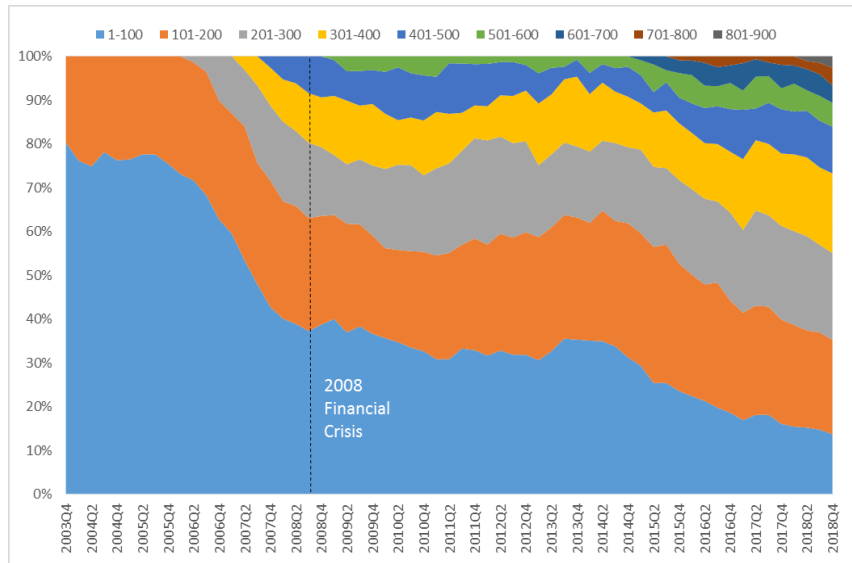
# Cross-deal Concentration Rises

Deals referencing the same borrowers/loans increases

- » The same borrows/loans are referenced by more deals leading to potentially higher systematic risk because a failing borrower could affect many more deals.

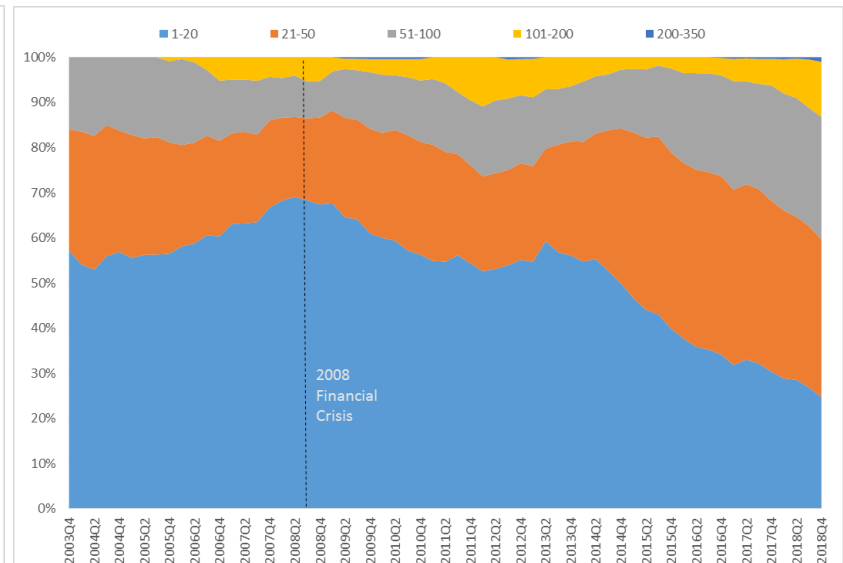
## Borrower Group % CLO Collateral Balance

Groups correspond to the number of deals referencing the same borrower



## Loan Group % CLO Collateral Balance

Groups correspond to the number of deals referencing the same loan



Each group represents the number of deals referencing the same borrower/loan. e.g. for the 1-100 group, each borrower is referenced by 1-100 deals. The proportion is computed based on collateral balance owed by the borrowers. Data Source: Moody's SAV

# Additional Questions to Ponder

- » How will the post crisis financial system and market infrastructure respond and absorb a major shock?
- » How will central banks, regulators and governments respond to a major shock or crisis?



# 3

## Managing Credit Risk At the Tail End of a Credit Cycle

# The Implications of Previous Analyses

- » We are probably at the tail end of the credit cycle, even with the current low level of credit risk
  - There are flashing signs
  - Timing a market downturn is extremely difficult
  
- » There is a number of significant vulnerabilities in corporate credit, especially in leveraged lending and CLOs
  - However, some perspectives are needed here
  - The key question is whether the borrowers can service and repay the debt in a stressed environment
  
- » Perhaps the most critical questions are how a major shock will propagate through the financial system and real economy, and how (well) it will get absorbed

# Managing Risk At the Tail End of the Cycle

## Discussions Points

- » How to socialize the concept of credit cycle and take a long term view
  - “As long as the music is playing....”
  
- » Dynamic, cycle-sensitive risk appetite framework
  
- » Dynamic and cycle-sensitive limiting setting
  
- » Stress testing and scenario analysis
  - CCAR type of framework may be inadequate
  - Measuring correlation and contagion is critical
  
- » How to build and leverage early warning system/indicators
  
- » Proper trade-off between risk and return, avoiding excess on both ends



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