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# Economic Outlook and Monetary Policy

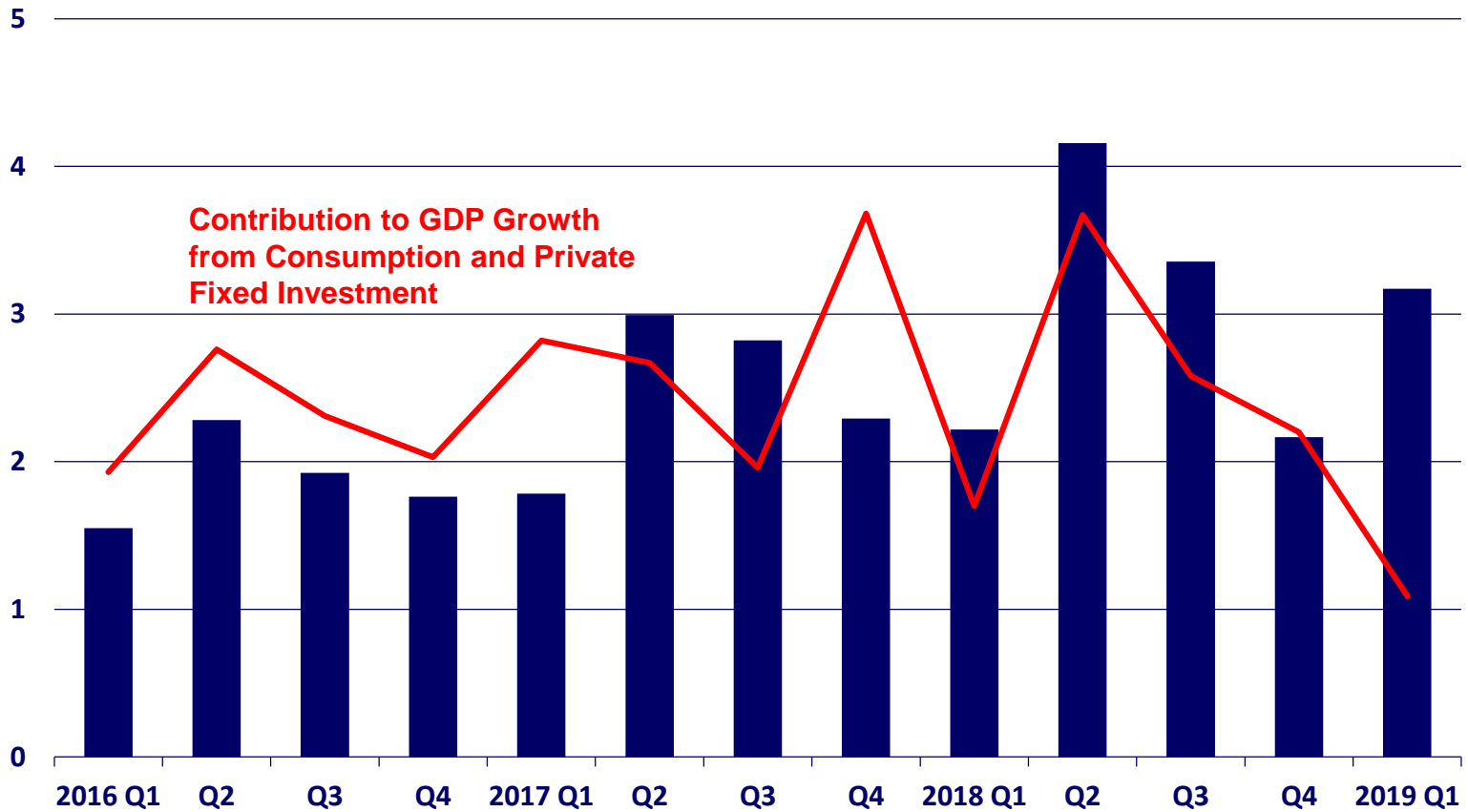
Federal Reserve Bank of Chicago  
Academic Advisory Council Meeting  
May 17, 2019

Spencer Krane  
*Senior Vice President*  
Federal Reserve Bank of Chicago

# GDP and Private Domestic Final Demand

## Real GDP Growth

(quarterly annualized percentage change)

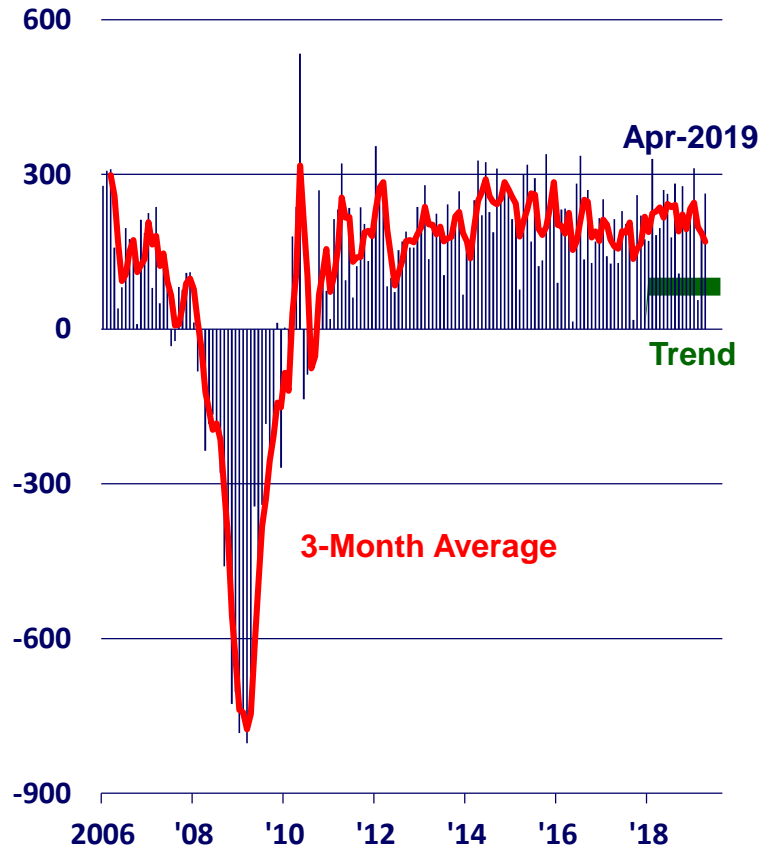


Source: Bureau of Economic Analysis from Haver Analytics

# Labor Market Remains Healthy

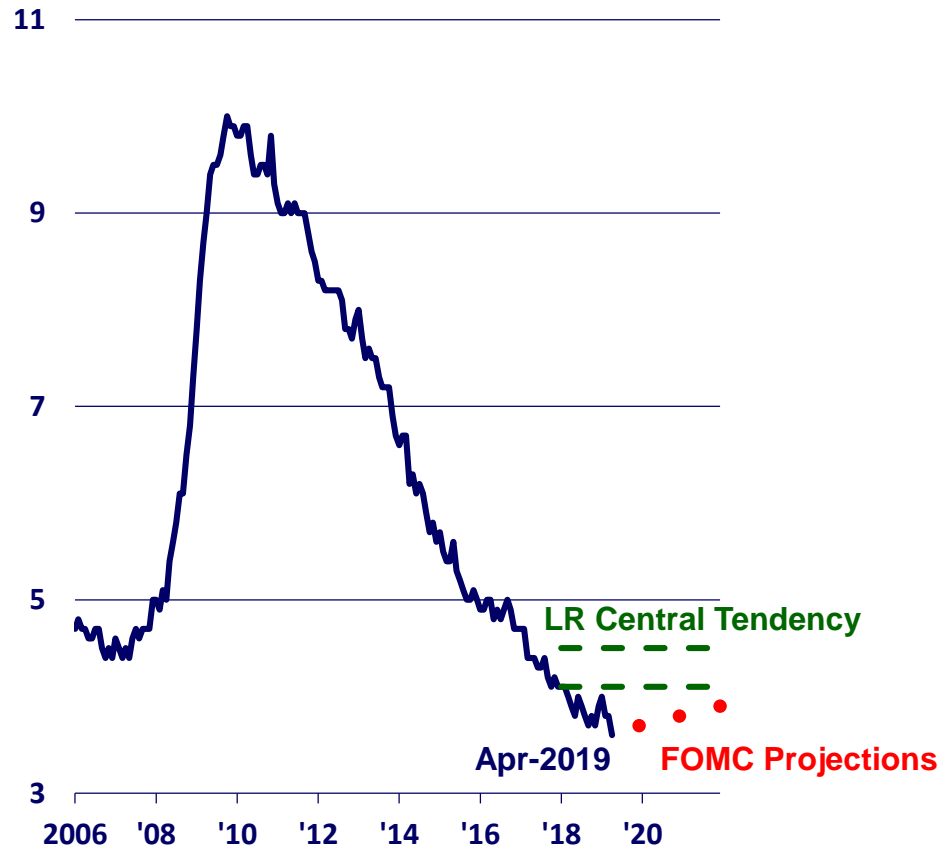
## Monthly Change in Nonfarm Payroll Employment

(thousands)



## Unemployment Rate

(percent)



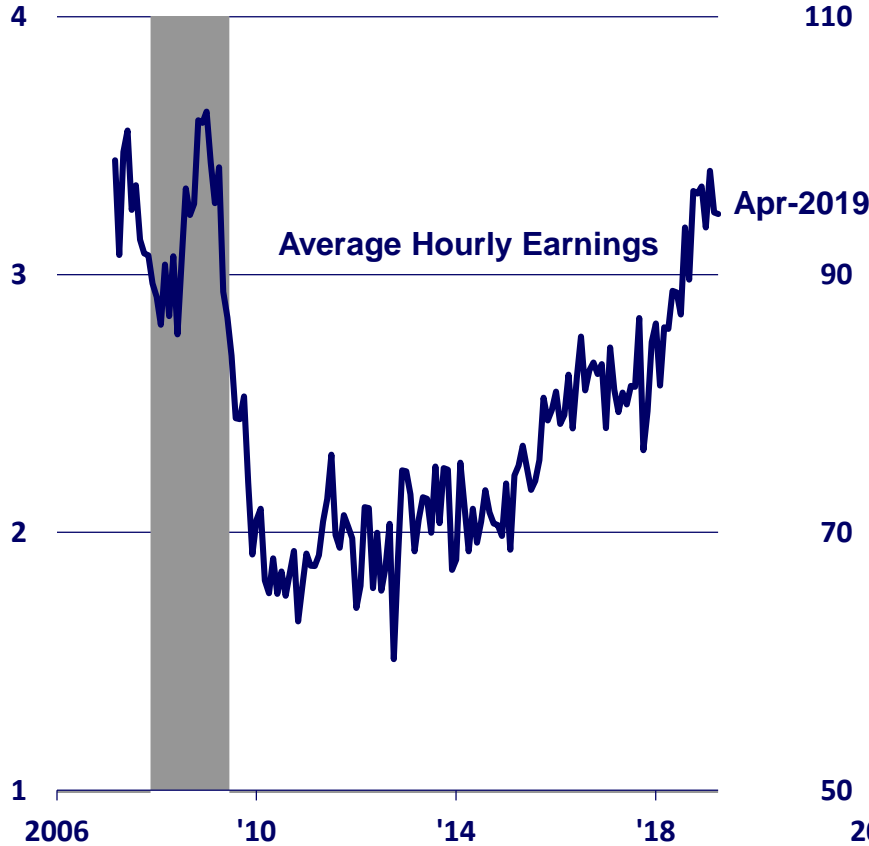
*Trend estimates from Chicago Fed staff calculations*

*Source: Bureau of Labor Statistics from Haver Analytics and March 2019 Summary of Economic Projections*

# Wage Growth and Income Expectations

## Wage Growth

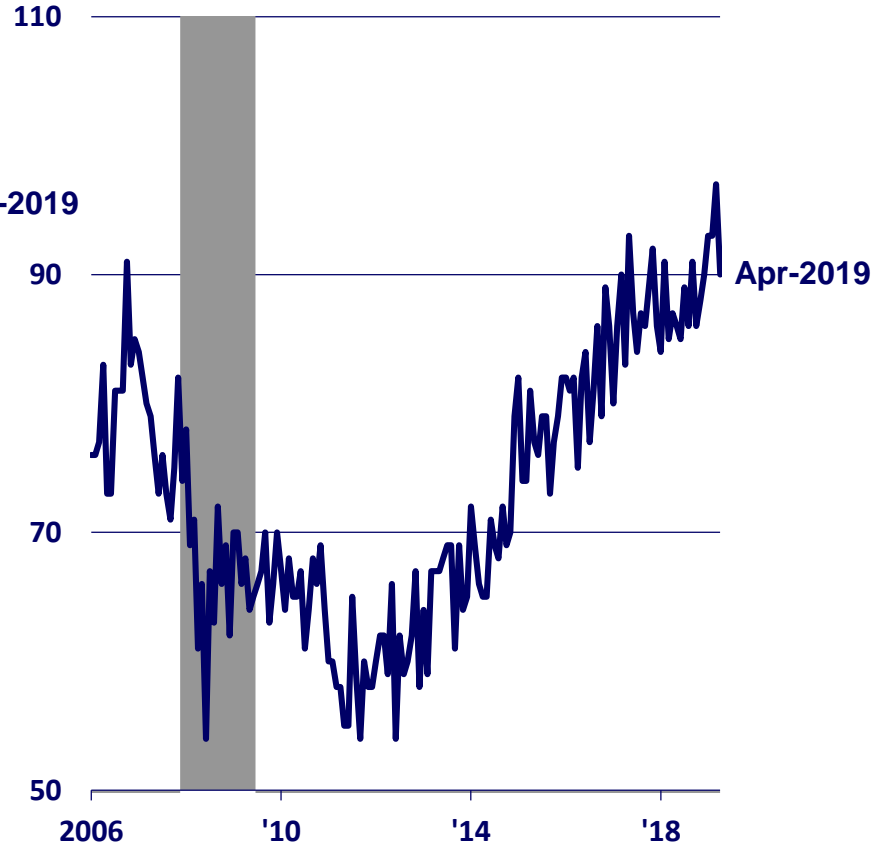
(year-over-year percentage change)



## Univ. of Mich Survey of Consumers:

### Expected Real Income Growth

(index)

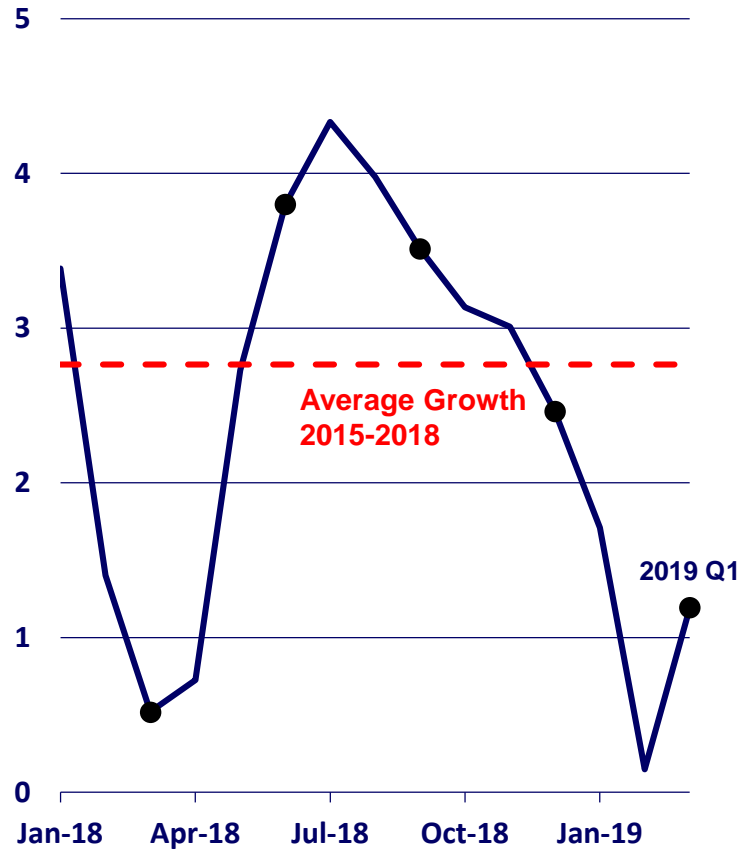


Source: Bureau of Labor Statistics from Haver Analytics and University of Michigan Survey of Consumers

# Household Spending Softer

## Real PCE Growth

(3-month annualized percentage change in the 3-month moving average)



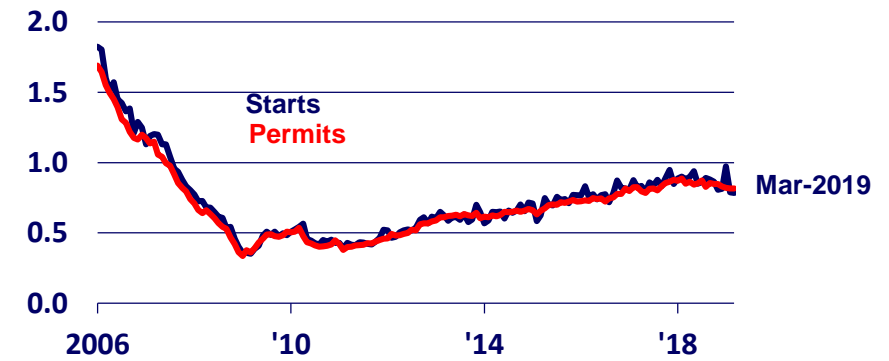
## Light Vehicle Sales

(millions)



## Single Family Housing Starts and Permits

(millions)



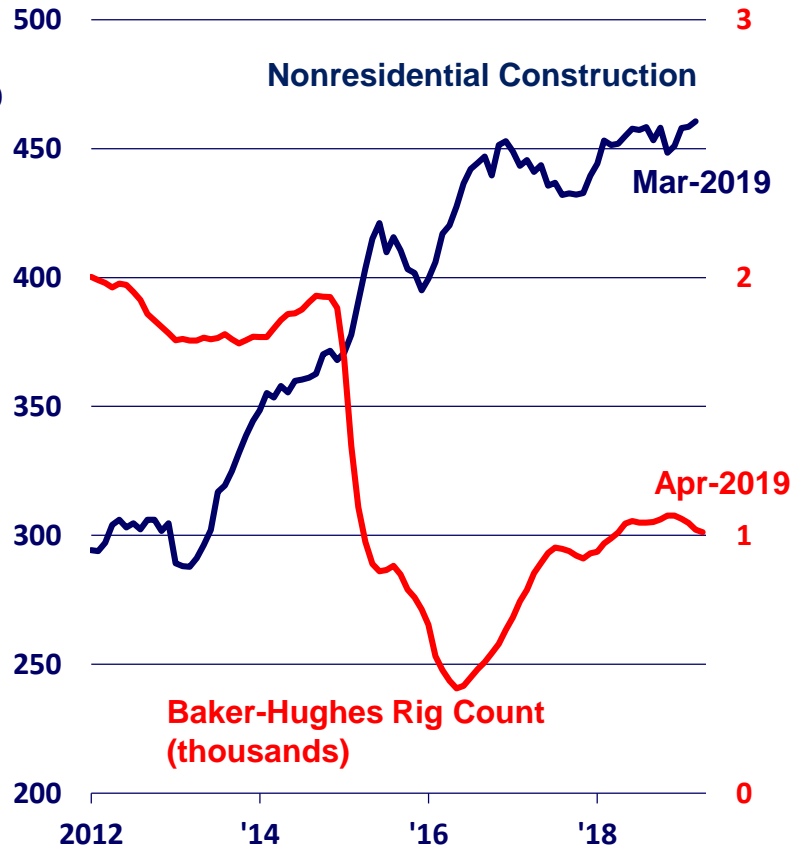
Source: Census Bureau and Bureau of Economic Analysis from Haver Analytics

# Business Investment Indicators

**Nondefense Capital Goods ex. Aircraft**  
(billions of \$)



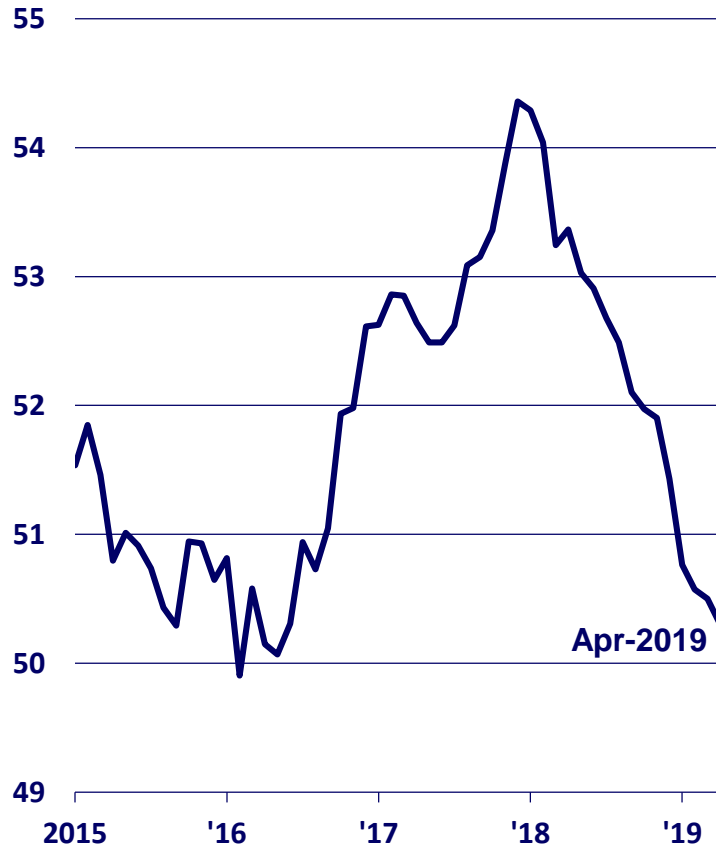
**Private Nonresidential Structures**  
(billions of \$, saar)



Source: Census Bureau and Baker Hughes from Haver Analytics

# Global Growth Slowdown

**JPMorgan Global Manufacturing PMI**  
(50+ equals expansion)



**Euro Area PMI**



**China PMI**



Source: IHS Markit PMI from Haver Analytics

# Real GDP Forecasts

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	Q1	Q2	2019	2020	2021
<b>Macroadvisers (5/10)</b>	<b>3.1*</b>	<b>2.1</b>	<b>2.4</b>	<b>2.0</b>	<b>1.6</b>
<b>Blue Chip (5/10)</b>		<b>2.0</b>	<b>2.3</b>	<b>1.7</b>	
<b>FRB Atl GDPNow (5/9)</b>		<b>1.6</b>			
<b>March FOMC SEP (3/20)</b>			<b>2.1</b>	<b>1.9</b>	<b>1.8</b>
<b><i>December SEP (12/19)</i></b>			<b>2.3</b>	<b>2.0</b>	<b>1.8</b>

*\*Estimated revision*



# Inflation – Some Softer Numbers

## PCE Price Index

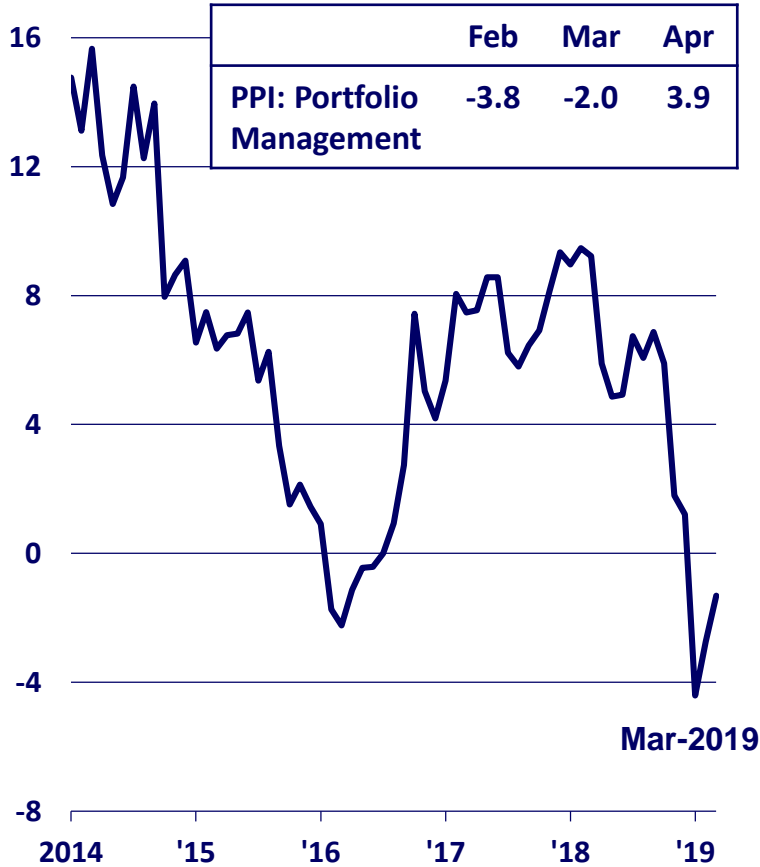
(12-month percent change)



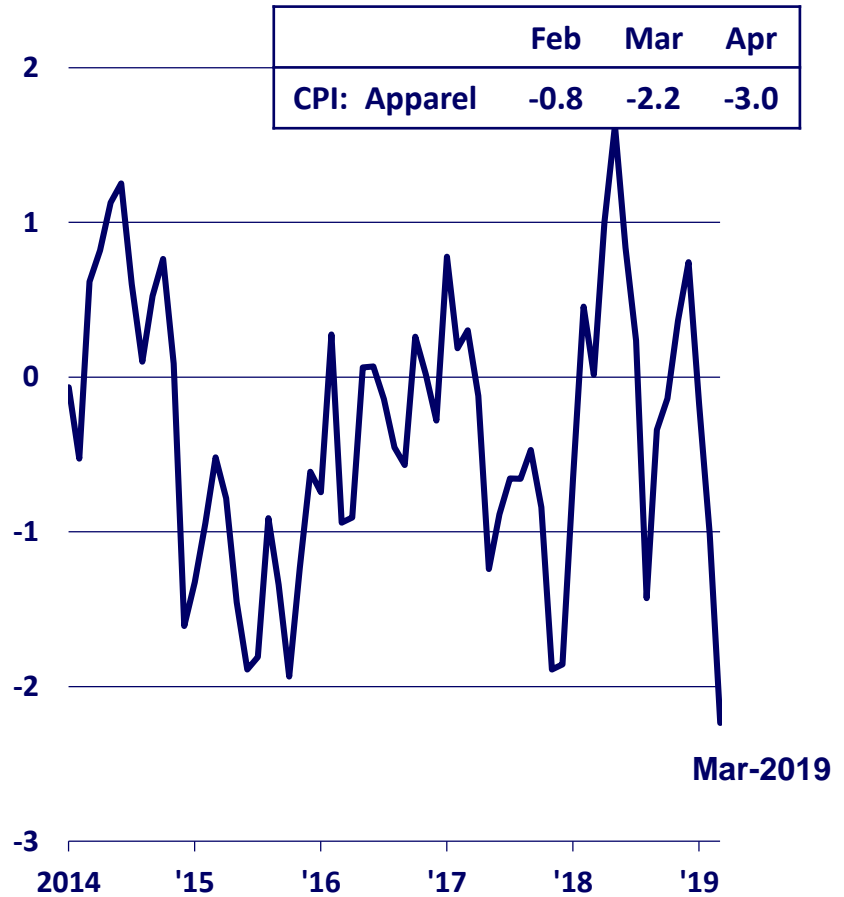
Source: Bureau of Economic Analysis from Haver Analytics

# Likely Transitory Contributors

**PCE: Portfolio Management Services**  
(year over year percentage change)



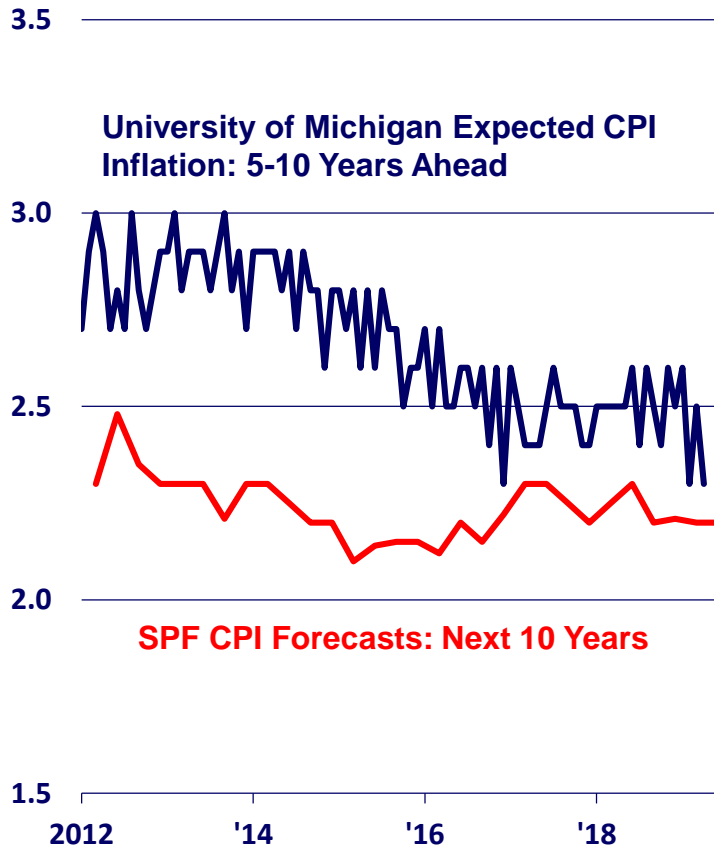
**PCE: Clothing and Footwear**  
(year over year percentage change)



Source: Bureau of Economic Analysis from Haver Analytics

# Inflation Expectations Indicators Still Low

**Inflation Surveys**  
(percent)



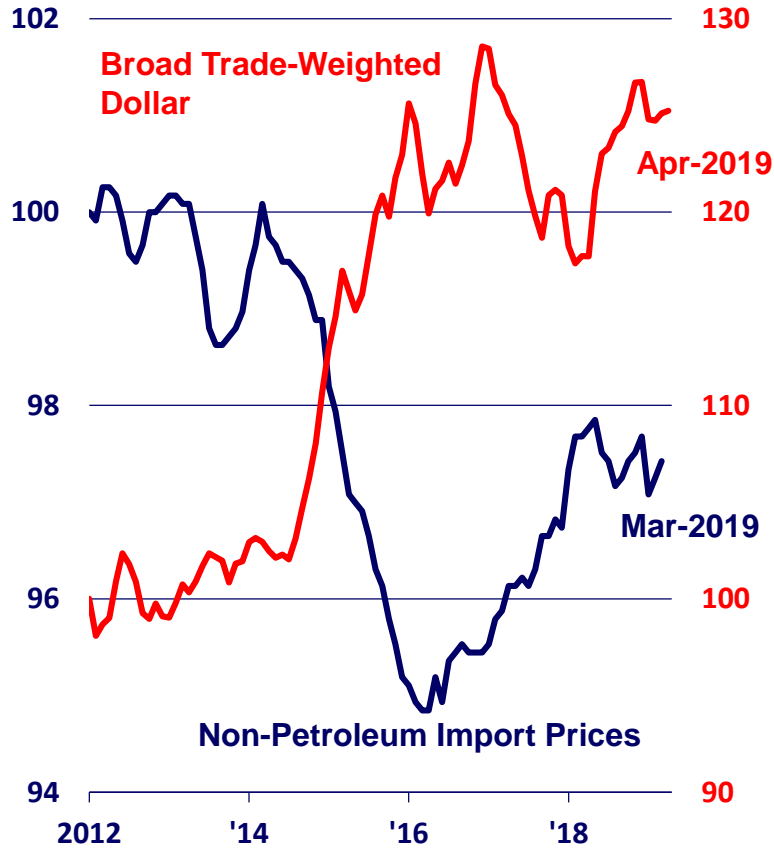
**TIPS 5F/5 Inflation Compensation**  
(percent)



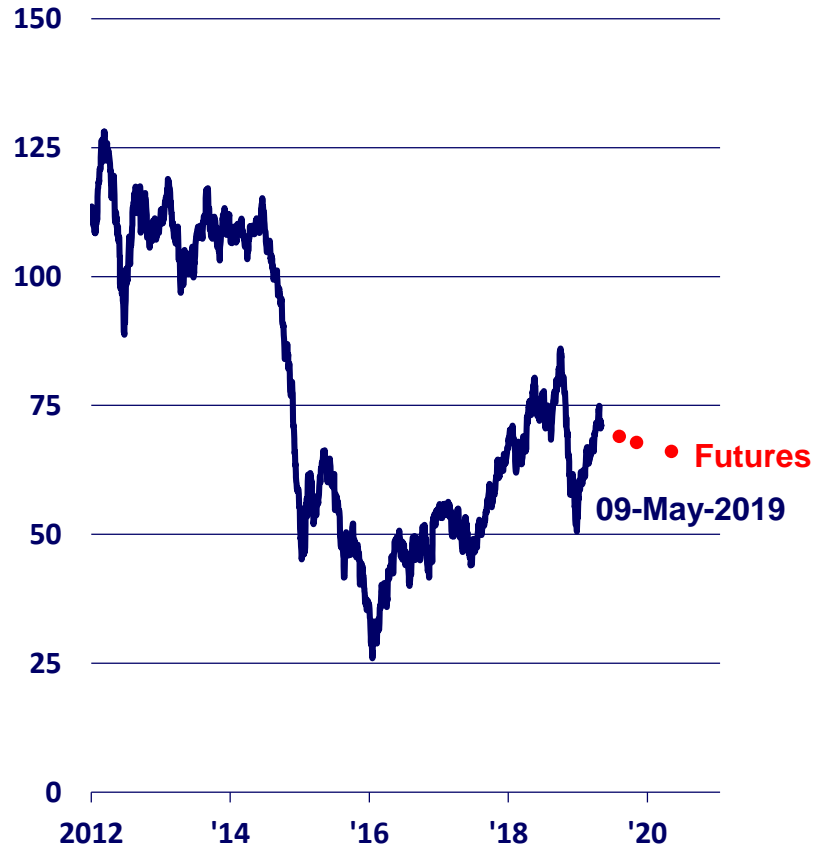
Source: Federal Reserve Board, University of Michigan Survey of Consumers, and Survey of Professional Forecasters from Haver Analytics

# Dollar and Oil Prices

**Exchange Rate and Import Prices**  
(index, 2012=100)



**Brent Crude Oil Prices and Futures**  
(dollars)



Source: Federal Reserve Board, Bureau of Labor Statistics, Energy Information Administration, and CME from Haver Analytics

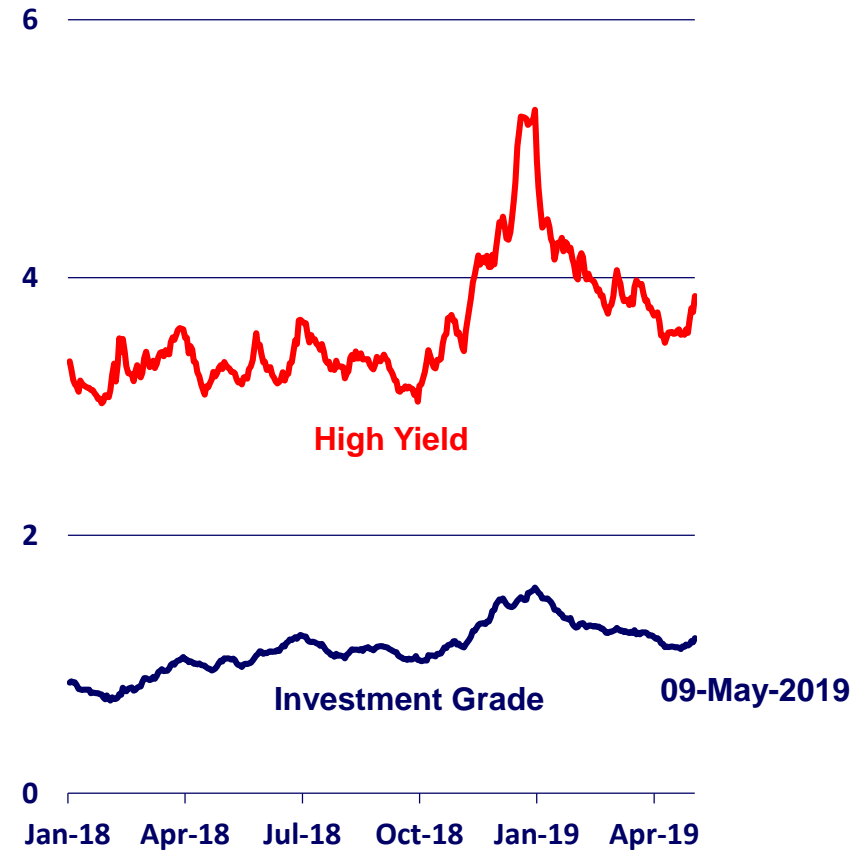
# Financial Market Developments

## S&P 500 Index



## Corporate Bond Spreads

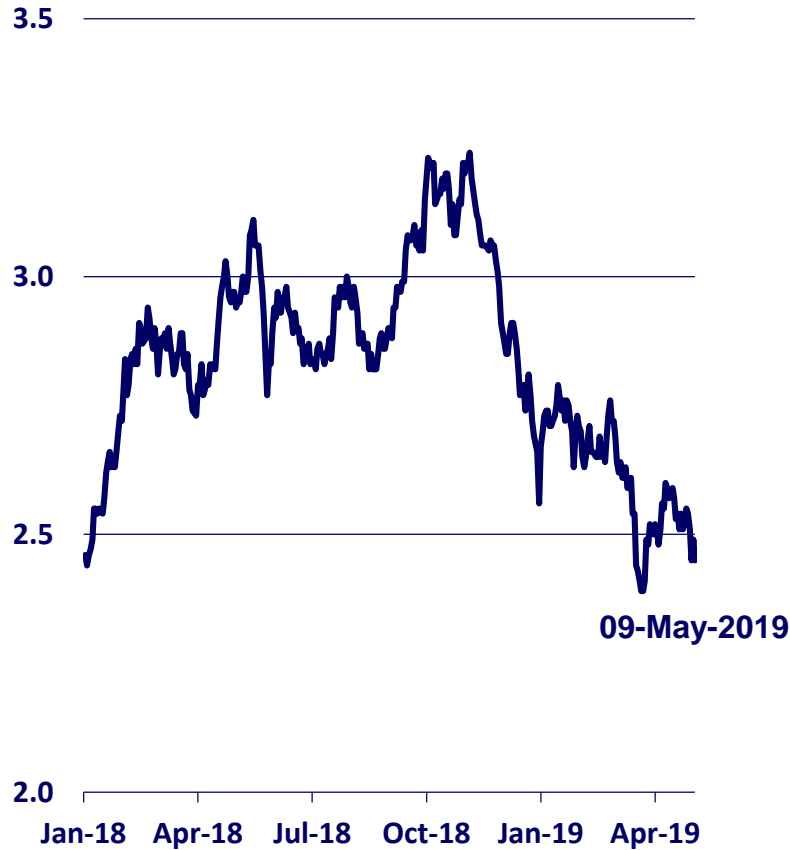
(spread over 10 year treasury, percent)



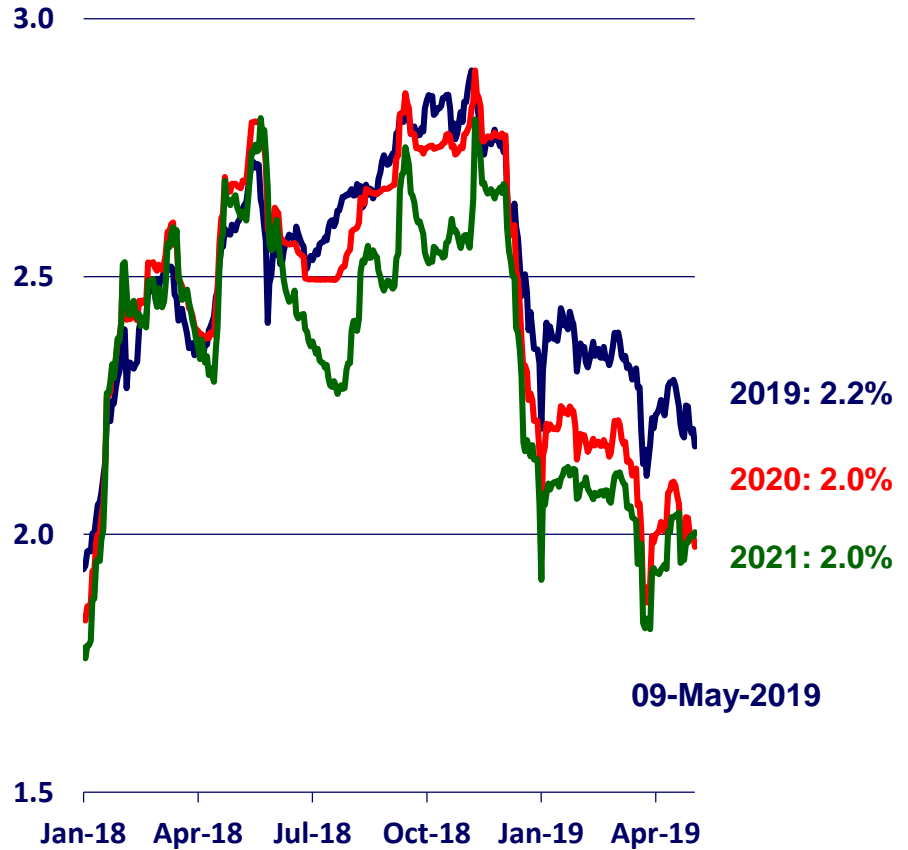
Source: Wall Street Journal and ICE/Bank of America Merrill Lynch from Haver Analytics

# Financial Market Developments

## 10 Year Treasury (percent)



## Mkt Pricing for Year-End Fed Funds Rate 2019, 2020, and 2021 (derived from OIS futures contracts, percent)



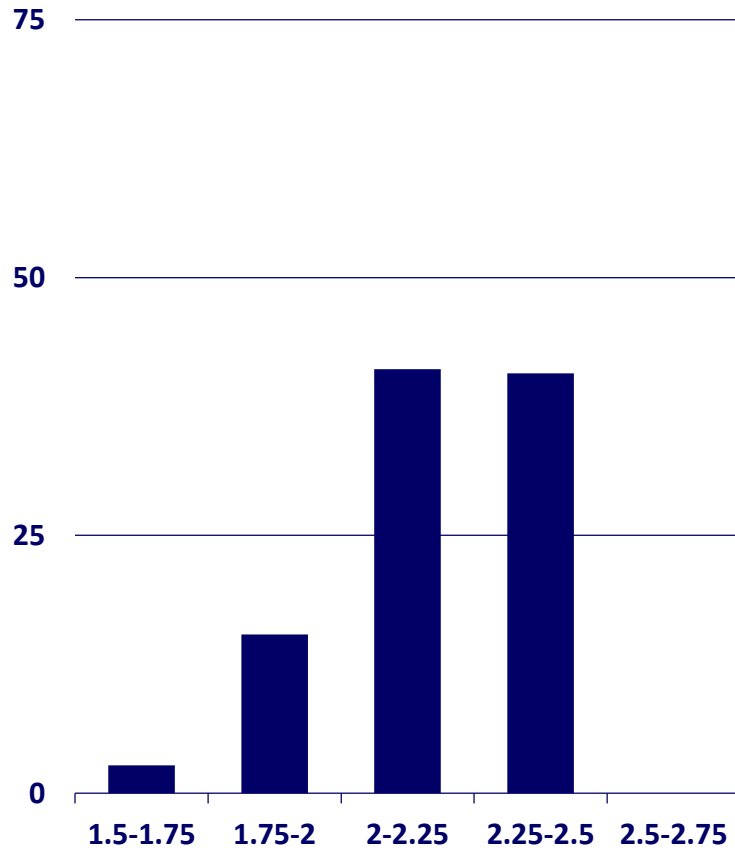
Source: Federal Reserve Board

# Private Sector Monetary Policy Outlook

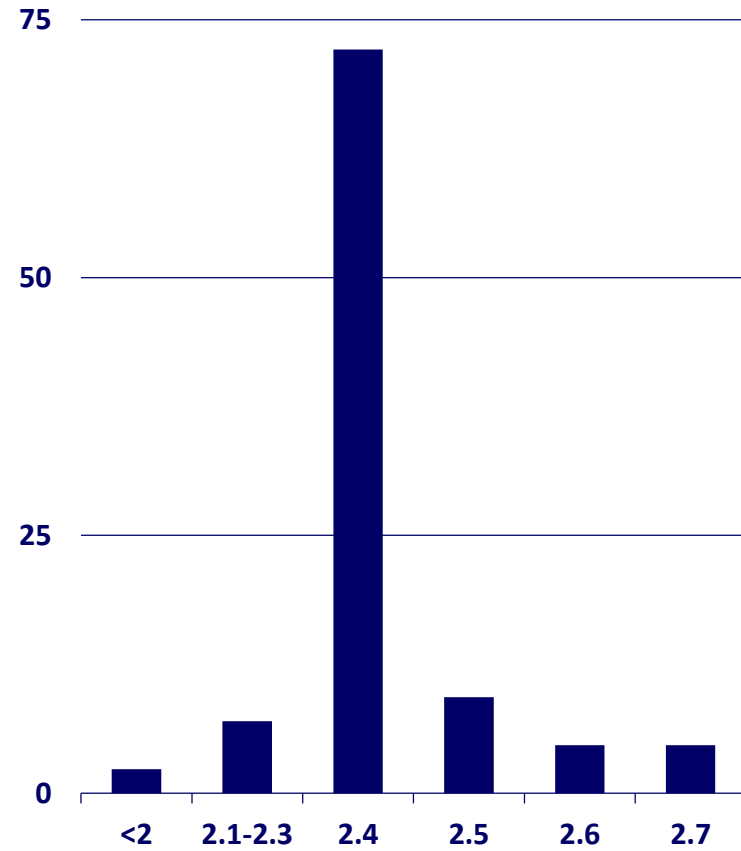
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## Distribution of Federal Funds Rate Target at Year End 2019

(percent)



**CME (Market Pricing)**  
May 9

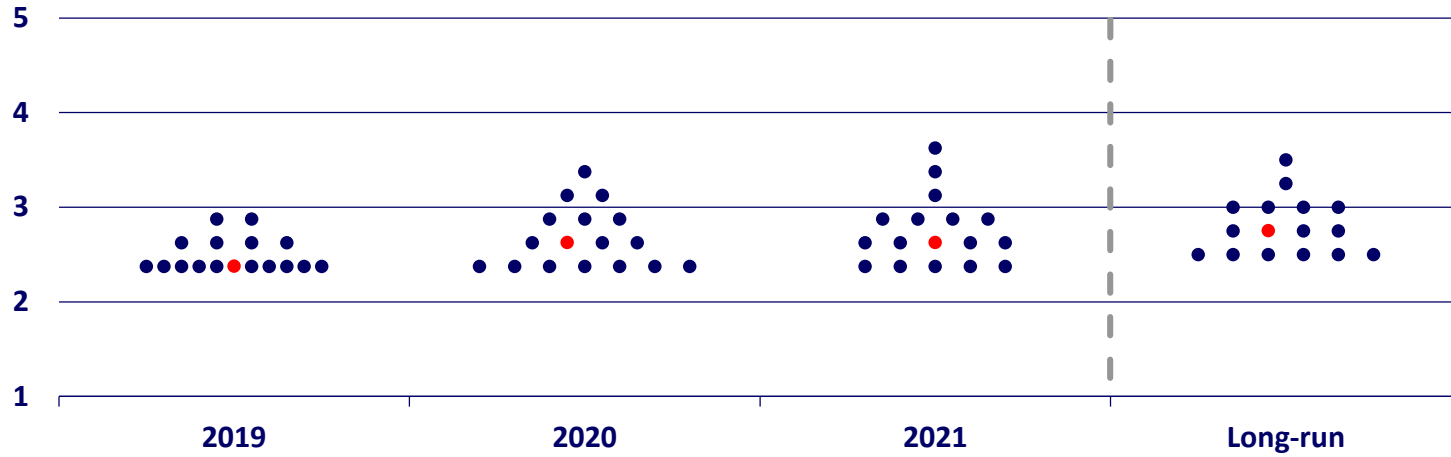


**Blue Chip Financial Forecasts (Survey)**  
May 1

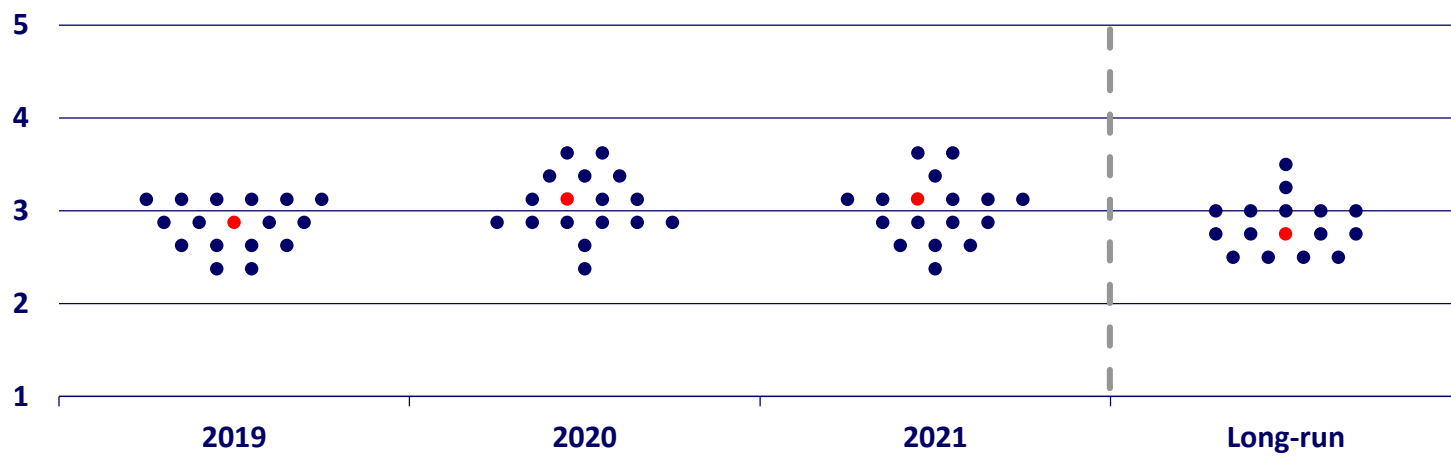
# Monetary Policy

Medians:	2019	2020	2021
Mar	2.4	2.6	2.6
Dec	2.9	3.1	3.1

March 2019



December 2018





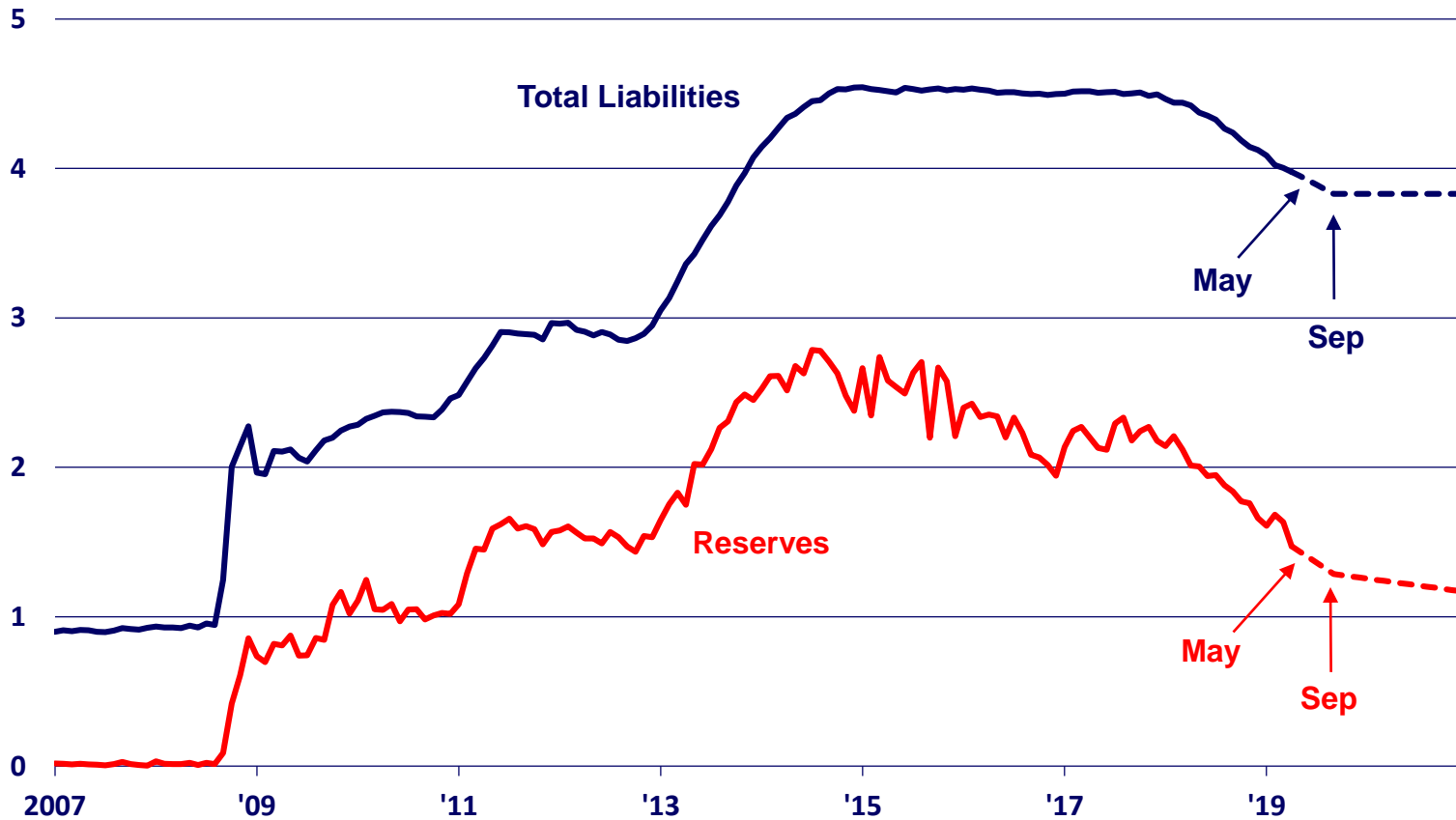
# March FOMC Balance Sheet Communications

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- **Slower pace of drawdown in balance sheet beginning May 2019.**
  - Technically, do by reducing the cap on redemptions.
- **Conclude drawdown end of September 2019.**
- **Then expect to hold balance sheet size roughly constant for a time.**
  - During this time, gradual increases in non-reserve liabilities (currency, Treasury accounts, etc) => corresponding gradual decline in reserves.

# Total Liabilities and Reserve Balances

Trillions of \$. Dashed lines are only an illustrative example



Source: Federal Reserve Board from Haver Analytics. Dashed lines are author's assumptions based on redemption caps, schedule of maturing Treasuries, recent trends in MBS runoff, and growth of (most) non-reserve liabilities in line with nominal GDP

# Balance Sheet Decisions Still to be Made

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- **Ultimate level of reserves (when to stop the drawdown):**
  - Once reserves at a level consistent with “*efficient and effective implementation of monetary policy*,” stop drawdown; increase balance sheet in line with trend growth of non-reserve liabilities.
  - When occurs, will be normal part of operations to maintain ample-reserves monetary policy implementation regime and would not represent a change in the stance of monetary policy.
  
- **Eventual maturity structure of assets:**
  - Due to LSAPs and MEP, current duration  $\approx$  5-1/2 years vs. 2-1/2 to 3 years pre-crisis.
  - Maturity choice involves many complex issues and possible implications for the stance of policy. Committee has had preliminary discussions; plan return to issue toward end of year. No pressing need to resolve; any decisions will be implemented with advance notice allowing for smooth adjustment.