

**Appendix 1: Materials used by Mr. Potter and Ms. Logan**

**Class I FOMC – Restricted Controlled (FR)**

*Material for the Briefing on*

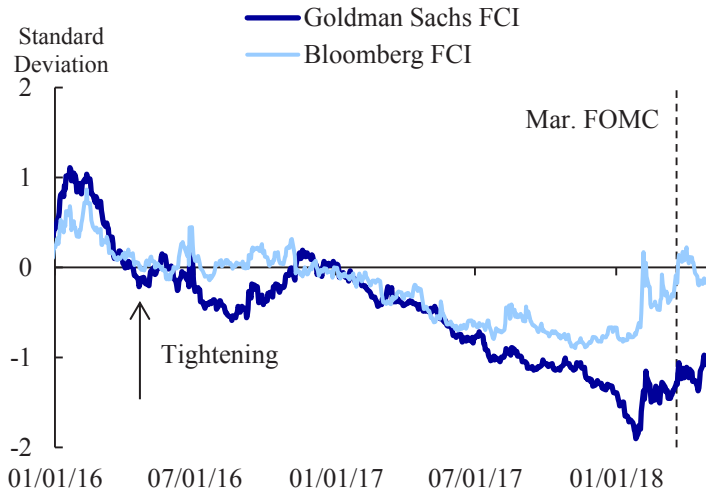
**Financial Developments and  
Open Market Operations**

**Lorie Logan and Simon Potter**

**Exhibits by Ashley Rhodes**

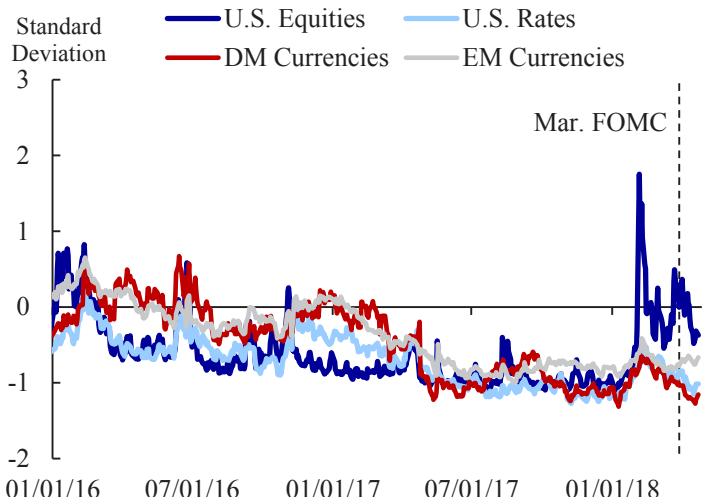
**May 1, 2018**

**(1) Standardized Financial Conditions Indices\***



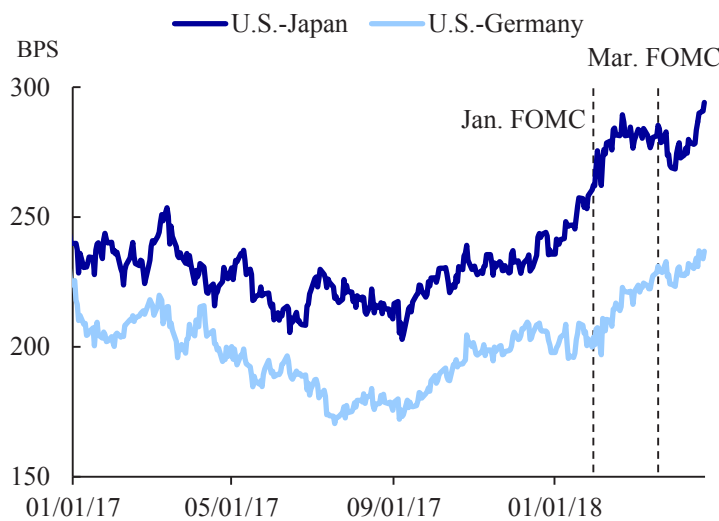
\*Standardized based on data since January 1990.  
Source: Bloomberg, Goldman Sachs

**(2) Standardized Implied Volatility Indices\***



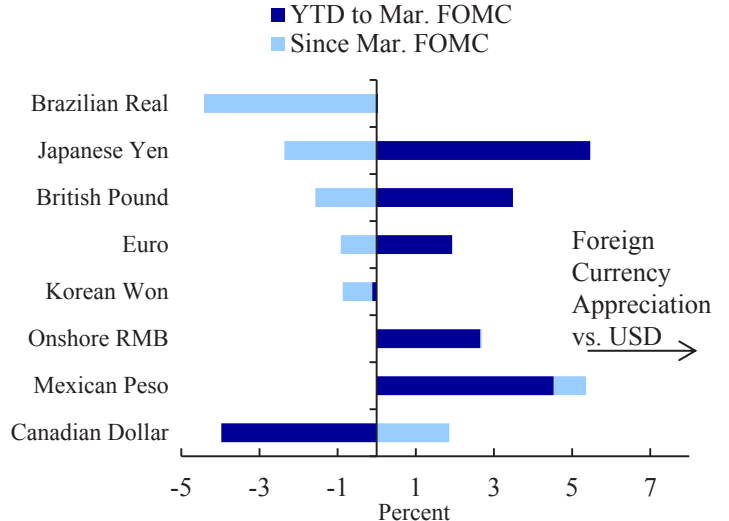
\*Standardized based on data since January 2008.  
Source: Bloomberg

**(3) 10-Year Global Sovereign Yield Spreads**



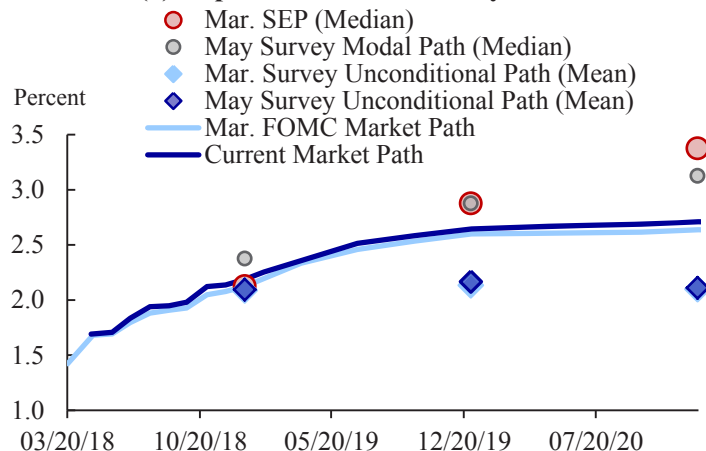
Source: Bloomberg

**(4) Currency Performance Against U.S. Dollar**



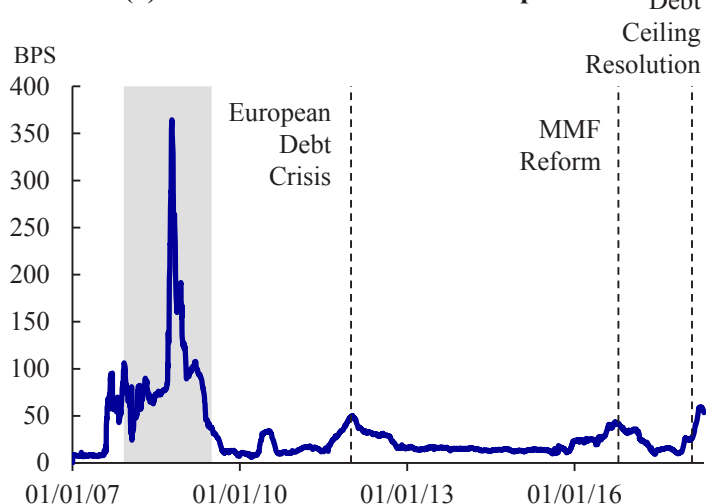
Source: Bloomberg

**(5) Implied Path of the Policy Rate\***



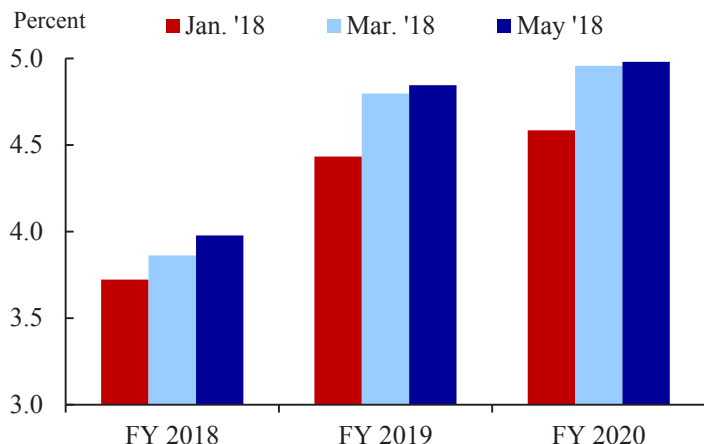
\*Market-implied paths derived from federal funds and Eurodollar futures. Unconditional survey path is the average PDF-implied means from the Surveys of Primary Dealers and Market Participants.  
Source: Bloomberg, Desk Calculations, Federal Reserve Board, FRBNY

**(6) Three-Month LIBOR-OIS Spread\***



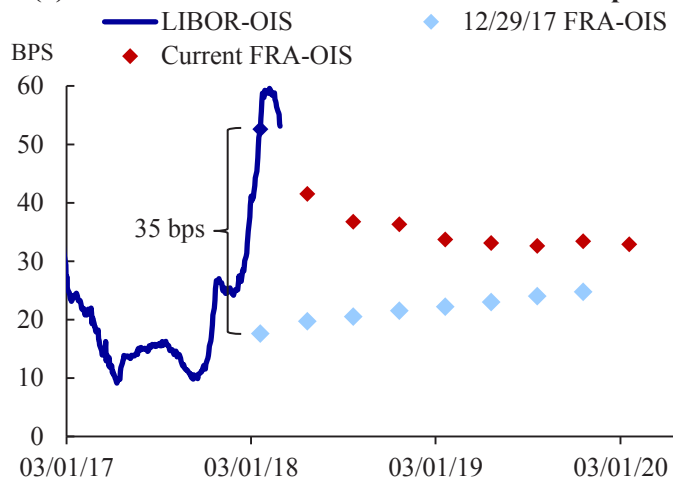
\*Shaded area reflects NBER-defined U.S. recession dates.  
Source: Bloomberg, NBER

**(7) Average Estimate for U.S. Fiscal Deficit as a Percent of GDP\***



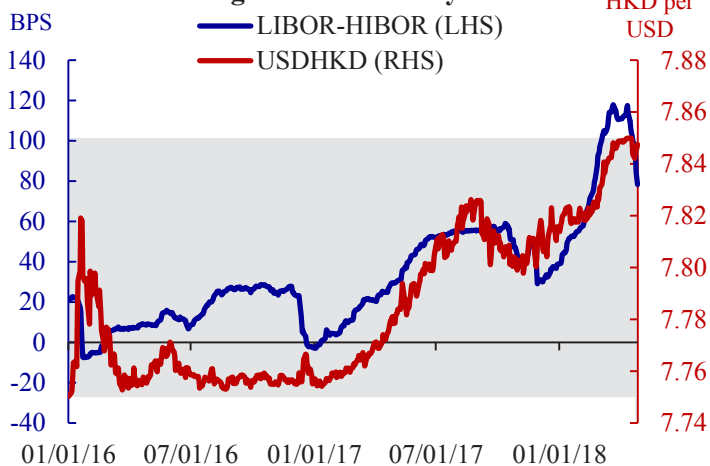
\*Based on all responses from the Surveys of Primary Dealers and Market Participants.  
Source: FRBNY

**(8) Three-Month LIBOR-OIS and FRA-OIS Spreads\***



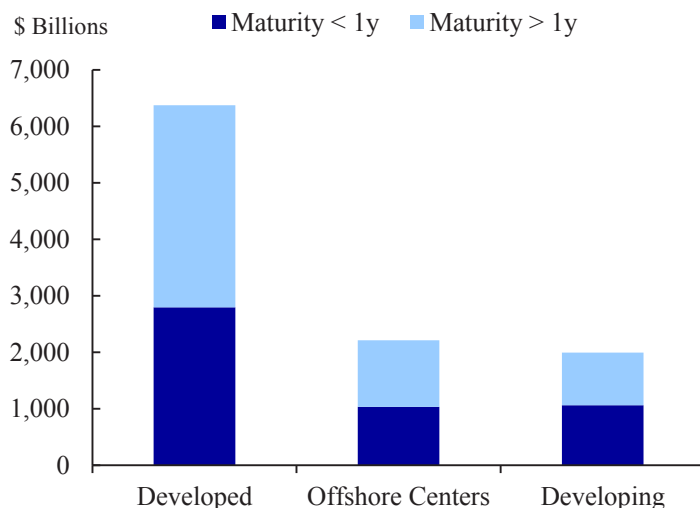
\*Dark blue diamond represents actual level of LIBOR-OIS on 03/19/18, while leftmost light blue diamond is the level predicted by FRA-OIS at YE 2017.  
Source: Bloomberg

**(9) Three-Month LIBOR-HIBOR and USD-Hong Kong Dollar Currency Pair\***



\*Shaded area represents HKD convertibility band.  
Source: Bloomberg

**(10) Estimated Offshore USD Bank Loans**



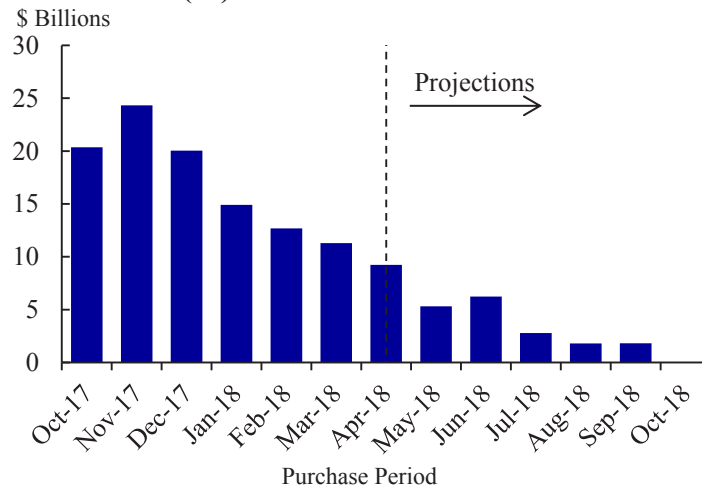
Source: BIS, Desk Calculations

**(11) Three-Month FX Swap-Implied Basis Spread**



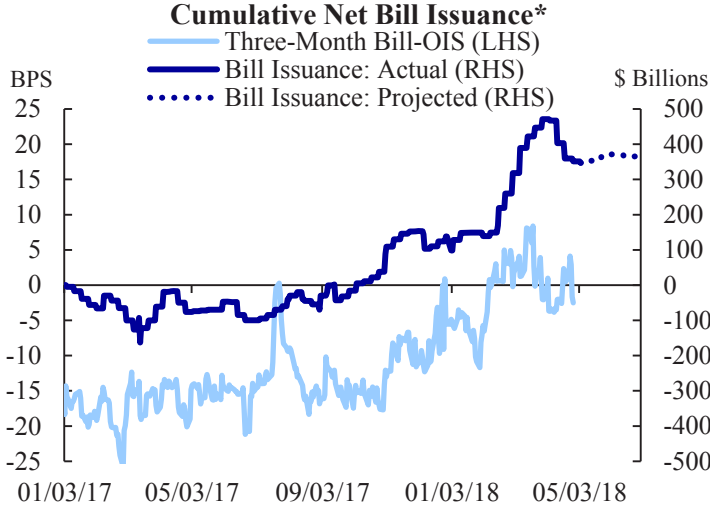
Source: Bloomberg

**(12) SOMA MBS Purchases\***



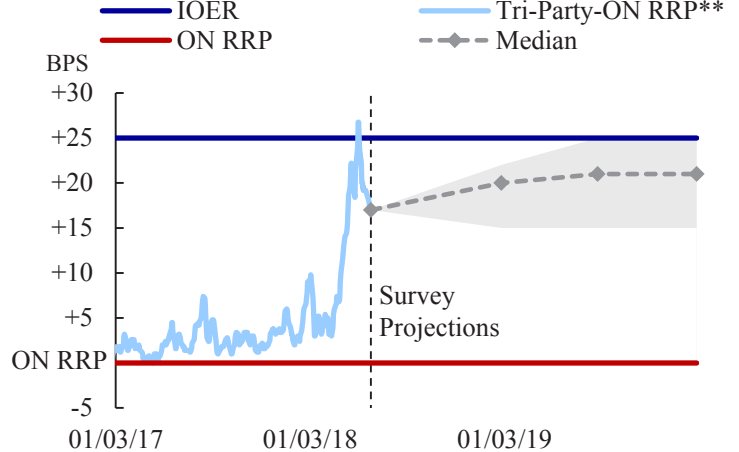
\*June reinvestment cycle includes \$1.98 billion of agency debt maturities.  
Source: Desk Calculations, FRBNY

**(13) Three-Month Treasury Bill-OIS Spread and Cumulative Net Bill Issuance\***



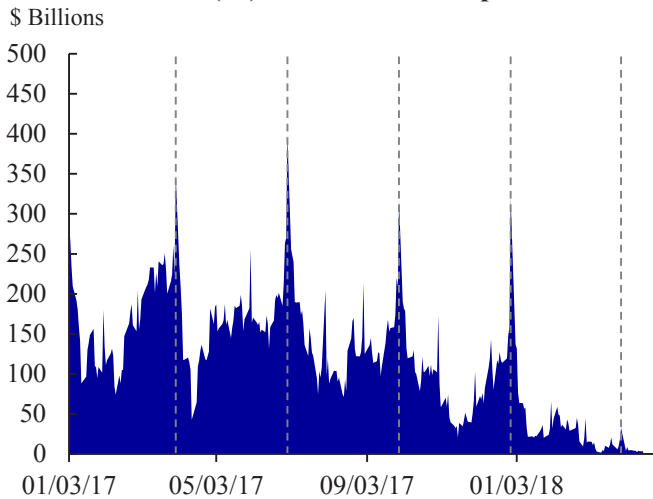
\*Cumulative since January 2017.  
Source: Bloomberg, Desk Calculations, U.S. Treasury

**(14) Tri-Party GC Repo-ON RRP Spread\***



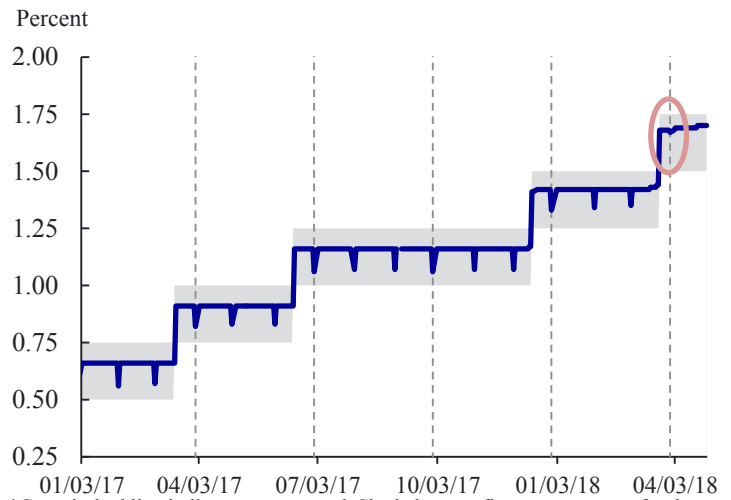
\*Projections based on all responses from the Surveys of Primary Dealers and Market Participants. Shaded area represents 25th and 75th percentiles.  
\*\*5-day moving average. Tri-party rate is TGCR.  
Source: BNYM, FRBNY, JPMC

**(15) ON RRP Take-Up\***



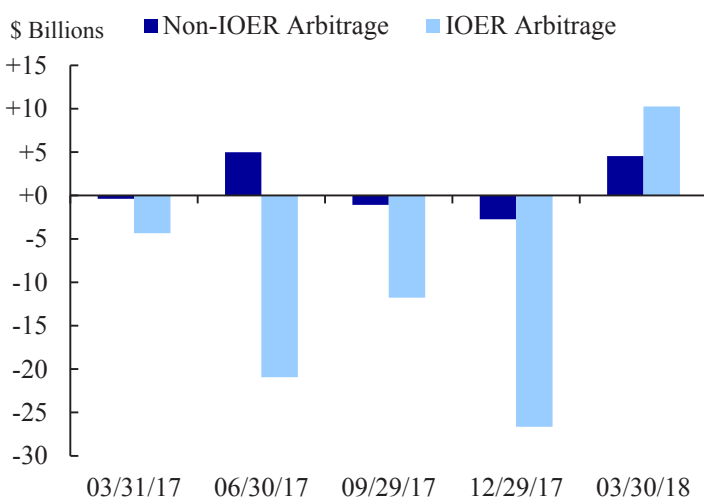
\*Grey dashed line indicates quarter-end  
Source: FRBNY

**(16) Effective Fed Funds Rate\***



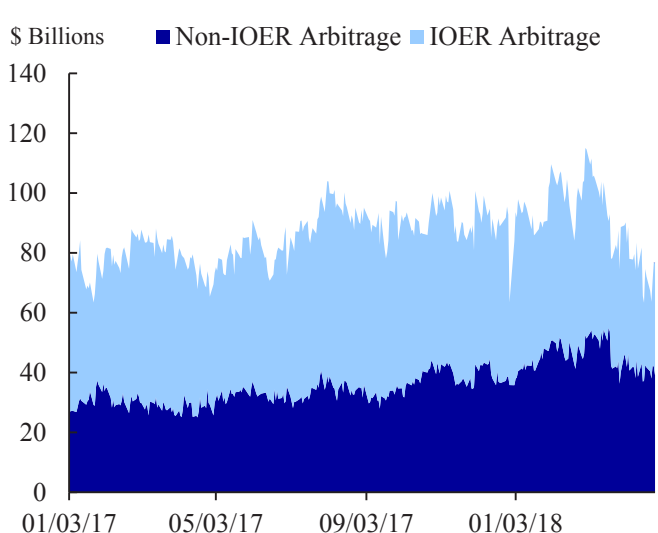
\*Grey dashed line indicates quarter-end. Shaded area reflects target range for the fed funds rate.  
Source: FRBNY

**(17) Change in Fed Funds Volumes on Quarter-End Dates**



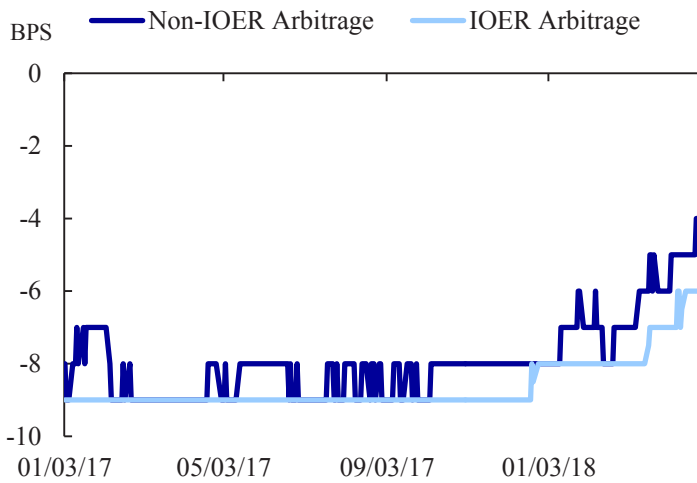
Source: Desk Calculations, FR2420

**(18) Fed Funds Volumes**



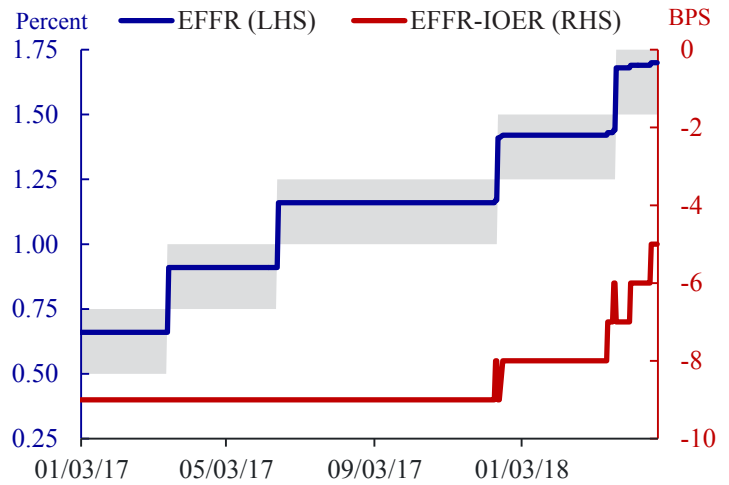
Source: Desk Calculations, FR2420

**(19) Fed Funds Volume-Weighted Median Rate Spreads to IOER, Excluding Month-Ends**



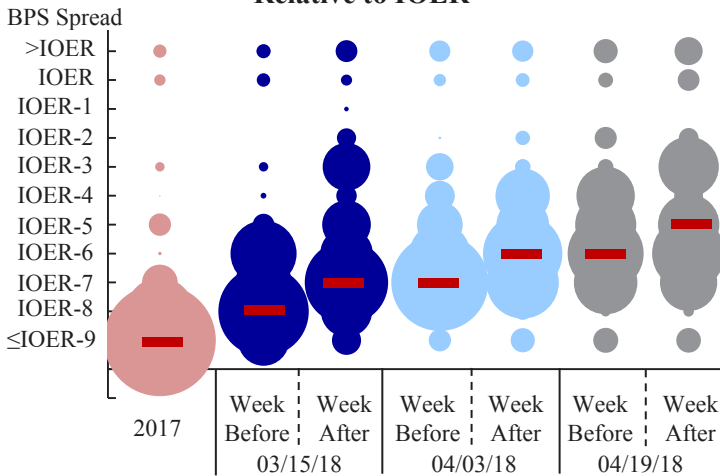
Source: FR2420, Desk Calculations

**(20) EFFR and EFFR-IOER Spread, Excluding Month-Ends\***



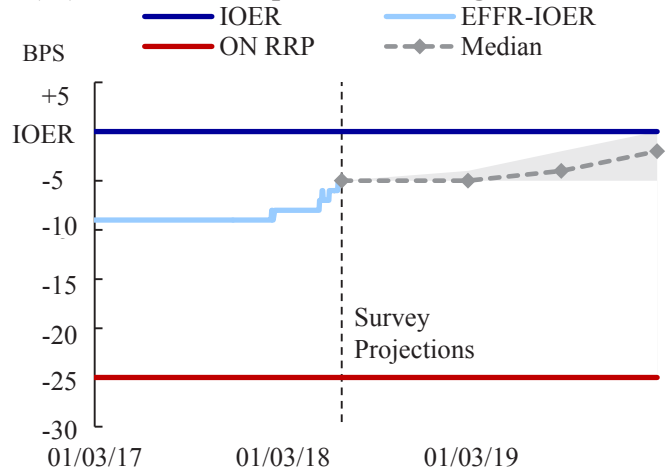
\*Shaded area reflects target range for the fed funds rate. Source: FRBNY

**(21) Distribution of Fed Funds Volumes by Rate, Relative to IOER\***



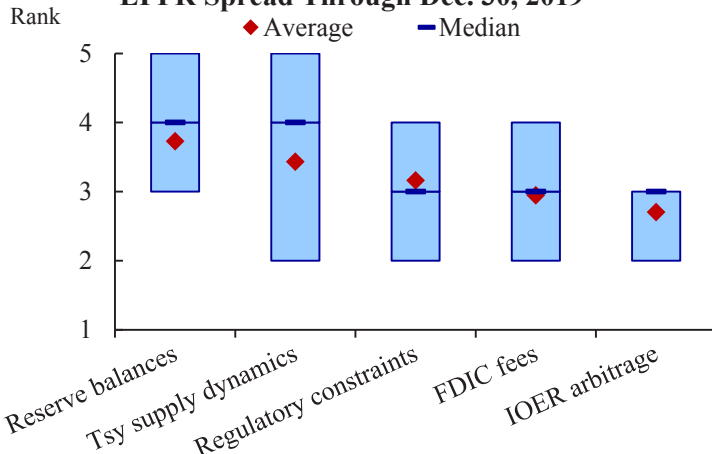
\*Excludes month-ends. Dots scaled by percent of volumes at given rate. Source: FR2420

**(22) EFFR-IOER Spread, Excluding Month-ends\***



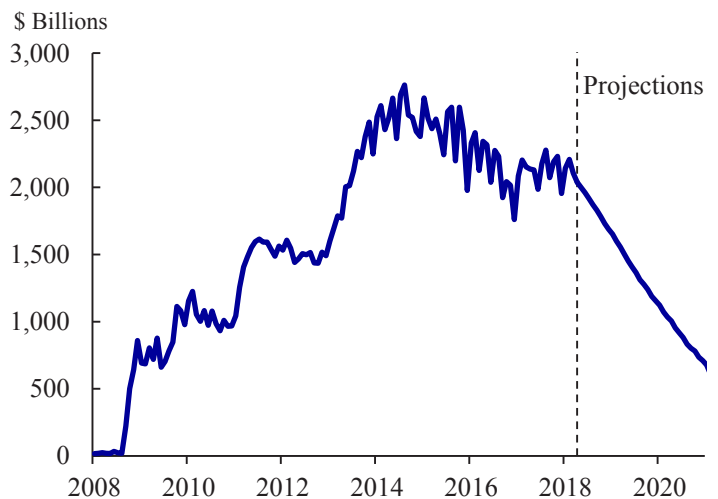
\*Projections based on all responses from the Surveys of Primary Dealers and Market Participants. Grey shaded area represents 25th and 75th percentiles. Source: FRBNY

**(23) Importance of Factors in Influencing the IOER-EFFR Spread Through Dec. 30, 2019\***



\*Based on all responses from the Surveys of Primary Dealers and Market Participants. 5=very important, 1=not important. Source: FRBNY

**(24) Monthly Reserve Balances**



Source: Desk Calculations, Haver, FRBNY

**(25) Policy Considerations**

- Memo discussed a potential **technical adjustment to the setting of administered rates** relative to the target range
  - Specifically, lowering the interest rates on excess and required reserves—or IOR rates—to be 5 basis points below the top of the target range while keeping the ON RRP offering rate at the bottom of the target range
- In terms of **timing**, such an adjustment could be made:
  - Either in conjunction with an increase in the target range, by increasing the IOR rates by less than the top of the range
  - Or, at an FOMC meeting when there is no change in the target range, in which case the IOR rates would be reduced by 5 basis points
- Policymakers can **communicate their anticipated action in advance** of any adjustment through a discussion of the issue in the minutes
- Policymakers might wish to **revisit the language in the Desk directive** to provide more clarity about when it would be appropriate for the Desk to conduct open market operations to keep the effective fed funds rate in the target range
  - The current language “directs the Desk to undertake open market operations as necessary to maintain the federal funds rate in a target range”
  - However, policymakers might conclude that it would be more appropriate in some circumstances in the current environment to adjust administered rates to move the EFFR back into the target range rather than conduct open market operations

**Appendix 1**

**(1) Summary of Operational Testing**

*Summary of Operational Tests in prior period:*

- Domestic Authorization
  - April 5: Treasury outright sale of \$100 million par
  - April 24 and 25: Coupon swaps with unsettled agency MBS holdings for \$20 million, total
- Foreign Authorization
  - March 22: Swiss franc liquidity swap for CHF 51,000
  - April 10: Euro-denominated sovereign debt sale to private counterparties for €1 million
  - April 19: Euro liquidity swap for €51,000
  - April 24: Canadian dollar liquidity swap for CAD 51,000

*Upcoming Operational Tests:*

- Five tests scheduled under the Domestic Authorization
  - May 9: Term repo for no more than \$75 million
  - May 14: Term reverse repo for no more than \$175 million
  - May 16: Overnight repo for no more than \$75 million
  - May 22 and 24: Outright MBS sales (specified pool) for up to \$200 million, total
  - May 23: Overnight reverse repo (with MBS collateral) for no more than \$175 million
- No tests scheduled under the Foreign Authorization
- TDF Test Operation
  - May 17: 7-day operation with a per-counterparty cap of \$250 million

*Note: the Desk did not include the February 13 euro-denominated repo with private counterparties for €1 million in the summary of operational tests conducted in the prior period at the March FOMC meeting. However, it provided advance notice that this test would take place in the list of upcoming operational tests at the January FOMC meeting.*

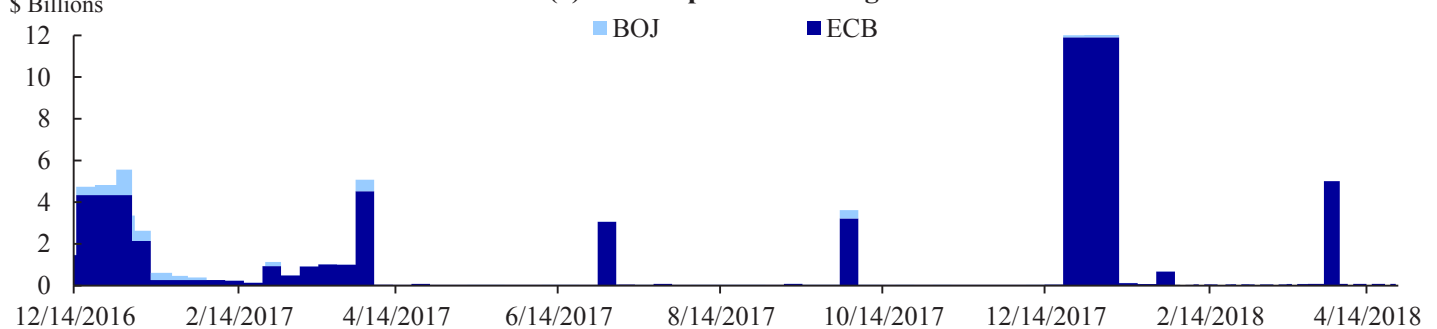
**(2) MBS Purchase Summary Since Cap Implementation Through April 27, 2018 (\$ Millions)**

	Purchase Period		Actual Paydowns	Cap	Actual Purchases	Net Deviation: Over (Under) Purchase	Cumulative Deviation
Oct	10/16/17	11/13/17	24,353	4,000	20,355	2	2
Nov*	11/14/17	12/13/17	28,316	4,000	24,327	11	13
Dec	12/14/17	01/12/18	24,032	4,000	20,038	6	19
Jan	01/16/18	02/13/18	22,909	8,000	14,921	12	31
Feb	02/14/18	03/13/18	20,689	8,000	12,684	-5	26
Mar	03/14/18	04/12/18	19,294	8,000	11,308	14	40
Apr**	04/13/18	05/11/18	N/A	12,000	4,650		

\*November included agency debt maturity of \$2,366 million.

\*\*Actual purchases ongoing, reflect data through 04/27/18. Target amount for April purchase period is \$9,232 million.

**(3) FX Swaps Outstanding**



Source: FRBNY

**(4) FX Intervention**

- There were no intervention operations in foreign currencies for the System's account during the intermeeting period



**Appendix 2: Materials used by Mr. Wascher**

**Class II FOMC - Restricted (FR)**

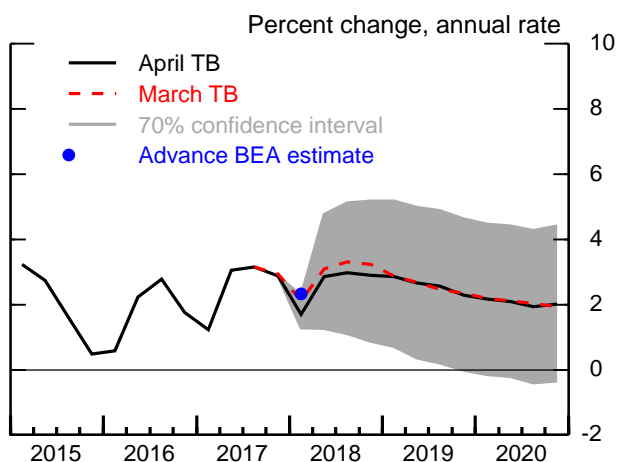
*Material for Briefing on*  
**The U.S. Outlook**

**William Wascher**  
**Exhibits by Bo Yeon Jang**  
**May 1, 2018**

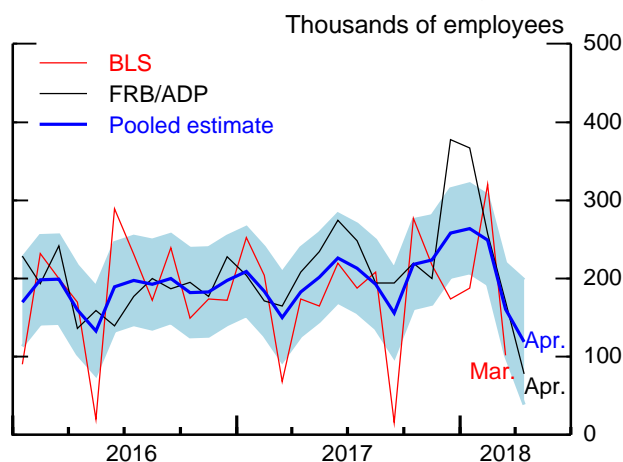
### Forecast Summary

Confidence Intervals for Panels 1, 3, 8, and 9 Based on FRB/US Stochastic Simulations

#### 1. Real GDP

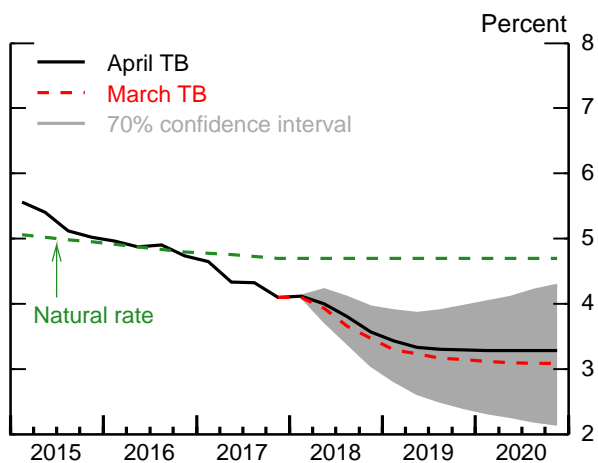


#### 2. Estimates of Private Nonfarm Payroll Gains

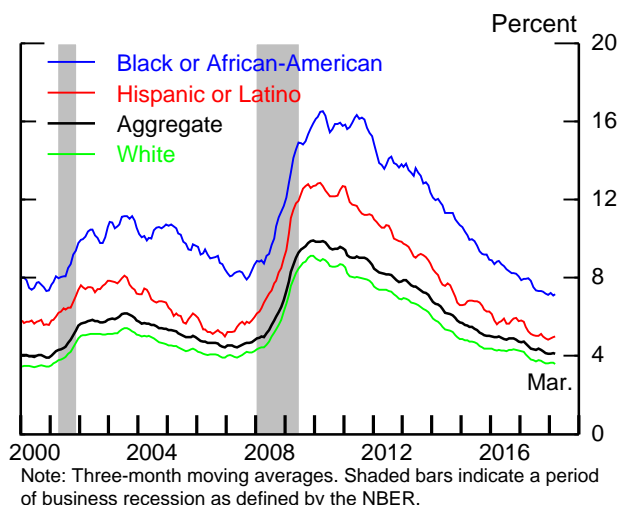


Note: Shaded region denotes 90% confidence interval for pooled estimate. The April FRB/ADP value includes data through 4/21; April pooled estimate treats April BLS observation as missing.

#### 3. Unemployment Rate

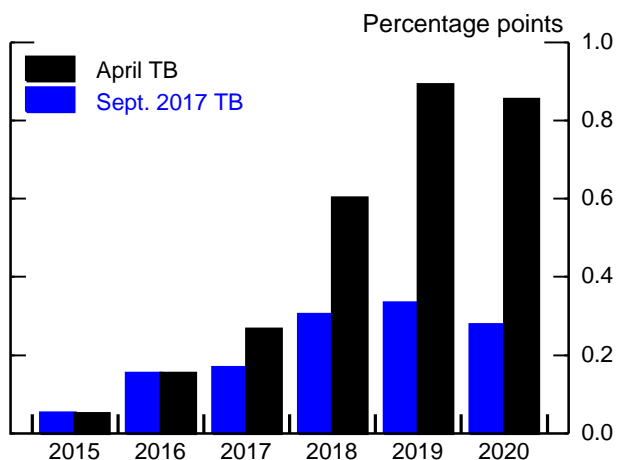


#### 4. Unemployment Rates by Race or Ethnicity



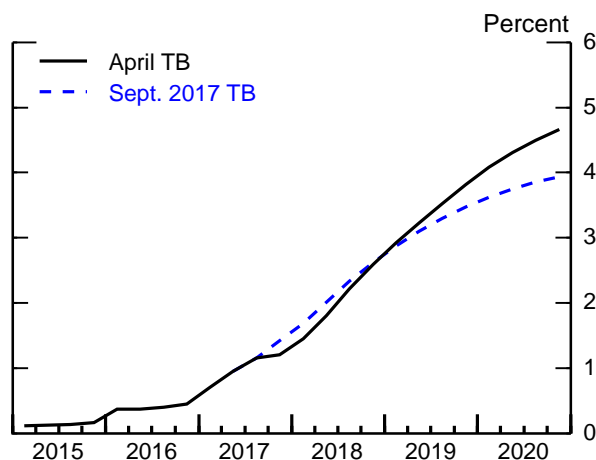
Note: Three-month moving averages. Shaded bars indicate a period of business recession as defined by the NBER.

#### 5. Contribution of Fiscal Impetus to Real GDP Growth

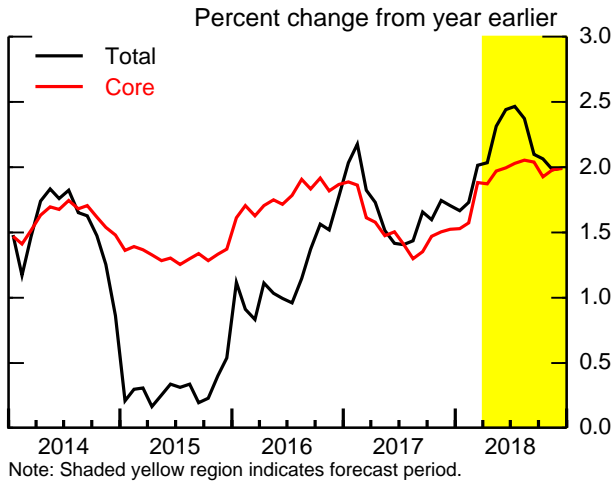


Note: Contribution to Q4-over-Q4 change for year shown; includes multiplier effects.

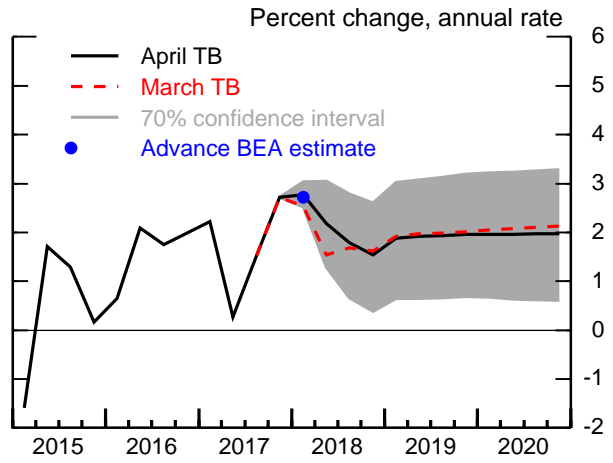
#### 6. Nominal Federal Funds Rate



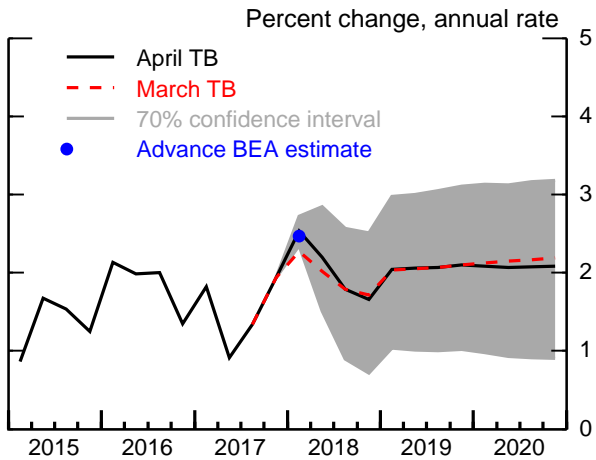
### 7. Monthly PCE Price Inflation



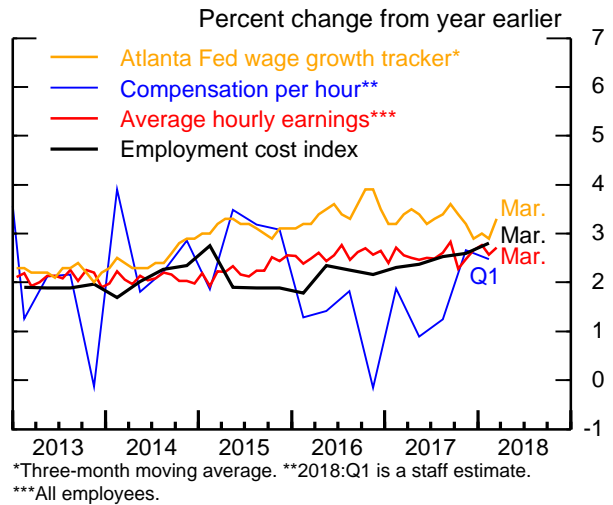
### 8. Total PCE Prices



### 9. PCE Prices Excluding Food and Energy



### 10. Measures of Labor Compensation



**Appendix 3: Materials used by Ms. Wilson**

**Class II FOMC – Restricted (FR)**

*Material for Briefing on*

**The International Outlook**

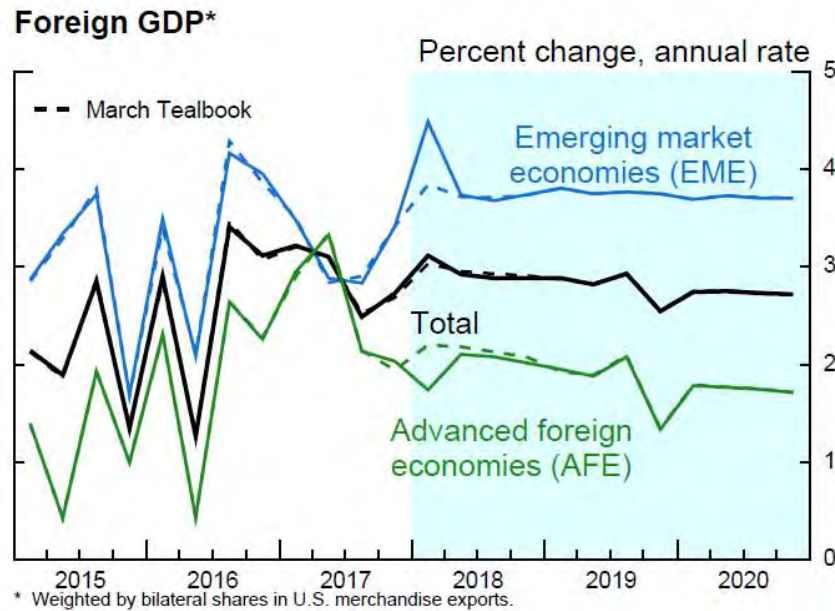
**Beth Anne Wilson**

Exhibits by Meghan Letendre

May 1, 2018

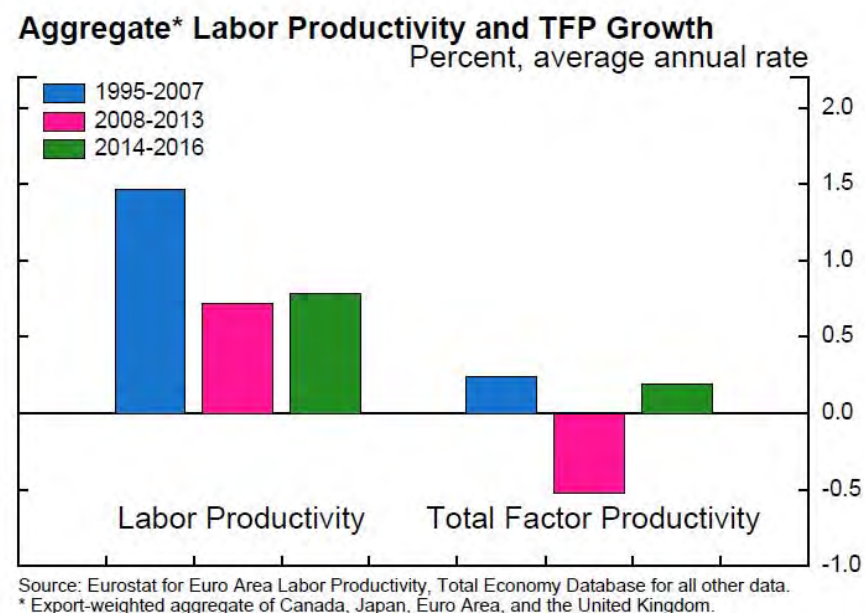
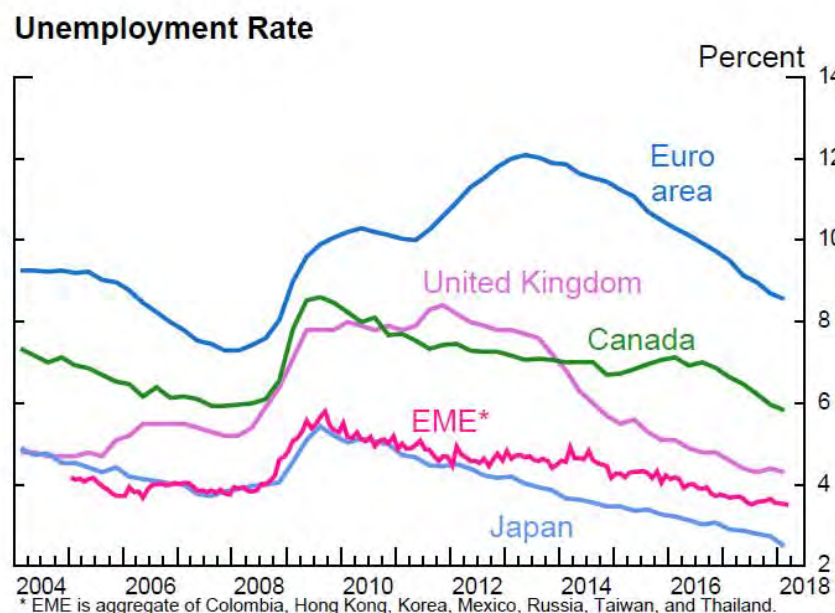
# Benign foreign outlook

- Solid, broad-based foreign GDP growth.
- Associated with a continued recovery in global trade.
- Importantly in high tech and manufacturing.



## Characterized by buoyant labor markets

- Unemployment rates are near or below pre-crisis lows.
- AFE productivity is turning up a bit and wages are showing hints of life.

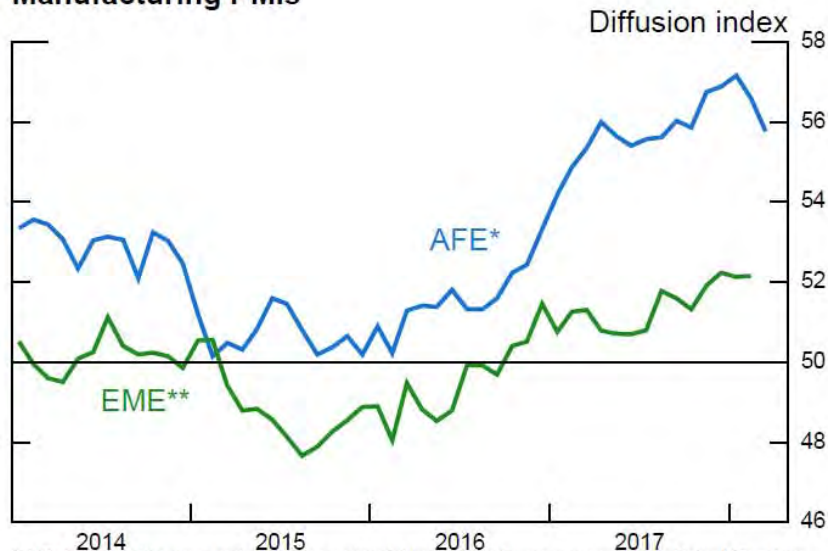




## But with recent signs of moderation

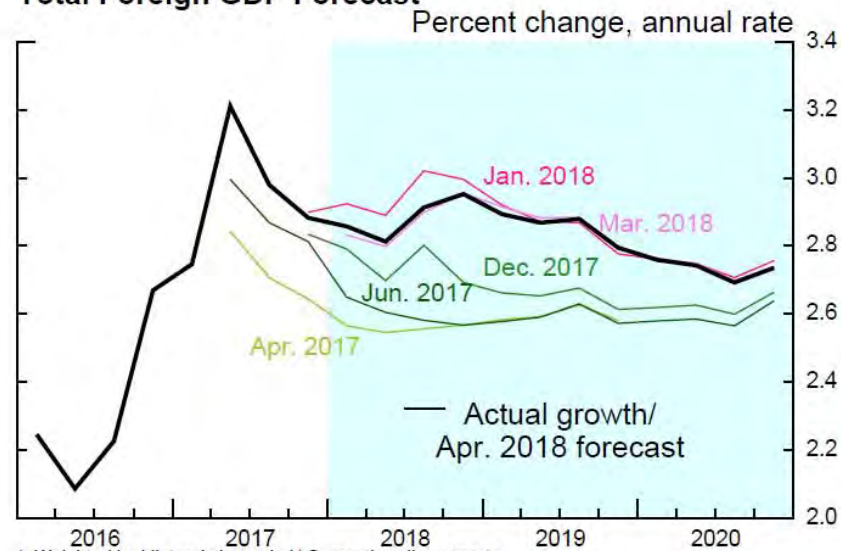
- PMIs elevated in AFEs but have posted declines.
- AFE Q1 GDP surprised on the downside.
- After a string of upward revisions to global growth last year, earlier forecasts this year have been too optimistic.

**Manufacturing PMIs**



\* AFE is geometric mean using U.S. export weights of Canada, euro area, Japan, United Kingdom, and Switzerland.  
 \*\* EME is geometric mean using U.S. export weights of Brazil, Israel, Taiwan, India, Korea, Singapore, Russia, and China.

**Total Foreign GDP Forecast\***



\* Weighted by bilateral shares in U.S. merchandise exports.

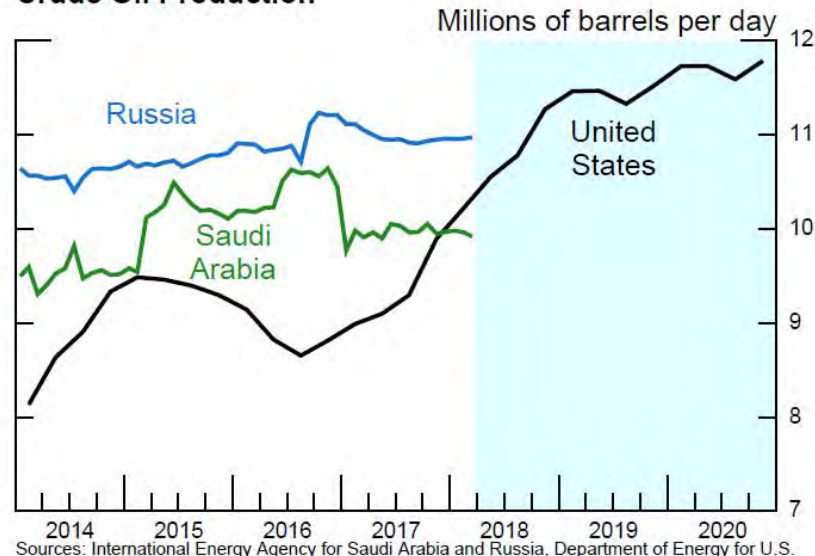
## Oil prices up but should moderate

- Continuing their climb since 2016, oil prices jumped about 10 percent this period.
- Strong global demand, OPEC quotas and compliance, and recent tensions in the Middle East have boosted prices.
- Declines are projected as U.S. supply increases.

### Brent Oil Price



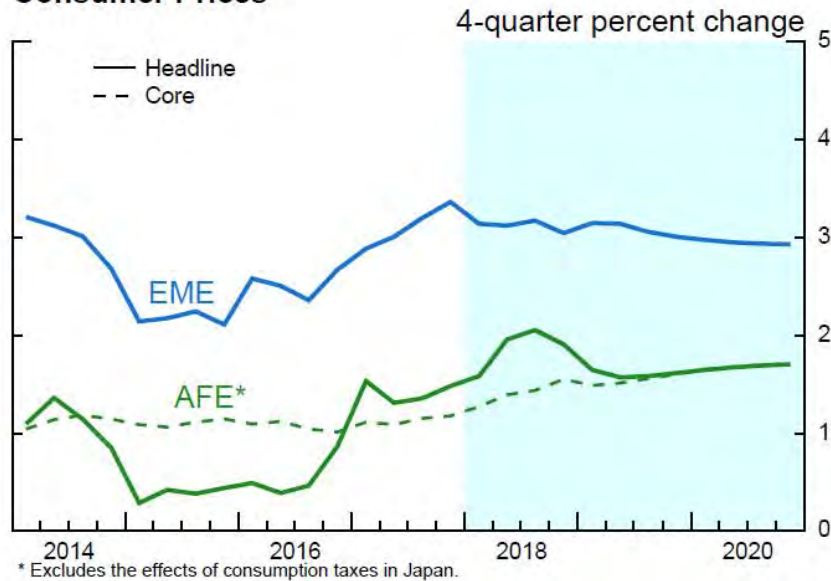
### Crude Oil Production



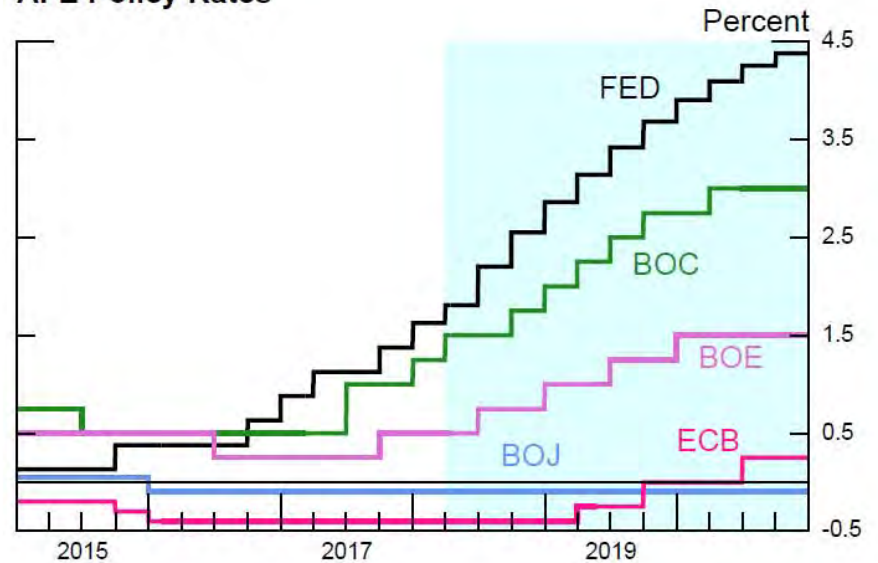
## Inflation has risen but remains subdued

- AFE inflation has risen in response to oil prices, but core remains subdued.
- Progress toward 2 percent target is seen as gradual.
- Foreign AFE monetary policy rates expected to lag U.S.

**Consumer Prices**



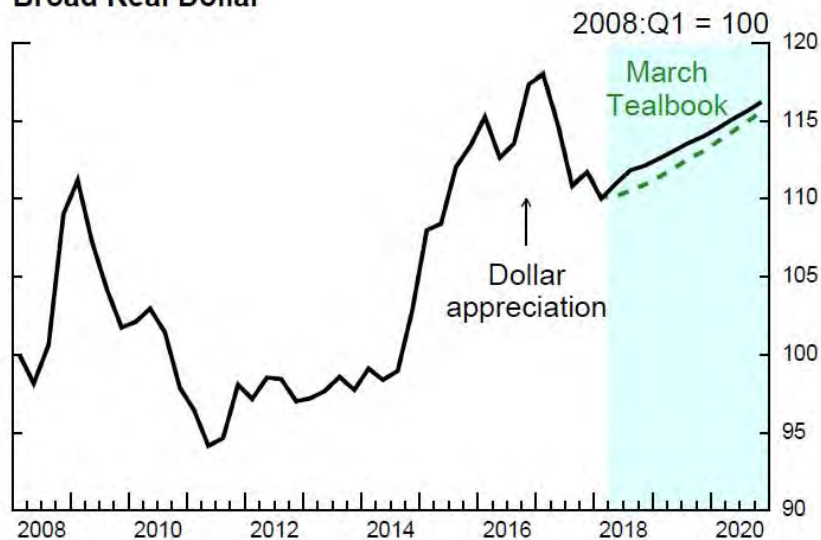
**AFE Policy Rates**



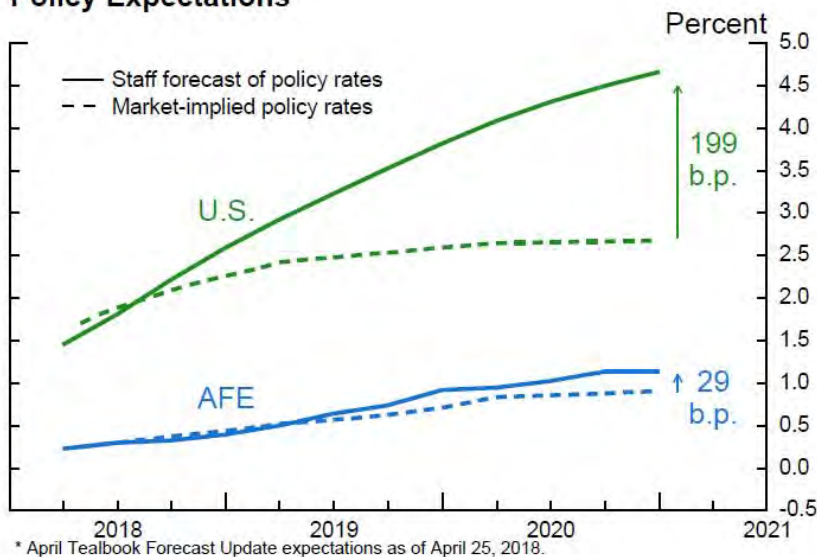
# Dollar is STILL expected to strengthen

- Much has been made of last year’s weakness in the dollar.
  - Strong expansion abroad, reduced downside risks, and anticipation of foreign monetary policy probably played a role.
- In the forecast, relative monetary policy surprises lead to a mild dollar appreciation.

**Broad Real Dollar**



**Policy Expectations\***



# International Financial Stability Matrix

- Vulnerabilities - Moderate.
  - Notable or Elevated valuation pressures are common.
  - No overall increase in leverage.
- Prominent Risks
  - Political uncertainty
  - Growing concerns re China
  - Global shocks
    - a sharp and widespread valuation reversal
    - a shift to more restrictive trade policies.

Country	Vulnerability Assessment April 2018	Vulnerability Assessment October 2017	Prominence of Risks April 2018
Overall	Moderate	Moderate	
Canada	Moderate	Moderate	Low
France	Moderate	Moderate	Medium
Germany	Low	Low	Medium
Italy	Notable	Notable	High
Japan	Moderate	Moderate	Medium
Switzerland	Moderate	Moderate	Low
United Kingdom	Moderate	Moderate	High
Brazil	Notable	Notable	High
China	Notable	Notable	High
Hong Kong	Moderate	Moderate	Medium
Mexico	Notable	Notable	High
South Korea	Low	Low	Medium
Turkey	Elevated	Elevated	High

Vulnerability Assessment Key:



Prominence of Risks Key:



## Significant shift in trade policy

- A number of actions represent a more protectionist policy stance.
- Currently, changes relatively limited and impact on the forecast minimal.

Target	Section of US Trade Law Invoked	Tariff Amount (percentage points)	Implementation Date	Imports Affected Now (\$ billion)	Proposed (\$ billion)
Washing Machines/ Solar Cells	§201	20-50	January 21	2.3	2½
Steel and Aluminum	§232	25/10	March 23/ May 1	18	43½
China	§301	25	Late summer	0	46½
NAFTA	re-negotiate		Late 2018/ Early 2019	0	614 (total imports from CAN/MEX)



## Potential for financial and real effects

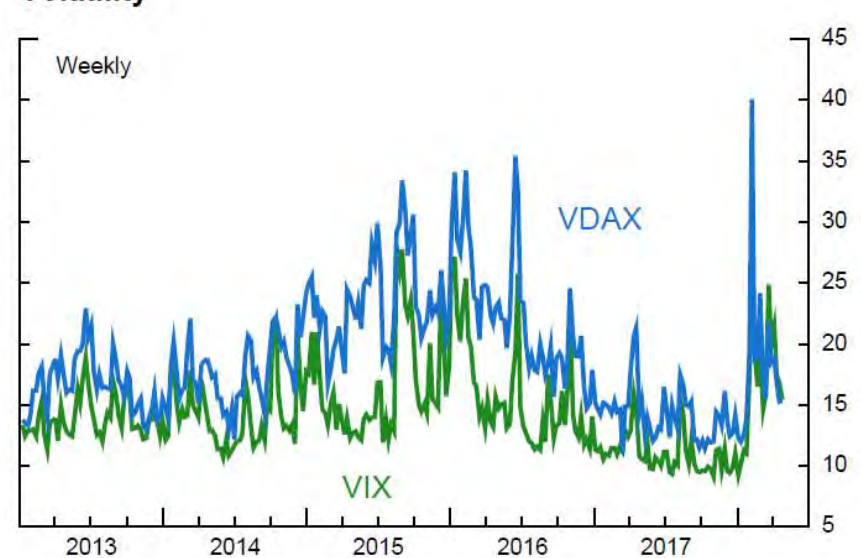
- Greater attention on and uncertainty about trade policy recently.
- Early days, but may be unsettling markets and affecting confidence.

Trade Policy: News Coverage Intensity\*



\* 3-month moving average. The value for April 2018 includes newspapers up to April 30.  
Source Proquest: Fraction of articles from regional U.S. newspapers that contain words related to trade policy as selected by Federal Reserve Board staff.

Volatility



## Assessing two resonant risks in our model

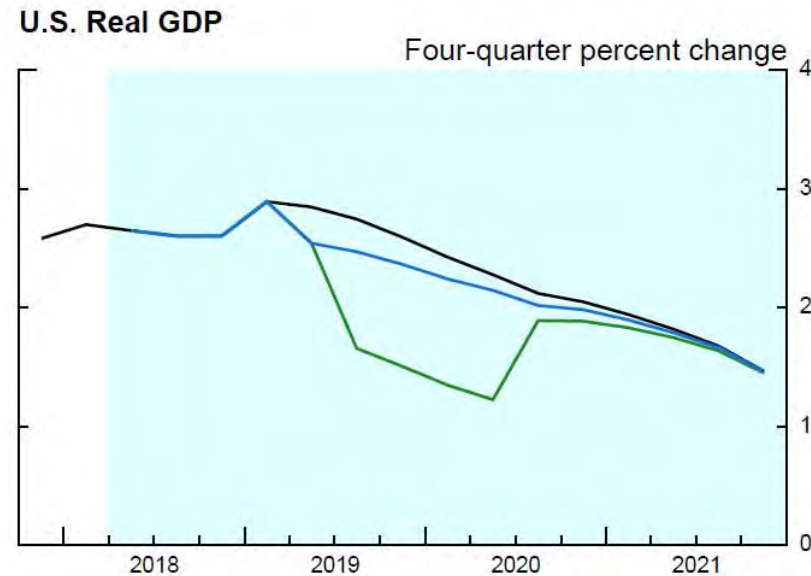
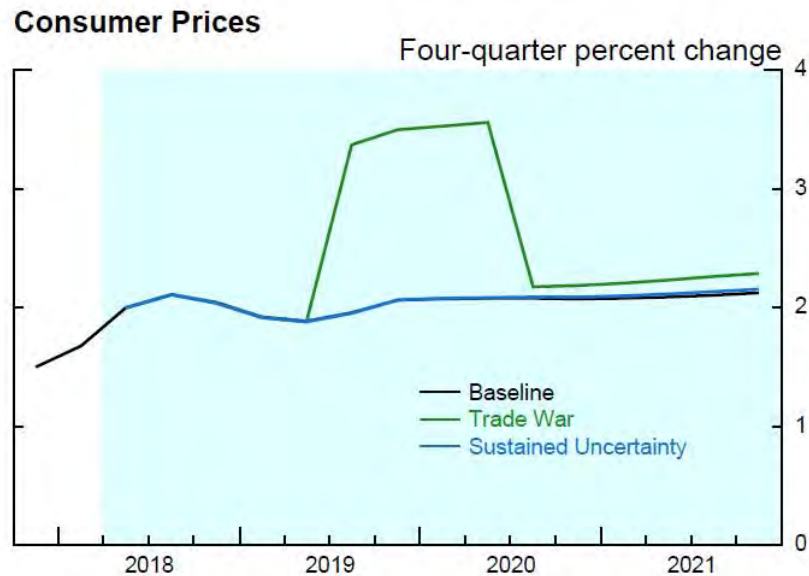
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- Trade war
  - After a period of rising trade tensions, U.S. and ROW apply tariffs
    - 10 percent on all imports
    - Expected to last 5 years
- Sustained Uncertainty
  - People perpetually anticipate a trade war (as outlined above)
  - But the event never materializes



## Risk of higher prices and weaker output

- A trade war leads to a temporary but sizable spike in inflation and a notable hit to output growth.
- Even uncertainty can reduce investment and depress growth.



**Appendix 4: Materials used by Mr. Gallin**

**Class II FOMC - Restricted (FR)**

*Material for Briefing on*

**Financial Stability Developments**

**Joshua Gallin**  
**Exhibits by Skeet M. Singleton**  
**May 1, 2018**

Chart 1-1  
Asset Valuations

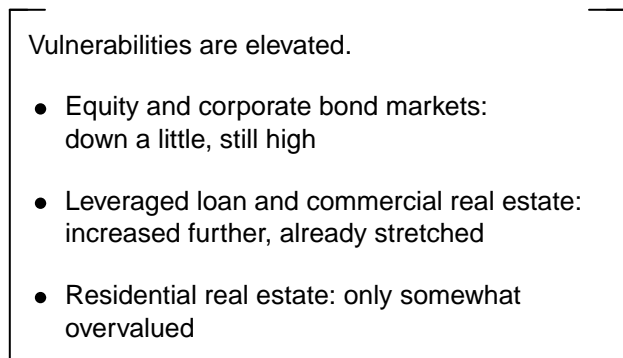


Chart 1-2  
10-Year Treasury Nominal Term Premium

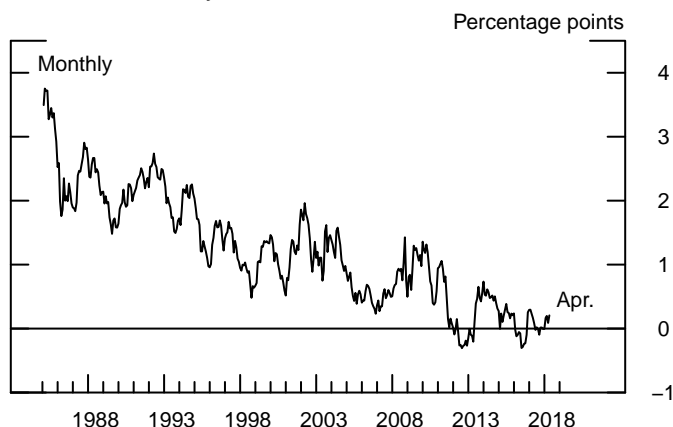


Chart 1-3  
S&P 500 Price and 10-Year Treasury Yield

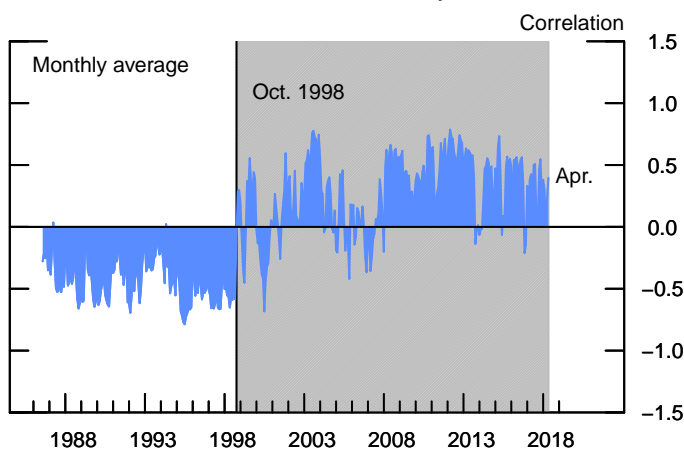


Chart 1-4  
Explaining the Correlation: Investor Expectations

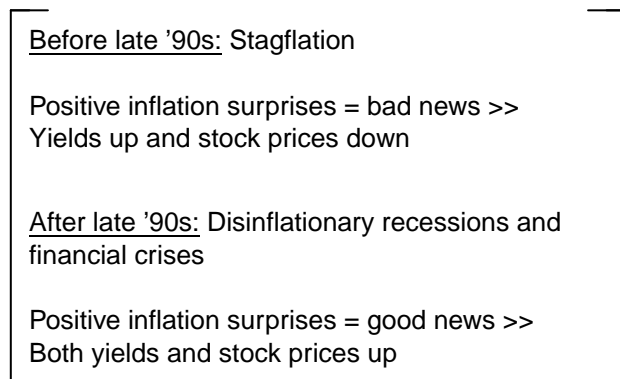


Chart 1-5  
Gross and Net Leverage

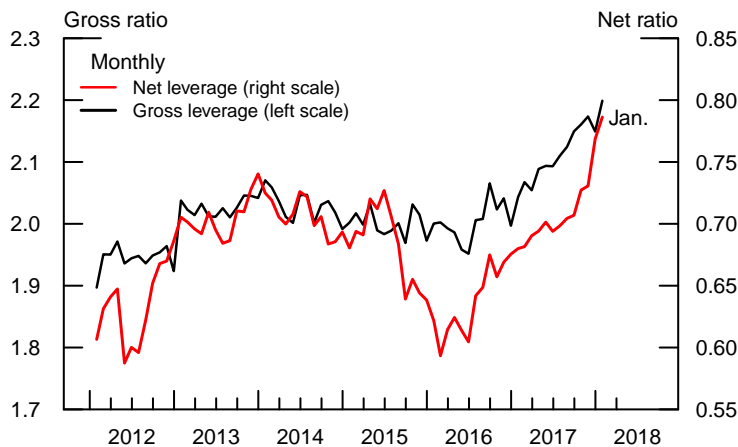


Chart 1-6  
Changes in the Use of Financial Leverage

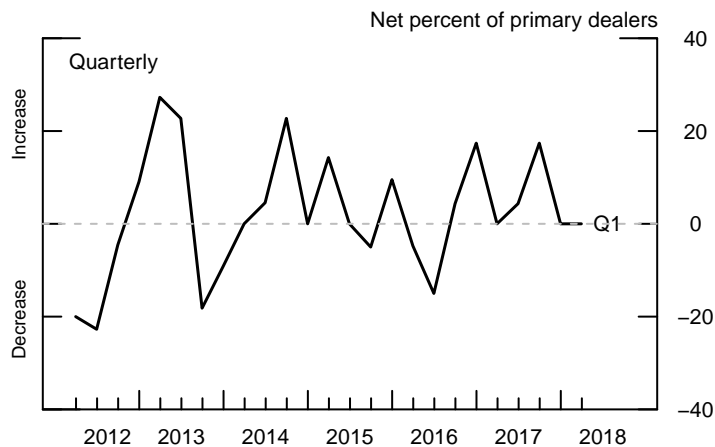


Exhibit 2: Leverage, Maturity Transformation, and Systemic Risk Measures

Chart 2–1  
Real Household Debt Balances

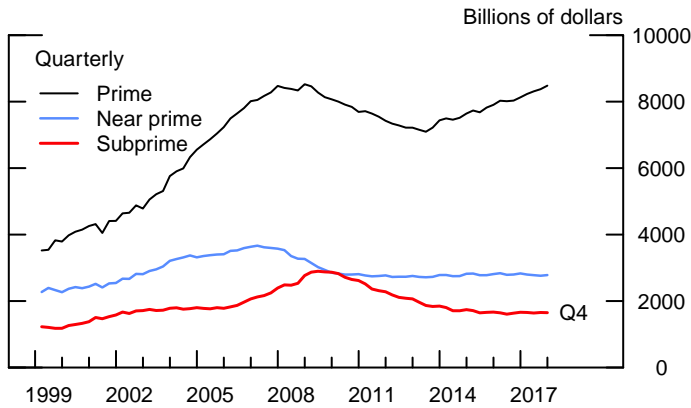


Chart 2–2  
Total Net Issuance of Risky Debt by Nonfinancial Businesses

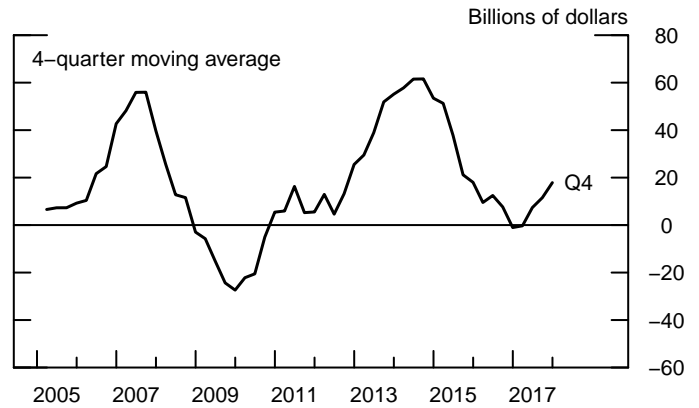


Chart 2–3  
Gross Leverage of Speculative Grade and Unrated Firms

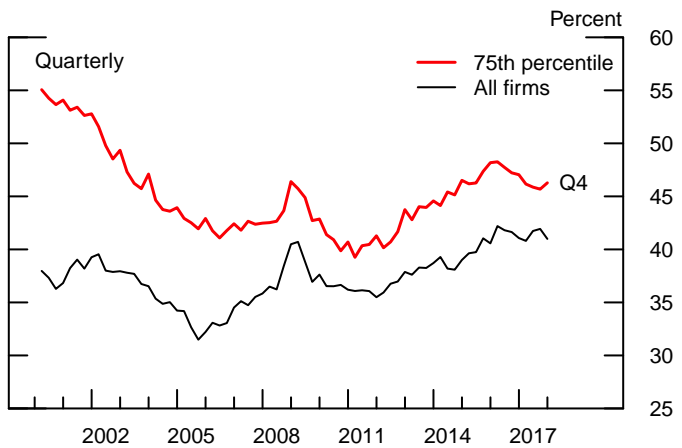


Chart 2–4  
Stress Testing Nonfinancial Businesses

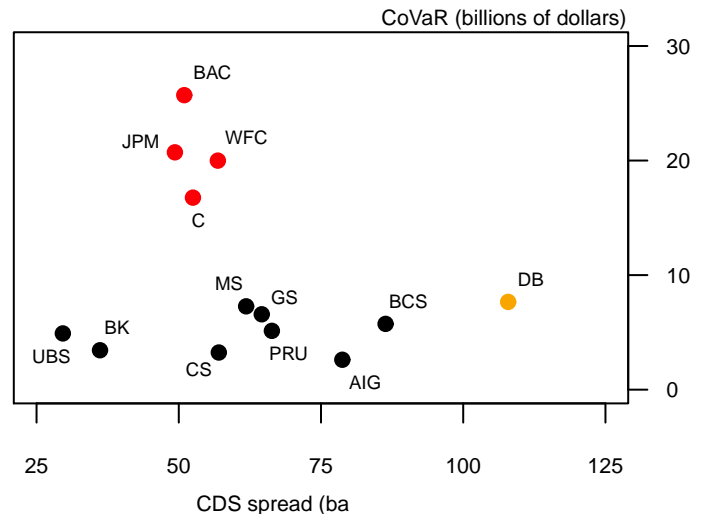
Scenario: Debt expands 10 percent per year, then CCAR Severely Adverse Scenario

- Defaults on high–yield bonds reach 20 percent
- Defaults on leveraged loans reach 6 percent
- Mark–to–market losses:
  - 18 percent for HY bonds
  - 13 percent for leveraged loans

Chart 2–5  
Maturity and Liquidity Transformation

- Vulnerabilities are low
  - SIFIs hold significant levels of HQLA
  - Maturity transformation at FHLBs has edged down
  - No significant growth in MMF alternatives
- Cannot see all shadow–banking activities, somewhat concerned about market liquidity

Chart 2–6  
CDS Spread vs. CoVaR (April 2018)



**Staff Judgment on Levels of Vulnerabilities**

**Key:** ■ Extremely subdued ■ Low ■ Moderate ■ Notable ■ Elevated

Notes: Heat map color assignments were made by staff judgment. In the absence of significant structural changes, we would expect vulnerabilities to spend roughly equal proportions of time in each of the colored risk buckets.

	April 2017	January 2018	April 2018
<b>Valuation Pressures</b>	<ul style="list-style-type: none"> <li>Equity price-to-earnings ratios have reached levels not seen since the early 2000s</li> <li>The high-yield corporate bond risk premium declined a bit from an already low level</li> <li>CRE prices continued to rise despite slowing rent growth, though there are signs of tightening credit conditions</li> <li>Treasury term premiums remained low</li> </ul>	<ul style="list-style-type: none"> <li>The equity price-to-earnings ratio is near its highest value outside the dot-com era and has edged up further</li> <li>Corporate bond yields remain near historical lows</li> <li>Spreads on leveraged loans stayed compressed while non-price terms loosened</li> <li>CRE prices remain near historic highs</li> <li>Asset valuations are still stretched after the current low Treasury yields are taken into account</li> </ul>	<ul style="list-style-type: none"> <li>Valuations are still stretched despite a reduction in pressures in equity and corporate bond markets</li> <li>Treasury term premiums rebounded from previous lows, but remain subdued</li> <li>Valuations in leveraged loan and CRE markets increased further from already stretched conditions</li> </ul>
<b>Private Nonfinancial Sector Leverage</b>	<ul style="list-style-type: none"> <li>Leverage in the nonfinancial corporate sector ticked down but remained elevated</li> <li>The debt-to-income ratio of households has yet to turn up, and new borrowing was driven primarily by households with high credit scores</li> </ul>	<ul style="list-style-type: none"> <li>Leverage in the nonfinancial corporate sector remains high and risky debt growth has picked up</li> <li>The ratio of household debt to GDP remains near its recent trough</li> <li>Overall nonfinancial sector leverage continues to be below trend by most estimates</li> </ul>	<ul style="list-style-type: none"> <li>Leverage in the nonfinancial corporate sector remains high and risky debt growth has picked up</li> <li>The household sector appears resilient, with modest new borrowing concentrated among prime-rated borrowers</li> </ul>
<b>Financial Sector Leverage</b>	<ul style="list-style-type: none"> <li>Capital positions at banks and insurance companies remained at high levels</li> <li>Available indicators of leverage at other nonbank institutions were little changed</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory capital ratios at banks and insurance companies remain at high levels</li> <li>Most indicators of leverage at other nonbank financial institutions are unchanged, though margin credit for equity investors continues to inch up</li> </ul>	<ul style="list-style-type: none"> <li>Capital positions at banks and insurance companies remain at high levels</li> <li>Some measures of hedge fund leverage have increased notably</li> </ul>
<b>Maturity and Liquidity Transformation</b>	<ul style="list-style-type: none"> <li>To date, money market reforms appear to have reduced run risk</li> <li>Large BHCs' holdings of liquid assets remained at high levels</li> <li>Large BHCs continued to replace short-term wholesale funding with core deposits</li> </ul>	<ul style="list-style-type: none"> <li>Large BHCs' holdings of liquid assets are well above regulatory requirements</li> <li>There has been little growth outside of government funds in potential substitutes for prime money market funds</li> <li>Overall issuance of securitized products remains well below pre-crisis levels</li> <li>Life insurance companies continue to grow their nontraditional liabilities from low levels</li> </ul>	<ul style="list-style-type: none"> <li>Large BHCs' holdings of liquid assets remain at high levels</li> <li>Banks' core deposit funding remains high, while short-term funding remains low</li> <li>The growth in potential substitutes for MMFs remains limited</li> </ul>
<b>Overall Assessment</b>			

**Chart 1-2**

Source: Staff estimates.

**Chart 1-3**

Source: Staff estimates. Data are as of April 27, 2018.

**Chart 1-5**

Gross leverage is calculated as the total market value in prime broker (PB) clients' accounts (long plus short) divided by clients' total equity. Net leverage is calculated as the net market value in PB clients' accounts (long minus short) divided by clients' total equity.

Source: Federal Reserve Bank of New York.

**Chart 1-6**

Data are collected in the middle of each quarter.

Source: Senior Credit Officer Opinion Survey (SCOOS).

**Chart 2-1**

Near prime FICO score is between 620 and 719, prime is greater than 719; scores measured contemporaneously. Loan balances are deflated by the CPI deflator.

Source: FRBNY Consumer Credit Panel/Equifax.

**Chart 2-2**

Data are a four-quarter moving average. Total net issuance of risky debt is the sum of the net issuance of speculative grade and unrated bonds and leveraged loans.

Source: Mergent Fixed Investment Securities Database, S&P.

**Chart 2-3**

Gross leverage is the ratio for the book value of total debt to the book value of total assets. 75th percentile is calculated from subset of risky firms among the 3000 largest firms, by assets.

Source: Compustat.

**Chart 2-6**

Source: Staff estimates. Data are as of April 27, 2018.

**Appendix 5: Materials used by Mr. Laubach**



**Class I FOMC – Restricted Controlled (FR)**

*Material for the Briefing on*

**Monetary Policy Alternatives**

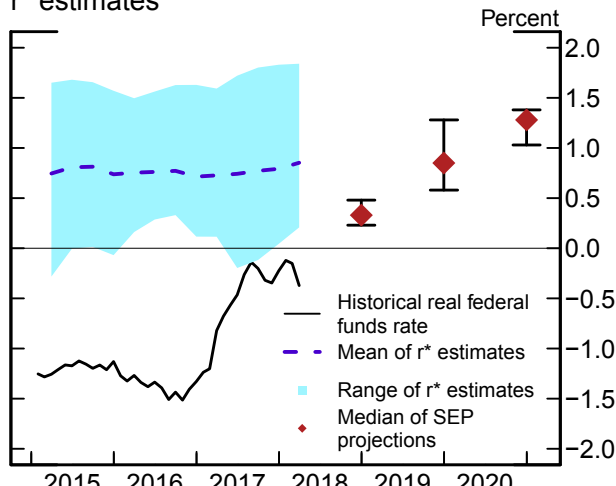
**Thomas Laubach**  
**Exhibits by Laurie Khalfan**  
**May 1-2, 2018**

### Monetary Policy Considerations

#### Key Changes in Alternative C

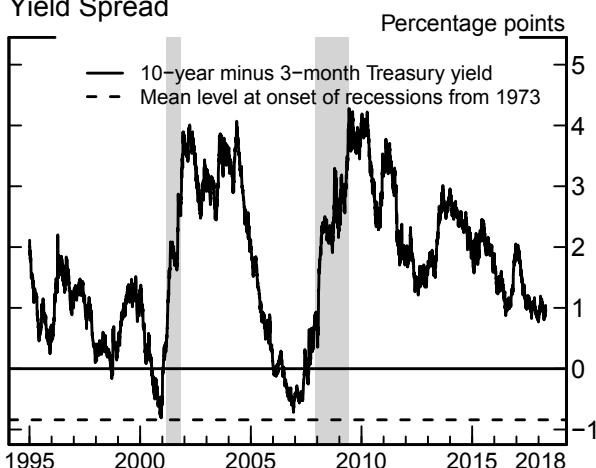
- Shifts focus of paragraph 4 to data dependence
- Moves "further gradual increases" to paragraph 2
- Deletes guidance that funds rate "is likely to remain, for some time, below levels"
- Raises target range to 1 3/4 to 2 percent
- Removes "carefully monitoring actual and expected inflation developments" but retains reference to symmetry

#### Real federal funds rate: Projections and r\* estimates



Note: 2018Q1 is based on five of eight models. Whiskers denote central tendency of SEP projections.  
Source: March 2018 SEP; FRBNY; BEA; various papers on r\* referenced in the March 2018 Monetary Policy Strategies section of Tealbook A.

#### Yield Spread

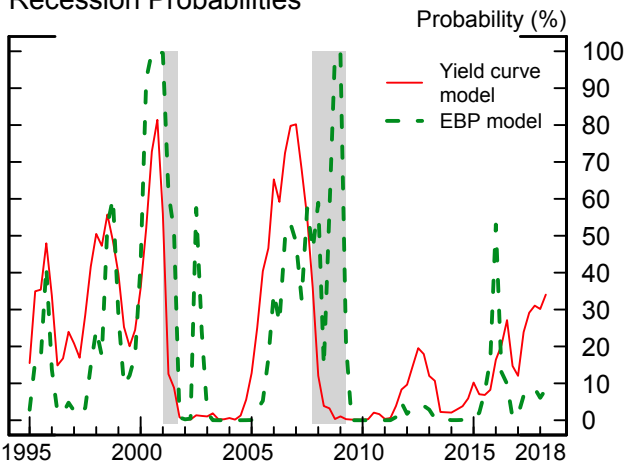


Source: FRBNY.

#### Interpretation of the Flattening Yield Curve

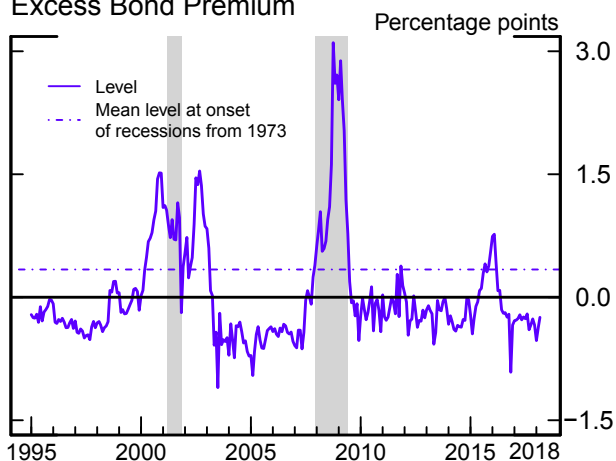
- Market participants saw fiscal stimulus and attendant financing needs as important factors
  - Benign view: Will require rate increases, but not derail the expansion
  - Pessimistic view: Fiscal cliff in 2020 will end the expansion

#### Recession Probabilities



Note: The 2018Q2 numbers are based on the average of data for an incomplete quarter.  
Source: Board staff calculations.

#### Excess Bond Premium



Note: Excess bond premium developed by Gilchrist and Zakrajsek (2012) and updated by Board staff.

**MARCH 2018 FOMC STATEMENT**

1. Information received since the Federal Open Market Committee met in January indicates that the labor market has continued to strengthen and that economic activity has been rising at a moderate rate. Job gains have been strong in recent months, and the unemployment rate has stayed low. Recent data suggest that growth rates of household spending and business fixed investment have moderated from their strong fourth-quarter readings. On a 12-month basis, both overall inflation and inflation for items other than food and energy have continued to run below 2 percent. Market-based measures of inflation compensation have increased in recent months but remain low; survey-based measures of longer-term inflation expectations are little changed, on balance.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The economic outlook has strengthened in recent months. The Committee expects that, with further gradual adjustments in the stance of monetary policy, economic activity will expand at a moderate pace in the medium term and labor market conditions will remain strong. Inflation on a 12-month basis is expected to move up in coming months and to stabilize around the Committee's 2 percent objective over the medium term. Near-term risks to the economic outlook appear roughly balanced, but the Committee is monitoring inflation developments closely.
3. In view of realized and expected labor market conditions and inflation, the Committee decided to raise the target range for the federal funds rate to 1-1/2 to 1-3/4 percent. The stance of monetary policy remains accommodative, thereby supporting strong labor market conditions and a sustained return to 2 percent inflation.
4. In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Committee will carefully monitor actual and expected inflation developments relative to its symmetric inflation goal. The Committee expects that economic conditions will evolve in a manner that will warrant further gradual increases in the federal funds rate; the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run. However, the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data.

**ALTERNATIVE A FOR MAY 2018**

1. Information received since the Federal Open Market Committee met in ~~January~~ **March** indicates that the labor market has continued to strengthen and that economic activity has been rising at a moderate rate. Job gains have been strong, **on average**, in recent months, and the unemployment rate has stayed low. Recent data suggest that growth rates of household spending and ~~business fixed investment~~ have moderated from their ~~its~~ strong fourth-quarter readings **pace, while business fixed investment continued to grow strongly**. On a 12-month basis, both overall inflation and inflation for items other than food and energy ~~have continued to run below~~ **recently have moved close to** 2 percent. Market-based measures of inflation compensation ~~have increased in recent months but~~ remain low; survey-based measures of longer-term inflation expectations are little changed, on balance.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. ~~The economic outlook has strengthened in recent months.~~ The Committee expects that, with further gradual adjustments in the stance of **appropriate** monetary policy **accommodation**, economic activity will expand at a moderate pace in the medium term and labor market conditions will remain strong. Inflation on a 12-month basis is expected to ~~move up in coming months and to stabilize around~~ **modestly exceed 2 percent for a time and then run near** the Committee's **symmetric** 2 percent objective ~~over the medium term~~. Near-term risks to the economic outlook appear roughly balanced, but the Committee is monitoring inflation developments closely.
3. In view of realized and expected labor market conditions and inflation, the Committee decided to ~~raise~~ **maintain** the target range for the federal funds rate ~~to~~ **at** 1-1/2 to 1-3/4 percent. The stance of monetary policy remains accommodative, thereby supporting strong labor market conditions and a ~~sustained return to~~ **period of inflation modestly above 2 percent. This inflation outcome should help ensure that longer-term inflation expectations rise to a level consistent with the Committee's symmetric objective for** 2 percent inflation.
4. In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Committee will carefully monitor actual and expected inflation developments relative to its symmetric inflation goal. ~~The Committee expects that economic conditions will evolve in a manner that will warrant further gradual increases in the federal funds rate; the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run. However, the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data.~~

**ALTERNATIVE B FOR MAY 2018**

1. Information received since the Federal Open Market Committee met in ~~January~~ **March** indicates that the labor market has continued to strengthen and that economic activity has been rising at a moderate rate. Job gains have been strong, **on average**, in recent months, and the unemployment rate has stayed low. Recent data suggest that growth ~~rates of household spending and business fixed investment have moderated from their~~ **its** strong fourth-quarter ~~readings~~ **pace, while business fixed investment continued to grow strongly**. On a 12-month basis, both overall inflation and inflation for items other than food and energy have ~~continued to run below~~ **moved close to** 2 percent. Market-based measures of inflation compensation ~~have increased in recent months but~~ remain low; survey-based measures of longer-term inflation expectations are little changed, on balance.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. ~~The economic outlook has strengthened in recent months.~~ The Committee expects that, with further gradual adjustments in the stance of monetary policy, economic activity will expand at a moderate pace in the medium term and labor market conditions will remain strong. Inflation on a 12-month basis is expected to ~~move up in coming months and to stabilize around~~ **run near** the Committee's **symmetric** 2 percent objective over the medium term. ~~Near-term Risks to the economic outlook appear roughly balanced, but the Committee is monitoring inflation developments closely.~~
3. In view of realized and expected labor market conditions and inflation, the Committee decided to ~~raise~~ **maintain** the target range for the federal funds rate ~~to~~ **at** 1-1/2 to 1-3/4 percent. The stance of monetary policy remains accommodative, thereby supporting strong labor market conditions and a sustained return to 2 percent inflation.
4. In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Committee will carefully monitor actual and expected inflation developments relative to its symmetric inflation goal. The Committee expects that economic conditions will evolve in a manner that will warrant further gradual increases in the federal funds rate; the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run. However, the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data.

**ALTERNATIVE C FOR MAY 2018**

1. Information received since the Federal Open Market Committee met in ~~January~~ **March** indicates that the labor market has continued to strengthen and that economic activity has been rising at a moderate rate. Job gains have been strong, **on average**, in recent months, and the unemployment rate has stayed low. Recent data suggest that growth rates of household spending and ~~business fixed investment~~ have moderated from their ~~its~~ strong fourth-quarter readings **pace, while business fixed investment continued to grow strongly**. On a 12-month basis, both overall inflation and inflation for items other than food and energy have ~~continued to run below~~ **moved close to** 2 percent. ~~Market-based measures of inflation compensation have increased in recent months but remain low; survey-based measures~~ **Indicators** of longer-term inflation expectations are little changed, on balance.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. ~~The economic outlook has strengthened in recent months. The Committee expects that, with further gradual adjustments in the stance of monetary policy,~~ **increases in the target range for the federal funds rate will be consistent with sustained expansion of economic activity and employment** will expand at a moderate pace in the medium term and labor market conditions will remain strong. **and with** inflation on a 12-month basis is expected to move up in coming months and to stabilize around **near** the Committee's **symmetric** 2 percent objective over the medium term. ~~Near-term Risks to the economic outlook appear roughly balanced, but the Committee is monitoring inflation developments closely.~~
3. In view of realized and expected labor market conditions and inflation, the Committee decided to raise the target range for the federal funds rate ~~to 1-1/2~~ to 1-3/4 **to 2** percent. The stance of monetary policy remains accommodative, thereby supporting strong labor market conditions and a sustained return to 2 percent inflation.
4. In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its ~~objectives of maximum employment~~ **objective** and **its symmetric** 2 percent inflation **goal**. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. ~~The Committee will carefully monitor actual and expected inflation developments relative to its symmetric inflation goal. The Committee expects that economic conditions will evolve in a manner that will warrant further gradual increases in the federal funds rate; the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run. However, the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data.~~

## Implementation Note for May 2018 Alternatives A and B

*Release Date: May 2, 2018*

### Decisions Regarding Monetary Policy Implementation

The Federal Reserve has made the following decisions to implement the monetary policy stance announced by the Federal Open Market Committee in its [statement](#) on ~~March 21~~ **May 2**, 2018:

- The Board of Governors of the Federal Reserve System voted [ unanimously ] to ~~raise~~ **maintain** the interest rate paid on required and excess reserve balances ~~to~~ **at** 1.75 percent, effective ~~March 22~~ **May 3**, 2018.
- As part of its policy decision, the Federal Open Market Committee voted to authorize and direct the Open Market Desk at the Federal Reserve Bank of New York, until instructed otherwise, to execute transactions in the System Open Market Account in accordance with the following domestic policy directive:

“Effective ~~March 22~~ **May 3**, 2018, the Federal Open Market Committee directs the Desk to undertake open market operations as necessary to maintain the federal funds rate in a target range of 1-1/2 to 1-3/4 percent, including overnight reverse repurchase operations (and reverse repurchase operations with maturities of more than one day when necessary to accommodate weekend, holiday, or similar trading conventions) at an offering rate of 1.50 percent, in amounts limited only by the value of Treasury securities held outright in the System Open Market Account that are available for such operations and by a per-counterparty limit of \$30 billion per day.

The Committee directs the Desk to continue rolling over at auction ~~the amount of principal payments from the Federal Reserve's holdings of Treasury securities maturing during March that exceeds \$12 billion, and to continue reinvesting in agency mortgage-backed securities the amount of principal payments from the Federal Reserve's holdings of agency debt and agency mortgage-backed securities received during March that exceeds \$8 billion. Effective in April, the Committee directs the Desk to roll over at auction~~ the amount of principal payments from the Federal Reserve's holdings of Treasury securities maturing during each calendar month that exceeds \$18 billion, and to reinvest in agency mortgage-backed securities the amount of principal payments from the Federal Reserve's holdings of agency debt and agency mortgage-backed securities received during each calendar month that exceeds \$12 billion. Small deviations from these amounts for operational reasons are acceptable.

The Committee also directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency mortgage-backed securities transactions.”

- In a related action, the Board of Governors of the Federal Reserve System voted [ unanimously ] to approve a ~~1/4 percentage point increase in~~ **the establishment of** the

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primary credit rate to **at the existing level of** 2.25 percent, ~~effective March 22, 2018. In taking this action, the Board approved requests to establish that rate submitted by the Boards of Directors of the Federal Reserve Banks of ...~~

This information will be updated as appropriate to reflect decisions of the Federal Open Market Committee or the Board of Governors regarding details of the Federal Reserve's operational tools and approach used to implement monetary policy.

More information regarding open market operations and reinvestments may be found on the Federal Reserve Bank of New York's [website](#).



## Implementation Note for May 2018 Alternative C

*Release Date: May 2, 2018*

### Decisions Regarding Monetary Policy Implementation

The Federal Reserve has made the following decisions to implement the monetary policy stance announced by the Federal Open Market Committee in its [statement](#) on ~~March 21~~ **May 2**, 2018:

- The Board of Governors of the Federal Reserve System voted [ unanimously ] to raise the interest rate paid on required and excess reserve balances to ~~1.75~~ **2.00** percent, effective ~~March 22~~ **May 3**, 2018.
- As part of its policy decision, the Federal Open Market Committee voted to authorize and direct the Open Market Desk at the Federal Reserve Bank of New York, until instructed otherwise, to execute transactions in the System Open Market Account in accordance with the following domestic policy directive:

“Effective ~~March 22~~ **May 3**, 2018, the Federal Open Market Committee directs the Desk to undertake open market operations as necessary to maintain the federal funds rate in a target range of ~~1-1/2 to 1-3/4~~ **to 2** percent, including overnight reverse repurchase operations (and reverse repurchase operations with maturities of more than one day when necessary to accommodate weekend, holiday, or similar trading conventions) at an offering rate of ~~1.50~~ **1.75** percent, in amounts limited only by the value of Treasury securities held outright in the System Open Market Account that are available for such operations and by a per-counterparty limit of \$30 billion per day.

The Committee directs the Desk to continue rolling over at auction ~~the amount of principal payments from the Federal Reserve's holdings of Treasury securities maturing during March that exceeds \$12 billion, and to continue reinvesting in agency mortgage-backed securities the amount of principal payments from the Federal Reserve's holdings of agency debt and agency mortgage-backed securities received during March that exceeds \$8 billion. Effective in April, the Committee directs the Desk to roll over at auction~~ the amount of principal payments from the Federal Reserve's holdings of Treasury securities maturing during each calendar month that exceeds \$18 billion, and to reinvest in agency mortgage-backed securities the amount of principal payments from the Federal Reserve's holdings of agency debt and agency mortgage-backed securities received during each calendar month that exceeds \$12 billion. Small deviations from these amounts for operational reasons are acceptable.

The Committee also directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency mortgage-backed securities transactions.”

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- In a related action, the Board of Governors of the Federal Reserve System voted [ unanimously ] to approve a 1/4 percentage point increase in the primary credit rate to ~~2.25~~ **2.50** percent, effective ~~March 22~~ **May 3**, 2018. In taking this action, the Board approved requests to establish that rate submitted by the Boards of Directors of the Federal Reserve Banks of . . .

This information will be updated as appropriate to reflect decisions of the Federal Open Market Committee or the Board of Governors regarding details of the Federal Reserve’s operational tools and approach used to implement monetary policy.

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