WILMINGTON TRUST

The Flattening Yield Curve: Should We Be Concerned?

June 2018

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As of May 31, 2018, unless otherwise noted.

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Agenda

- The significance of the yield curve
- Why should we be worried?
- Why shouldn't we be worried (yet)?
- Is this time different?
- Positioning for a flattening – but not inverted – yield curve

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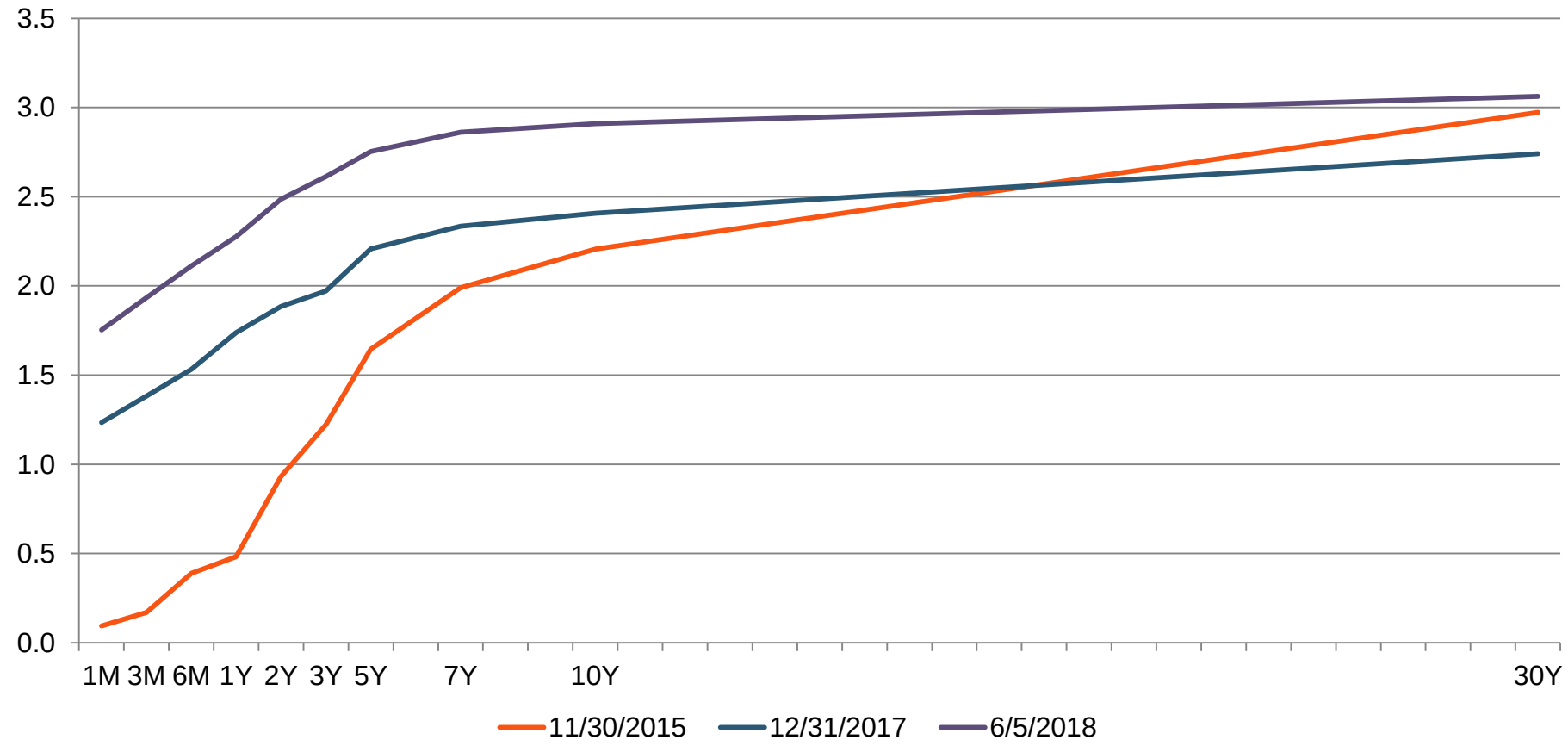
The yield curve through time

We have observed a flattening yield curve since the Fed began raising rates in 2015

U.S. Treasury yield (%) for different maturities



As of June 5, 2018.
Source: Bloomberg, Federal Reserve

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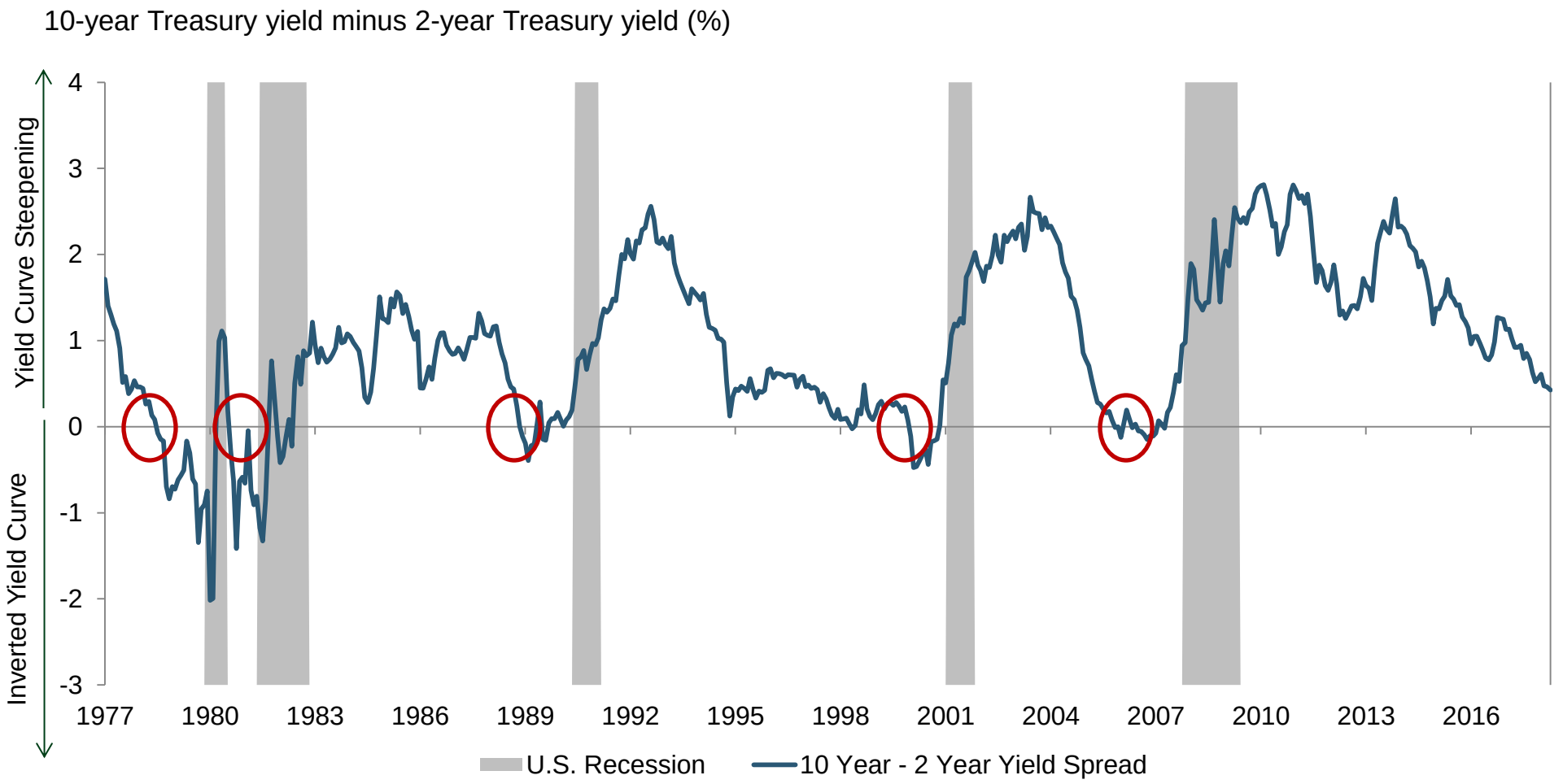
Why should we be worried?

The yield curve has inverted prior to each of the last five recessions



As of June 5, 2018.
Source: Bloomberg, Federal Reserve

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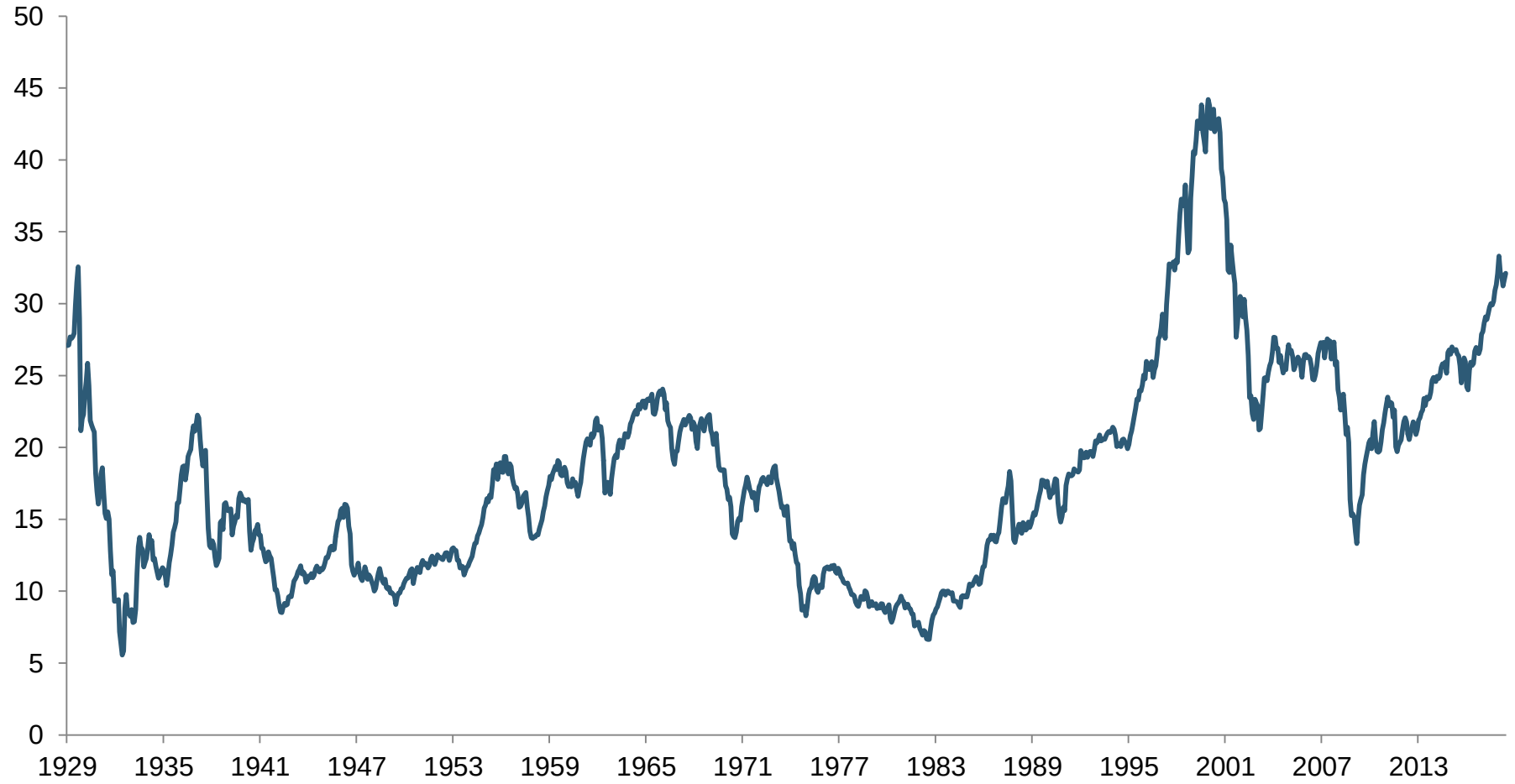
Valuations pose elevated risk to markets

By at least one measure, the S&P 500 has been more expensive only once in the last 90 years

S&P 500 Cyclically-Adjusted Price-to-Earnings Ratio



As of June 5, 2018. Represents the S&P 500 price divided by the average of the last ten years worth of earnings, with both adjusted for inflation.
Source: Shiller, Robert; Yale University

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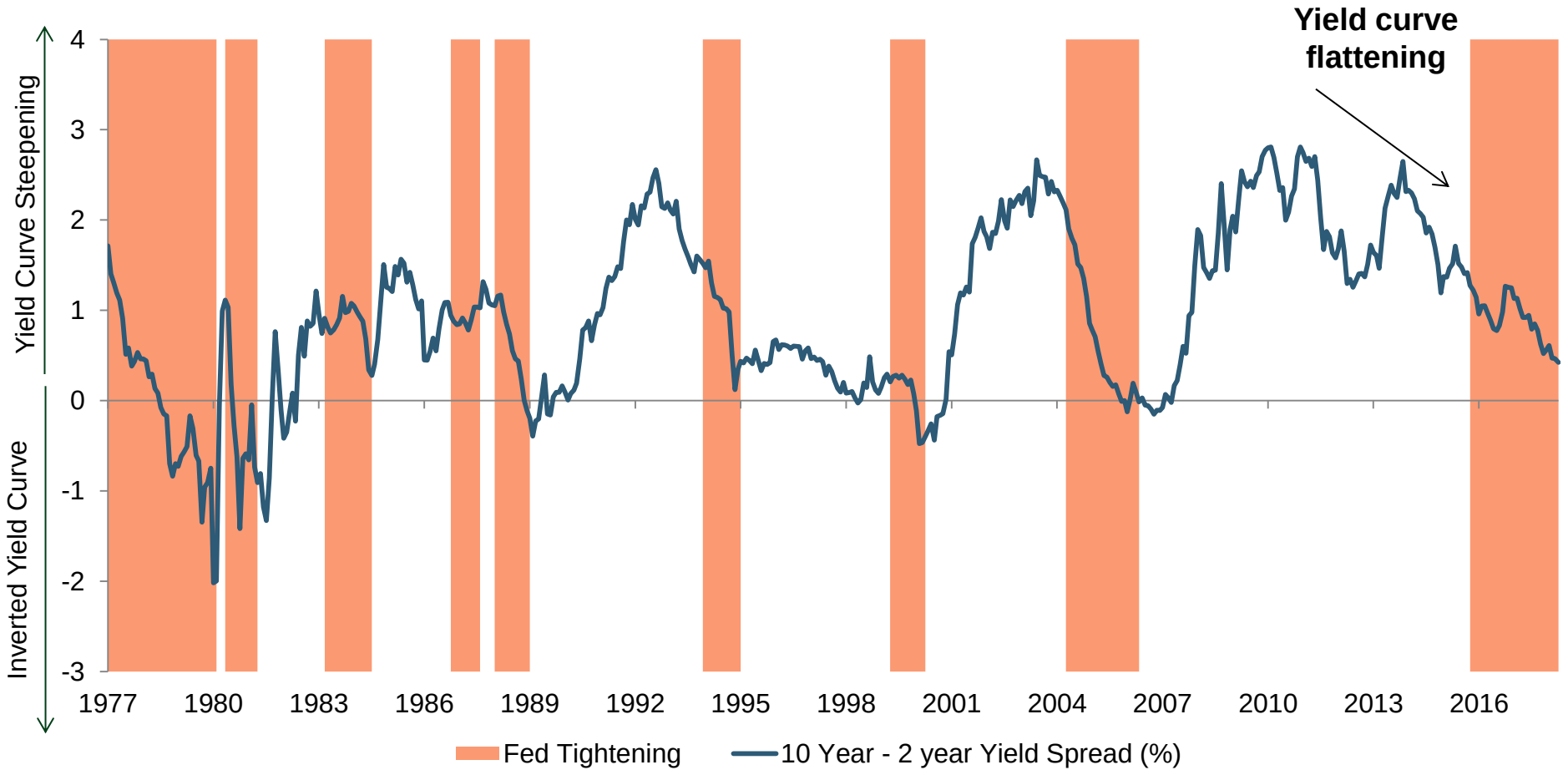
Flattening curve typical when Fed hiking

The yield curve tends to flatten during Fed hike cycles

Yield curve slope and Fed tightening cycles



As of June 5, 2018.
Source: Bloomberg, Federal Reserve

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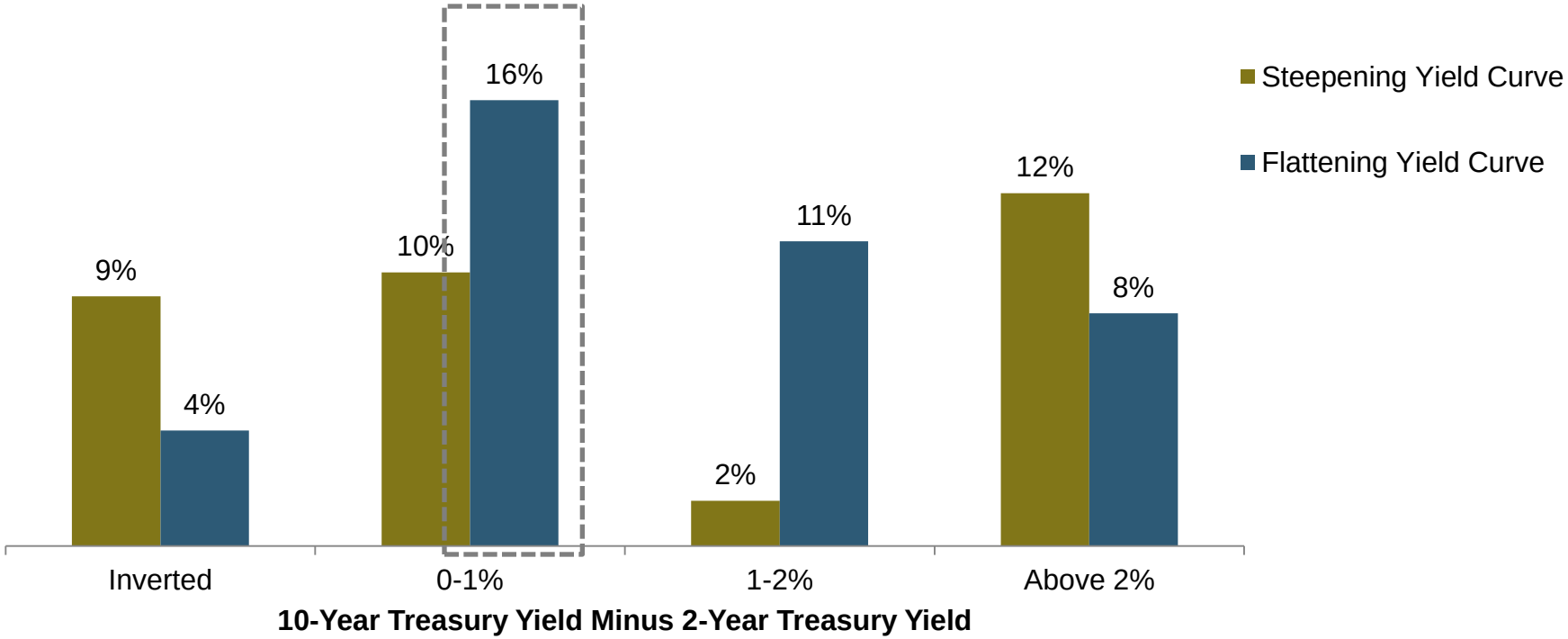
Flattening yield curve not bad for stocks

Despite the media hype, the current environment has historically been positive for stocks

S&P 500 next-12-month return during yield curve regimes



Current 10y-2y spread = 42 bps

Includes the period August 31, 1974 through November 30, 2017.
Source: Bloomberg, Federal Reserve, Standard & Poor's
Past performance is no guarantee of future results.

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The yield curve as an imperfect science

The yield curve has historically given advanced– yet inconsistent – warning to the stock market

Historical Yield Curve Inversions

Date of Inversion	Inversion to Market Peak (Months)	Inversion to Market Peak (% Chg S&P 500)	Peak to Recession (Months)	Peak to Recession (% Chg S&P 500)
Aug-78	18	11%	0	0%
Sep-80	7	8%	4	-4%
Jan-89	17	21%	2	-1%
Jun-98	27	34%	7	-18%
Feb-00	7	11%	7	-18%
Dec-05	23	24%	2	-4%
Average	**17**	**18%**	**4**	**-8%**

Inversion to peak is inclusive of the month the curve inverted and also the month the market peaked. Peak to recession is inclusive of the month the market peaked but not the month the recession started.
Source: Bloomberg, Standard & Poor's
Past performance is no guarantee of future results.

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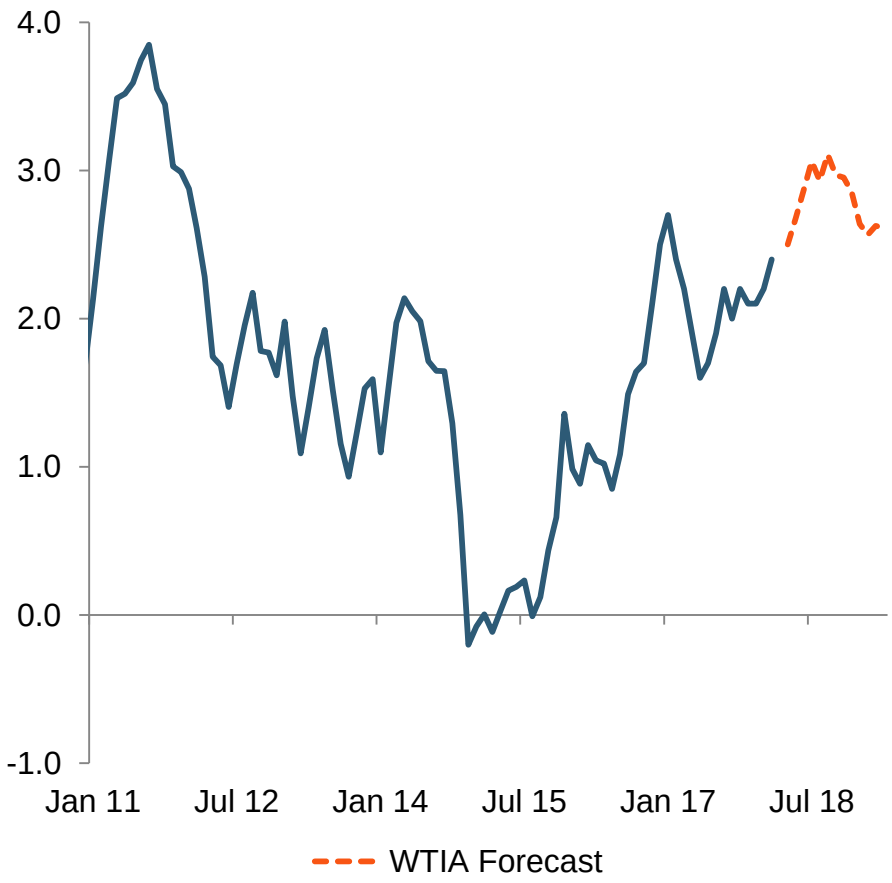
Inflation unlikely to force the Fed's hand

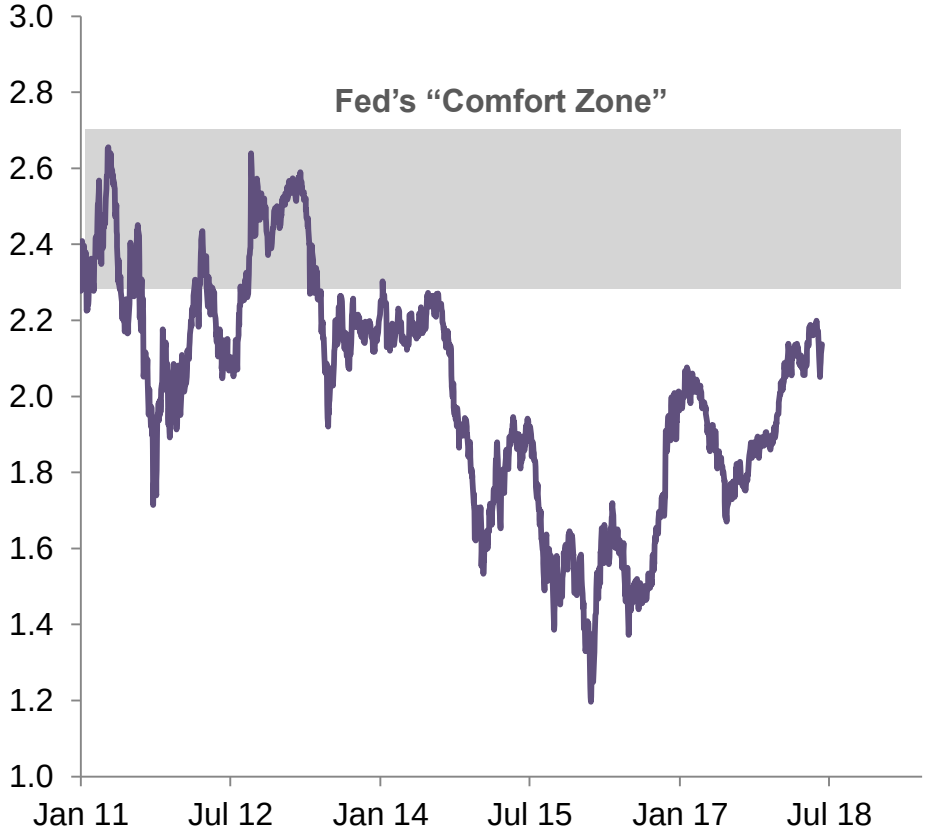
Inflation to remain contained with wiggle room around the target

Headline CPI (% Y/Y)



Actual CPI data as of April 30, 2018, with WTIA's 12-month forecast thereafter.
Source: Bloomberg, Bureau of Economic Analysis, WTIA

10-Year Breakeven Inflation Rate (%)



As of June 5, 2018. Fed's "comfort zone" represents WTIA estimates.
Source: Bloomberg, WTIA

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Several factors are contributing to low inflation

Causes of structurally lower inflation are likely numerous

Low U.S. inflation

Demographics:

Downward wage pressures from higher-paid baby boomers retiring and being replaced with lower-paid workers, along with their tendency to spend less

Global disinflation:

With the world increasingly connected, and China's growth slowing, low inflation in other parts of the world is affecting the U.S.

Technology:

Supply chain disruption is real but challenging to quantify

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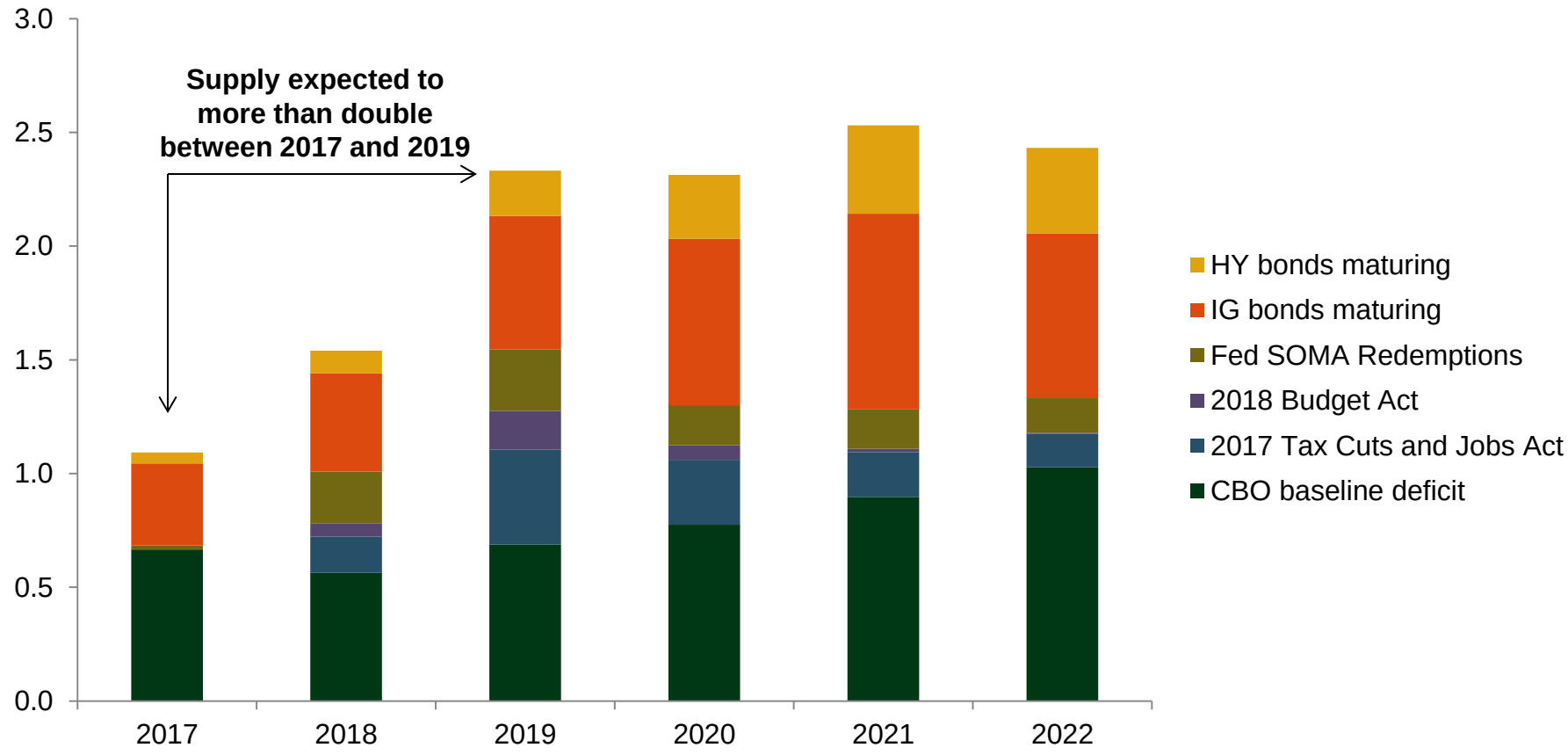
U.S. supply expected to support yields

Reduction of the Fed's balance sheet, coupled with higher U.S. debt financing needs, should keep the long end of the yield curve elevated

U.S. fixed income supply ($ trillion)



Estimates as of May 31, 2018.
Source: Deutsche Bank; Jezek, Michal; Standard & Poor's; Zeng, Steven

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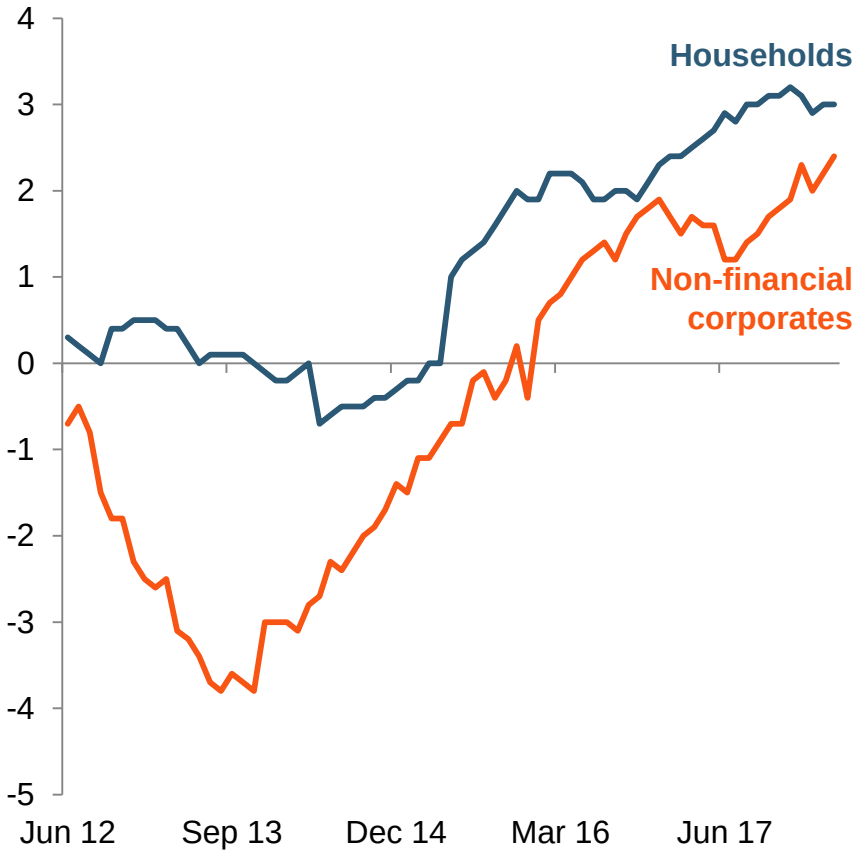
ECB monetary policy could lead rates higher

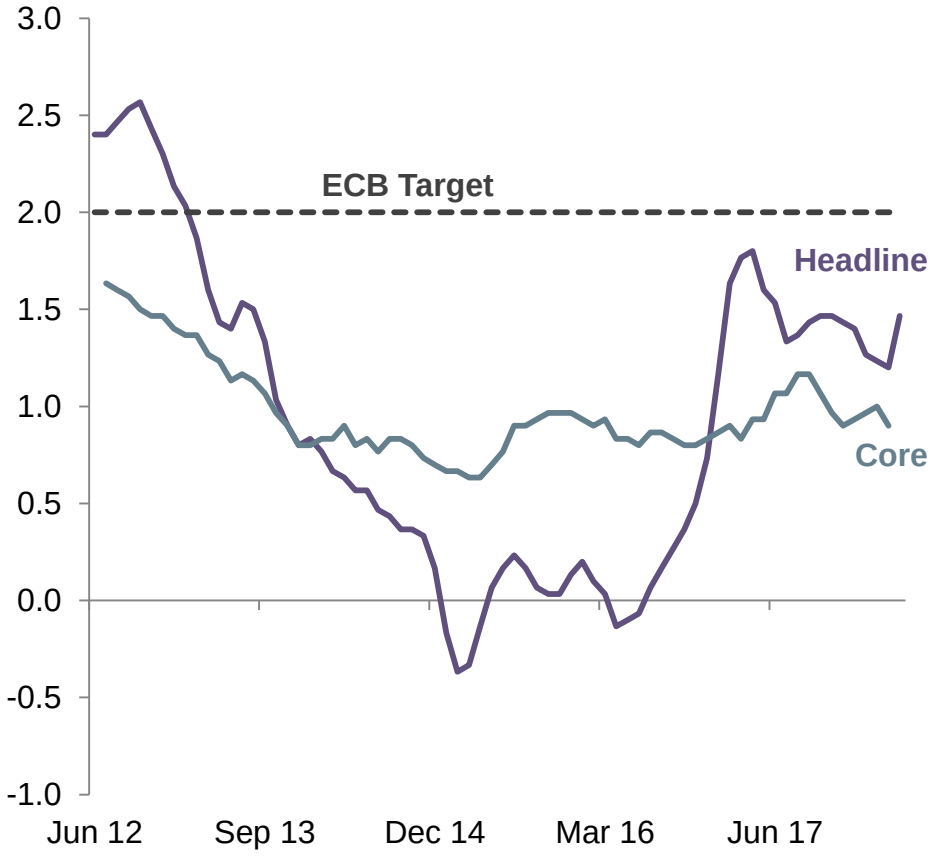
Improvements in European growth justify more normalized monetary policy, but inflation still below target

Annual growth rates of euro area loans (%)



As of April 30, 2018.
Source: Bloomberg, ECB

Euro area inflation, year-over-year smoothed (%)



As of May 31, 2018. Represents a 3-month moving average.
Source: Bloomberg, ECB

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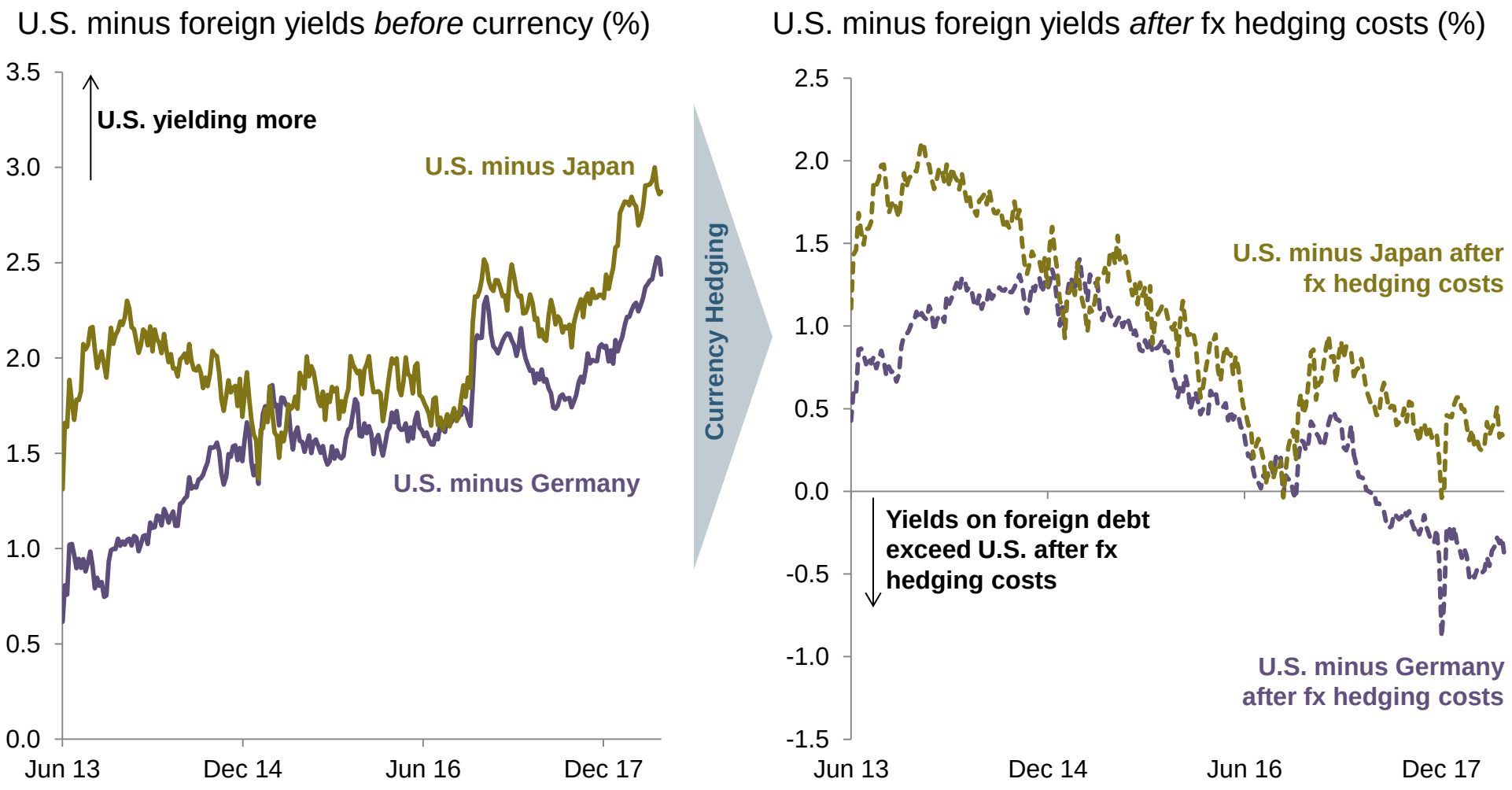
Foreign demand no longer capping U.S. yields

U.S. Treasuries are no longer as attractive to foreign buyers given increased currency hedging costs



As of June 7, 2018. Represents the 10-year U.S. Treasury yield minus that of the 10-year German bund and 10-year Japanese Government Bond.
Source: Bloomberg

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The yield curve has the Fed's attention

Recent commentary suggests the Fed may be split in whether to heed the yield curve's warning

Select quotes on the topic of an inverted yield curve

"If the yield curve does invert…the signal of an impending economic downturn would be strong. In my view, it is unnecessary for the FOMC to be so aggressive as to invert the yield curve."
-James Bullard, May 11, 2018

A few participants noted that such factors could make the slope of the yield curve a less reliable signal of future economic activity. However, several participants thought that it would be important to continue to monitor the slope of the yield curve, emphasizing the historical regularity that an inverted yield curve has indicated an increased risk of recession.
-Minutes of the FOMC, May 2, 2018

"The fact that the yield curve is flattening gives me some more reinforcement that…the market is telling us we're not—far away from neutral today."
-Neel Kashkari, Apr 16, 2018

"There are good questions about what a flat yield curve or inverted yield curve does to intermediation. It's hard to find in the research data, but nonetheless, I think those are issues that we'll be watching carefully."
-Chairman Powell, Mar 21, 2018

"…In this current period, I think the signal may be less than in past periods."
-Loretta Mester, Jun 1, 2018

"With the term premium today very low by historical standards, this may temper somewhat the conclusions that we can draw from a pattern that we have seen historically in periods with a higher term premium."
-Lael Brainard, May 31, 2018

"I don't think it is as likely that the inversion of the yield curve is…sort of an indicator of a recession to come."
-Randal Quarles, Apr 18, 2018

"I don't think there is any signal at all to take today in terms of the probability of a near-term recession."
-Bill Dudley, Jan 18, 2018

"There are good reasons to think that the relationship between the slope of the yield curve and the business cycle may have changed."
-Janet Yellen, Dec 13, 2017

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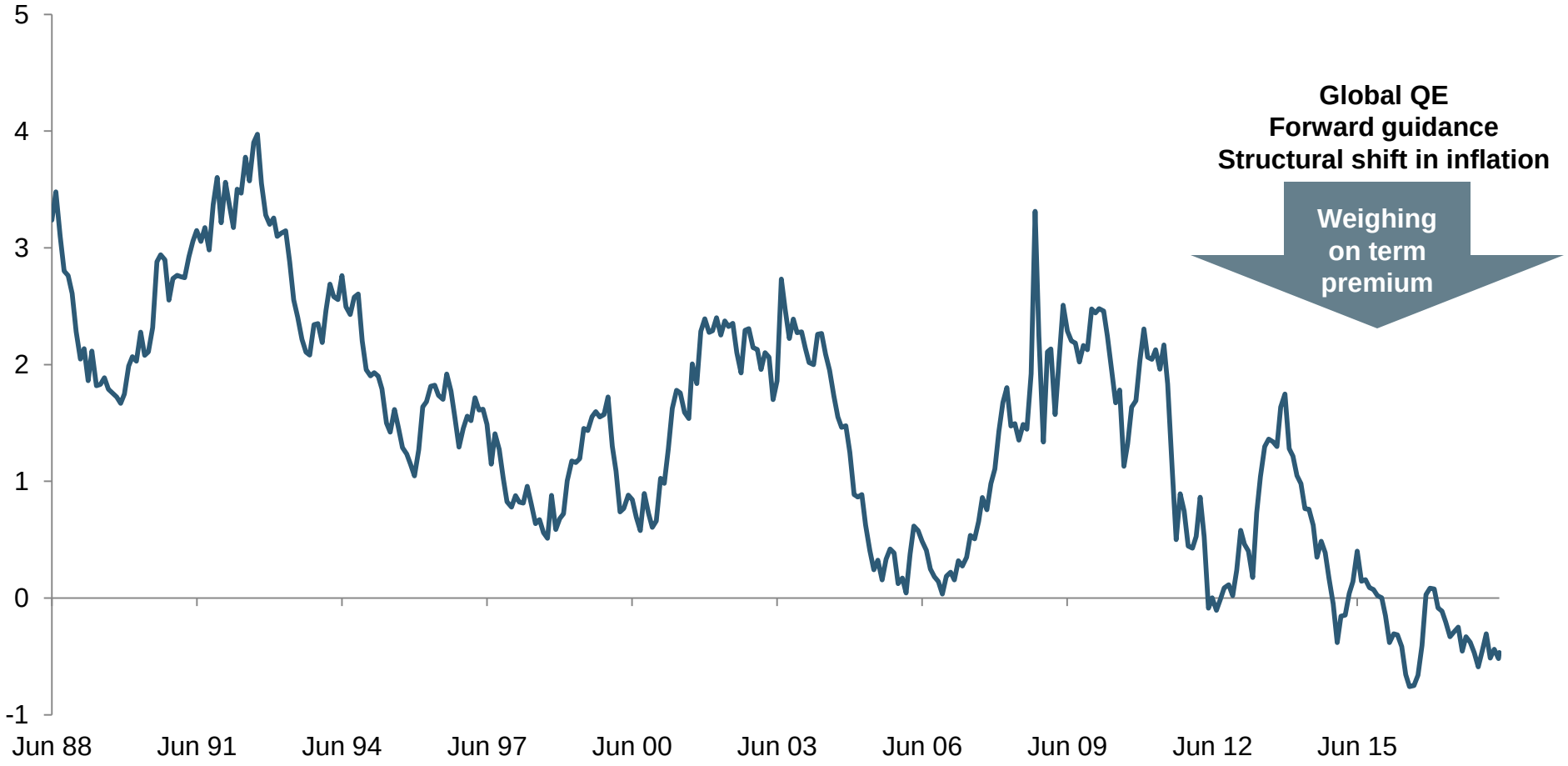
This time is different: the collapsing term premium

A lower term premium could lead to an earlier inversion of the yield curve this time around

10-Year Treasury Term Premium (%)



As of June 5, 2018. Represents the Adrian Crump & Moench estimate of the 10-year Treasury term premium.
Source: Bloomberg, Federal Reserve Bank of New York

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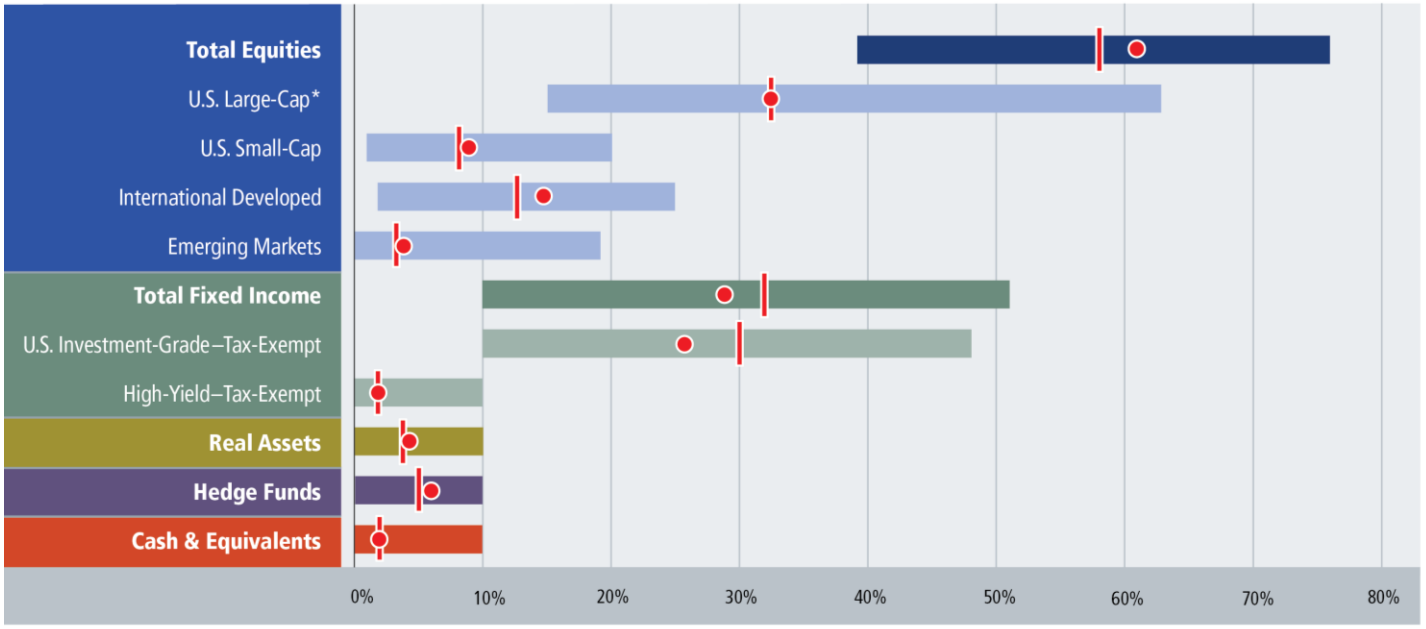
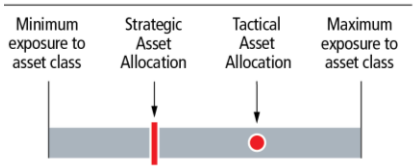
Positioning in response to our outlook (HNW investors)

A big-picture glimpse of our overall positions, as of June 1, 2018





Based on current Growth & Income Strategy for High-Net-Worth with Hedge Funds, this chart represents current weights relative to our strategic asset allocations, with high and low boundaries reflecting our maximum and minimum weightings.

Our positioning is as follows:

- Neutral to large cap equity, Hedge Fund, and Cash
- Overweight Total Equities, International Developed and Emerging Markets Equities
- Underweight Fixed Income overall, and Cash
- Slightly overweight Real Assets and Hedge Funds

* As of April 1, 2017, our positioning chart replaces "U.S. Large-Cap Core Equity" and "Large-Cap Sector Equity" with a single line item, "U.S. Large-Cap." This change reflects the continued responsibility of our Investment Committee to set the sector weights within the Large-Cap Sector Strategy and recognizes the role of the Portfolio Management Committee to set the weights allocated to this strategy alongside other large-cap manager allocations.

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Meghan Shue

Administrative Vice President, Senior Investment Strategist

Meghan is a Senior Investment Strategist at Wilmington Trust and a member of Wilmington Trust's Investment Committee. Meghan's responsibilities include helping manage the end-to-end asset allocation process, developing market research, and communicating the team's market outlook and positioning to clients and prospective clients.

Prior to joining Wilmington Trust, Meghan was an Investment Strategist at Bessemer Trust, where she helped manage the asset allocation decision and implementation process, performed asset allocation and market research, and published pertinent thought leadership.

Meghan holds an MBA with a concentration in Finance from the University of Miami and graduated valedictorian. She also holds a bachelor's degree in Engineering, with a concentration in Operations Research and Financial Engineering, from Princeton University.

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EXPERTISE IN

- Investment strategy
- Asset allocation

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An Overview of Our Asset Allocation Strategies
Wilmington Trust offers seven asset allocation models for taxable (high-net-worth) and tax-exempt (institutional) investors across five strategies reflecting a range of investment objectives and risk tolerances: Aggressive, Growth, Growth & Income, Income & Growth, and Conservative. The seven models are High Net Worth (HNW), HNW with Liquid Alternatives, HNW with Private Markets, HNW Tax Advantaged, Institutional, Institutional with Hedge LP, and Institutional with Private Markets. As the names imply, the strategies vary with the type and degree of exposure to hedge strategies and private market exposure, as well as with the focus on taxable or tax-exempt income. On a quarterly basis we publish the results of all of these strategy models versus benchmarks representing strategic implementation without tactical tilts.

Model Strategies may include exposure to the following asset classes: U.S. large-capitalization stocks, U.S. small-cap stocks, developed international stocks, emerging market stocks, U.S. and international real asset securities (including inflation-linked bonds and commodity-related and real estate-related securities), U.S. and international investment-grade bonds (corporate for Institutional or Tax Advantaged, municipal for other HNW), U.S. and international speculative grade (high-yield) corporate bonds and floating-rate notes, emerging markets debt, and cash equivalents. Model Strategies employing nontraditional hedge and private market investments will, naturally, carry those exposures as well. **Each asset class carries a distinct set of risks, which should be reviewed and understood prior to investing.**

Risk Assumptions
All investments carry some degree of risk. The volatility, or uncertainty, of future returns is a key concept of investment risk. Standard deviation is a measure of volatility and represents the variability of individual returns around the mean, or average annual, return. A higher standard deviation indicates more return volatility. This measure serves as a collective, quantitative estimate of risks present in an asset class or investment (e.g., liquidity, credit, and default risks). Certain types of risk may be underrepresented by this measure. **Investors should develop a thorough understanding of the risks of any investment prior to committing funds.**

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Quality ratings are used to evaluate the likelihood of default by a bond issuer. Independent rating agencies, such as Standard & Poor's and Moody's Investors Service, analyze the financial strength of each bond's issuer. Moody's ratings range from Aaa (highest quality) to C (lowest quality). Bonds rated Baa3 and better are considered "investment grade." Bonds rated Ba1 and below are "below investment grade" (also "high yield" or "speculative"). Similarly, Standard & Poor's ratings range from AAA to D. Bonds rated BBB– and better are considered "investment grade" and bonds rated BB+ and below are "below investment grade."

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