



Global markets outlook: US overheating and TSY supply vs trade wars and Europe

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US inflation outlook



Consensus expects above trend growth in the US

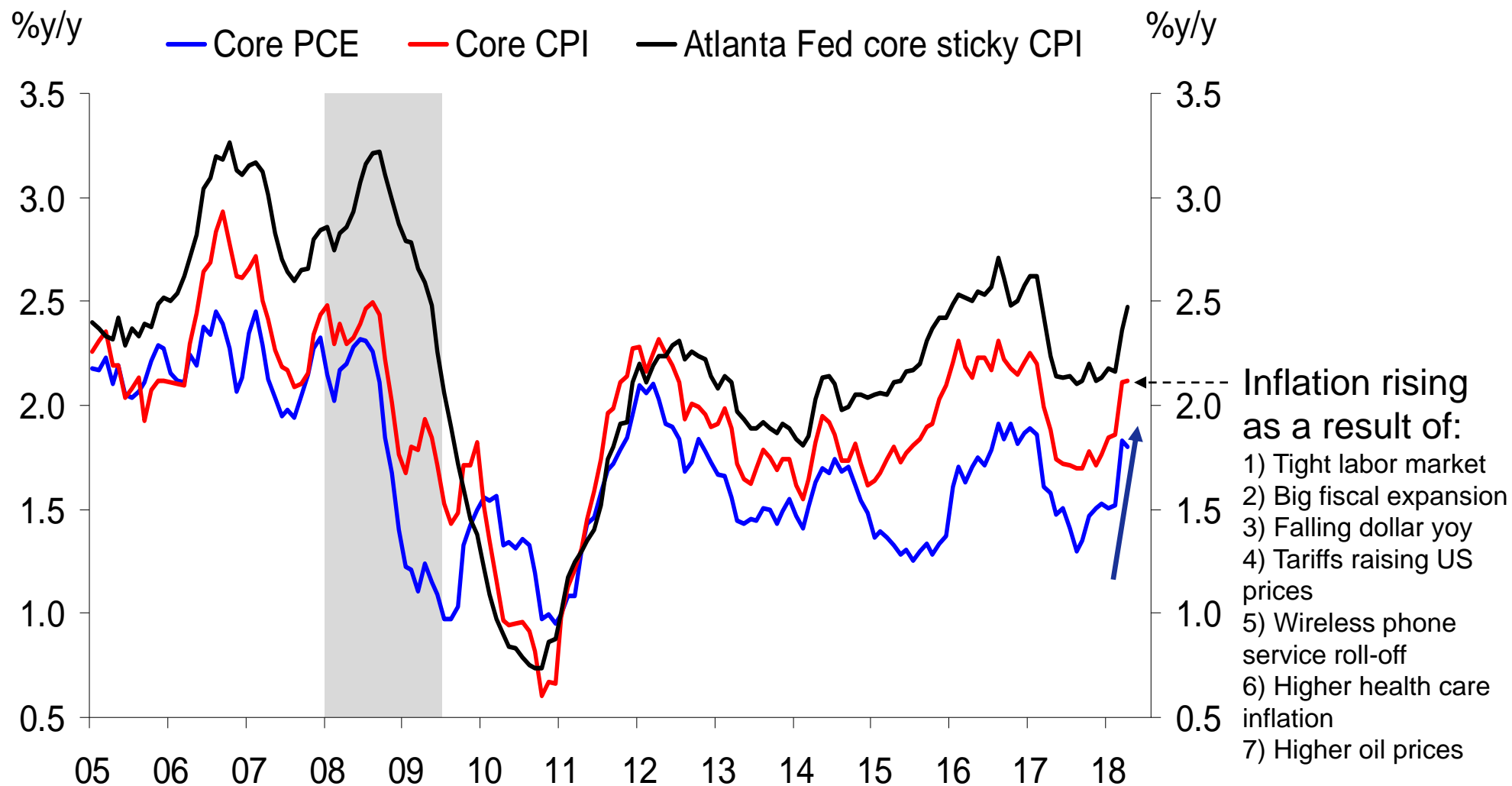
9) Chart		7) Set as Default View						Economic Forecasts			
Country/Region/World		Contributor		Contributor Composite				Yearly		Quarterly	
United States		Browse		<input checked="" type="radio"/> Private <input type="radio"/> Official							
		Actual / Forecasts						Probability of Recession 15.0%			
Indicator	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18	Q1 19	Q2 19	Q3 19	
Real GDP (YoY%)	2.2	2.3	2.6	2.8	2.9	2.9	2.8	2.9	2.6	2.5	
Real GDP (QoQ% SAAR)	3.1	3.2	2.9	2.2	3.3	3.0	2.7	2.4	2.5	2.2	
Consumer Spending (QoQ% S	3.3	2.2	4.0	1.0	3.0	2.7	2.5	2.4	2.4	2.4	
Government Spending (QoQ%	-0.2	0.7	3.0	1.1	1.8	2.4	2.6	2.0	1.7	1.4	
Private Investment (QoQ% SA	3.9	7.3	4.7	7.2	4.9	5.5	5.1	4.0	4.3	4.0	
Exports (QoQ% SAAR)	3.5	2.1	7.0	4.2	4.1	3.5	3.3	3.2	3.2	3.0	
Imports (QoQ% SAAR)	1.5	-0.7	14.1	2.8	3.5	5.0	4.5	4.0	3.7	3.6	
Industrial Production (YoY %)	1.9	1.3	3.0	3.7	3.2	4.0	2.9	2.6	2.5	2.4	
Price Indices											
CPI (YoY%)	1.9	1.9	2.1	2.2	2.7	2.7	2.5	2.3	2.3	2.3	
PCE Price Index (YoY%)	1.6	1.5	1.7	1.8	2.2	2.3	2.2	2.0	2.0	2.1	
Core PCE (yoy%)	1.5	1.4	1.5	1.6	1.9	2.1	2.1	2.1	2.1	2.1	

Core PCE at 2.1% for five quarters...

Source: Bloomberg Finance LP, DB Global Research

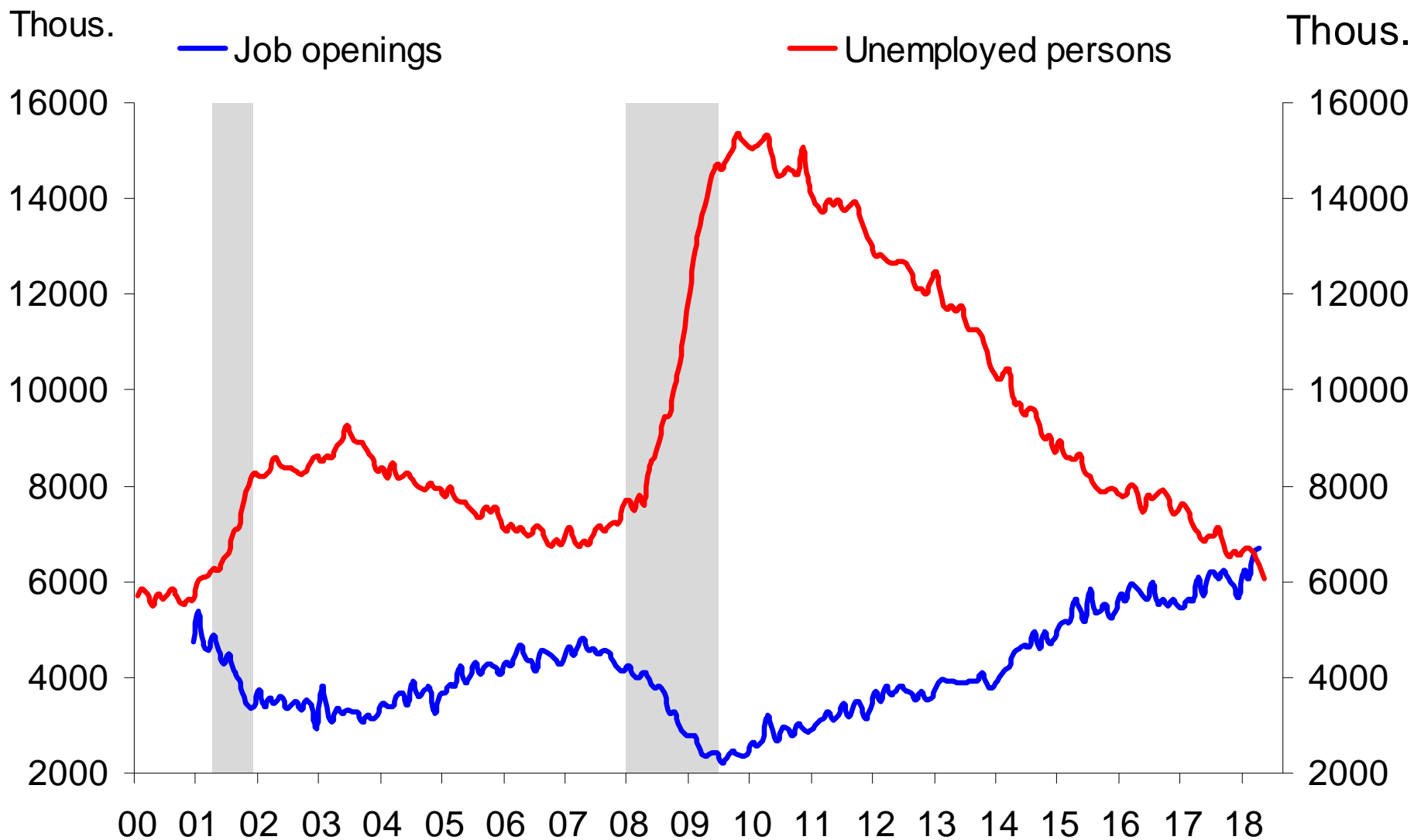


Dangerous uptrend in inflation: Core PCE in April was 1.8%



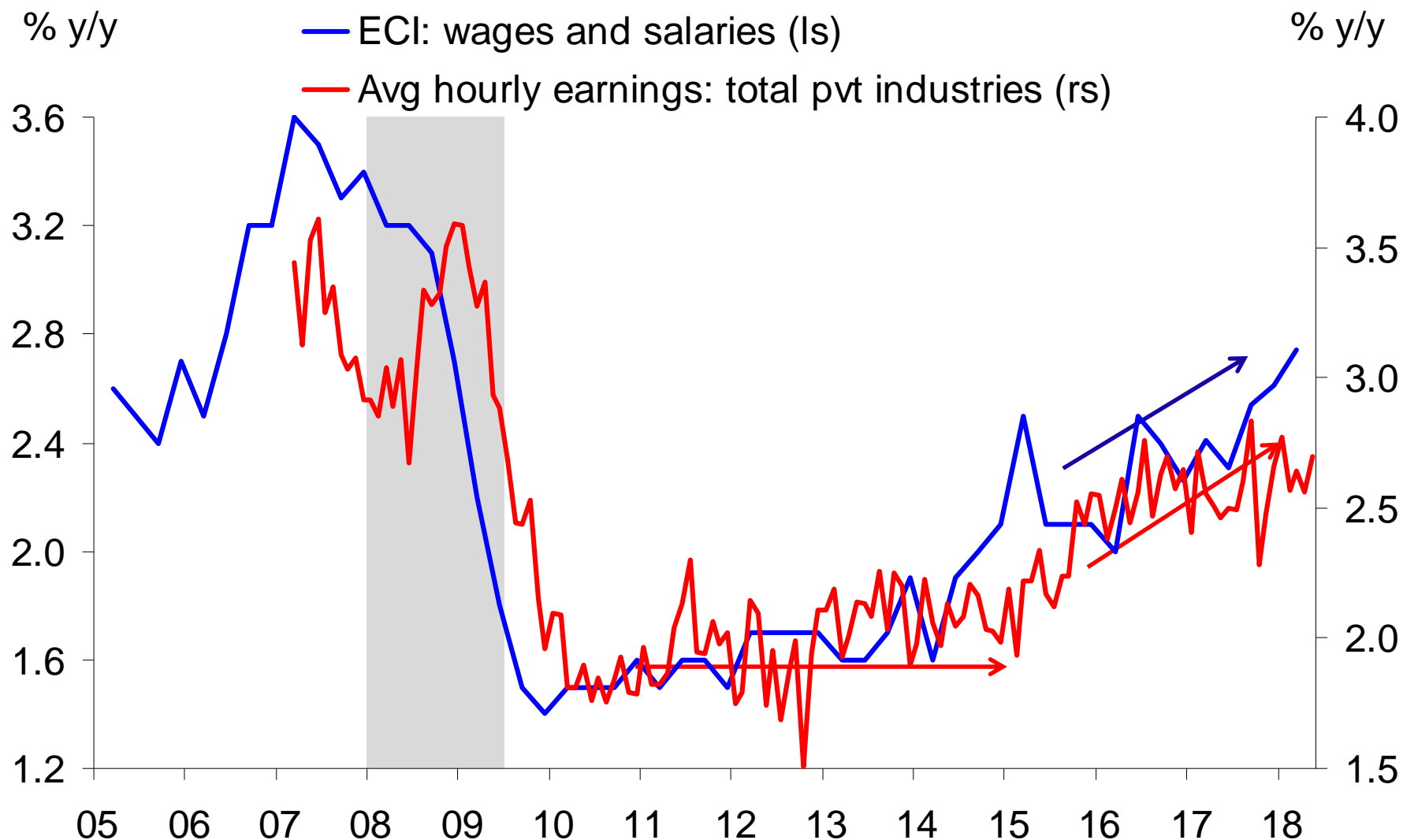
Source: BEA, BLS, FRBATL, Haver Analytics, DB Global Research

Labor market overheating: 6.1mn unemployed people and 6.7mn job openings



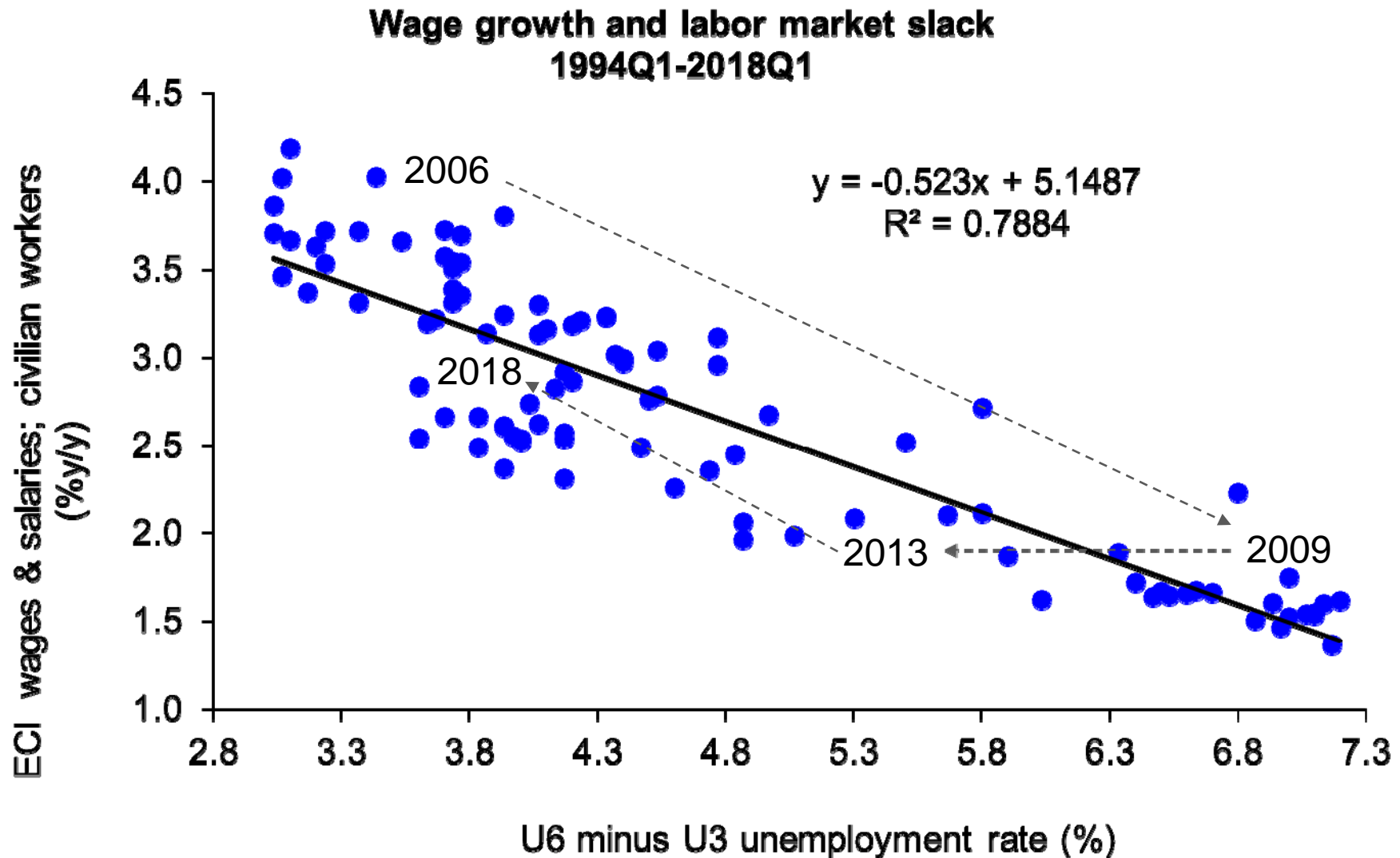
Source: BLS, Haver Analytics, DB Global Research

Wage inflation is picking up; both Average Hourly Earnings and Employment Cost Index are rising



Source: BLS, DB Global Research

The Phillips curve was never dead: Slack in the labor market closely connected with wage growth



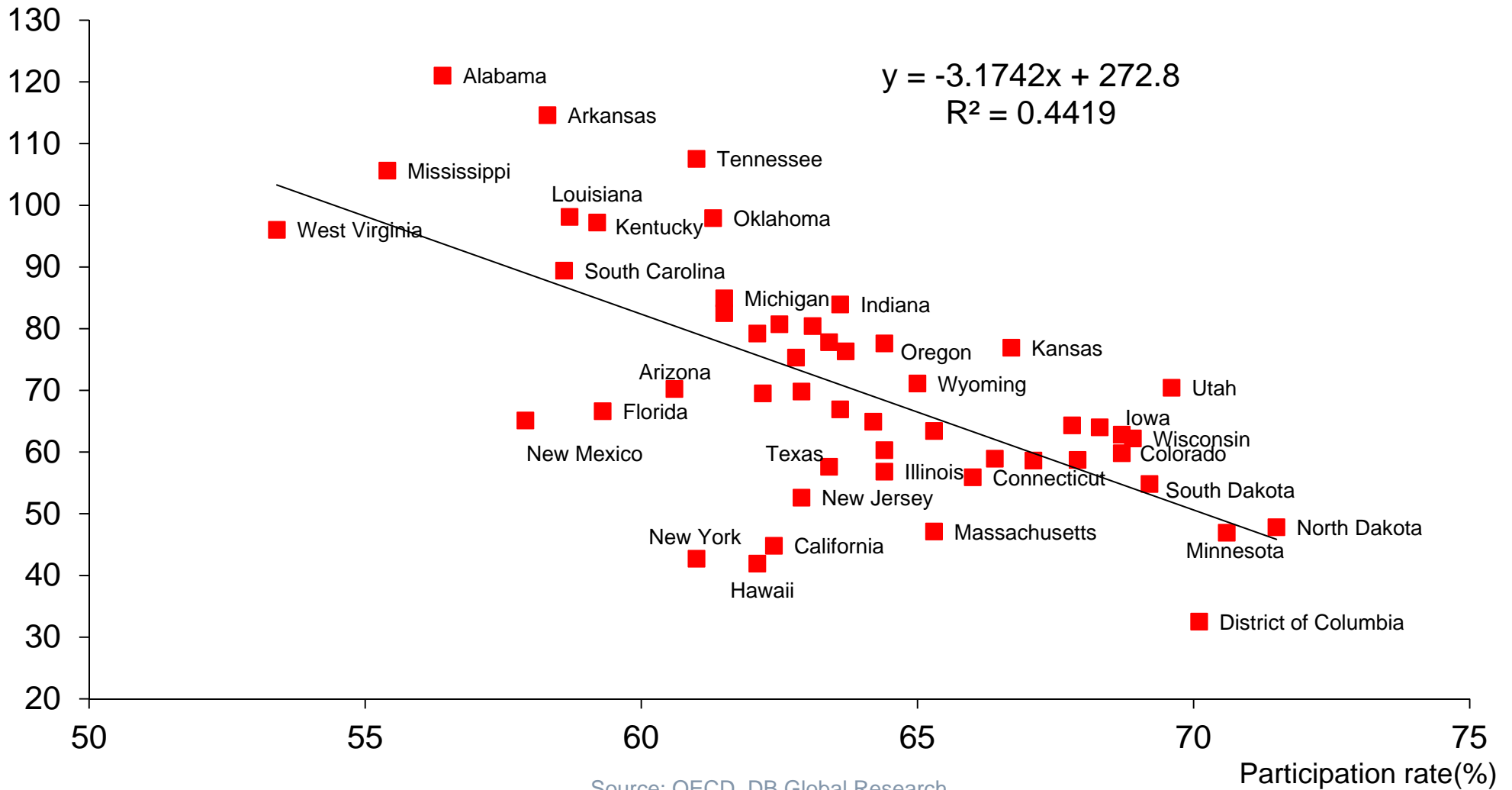
Source: BLS, Haver Analytics, DB Global Research

Opioid crisis having a negative impact on labor force participation



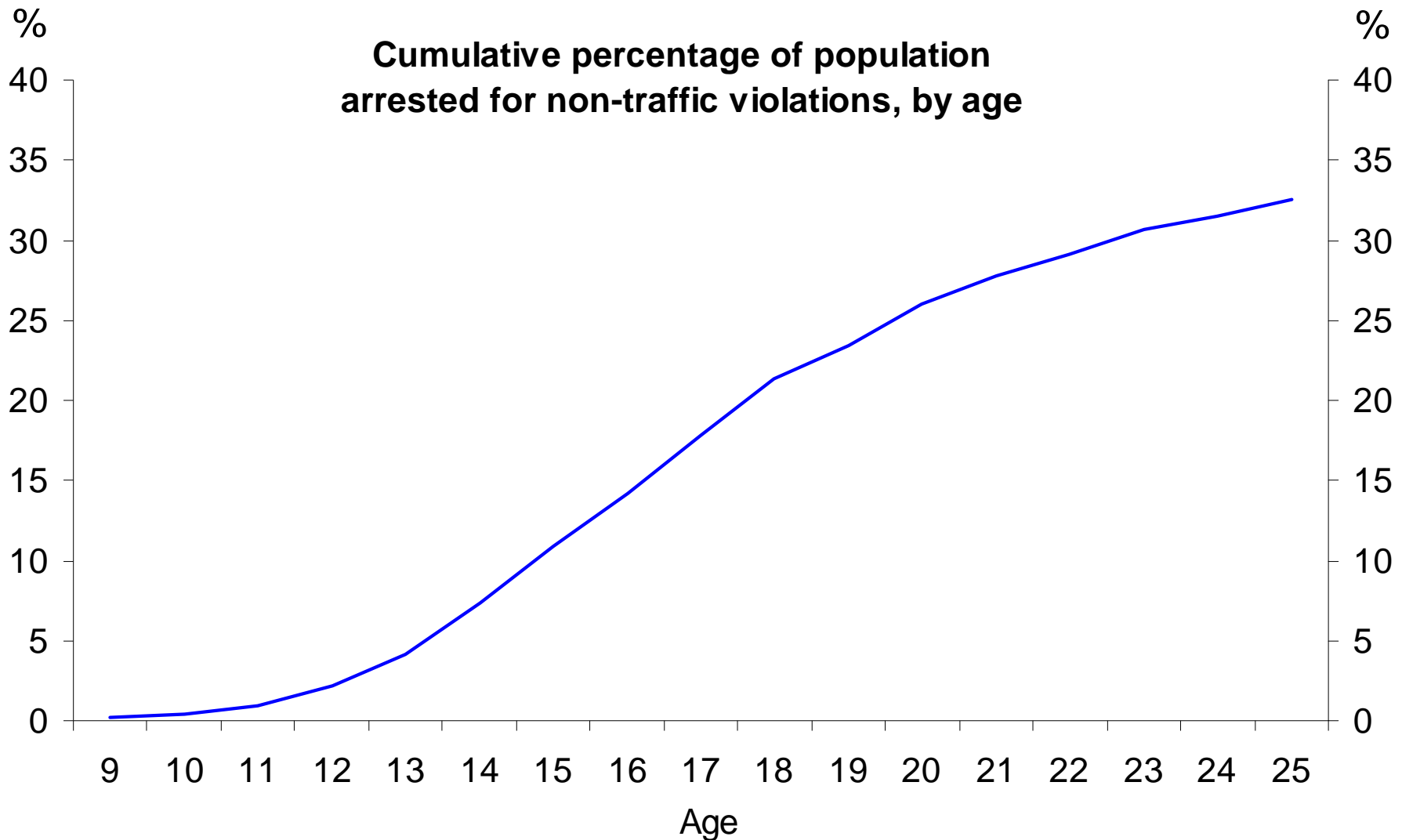
Opioid prescriptions
per 100 persons

Labour market participation and opioid use in the U.S by state, 2016



Source: OECD, DB Global Research

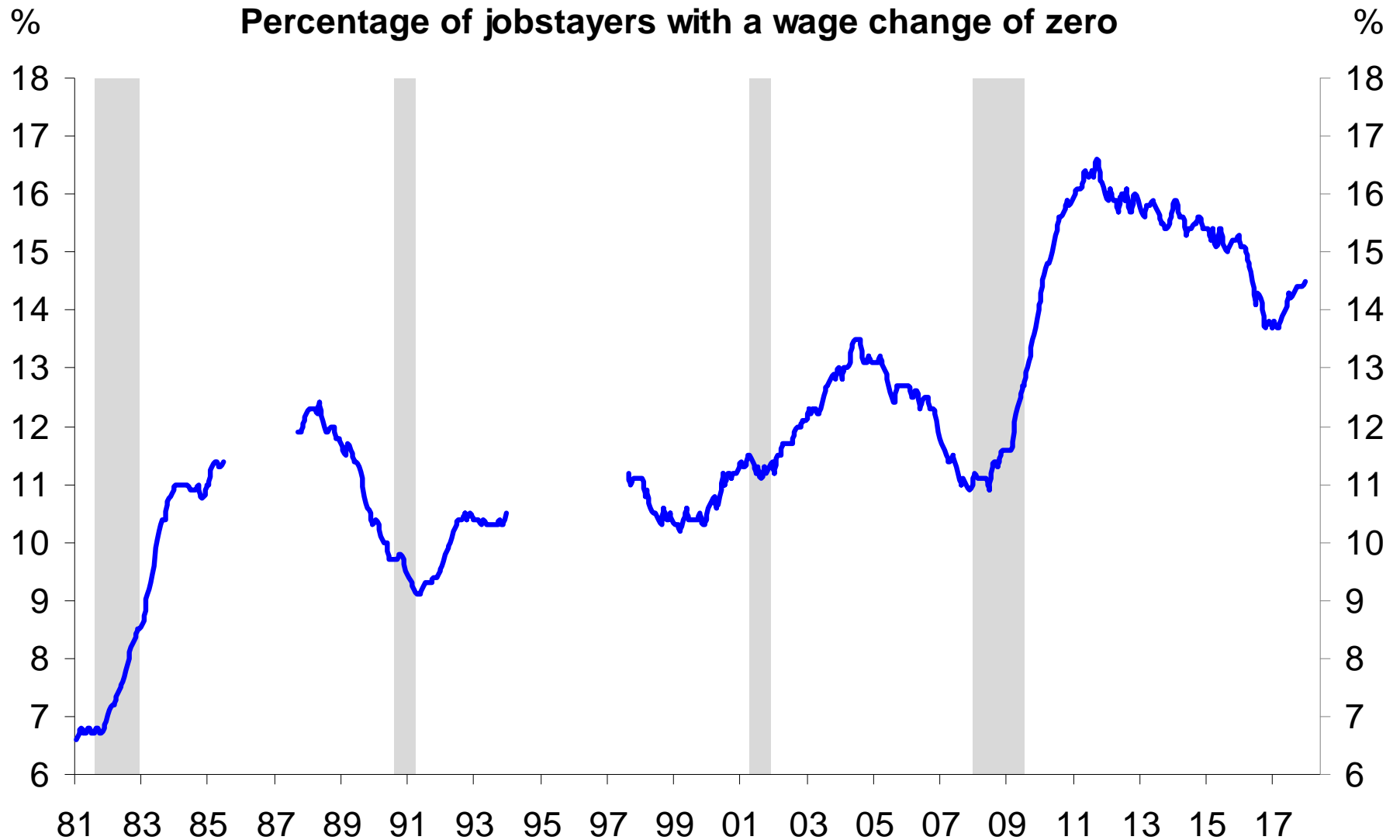
1 in 3 Americans arrested by age 25



Note: Latest data is from 2015. Cumulative percentage calculated using the National Longitudinal Survey of Youth 1997.

Source: Justin Weidner, NLSY97, DB Global Research

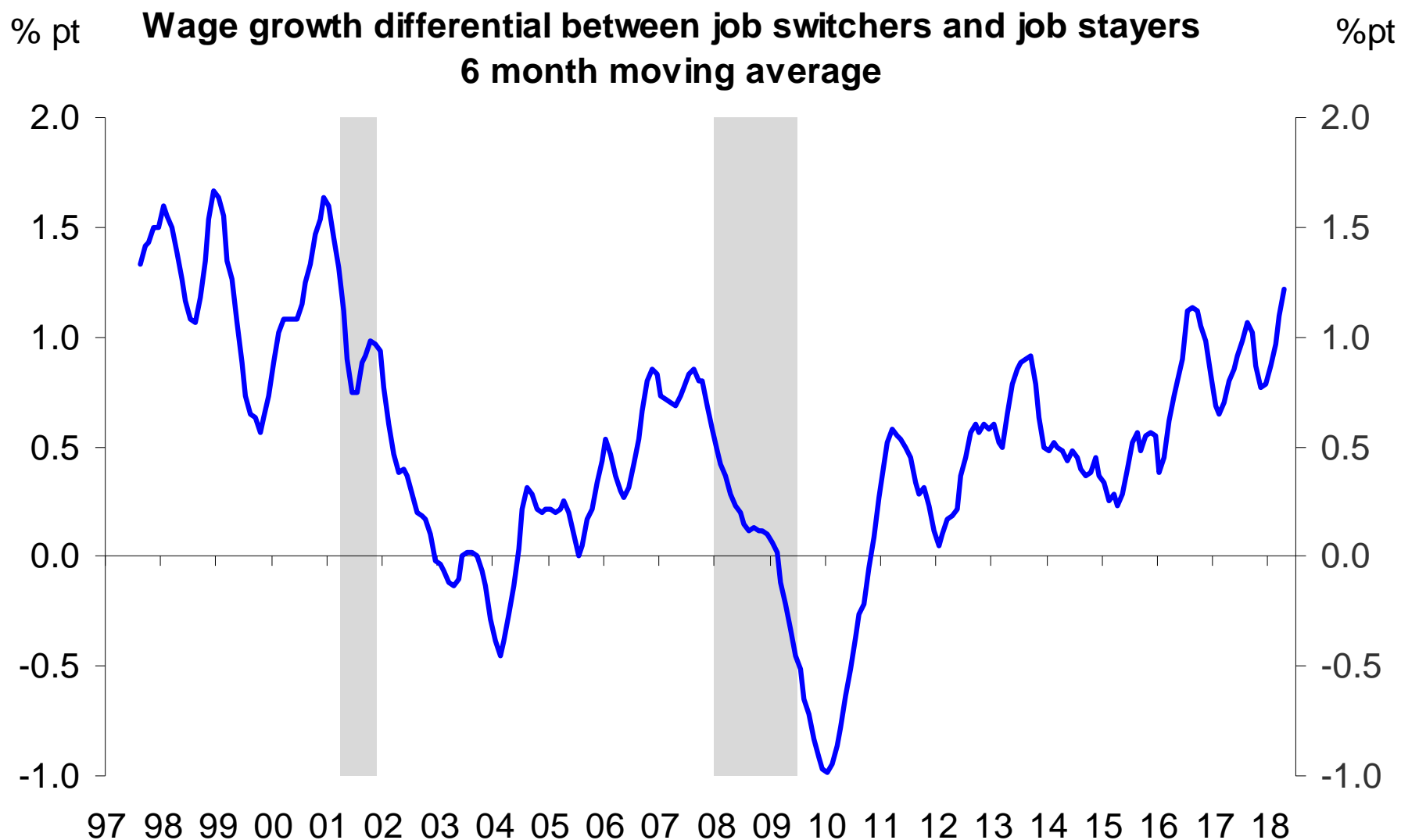
Rising share of job stayers have seen no increase in wages



Source: FRBSF, Haver Analytics, DB Global Research

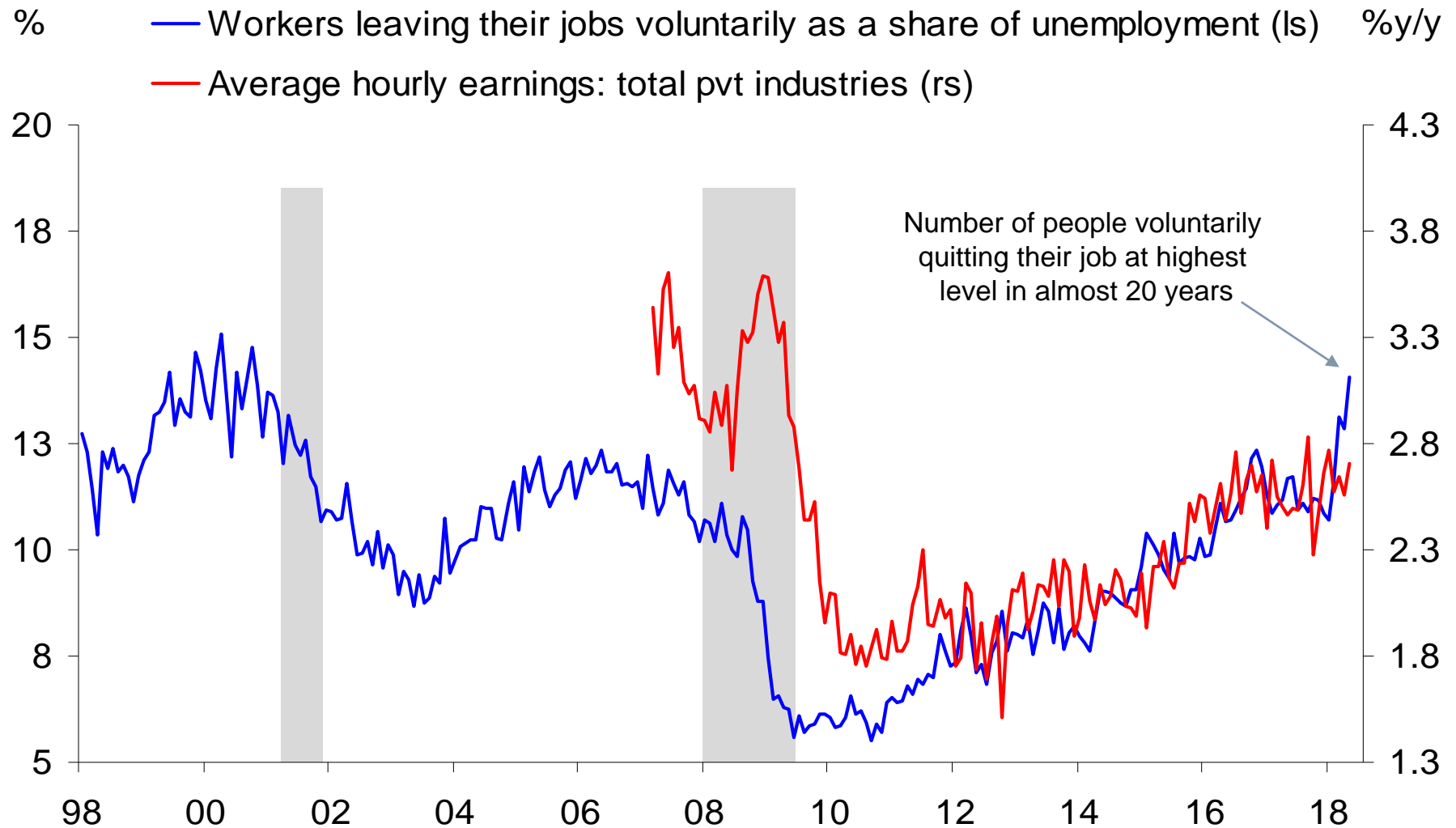


Higher wage growth for job switchers than job stayers



Source: FRBATL , Haver Analytics, DB Global Research

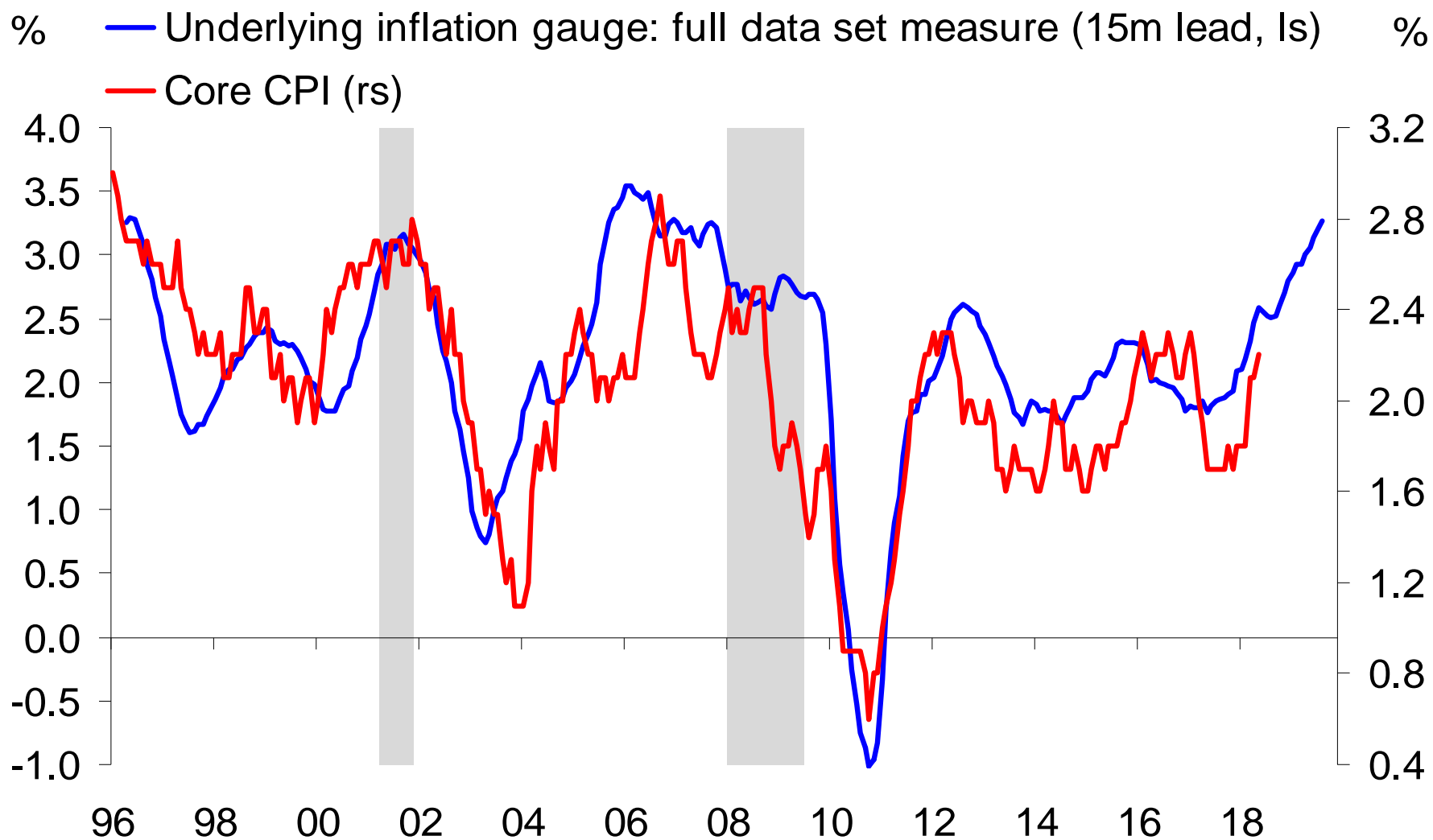
More people voluntarily leaving their job is a leading indicator of wages



Source: BLS, Haver Analytics, DB Global Research



Fed measure of underlying inflation points to more upward pressure on CPI



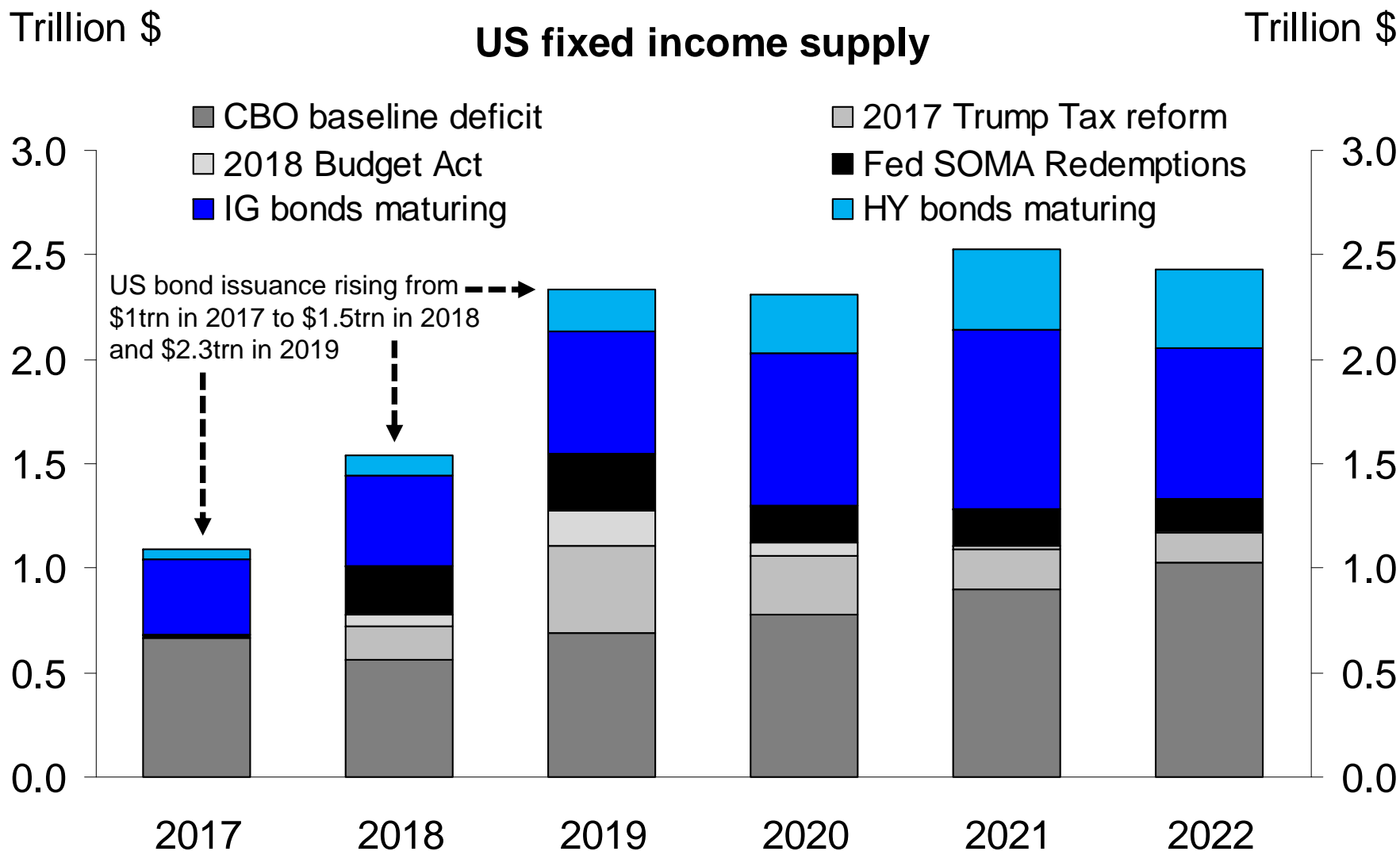
Source: FRBNY, BLS, Haver Analytics, DB Global Research



US Treasury supply and demand

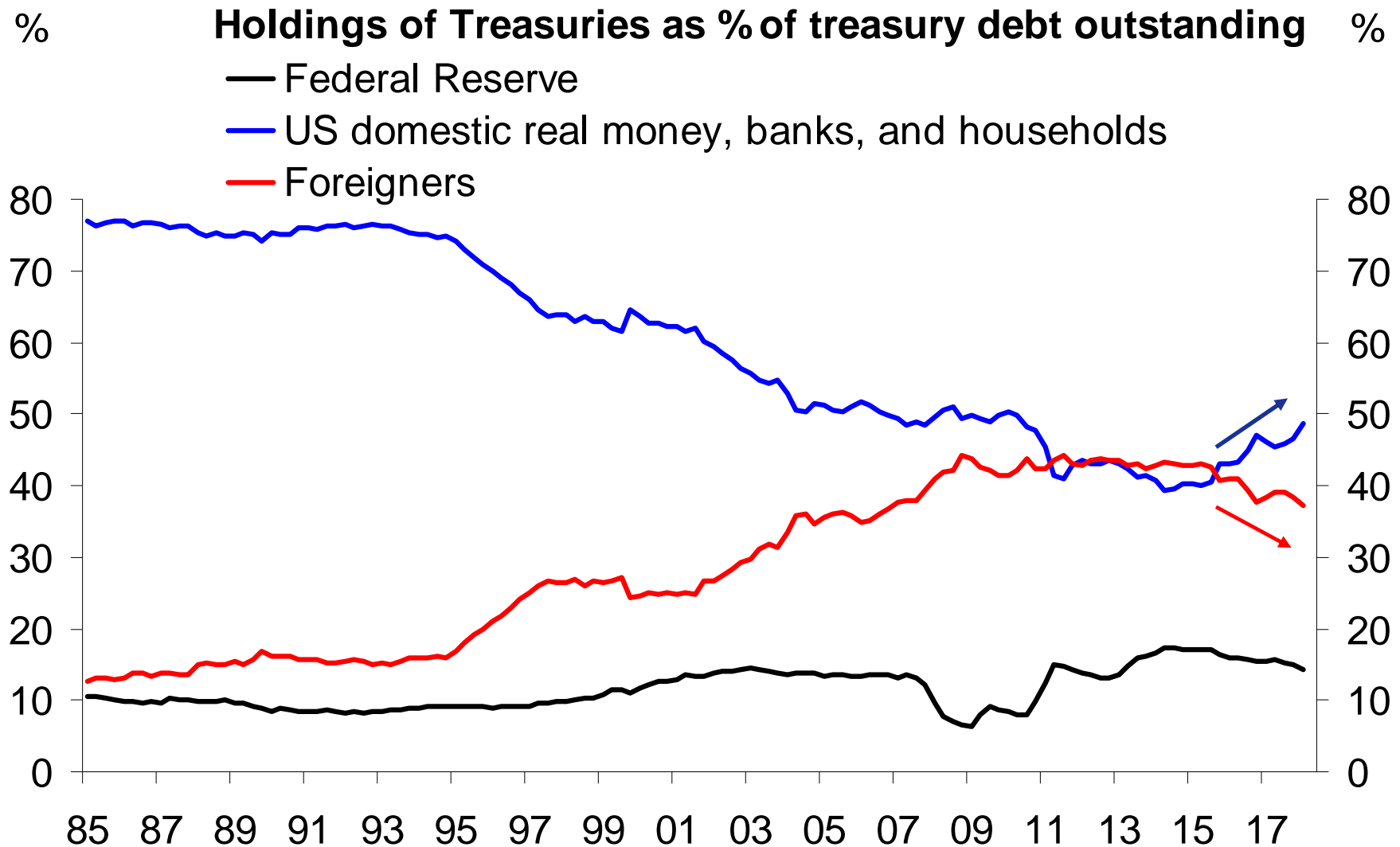


Explosion in US fixed income supply while ECB is ending QE is likely to result in higher US rates and wider US credit spreads



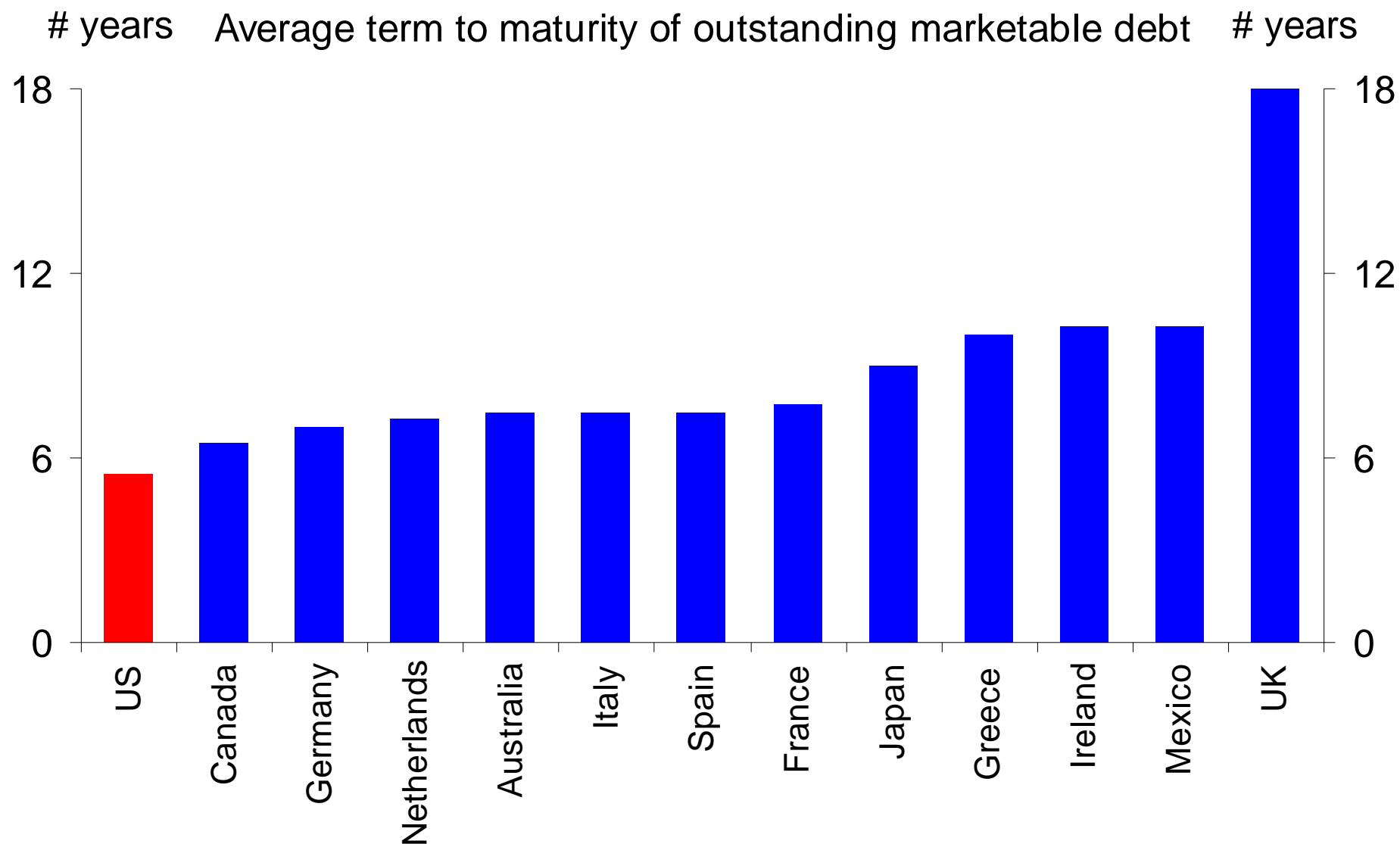
Source: Steven Zeng, Michal Jezek, Standard & Poor's Financial Services LLC, DB Global Research

Domestic buying and foreign selling of US Treasuries recently



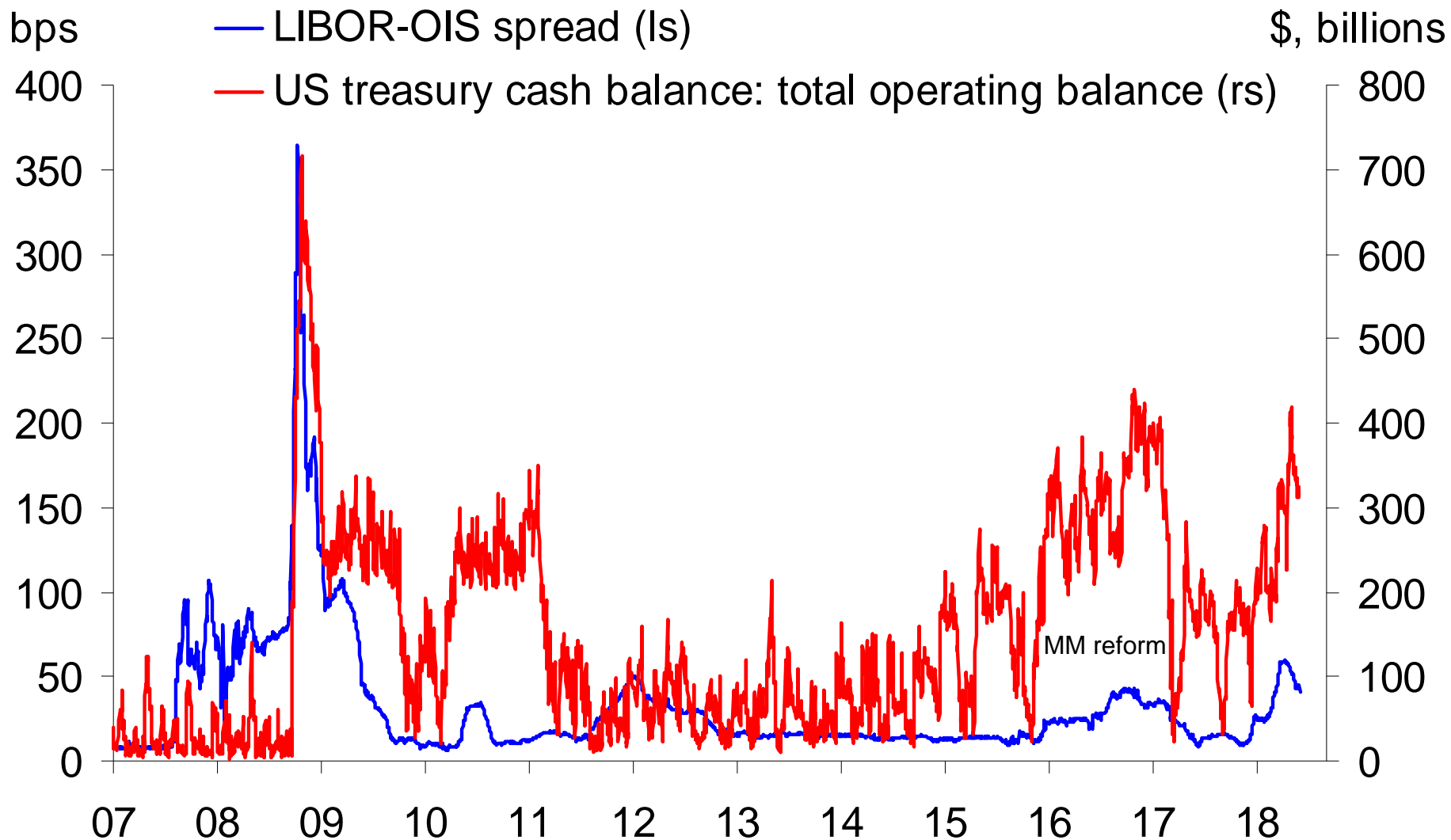
Source: FRB, Haver Analytics, DB Global Markets Research

Average maturity of outstanding government debt is lower in the US than in Greece, Italy, and Mexico



Source: OECD, DB Global Research

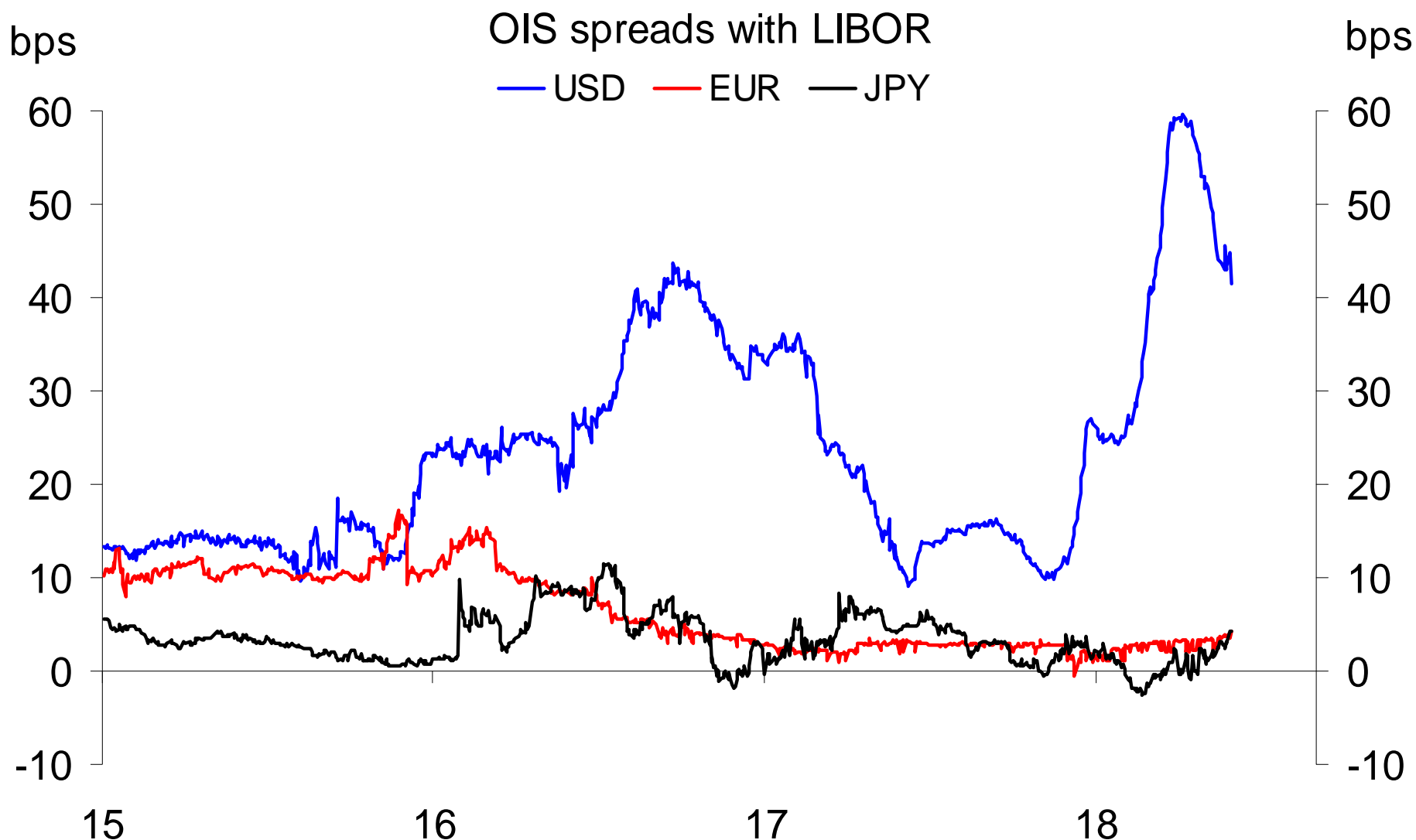
If you can predict Treasury cash balances then you can predict Libor-OIS



Source: Treasury, Bloomberg Finance LP, DB Global Research



LIBOR OIS widening is a US phenomenon

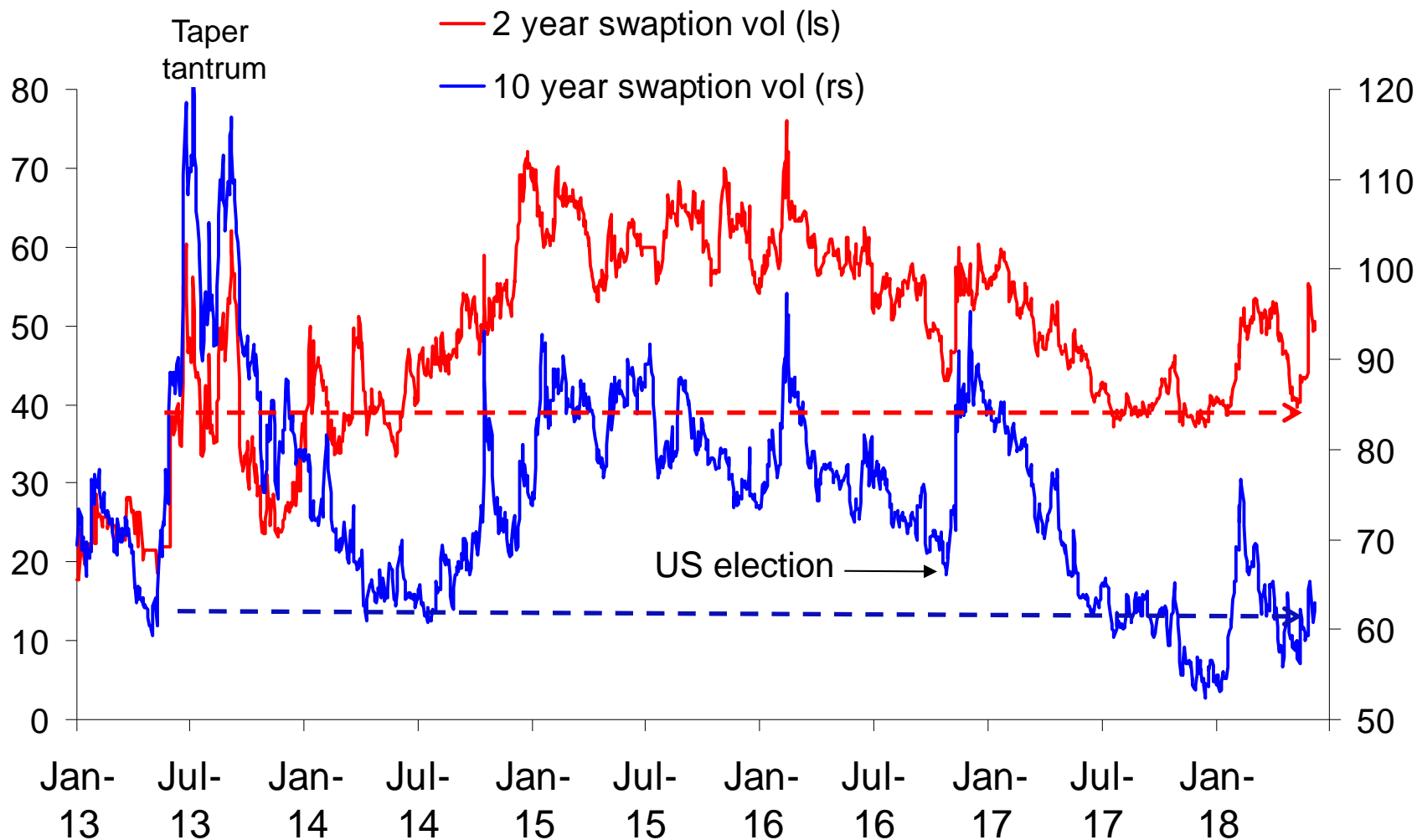


Source: Bloomberg Finance LP, DB Global Research

Long rates volatility at pre-taper tantrum levels despite uncertainty about US overheating, Italy, ECB exit, trade war, and midterm elections



3MoX2Yr and 3MoX10Yr swaption vol



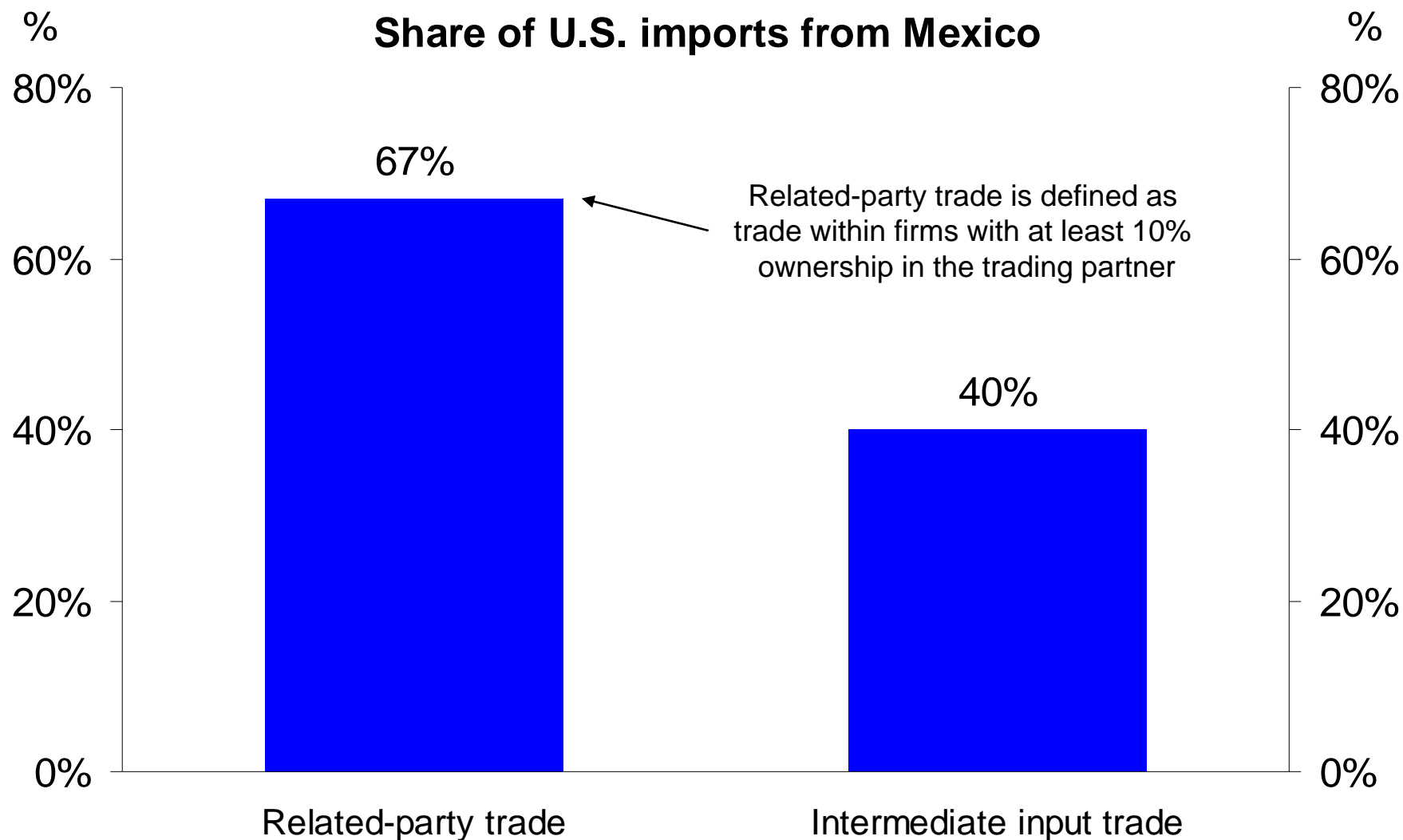
Source: Bloomberg (USSN0C2 NVOL Curncy and USSN0C10 NVOL Curncy), DB Global Markets Research



Trade



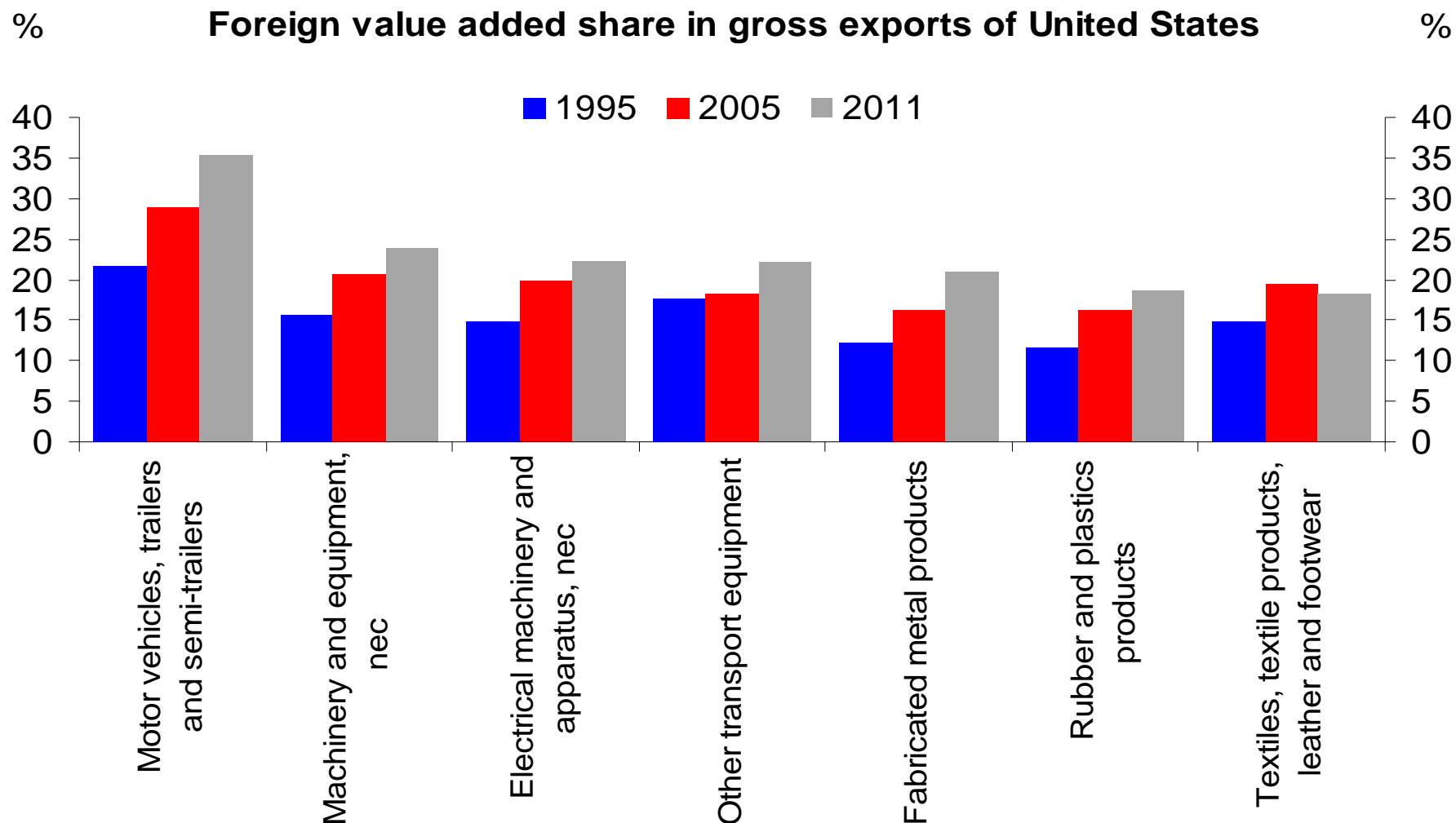
67% of US imports from Mexico are intra-company trade



Source: Census Bureau, BEA, Mary Amiti et.al (2017)., DB Global Research



35% of US auto exports consists of imports



Note: Data shows how much value added from foreign sectors is used in domestic sector exports

Source: OECD Trade in Value Added (TiVA) database, DB Global Research

US trade is basically all about cars



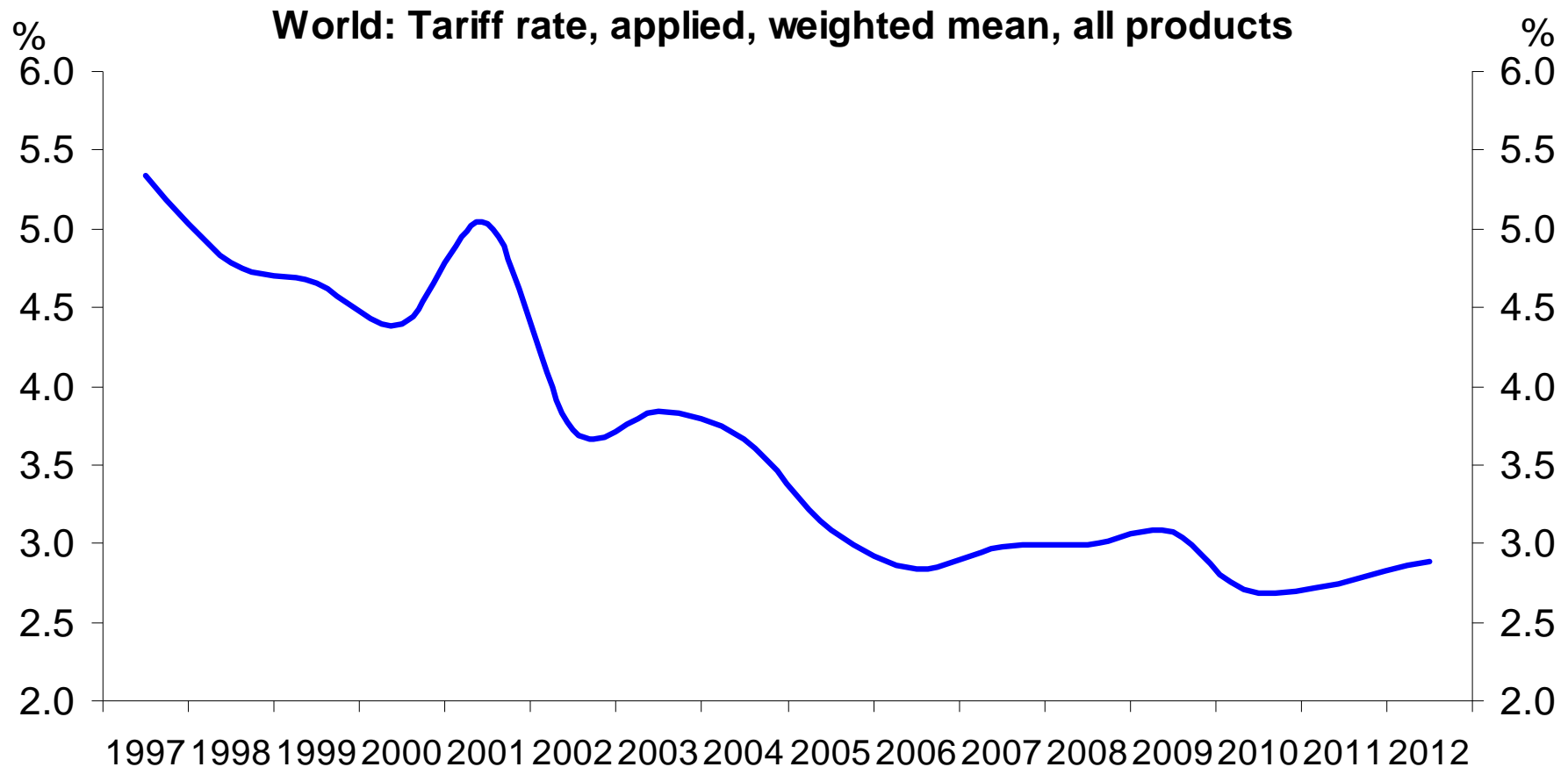
US imports as a percent of total imports from each country by end-use classification

Exporter:	Most important US imports	Second most important imports	Third most important imports	Fourth most important imports
Mexico	<u>Car parts</u>	<u>Trucks and buses</u>	<u>Cars</u>	Computers
Germany	<u>Cars</u>	Pharma	Airplanes	<u>Car parts</u>
Japan	<u>Cars</u>	<u>Car parts</u>	Machines	Airplanes
Korea	<u>Cars</u>	Cell phones	<u>Car parts</u>	Petroleum
Canada	Oil	<u>Cars</u>	Re-imports	<u>Car parts</u>
United Kingdom	Pharma	<u>Cars</u>	Re-imports	Airplanes
China	Cell phones	Apparel	Computers	Computer access.

Source: Census Bureau 2015, DB Global Markets Research



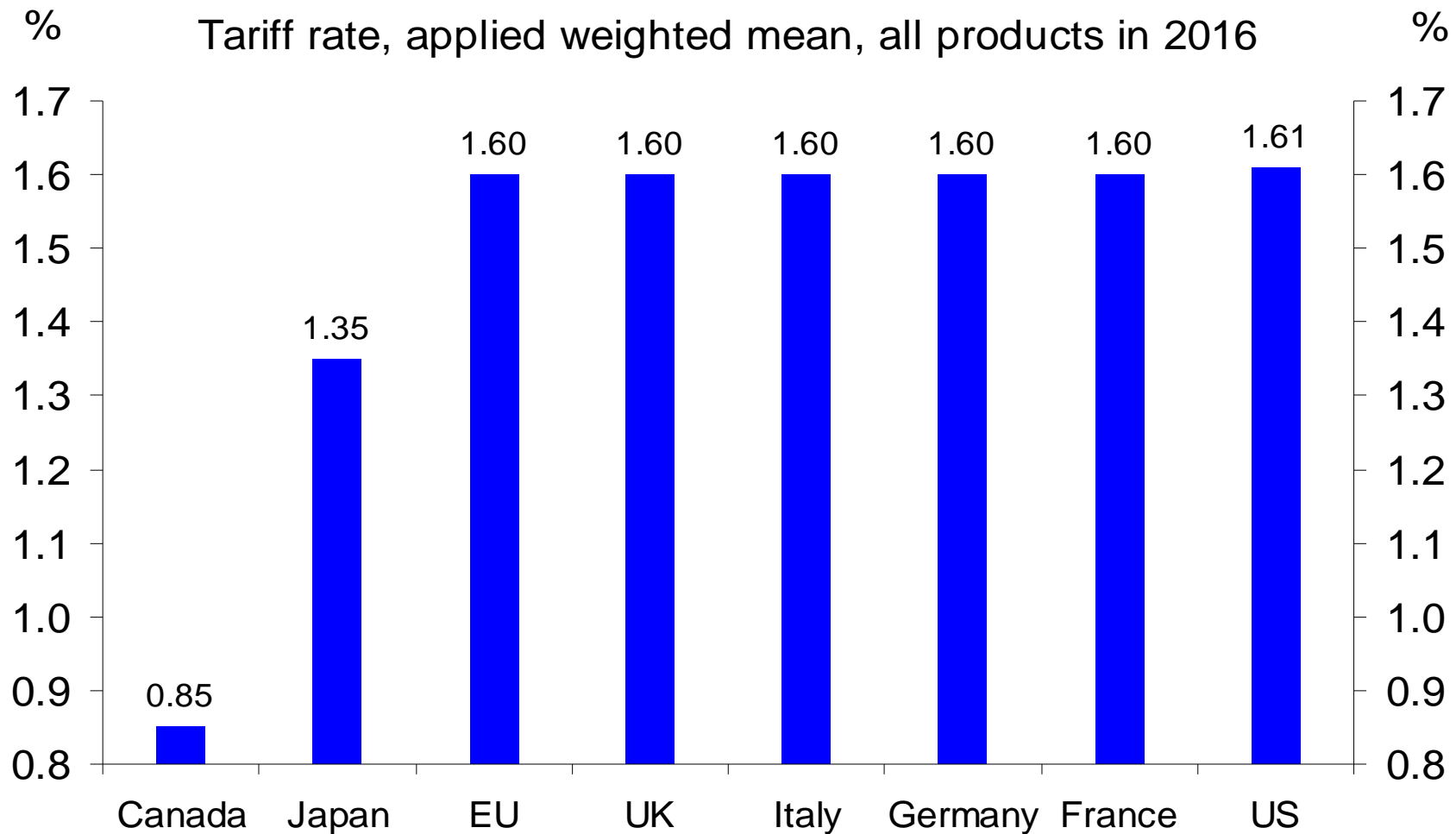
Trade tariffs have been falling for decades



Note: Weighted mean applied tariff is the average of effectively applied rates weighted by the product import shares corresponding to each partner country. Data are classified using the Harmonized System of trade at the six- or eight-digit level. Tariff line data were matched to Standard International Trade Classification (SITC) revision 3 codes to define commodity groups and import weights. To the extent possible, specific rates have been converted to their ad valorem equivalent rates and have been included in the calculation of weighted mean tariffs. Import weights were calculated using the United Nations Statistics Divisions Commodity Trade (Comtrade) database. Effectively applied tariff rates at the six- and eight-digit product level are averaged for products in each commodity group. When the effectively applied rate is unavailable, the most favored nation rate is used instead.

Source: World Bank, Haver Analytics, DB Global Research

Tariffs marginally higher in the US than in other G7 countries



Note: Weighted mean applied tariff is the average of effectively applied rates weighted by the product import shares corresponding to each partner country.

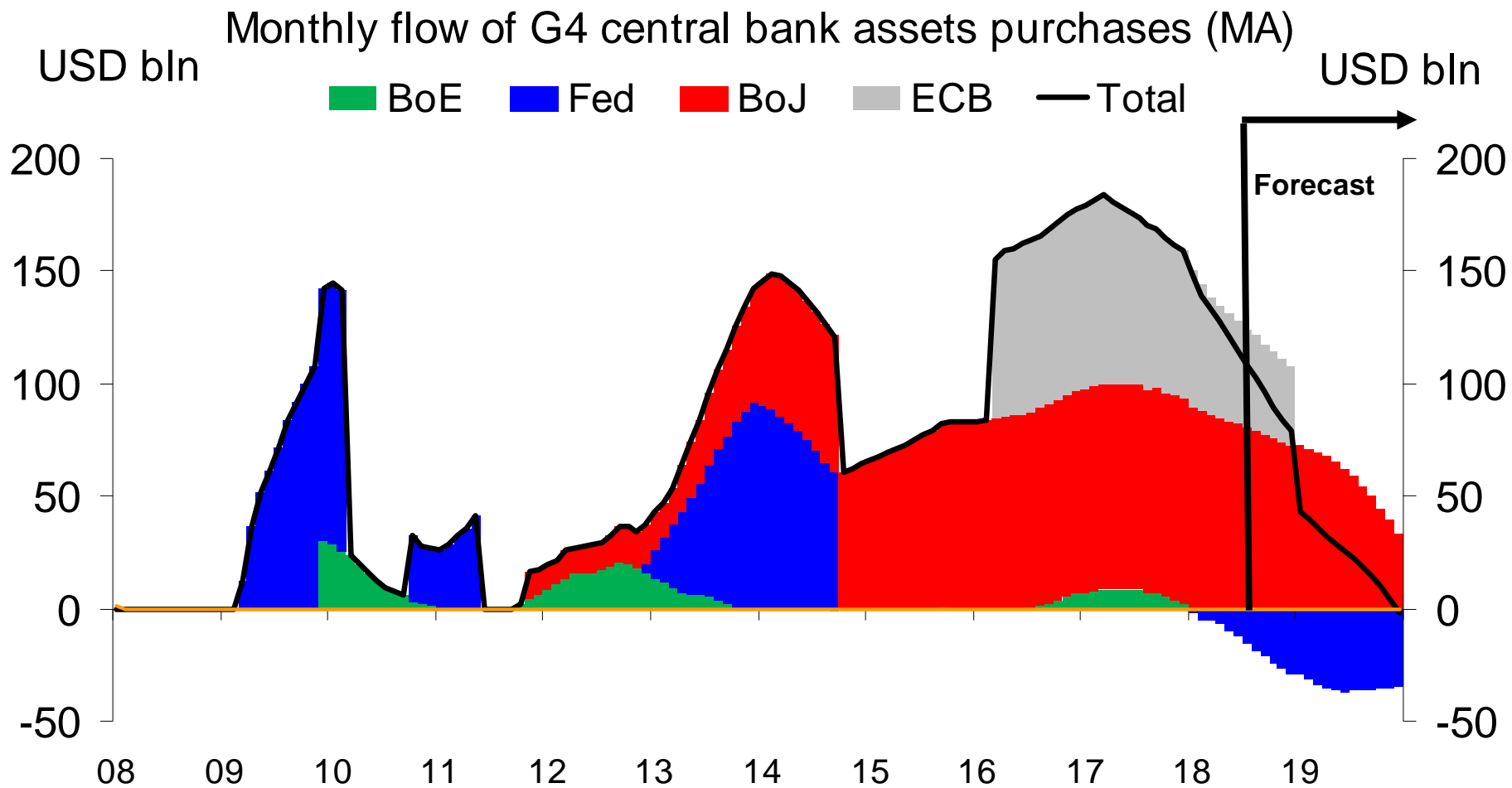
Source: World Bank, Haver Analytics, DB Global Research



European/ECB impact on US rates



Central bank liquidity declining



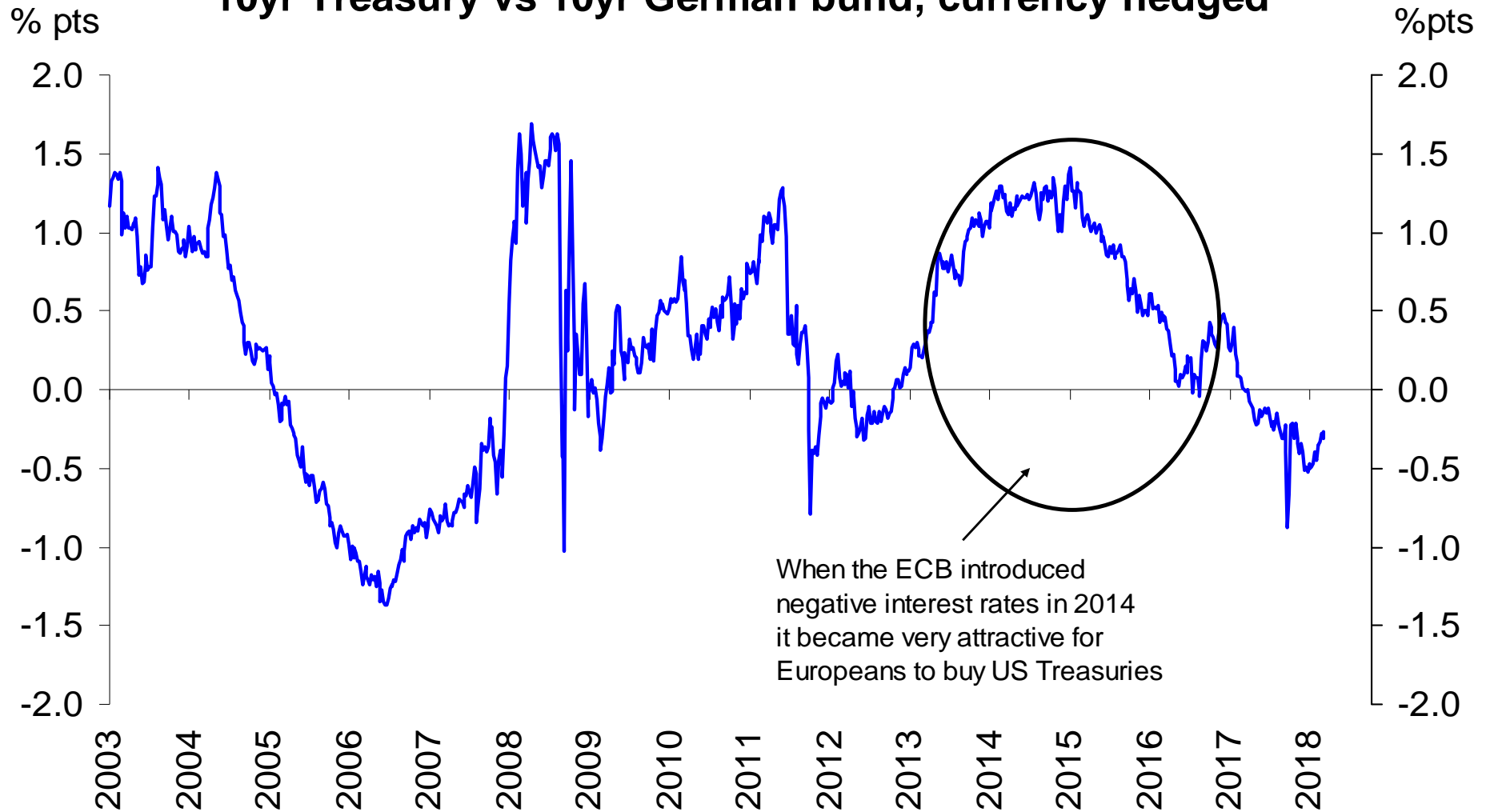
***Note and assumptions:** Data are 12m MA, Assumptions: Fed will redeem maturing assets as per the announced cap during the September decision. ECB will cut buying to EUR 30 billion per month from January 2018 and eventually end the process by December 2018. BoE assumed not to begin reducing balance sheet in the medium term. BoJ's monthly purchase of JGBs assumed to be 8 trln Yen per month and is expected to continue purchases in the medium term.

Source: Fed, BoJ, ECB, BoE, Haver Analytics, DB Global Research

On a currency-hedged basis it is no longer attractive for European investors to invest in US 10-year Treasuries



10yr Treasury vs 10yr German bund, currency hedged



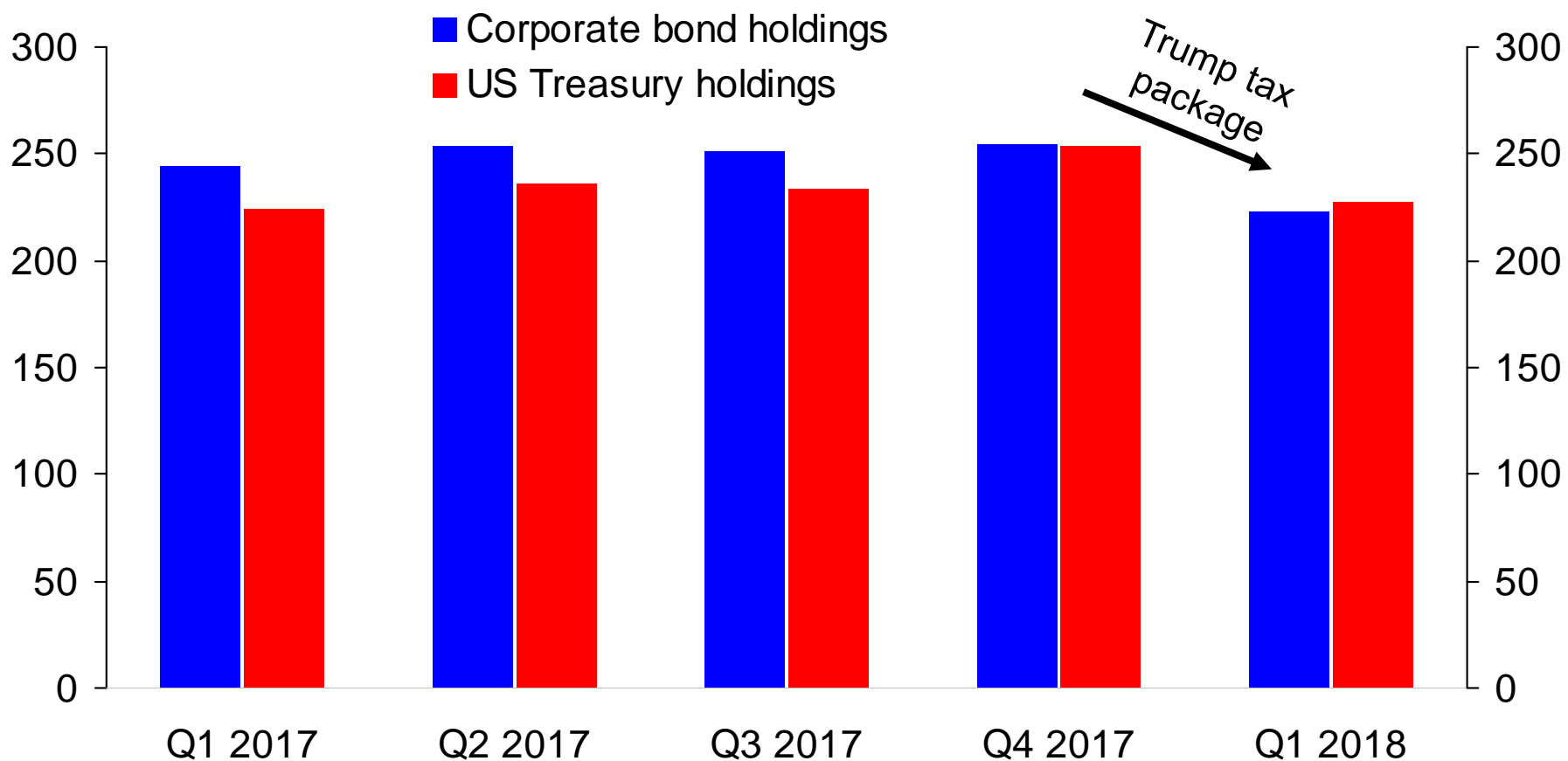
When the ECB introduced negative interest rates in 2014 it became very attractive for Europeans to buy US Treasuries

Source: Bloomberg Finance LP, DB Global Research



Corporate America selling Treasuries and corporate bonds

\$ billion **Corporate bond & US Treasury holdings by 10 large companies** \$ billion

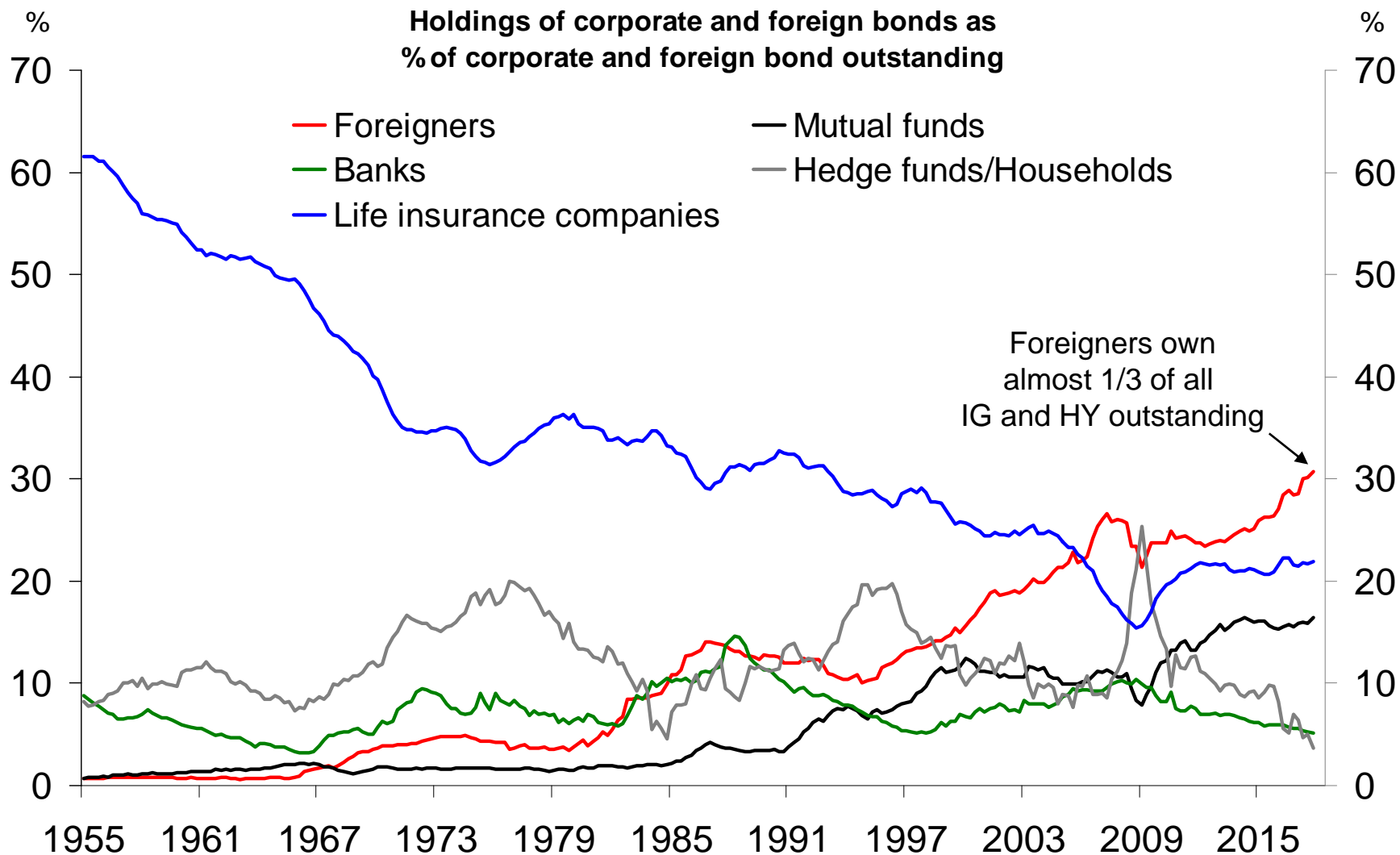


Companies in sample: Apple, Microsoft, Google, GE, Amgen, Qualcomm, Gilead, Amazon, Intel Corp. and Caterpillar.

Source: U.S. Securities & Exchange Commission Company filings, Bloomberg Finance LP, DB Global Research

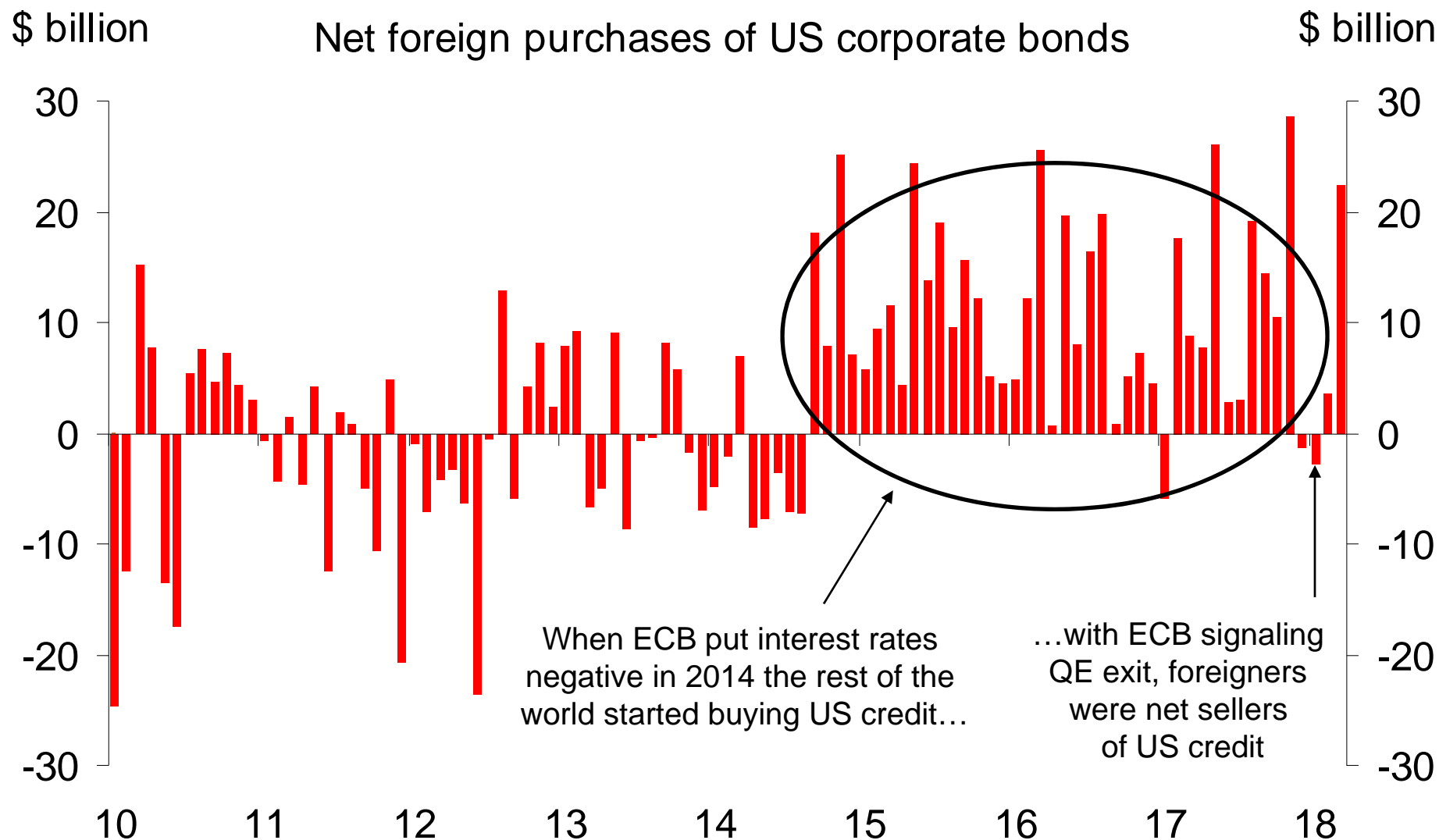


Foreigners are now the biggest holders of IG, HY, and loans



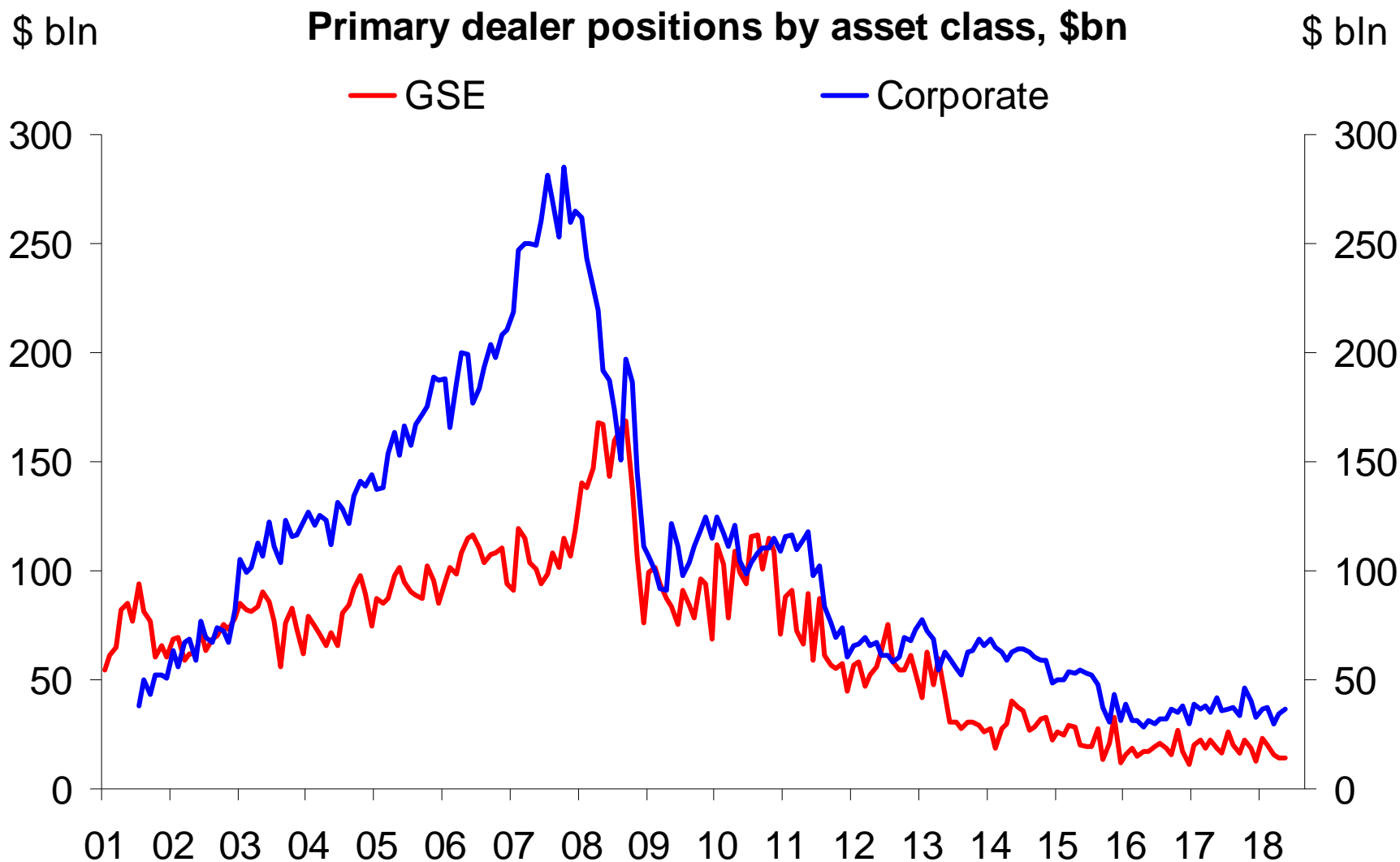
Source: FRB, Haver Analytics, DB Global Research

ECB exit and higher US Treasury yields leading to less demand from abroad for US IG



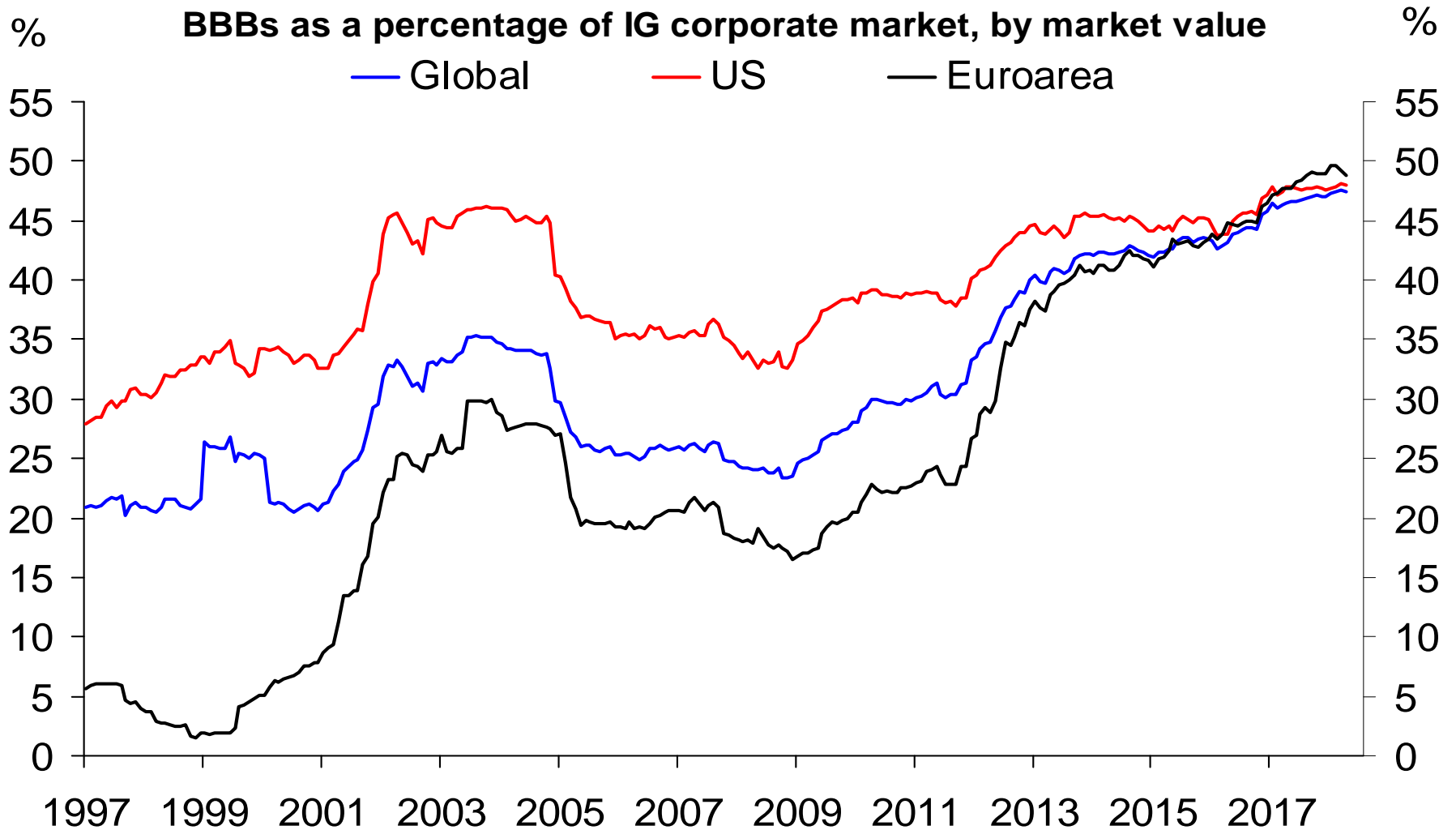
Source: Treasury, Haver Analytics, DB Global Research

Primary dealer inventory of IG and HY is around 10% of what it was in 2007



Source: FRB, Haver Analytics, DB Global Markets Research

An increasing share of the IG index is BBB



Note: Data for 2018 is as of April, 2018

Source: FactSet, DB Global Research



Italy and Europe

Overview of options for Europe



ECB:

- Could be more dovish (on rates or QE)
- Could use reinvestment program to influence yields
- Could lift the 33% issuer limit
- Could do more TLTRO and full allotment
- The existence of OMT and the ability to access it under precautionary ESM programs could help limit contagion risk

ESM:

- Could increase ESM lending capacity (from currently EUR383bn)
- Could show willingness to deploy ESM resources with weaker conditionality

EU Commission:

- Could endorse a general fiscal easing
- Could declare “exceptional circumstances” and give all countries the right to deviate from their medium term fiscal objectives
- Could remind markets that the fiscal rules are now defined in cyclically-adjusted terms in case of a downturn in GDP growth
- Could show willingness to trade reform and integration for easier fiscal policies here and now

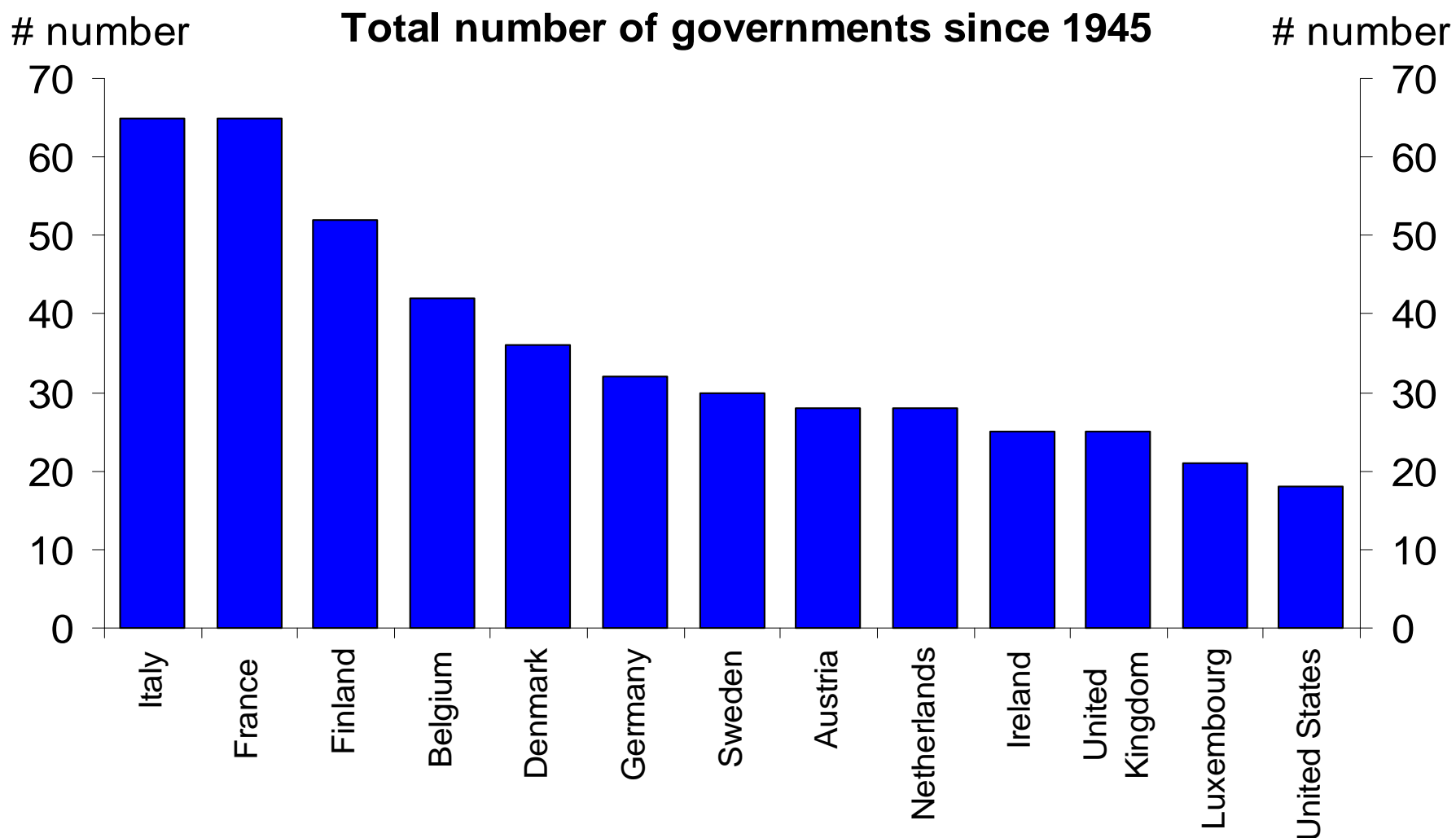
European Council:

- Could accelerate common deposit insurance
- Could signal closer fiscal integration by showing willingness to construct public investment protection fund or unemployment benefits reinsurance fund

Source: Mark Wall, Clemente De Lucia, Peter Sidorov, Marc de-Muizon, Kuhumita Bhattacharya, DB Global Research



Italy changes government roughly once every year



Source: Vrije Universiteit Amsterdam The Party Government Data Set (PGDS), <http://www.parties-and-elections.eu/countries.html>, DB Global Research



Investment implications/Markets



The hunt for yield – how will it reverse?

Risk spectrum



Fed funds → 10y → IG → HY → Equities → Emerging Markets

Three risks for disruptive reversal:

- 1) Higher US inflation
- 2) ECB Exit
- 3) Fiscal unsustainability

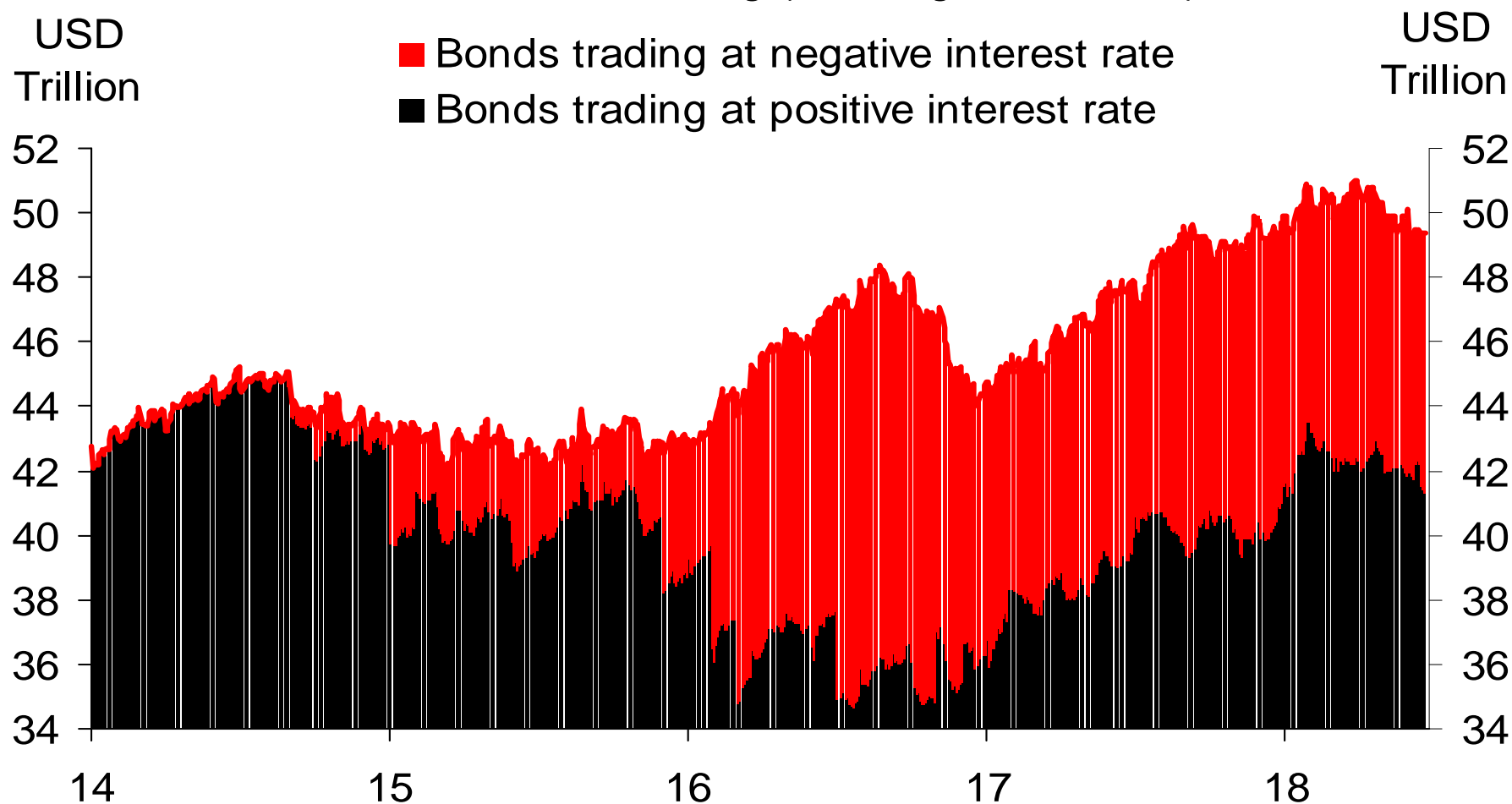
Source: DB Global Research

The \$8trn bubble

16% of all bonds outstanding - roughly \$8trn
out of \$50trn - trade at negative interest rates



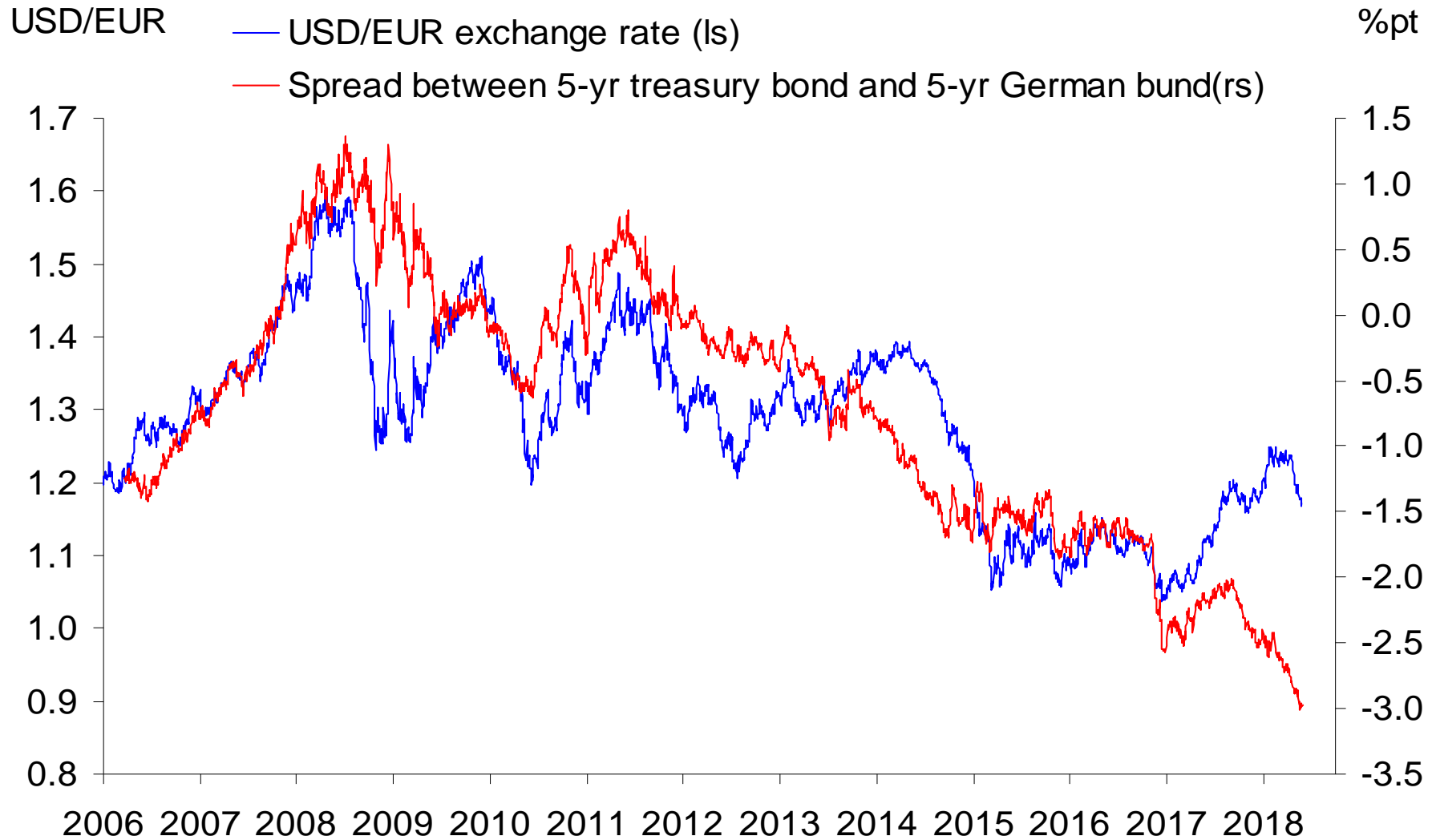
Global debt outstanding (sovereign and credit)



Source: Sukanto Chanda, Bloomberg Finance LP, DB Global Research



EURUSD disconnected from interest rate differentials

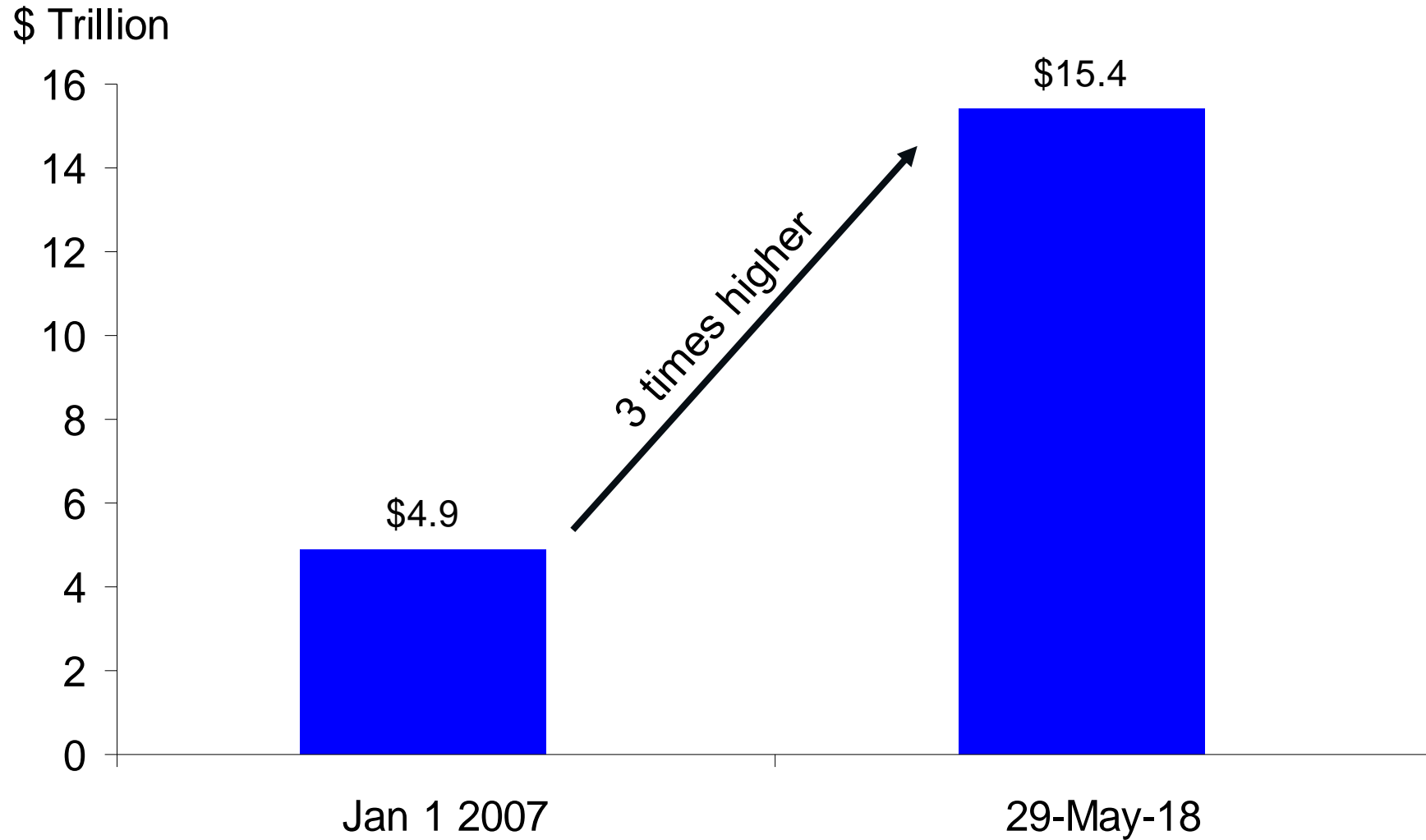


Source: FRB,TPI, Haver Analytics, DB Global Research

2007: We need more risk-free assets
2018: Here you go



Total amount of US Treasuries held by the public



Source: U.S. Treasury, Haver Analytics, DB Global Research

Investment implications summarized



<p>Fed outlook – Fed hikes continuing</p>	<p>Fed will hike rates four times in 2018. Higher US inflation pushing US rates higher. Political uncertainty about Italy pushing rates down temporarily.</p>
<p>Bond markets - Rates gradually higher</p>	<p>Key forces driving long rates are 1) US inflation and 2) Europe (ECB exit and Italy) US 10s will be 3.50% by end-2018. German 10s will be 0.90% by end-2018.</p>
<p>Credit - Credit spreads wider</p>	<p>Foreign buyers likely to stay away as ECB exits, dollar falls, and hedging costs continue to rise. Corporate bid for IG also fading.</p>
<p>Stock markets - Stocks higher, populism a risk</p>	<p>Rates still below r-star, which supports stocks. Low rates, plenty of liquidity, deregulation, and tax reform all likely to be positive for equities. Higher rates and credit markets are a risk. Populist backlash in November a risk. Italy also a risk.</p>
<p>FX - EUR/USD sideways</p>	<p>ECB exit and US trade policy and weak dollar policy will continue to support EUR/USD. EURUSD 1.20 by year-end. Italy is downside risk to EURUSD.</p>
<p>Commodities - Moving higher</p>	<p>Global growth and higher commodity prices supportive for EM. But property bubble and problems in financial system in China are worrying.</p>
<p>Emerging markets - Many imbalances in EM</p>	<p>EM normally suffers from higher US rates but gradual Fed and higher commodity prices is helpful. Still many structural problems in a number of emerging markets.</p>

Source: DB Global Research



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- **Chief International Economist, Managing Director**
- **Deutsche Bank Securities, Inc.**
- Torsten Slok joined Deutsche Bank Securities in the fall of 2005.
- Mr. Slok's Economics team has been top-ranked by Institutional Investor in fixed income and equities since 2010. Slok currently serves as a member of the Economic Club of New York
- Prior to joining the firm, Mr. Slok worked at the OECD in Paris in the Money and Finance Division and the Structural Policy Analysis Division. Before joining the OECD he worked for four years at the IMF in the Division responsible for writing the World Economic Outlook and the Division responsible for China, Hong Kong, and Mongolia.
- Mr. Slok studied at University of Copenhagen and Princeton University. He has published numerous journal articles and reviews on economics and policy analysis, including in Journal of International Economics, Journal of International Money and Finance, and The Econometric Journal.



Appendix 1

Important Disclosures

*Other Information Available upon Request

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Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor who is long fixed-rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or liquidation of positions), and settlement issues related to local clearing houses are also important risk factors. The sensitivity of fixed-income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates – these are common in emerging markets. The index fixings may – by construction – lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. Funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Options on swaps (swaptions) the risks typical to options in addition to the risks related to rates movements.

Derivative transactions involve numerous risks including market, counterparty default and illiquidity risk. The appropriateness of these products for use by investors depends on the investors' own circumstances, including their tax position, their regulatory environment and the nature of their other assets and liabilities; as such, investors should take expert legal and financial advice before entering into any transaction similar to or inspired by the contents of this publication. The risk of loss in futures trading and options, foreign or domestic, can be substantial. As a result of the high degree of leverage obtainable in futures and options trading, losses may be incurred that are greater than the amount of funds initially deposited – up to theoretically unlimited losses. Trading in options involves risk and is not suitable for all investors. Prior to buying or selling an option, investors must review the "Characteristics and Risks of Standardized Options", at <http://www.optionsclearing.com/about/publications/characteristics.jsp>. If you are unable to access the website, please contact your Deutsche Bank representative for a copy of this important document.

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