



# US Outlook: Inflation to stay low for the rest of 2017, and this will weigh on rates and boost credit and equities

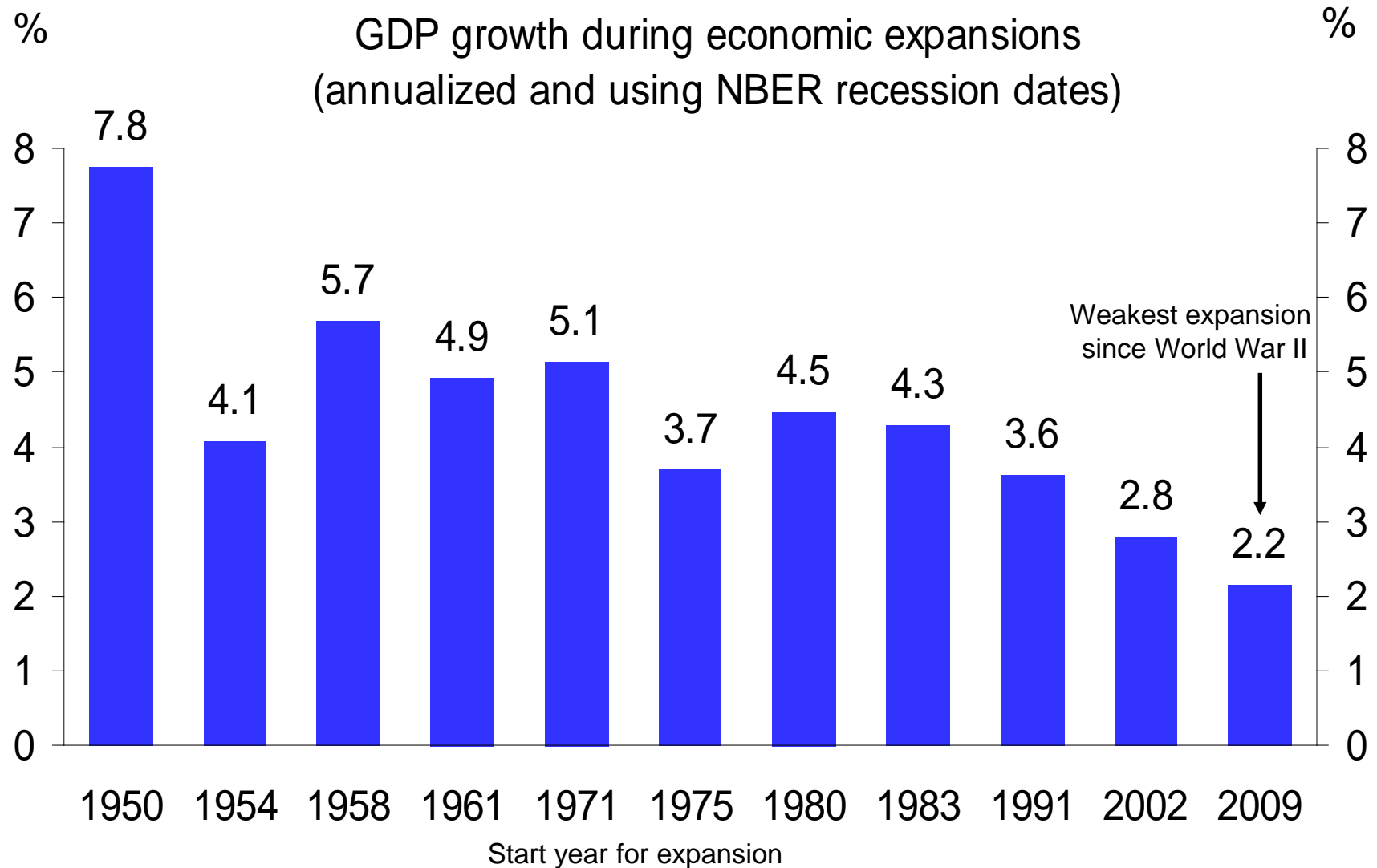
August 2017

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DISCLOSURES AND ANALYST CERTIFICATIONS ARE LOCATED IN APPENDIX 1. MCI(P) 083/04/2017

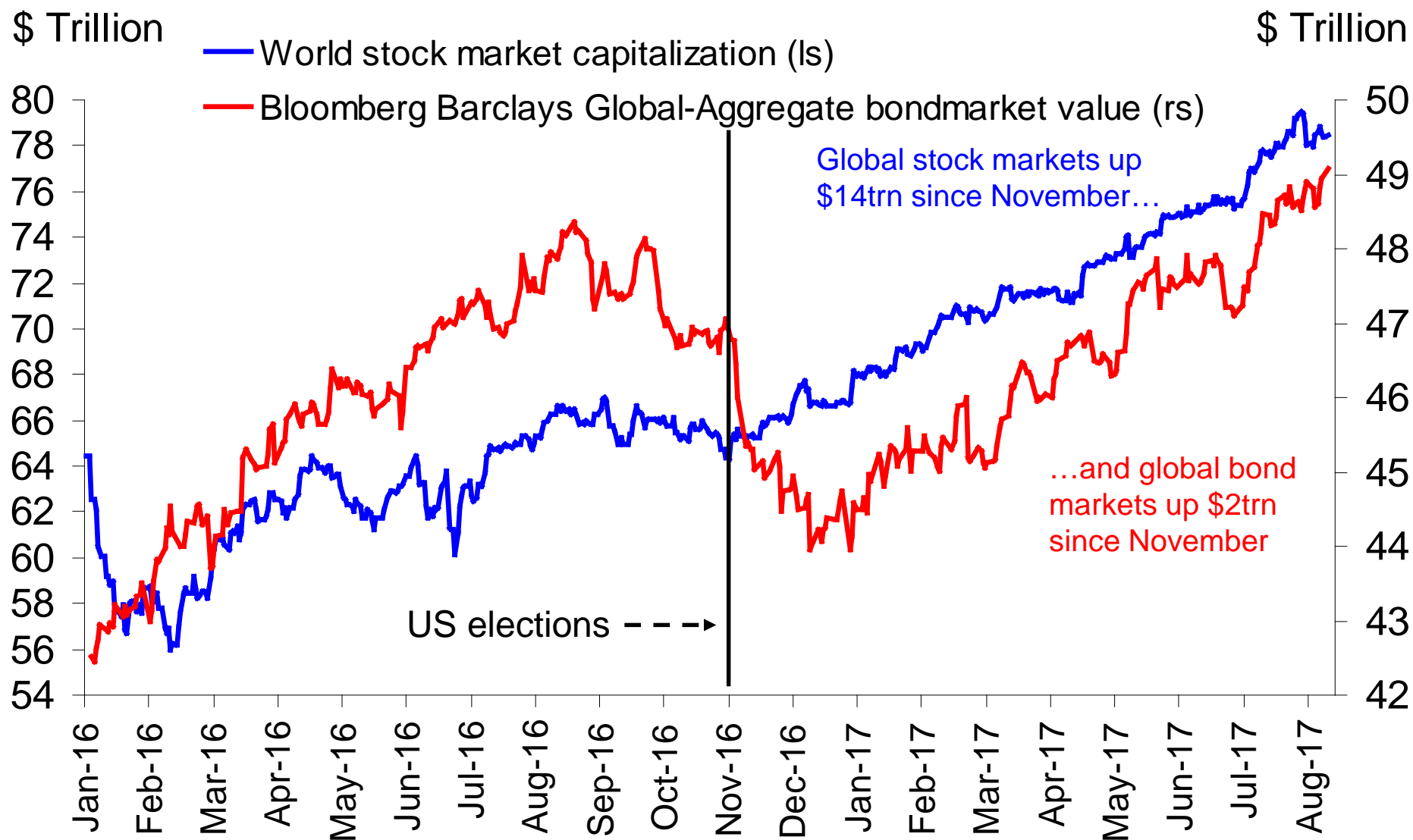


# Average GDP growth during expansions



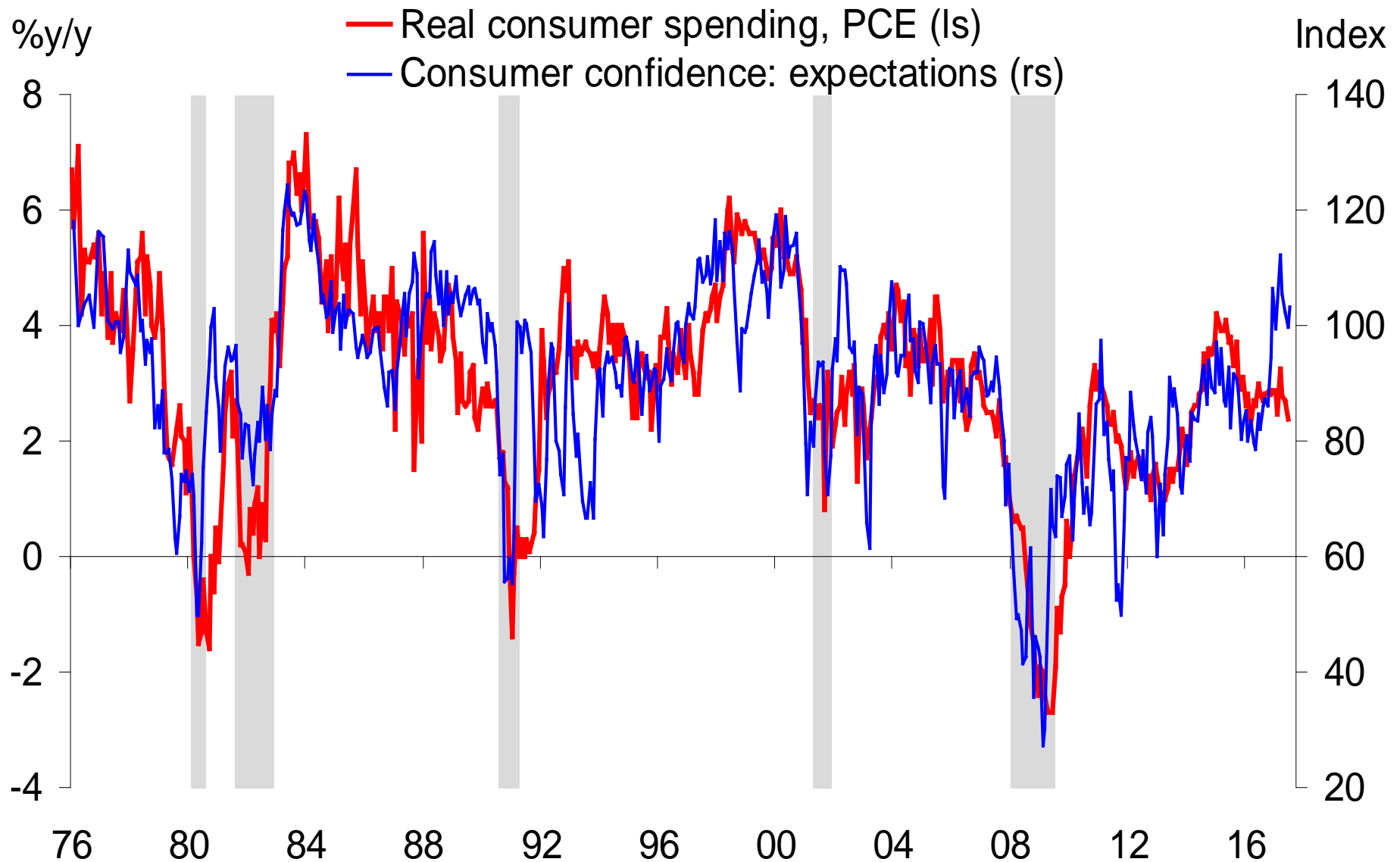
Source: BEA, Haver Analytics, DB Global Markets Research

# Global stock and bond markets have added \$16trn in market cap since US elections in November



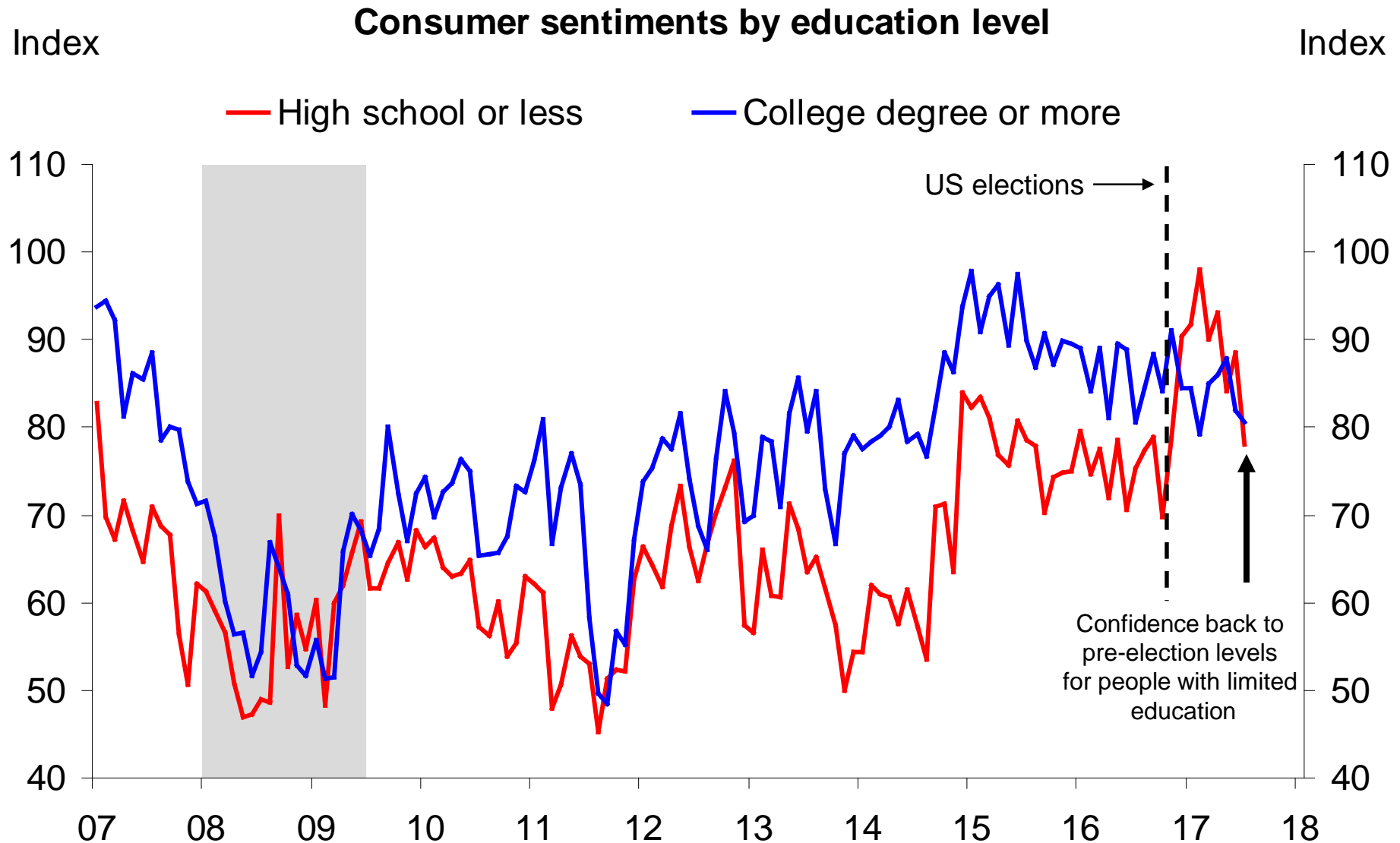
Source: Bloomberg Finance LP, DB Global Markets Research

# Consumer sentiment coming down, but so is actual consumer spending



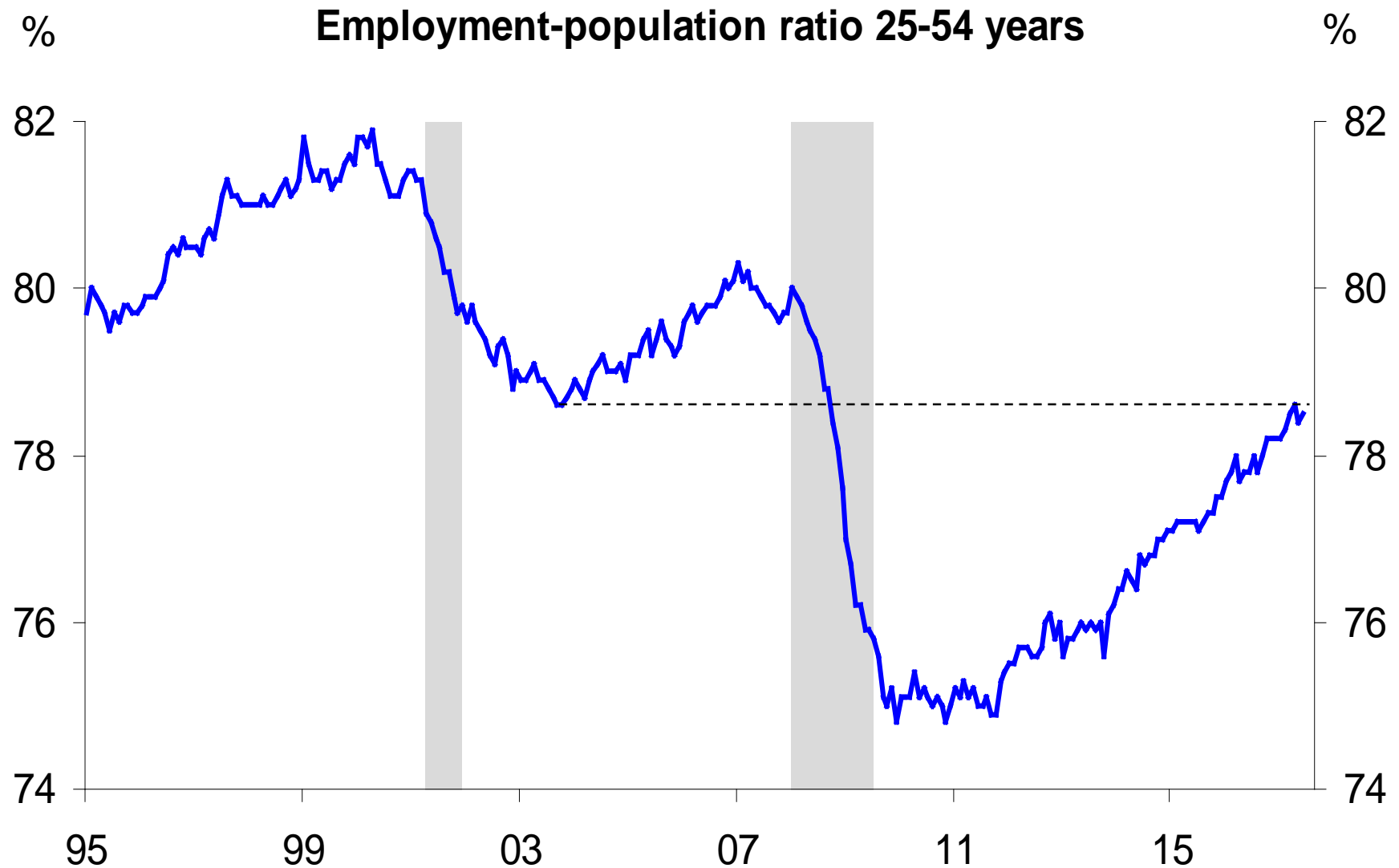
Source: BEA, The Conference Board, Haver Analytics, DB Global Markets Research

# Households with limited education losing confidence



Source: U.Mich., Haver Analytics, DB Global Markets Research

# Prime-age employment-to-population ratio near pre-crisis levels



Source: BLS, Haver Analytics, DB Global Markets Research



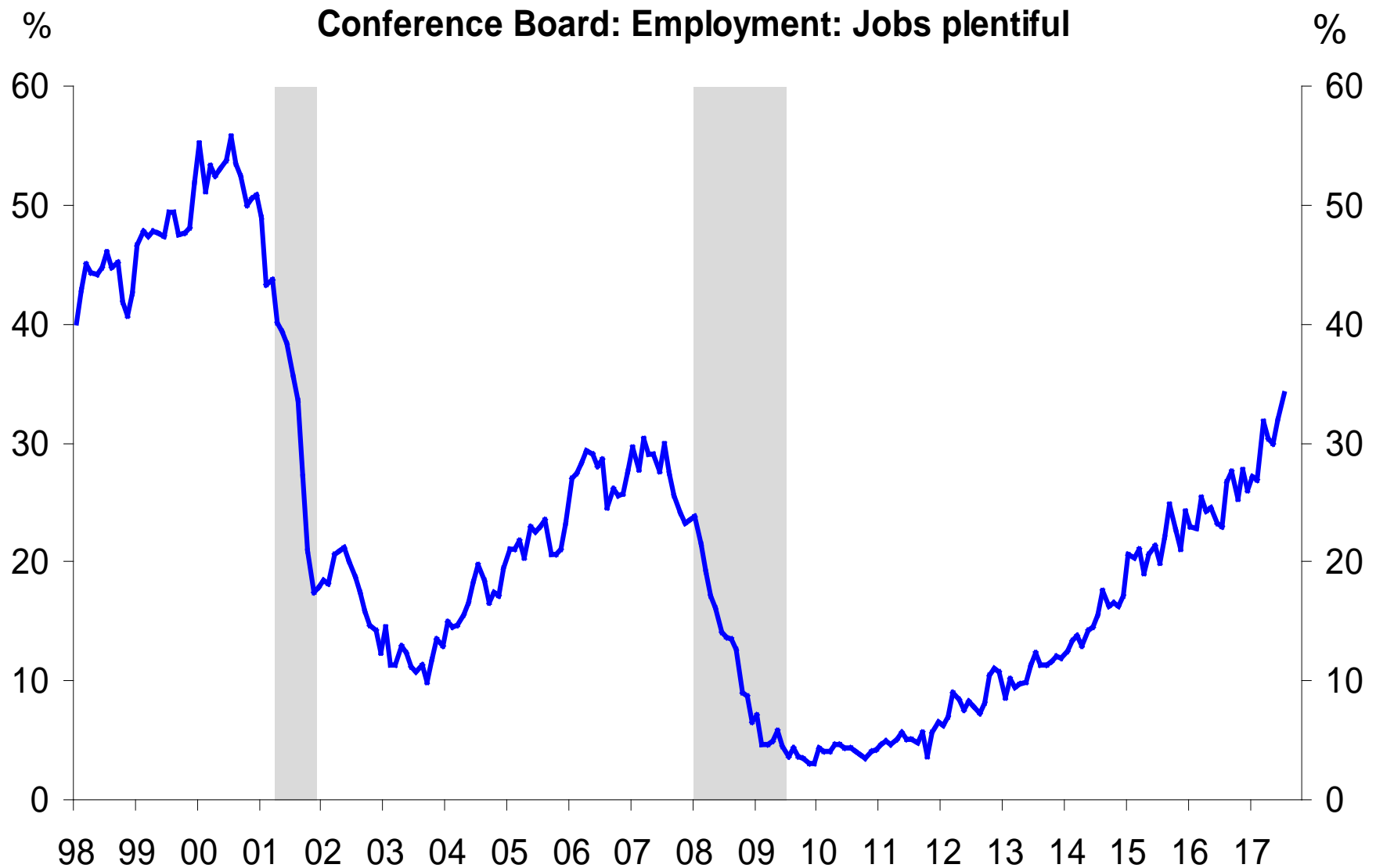
# Significant decline in the number of people outside the labor market who want a job now



Source: BLS, Haver Analytics, DB Global Markets Research



## Jobs plentiful higher than in 2006



Source: Conference Board, Haver Analytics, DB Global Markets Research





# Inflation:

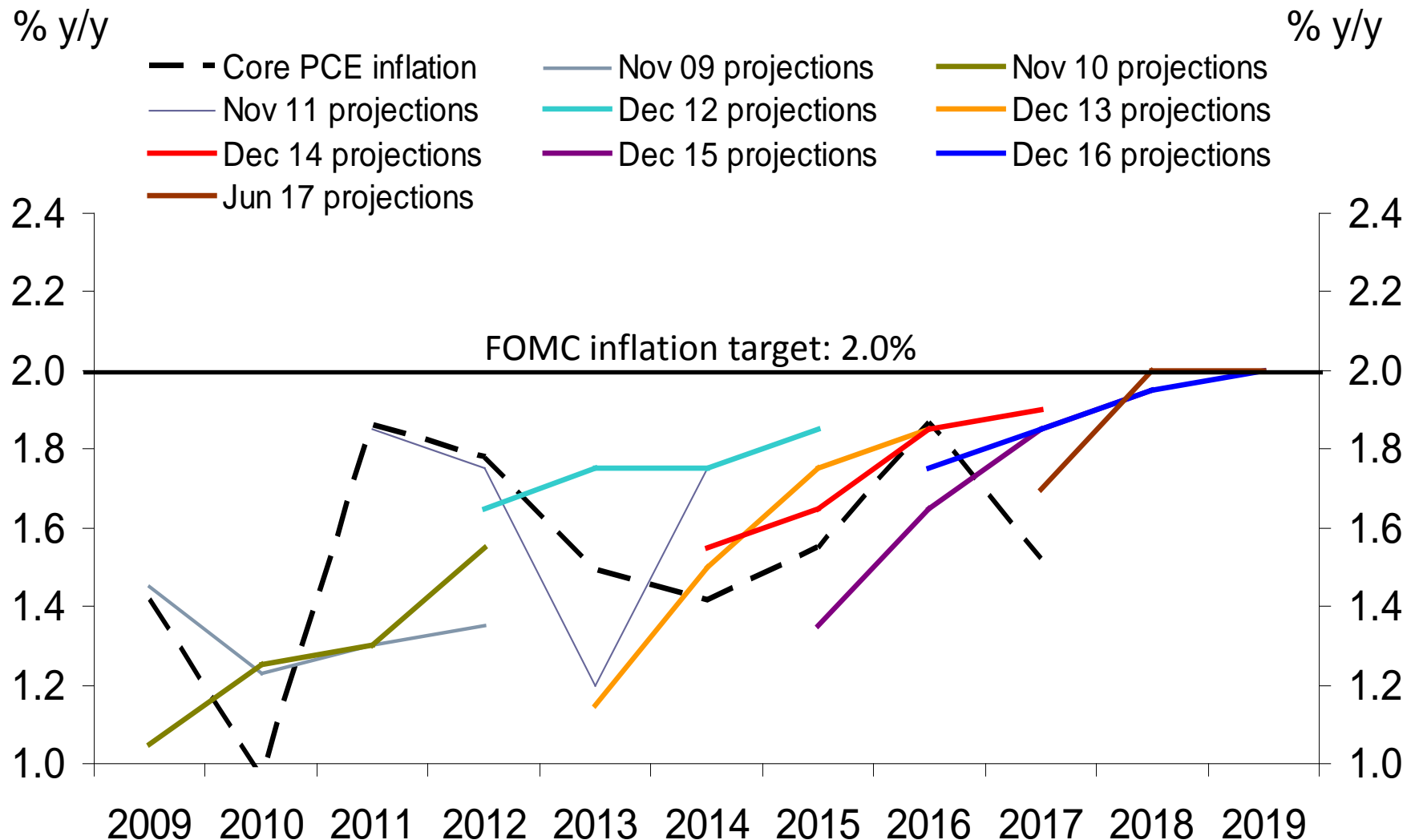
FOMC has predicted higher inflation for the past eight years.

Why have they been wrong?

1. US goods prices driven by global capacity, not just US capacity
2. US services prices (which have a weight of 2/3 in the CPI index) are not driven by full capacity considerations but other factors, think healthcare, education, housing. Healthcare inflation driven by political decisions (i.e. Obamacare or Trumpcare).



# FOMC has predicted accelerating inflation since 2009

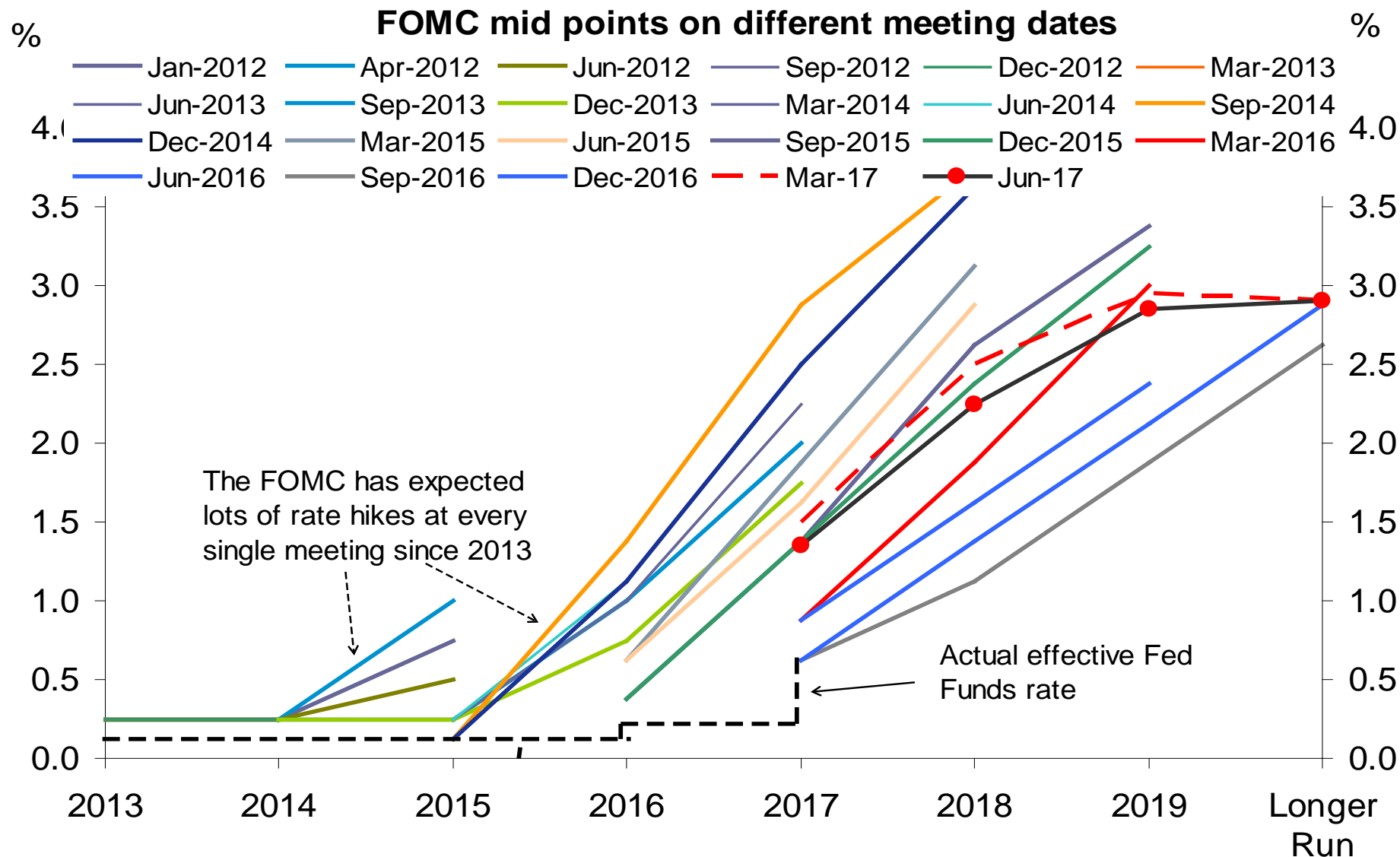


Note: Actual core PCE inflation data is plotted as % change Q4/Q4 to compare with FOMC projections.

2017 data point is % change Q2 /Q2

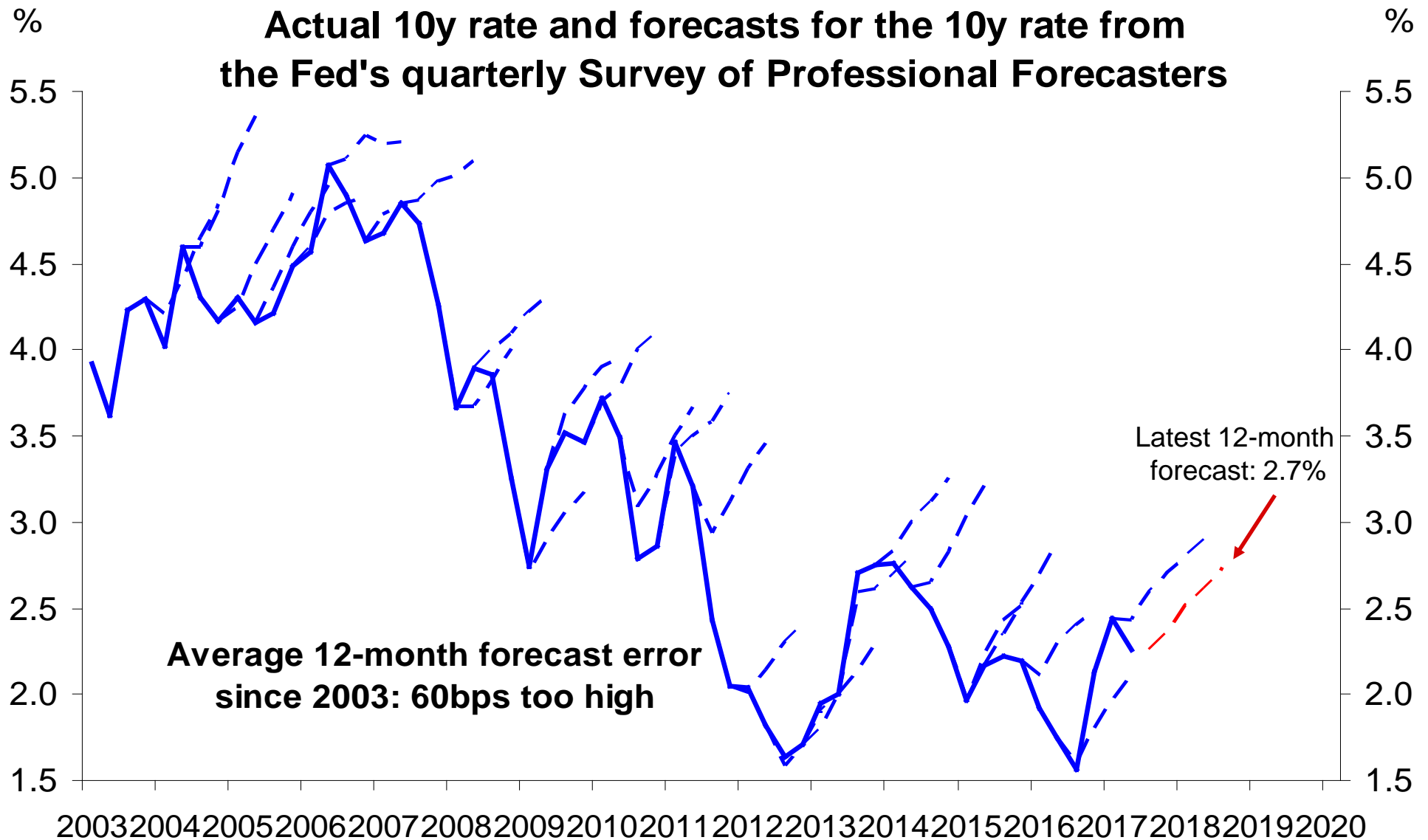
Source: FRB, BEA, DB Global Markets Research

# The FOMC has been too optimistic for many years



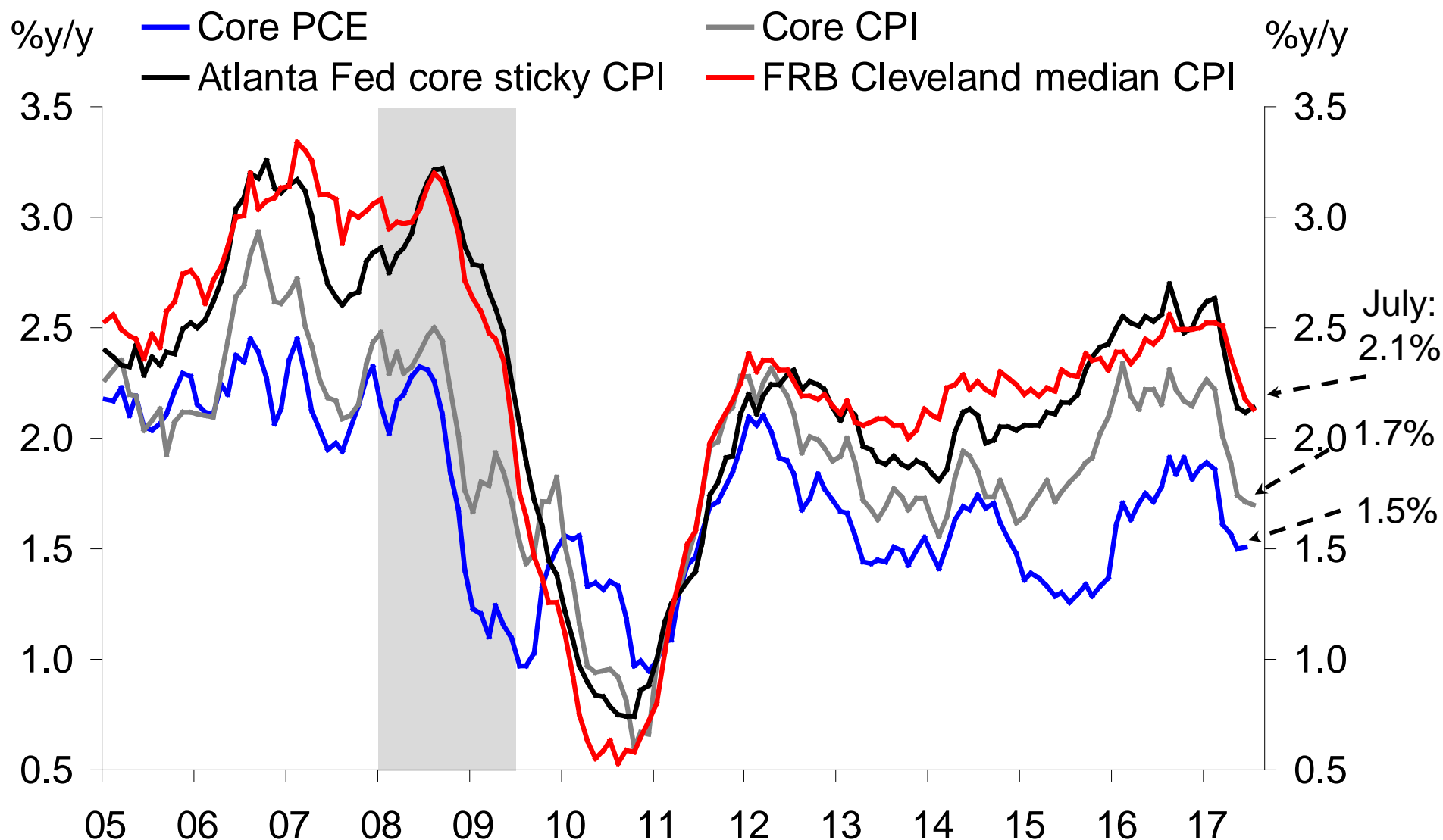
Source: FRB, DB Global Markets Research

# Wall Street economists have been consistently wrong in their forecasts for the ten-year rate



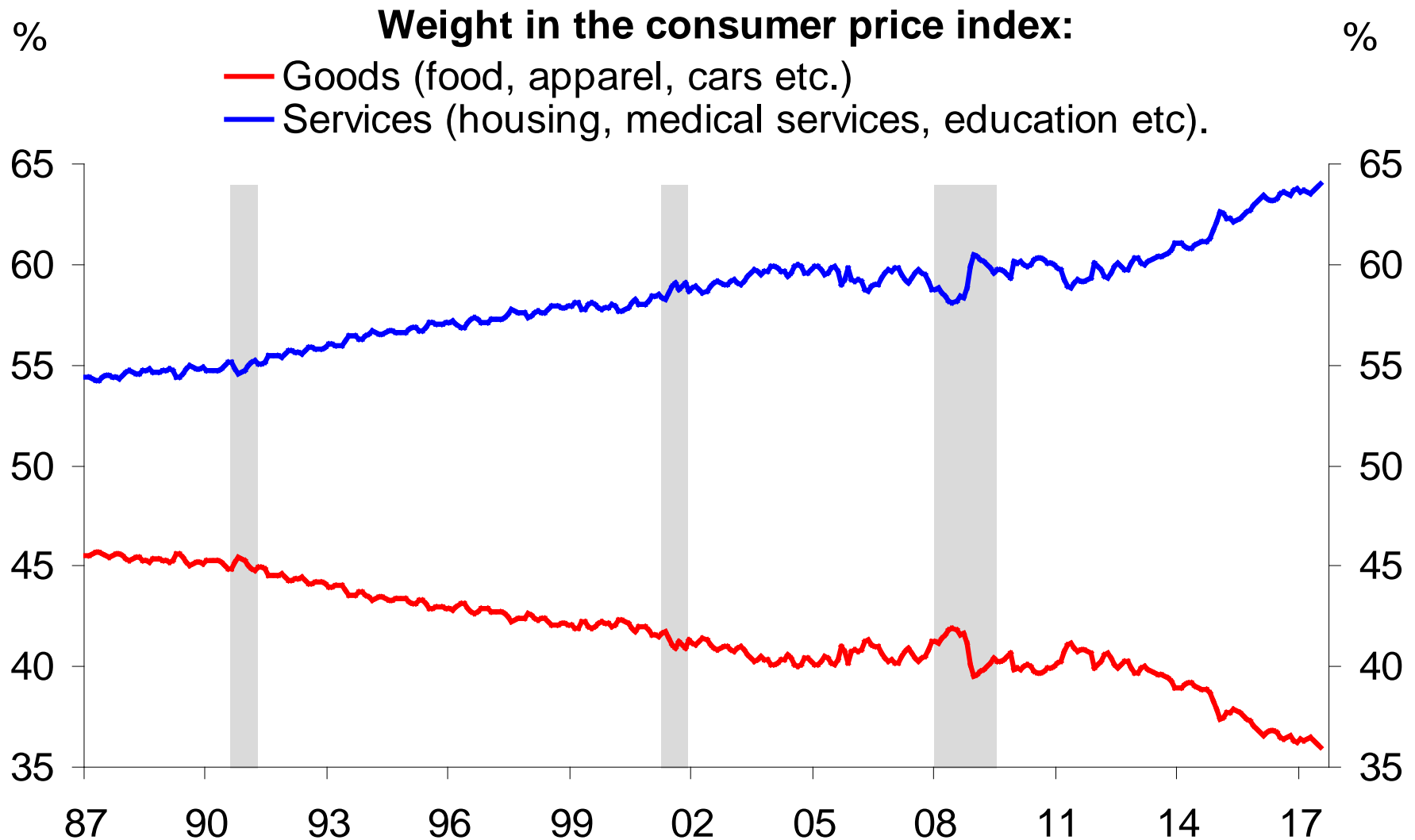
Source: FRB, FRBPHIL, DB Global Markets Research

# Move down in inflation in recent months



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

# Almost 2/3 of consumer spending is services

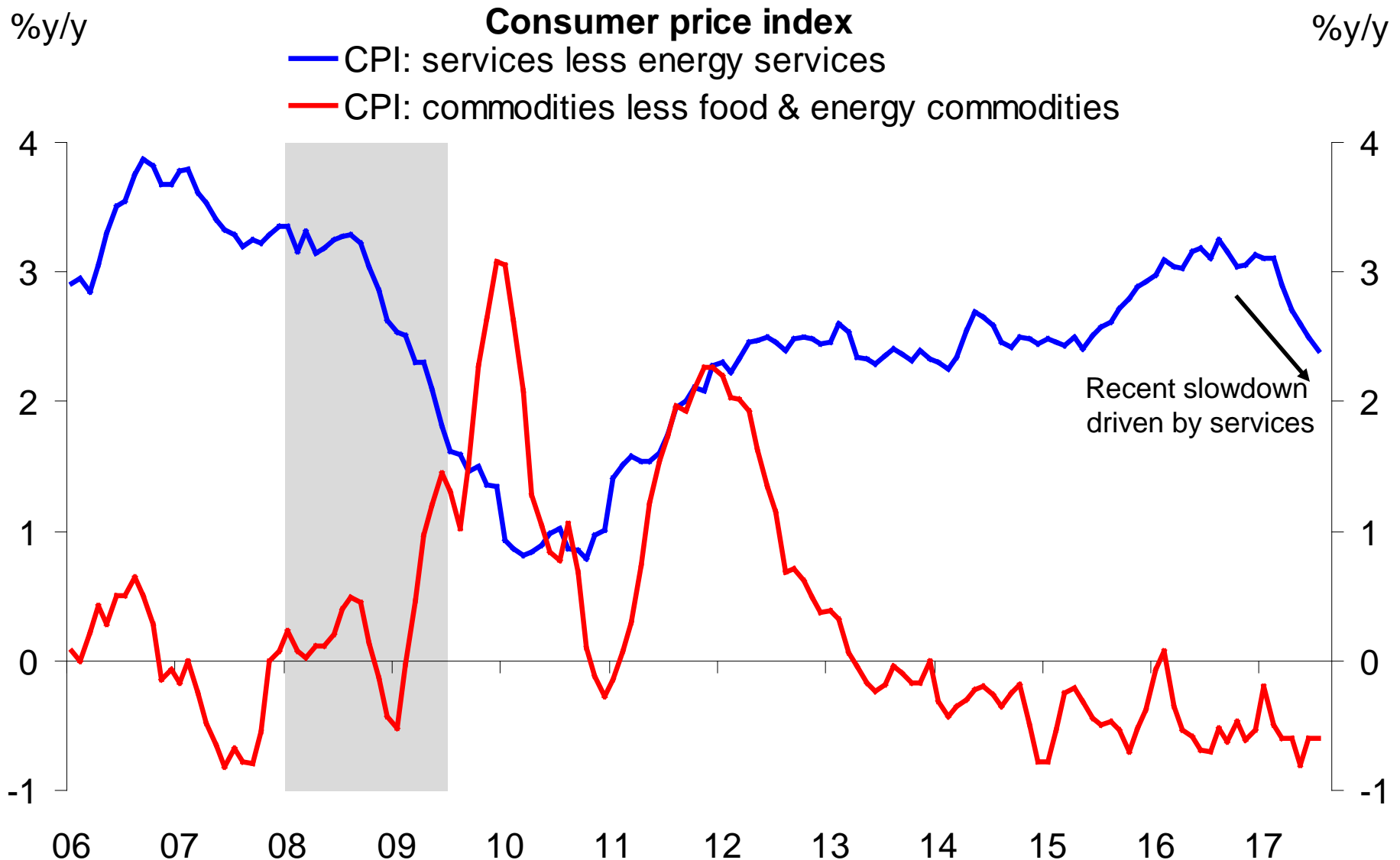


For "Services" category, top components are shelter, medical care and education and communication services

For "Goods" the top components are Food and beverages, Apparel, New vehicles,

Source: BLS, Haver Analytics, DB Global Markets Research

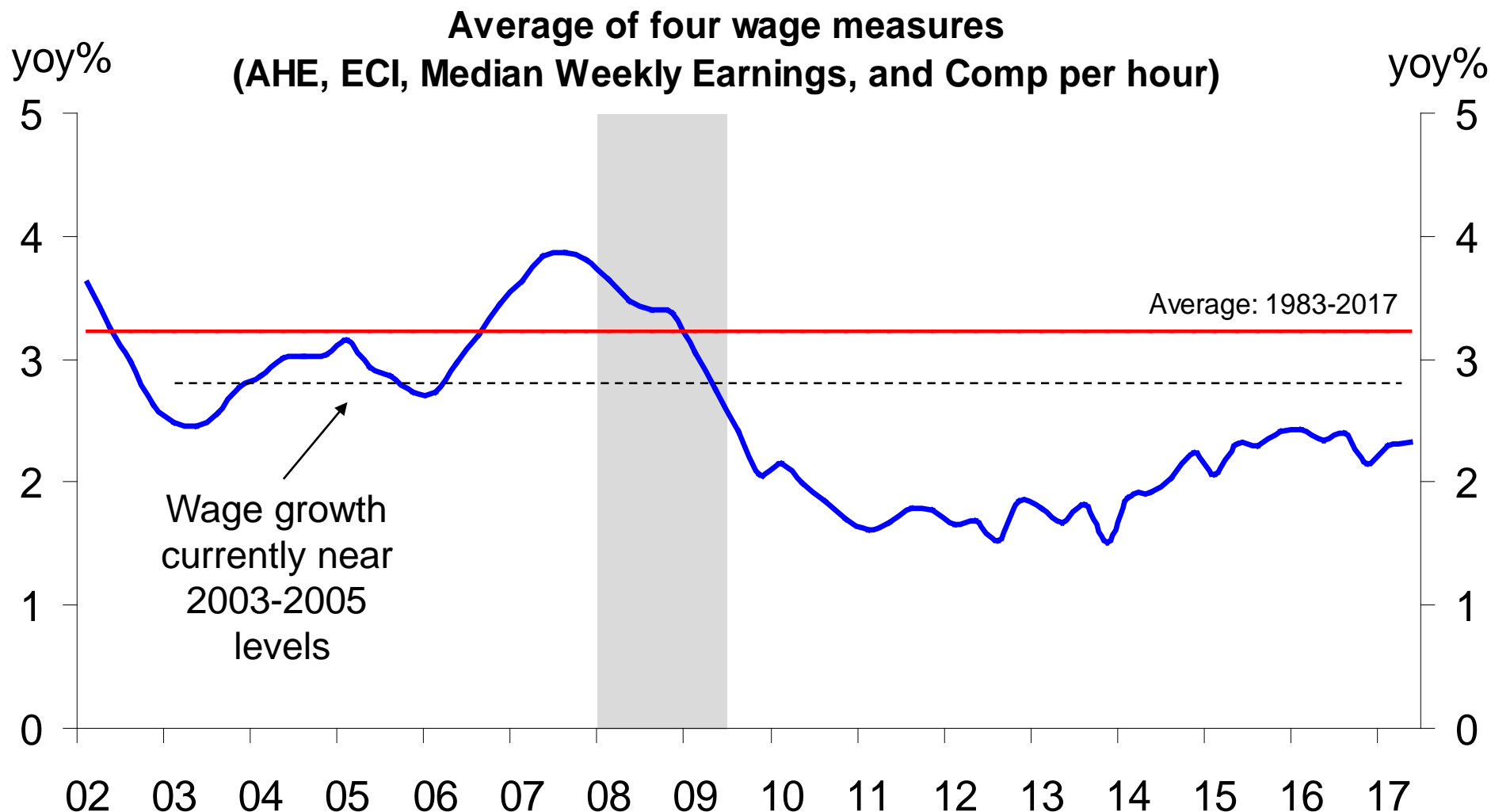
# Services inflation much higher than goods inflation



Source: BLS, Haver Analytics, DB Global Markets Research



# Wage growth moving sideways recently

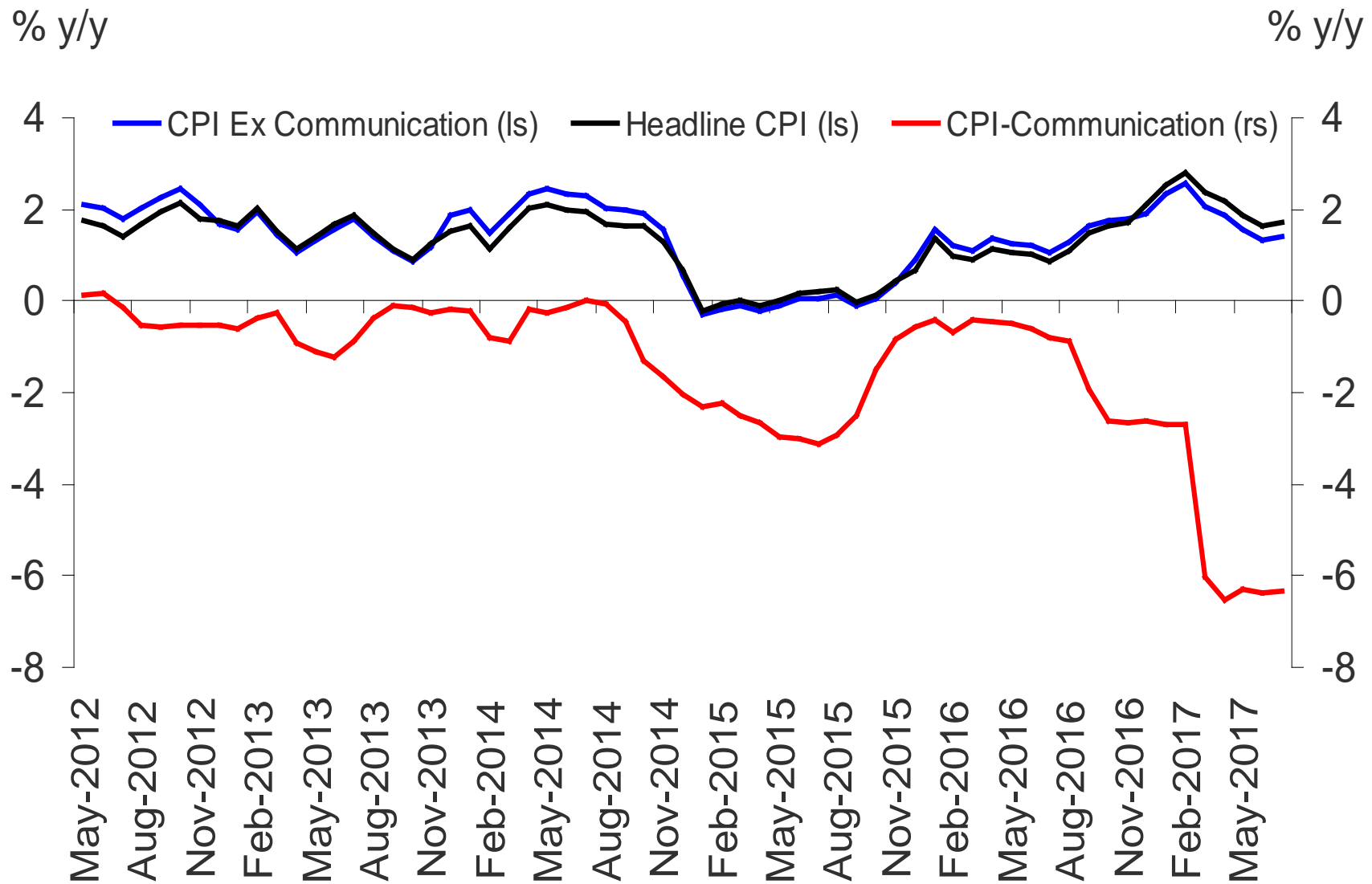


*Note: Overall wage growth averaged across four standard measures: (i) average hourly earnings, (ii) employment cost index (ECI) for wages and salaries, (iii) median weekly earnings, and (iv) compensation per hour in nonfarm Business Sector.*

Source: BLS, SF Fed, Haver Analytics, DB Global Markets Research



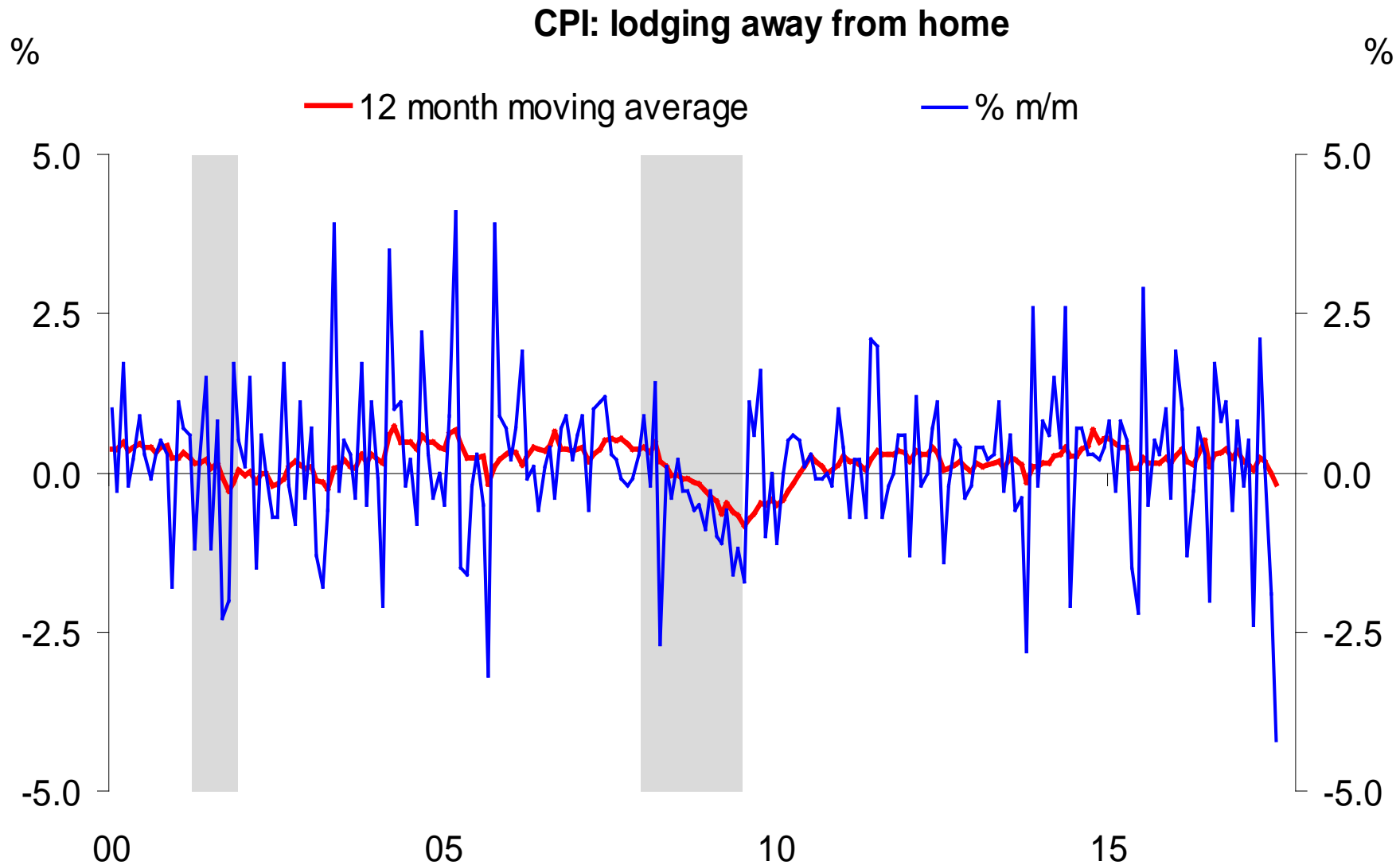
# Inflation slowdown is not only about wireless services



Source: BLS, Haver Analytics, DB Global Markets Research

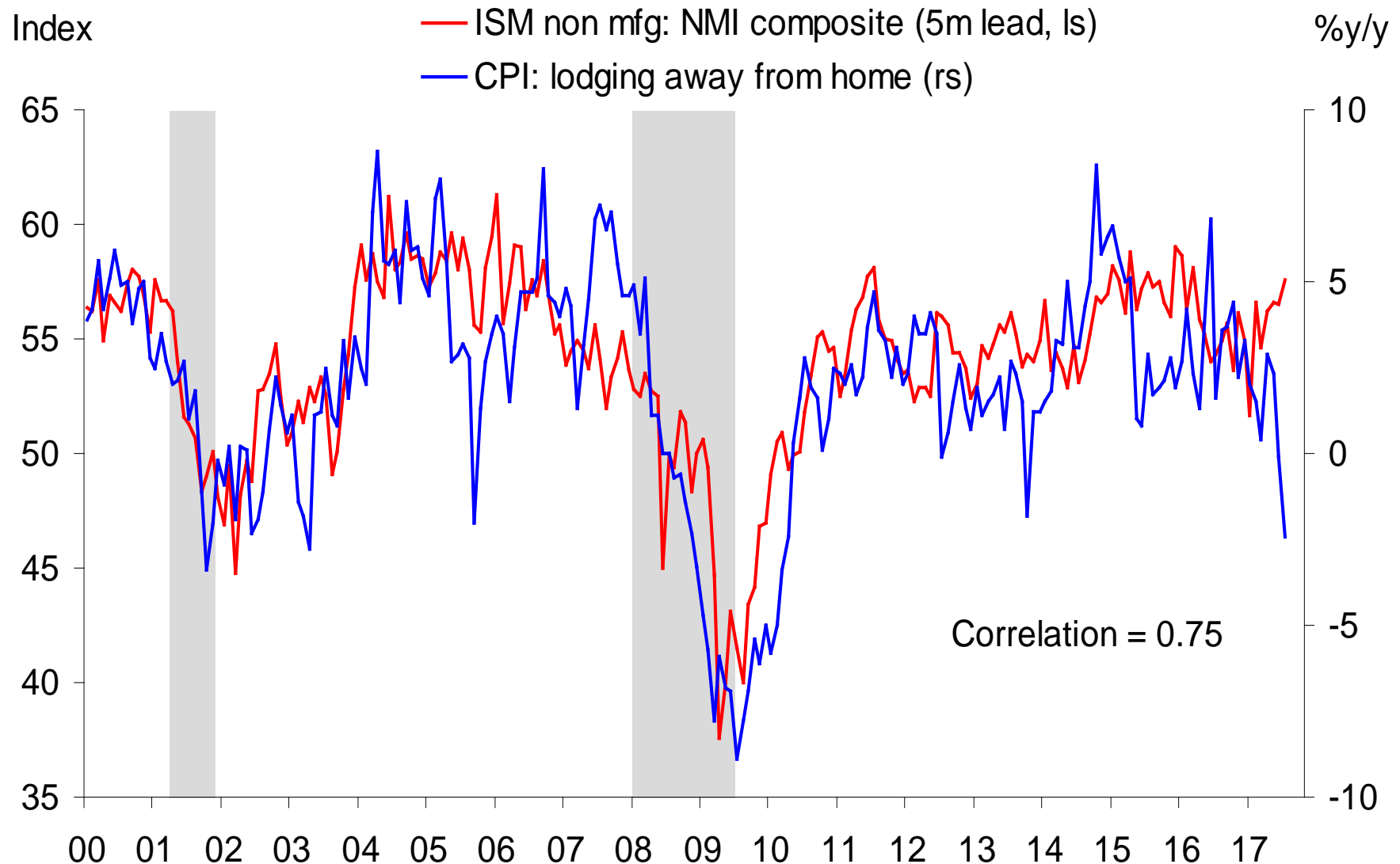


# Lodging away from home at a record low



Source: BLS, Haver Analytics, DB Global Markets Research

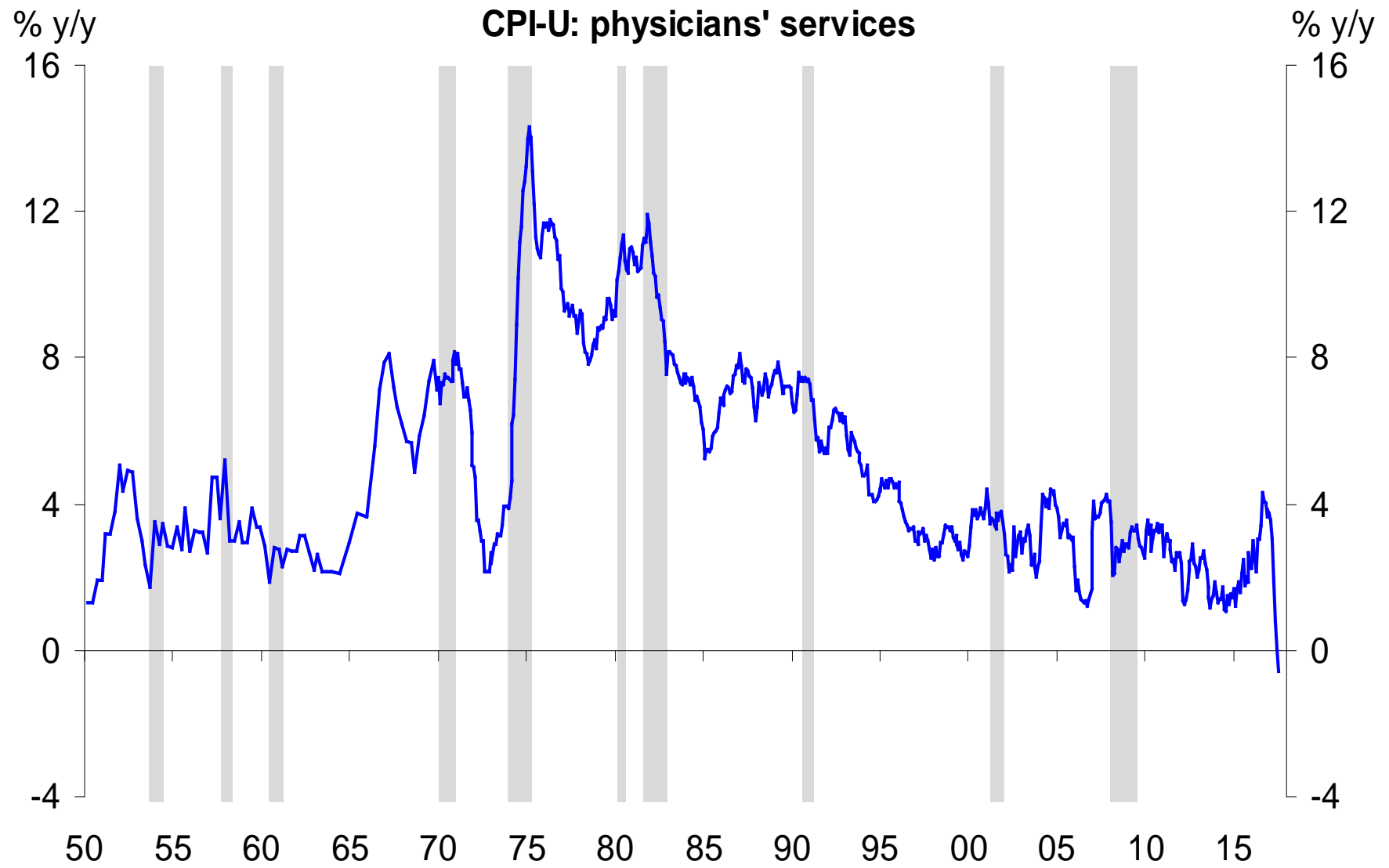
# ISM data supports firmer lodging services inflation



Source: ISM, BLS, Haver Analytics, DB Global Markets Research



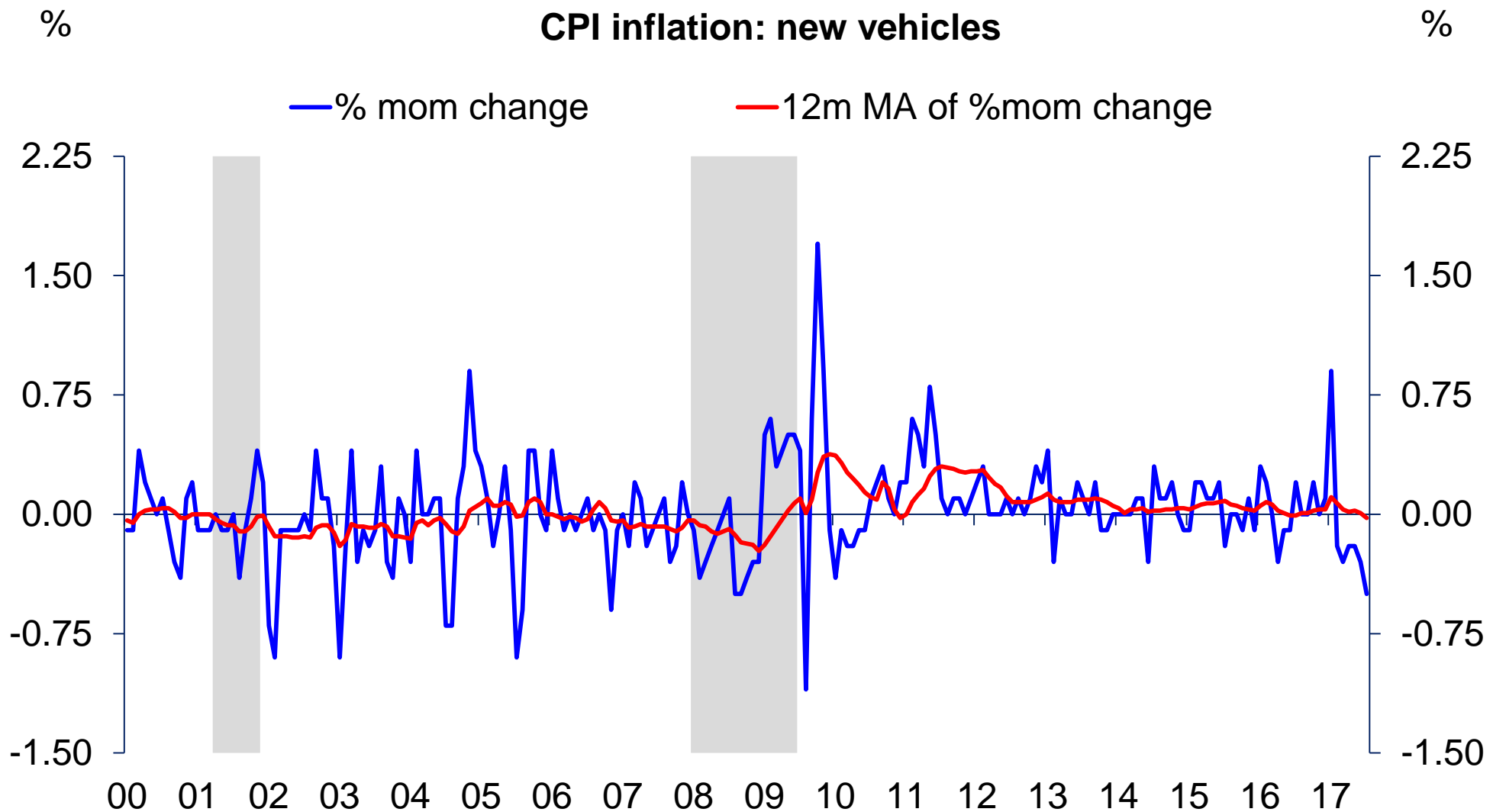
# Physicians' services inflation at a record low



Source: BLS, Haver Analytics, DB Global Markets Research

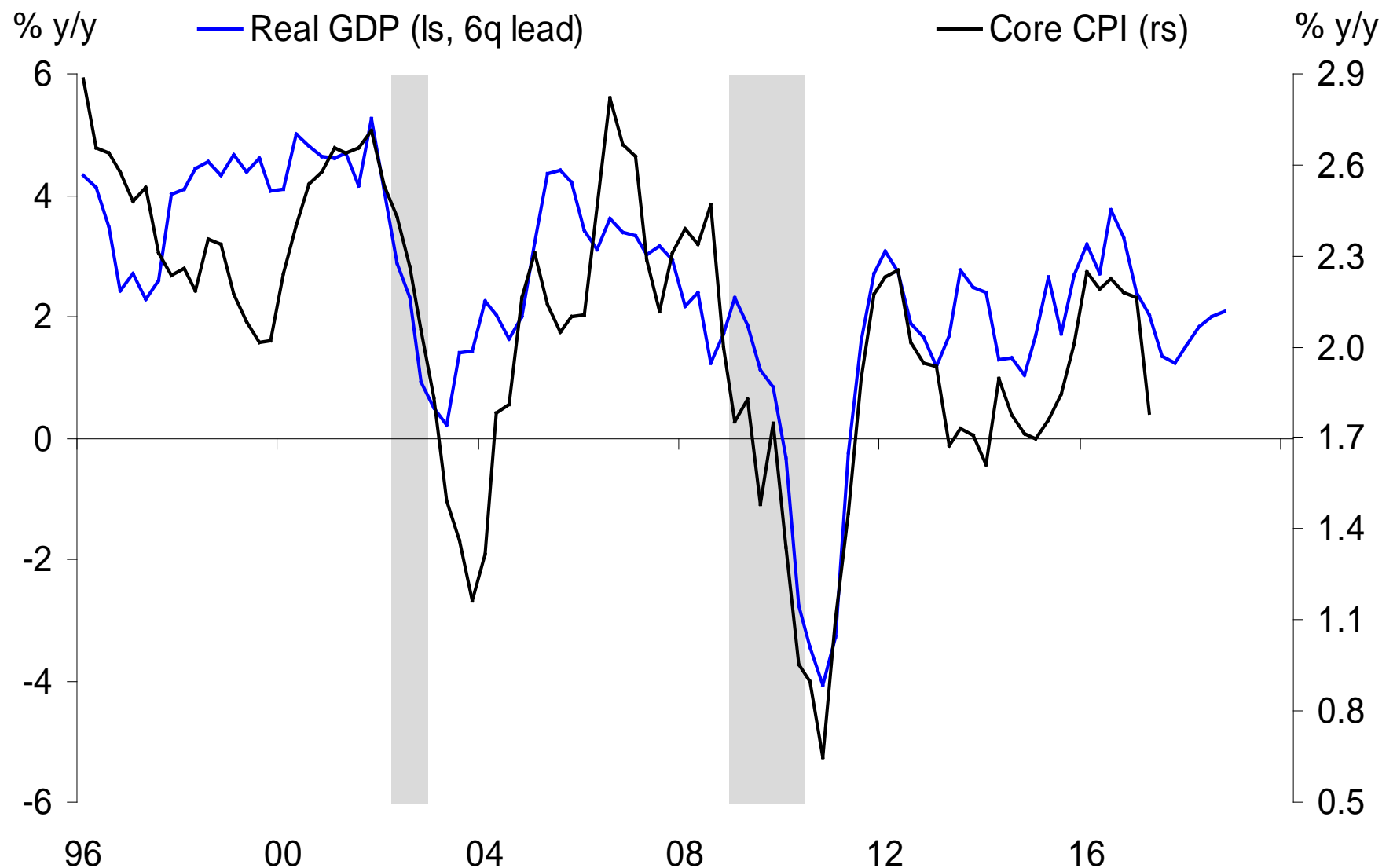


# New cars inflation down recently



Source: BLS, Haver Analytics, DB Global Markets Research

# Macro momentum (e.g., real GDP growth) continues to support a pick-up in core inflation

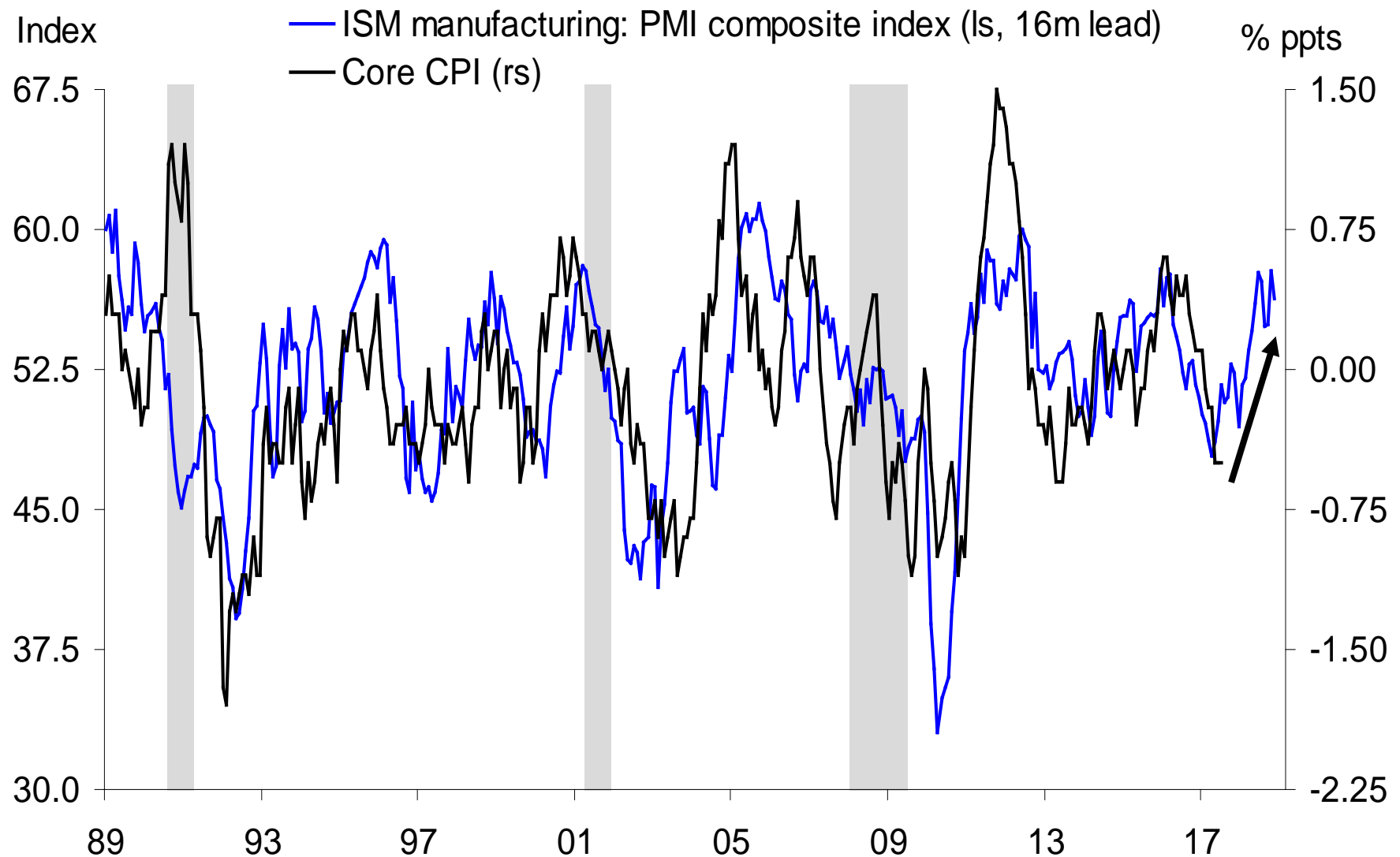


Source: BEA, BLS, Haver Analytics, DB Global Markets Research





## ISM also supports core inflation pick-up



Source: ISM, BLS, Haver Analytics, DB Global Markets Research

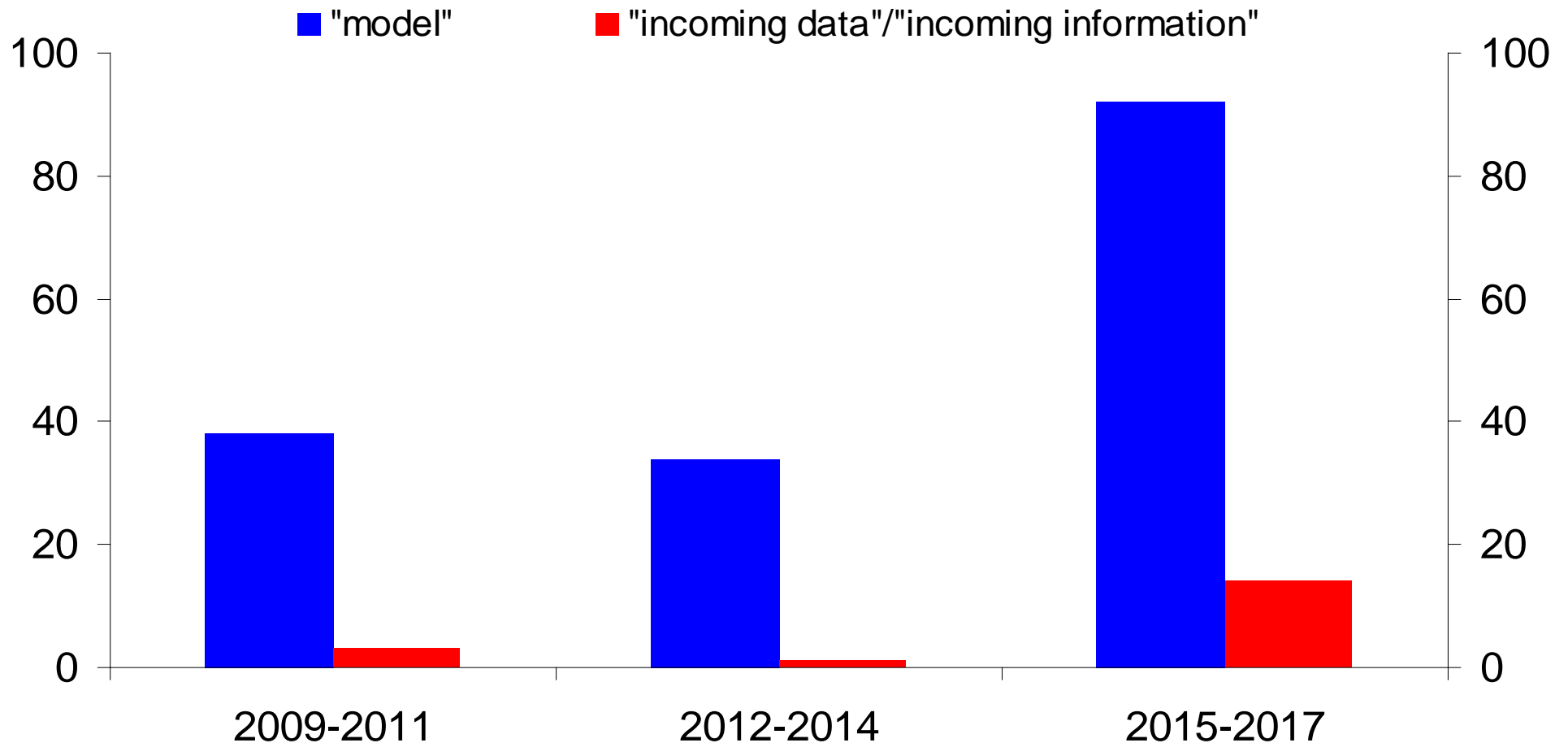
# Inflation models more important for the Fed than incoming data?



Number

Number of times the words "model" and "incoming data"/  
"incoming information" were used in Fed Chair speeches

Number

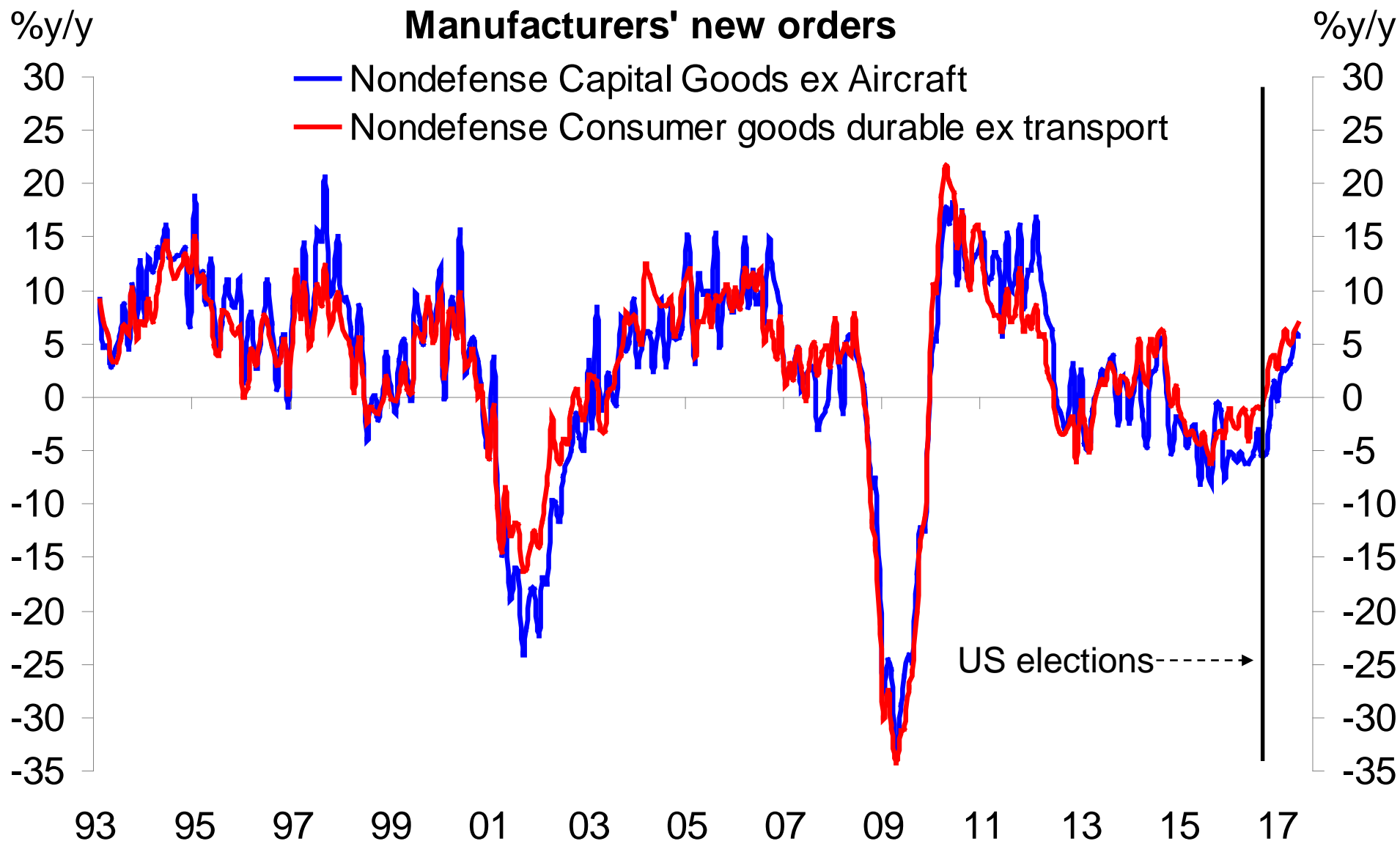


Source: Federal Reserve, DB Global Markets Research



# Capex outlook

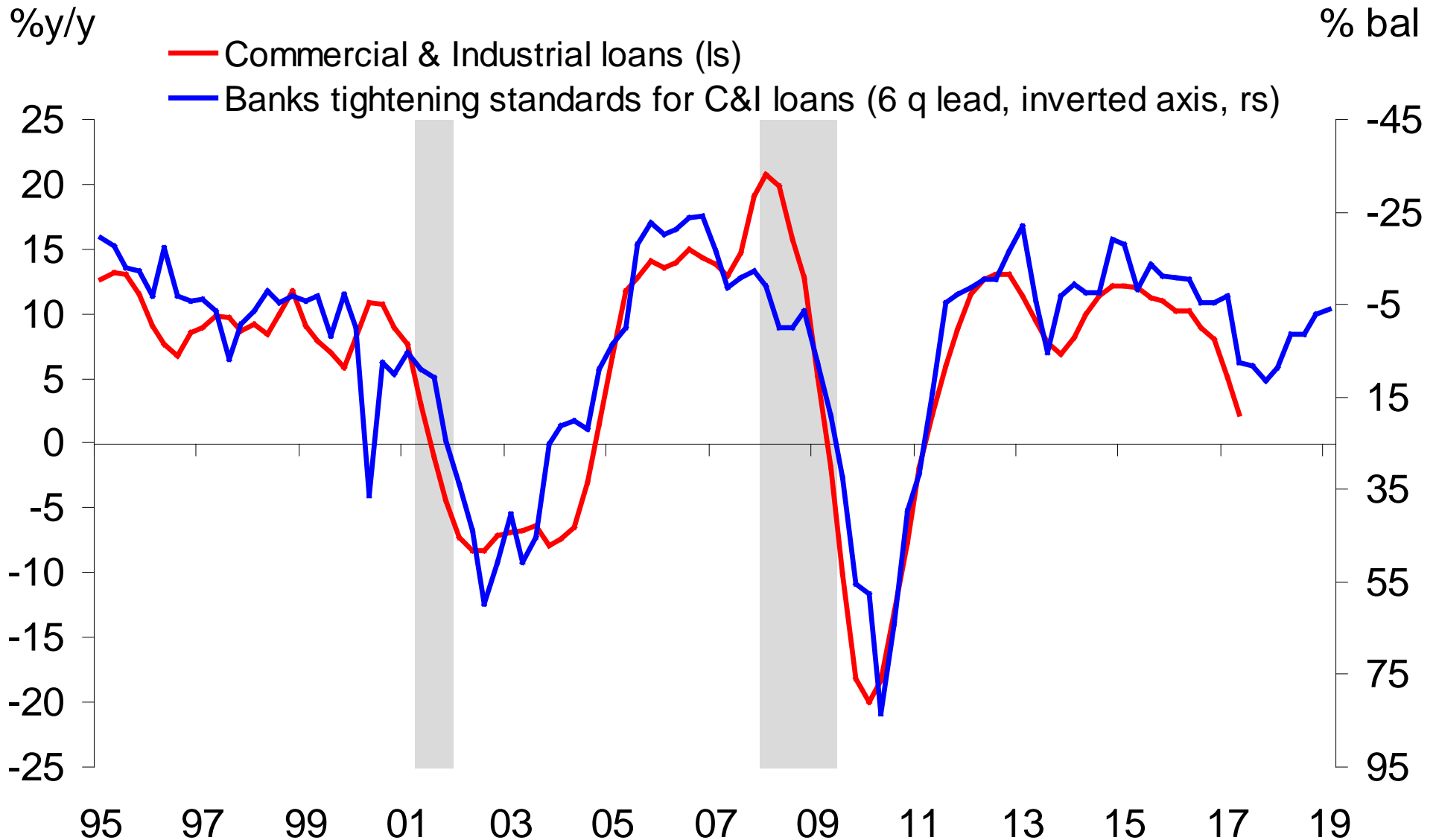
# Capex rebounding after November elections



Source: Census, Haver Analytics, DB Global Markets Research

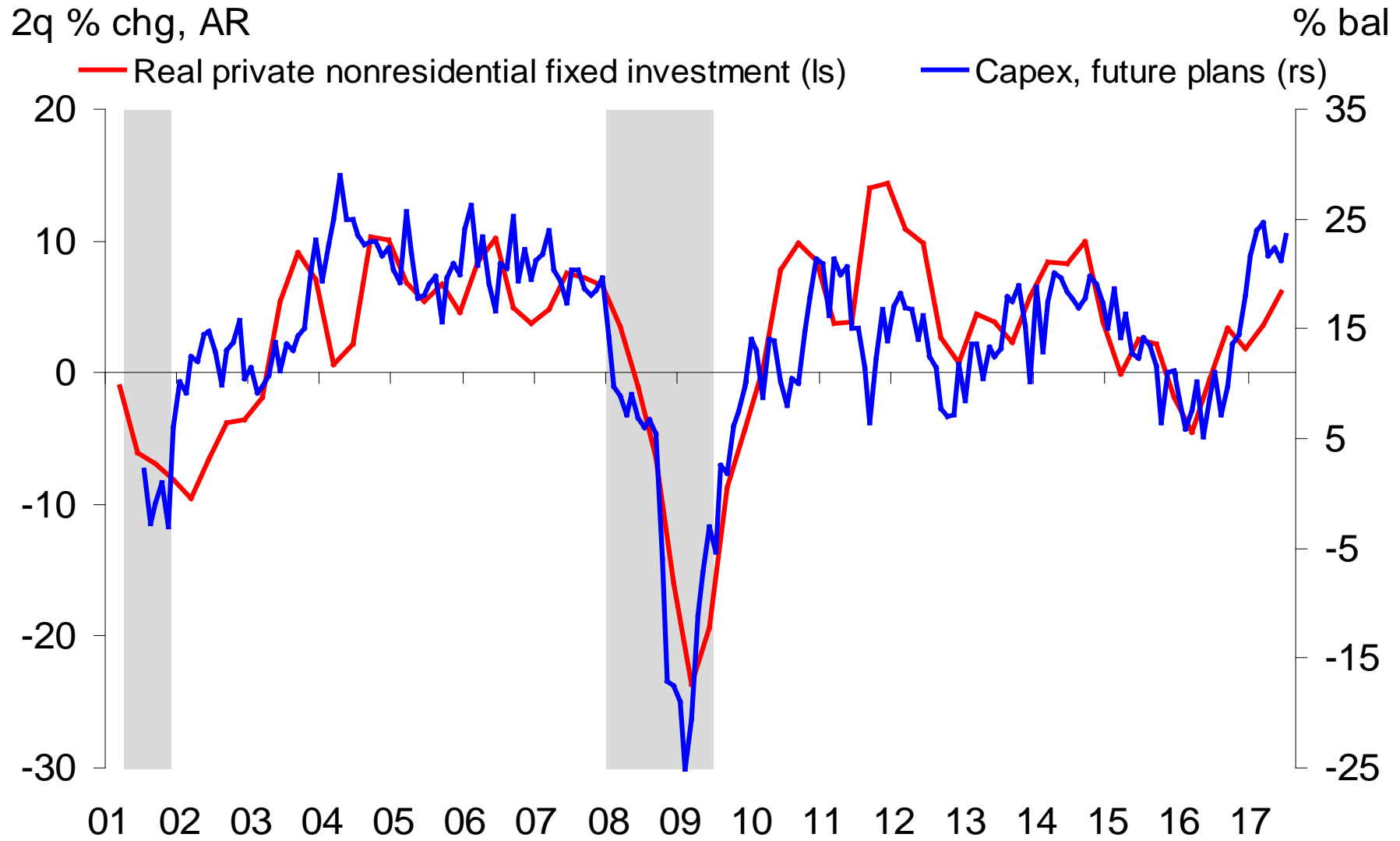


# Credit growth will turn around soon



Source: FRB, Haver Analytics, DB Global Markets Research

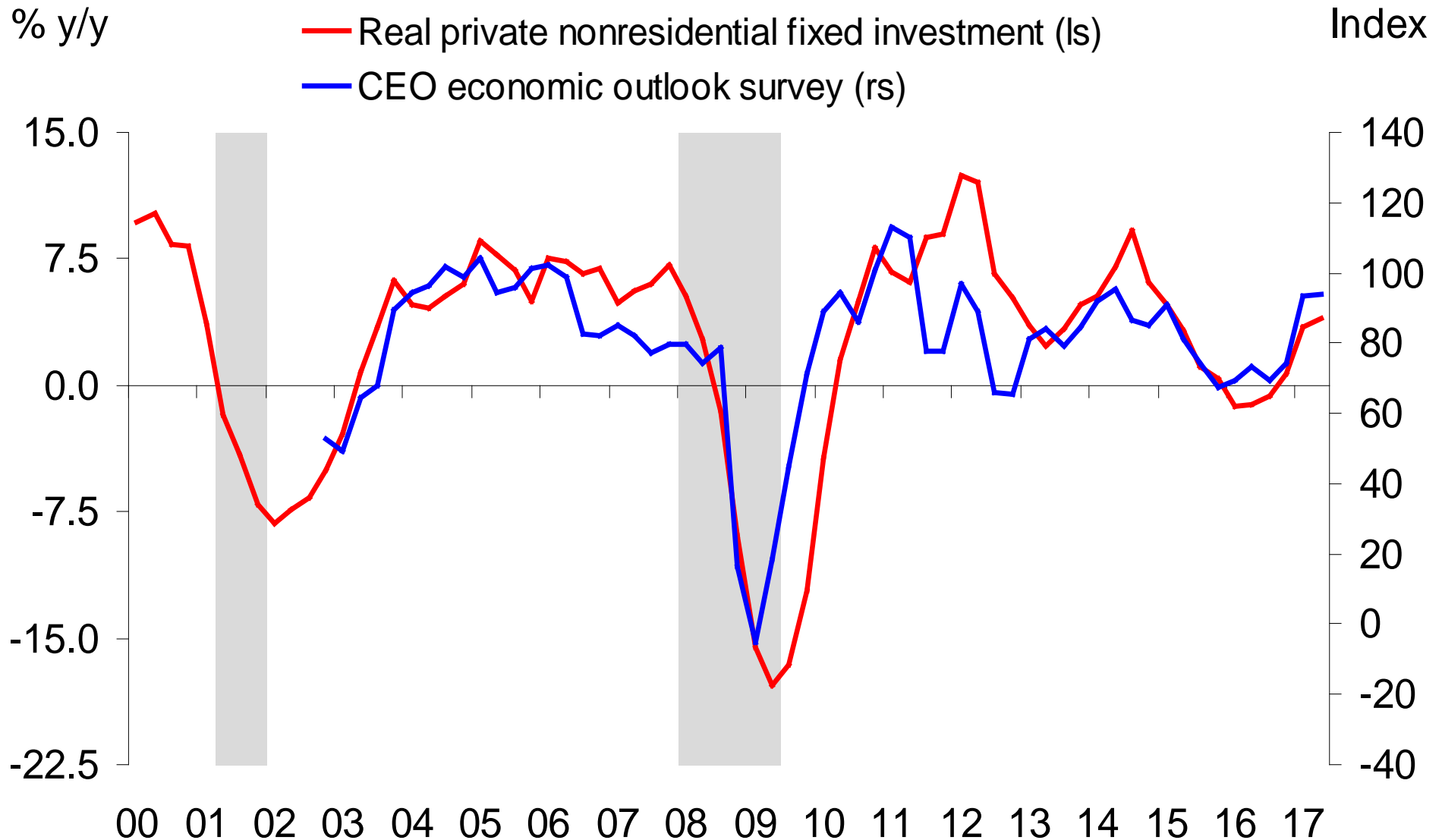
# Capex outlook has improved substantially



Source: FRB Richmond, FRB Philadelphia, FRBNY, FRB Kansas City, BEA, Haver Analytics, Deutsche Bank Research



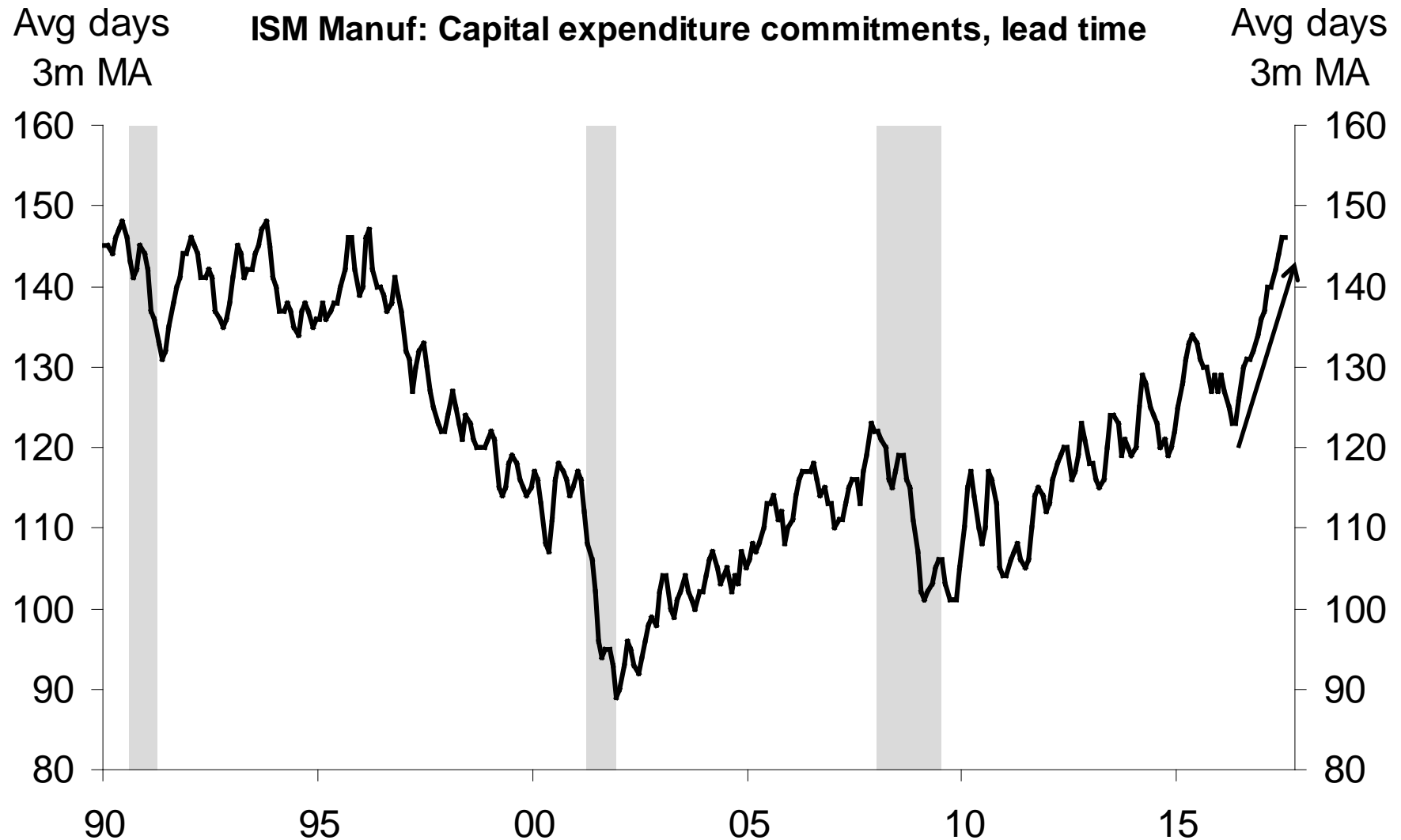
## US capex moving higher



Source: BEA, BUSRND, Haver Analytics, DB Global Markets Research

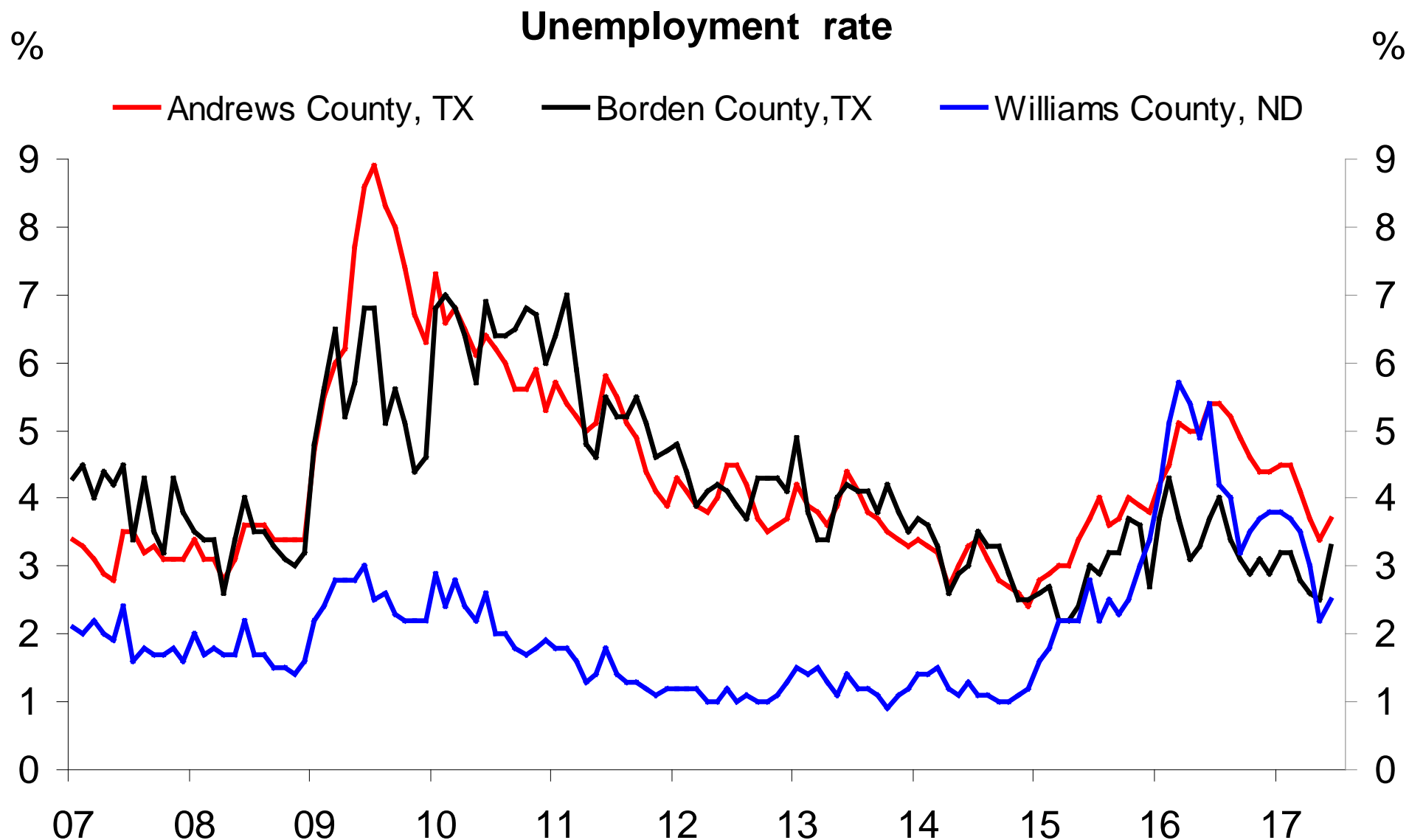


# Companies more willing to make capex commitments



Source: ISM, Haver Analytics, Deutsche Bank Research

# Unemployment rate coming down in energy communities



Source: BLS, Haver Analytics, DB Global Markets Research

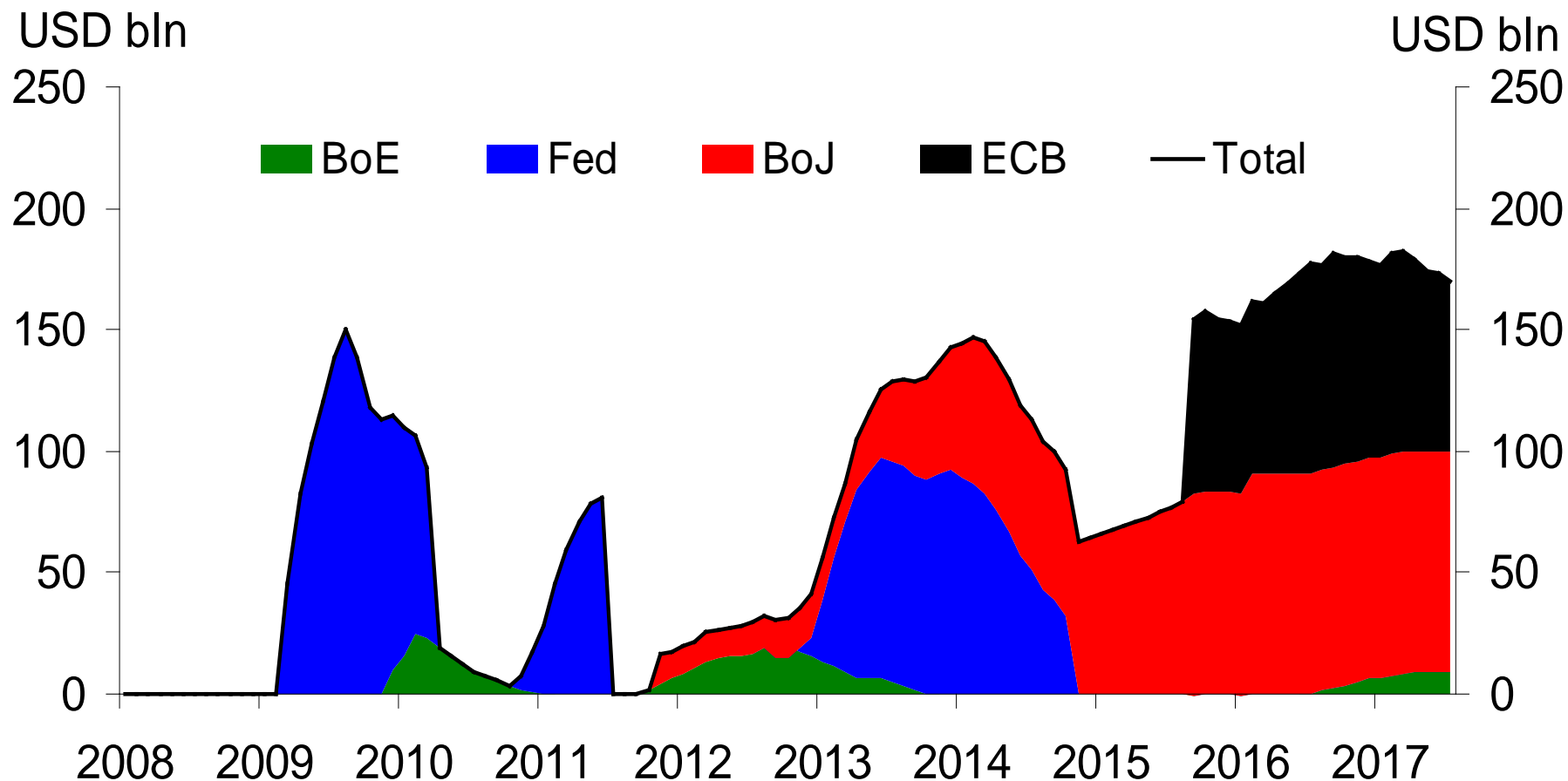


# European/ECB impact on US rates

Still plenty of liquidity being added to markets:  
ECB, BoJ, and BoE buying a combined \$175bn every month



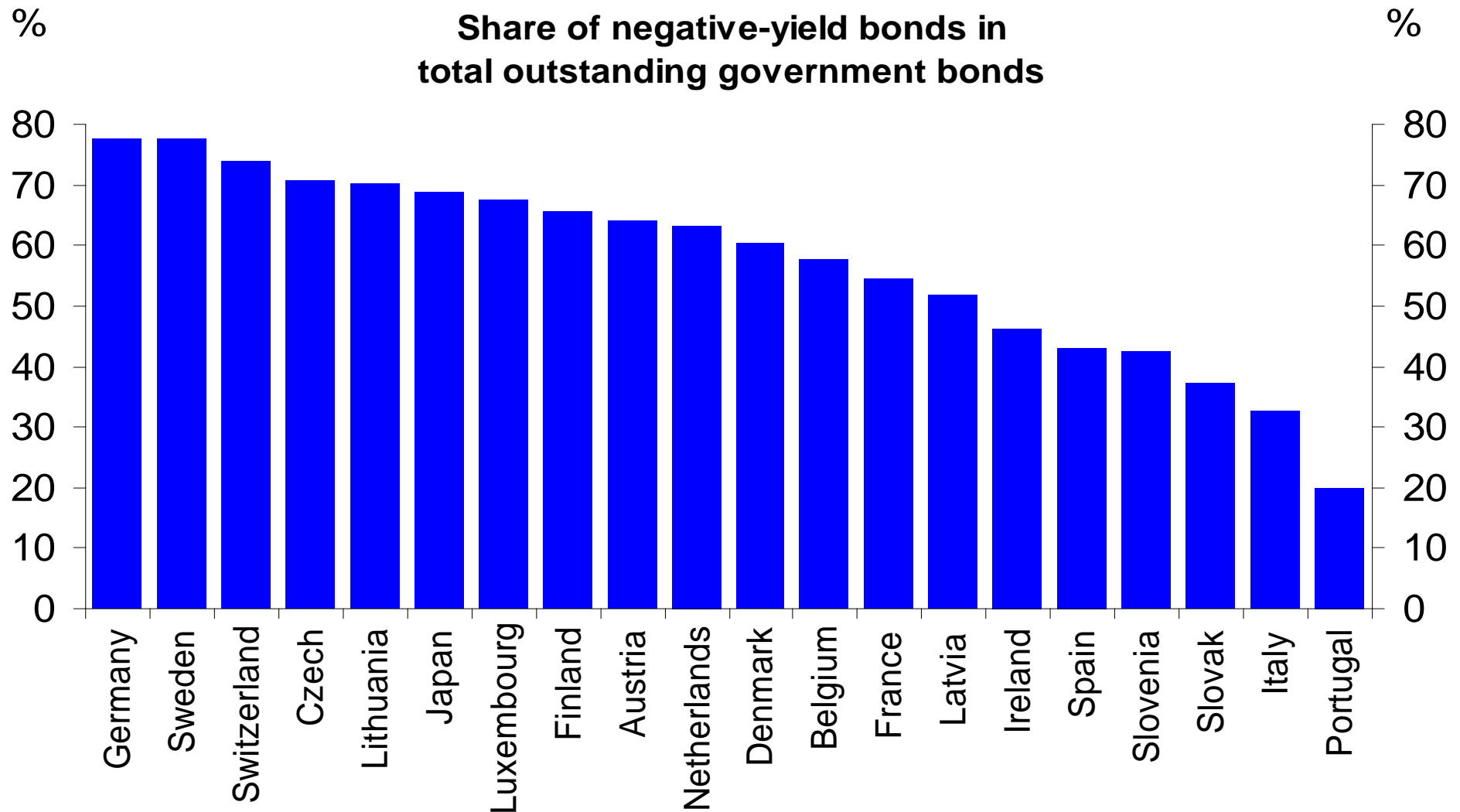
### Monthly Fed, ECB, BoE, and BoJ asset purchases



Note: 6m moving average for ECB, whereas others are 12m ma.

Source : FRB, ECB, BoJ, BoE, DB Global Markets Research

# Negative rates in Europe will continue to be a substantial drag on US rates

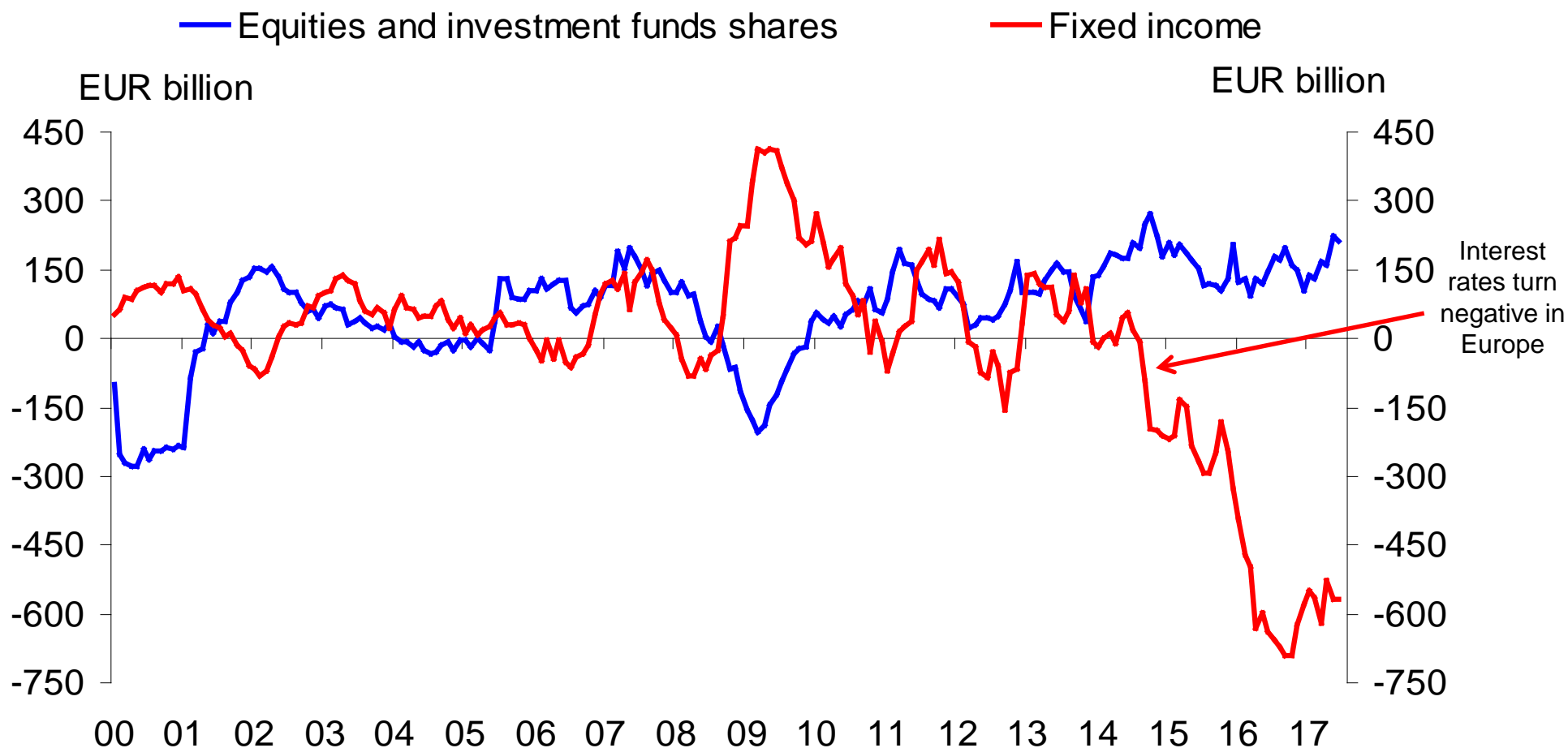


Note: Source: OECD calculations, DB Global Markets Research

Bond investors fleeing European negative interest rates at a record pace.  
This will continue to put downward pressure on US interest rates



**Euro area: BOP: financial account: Net portfolio investment  
12 month rolling sum**

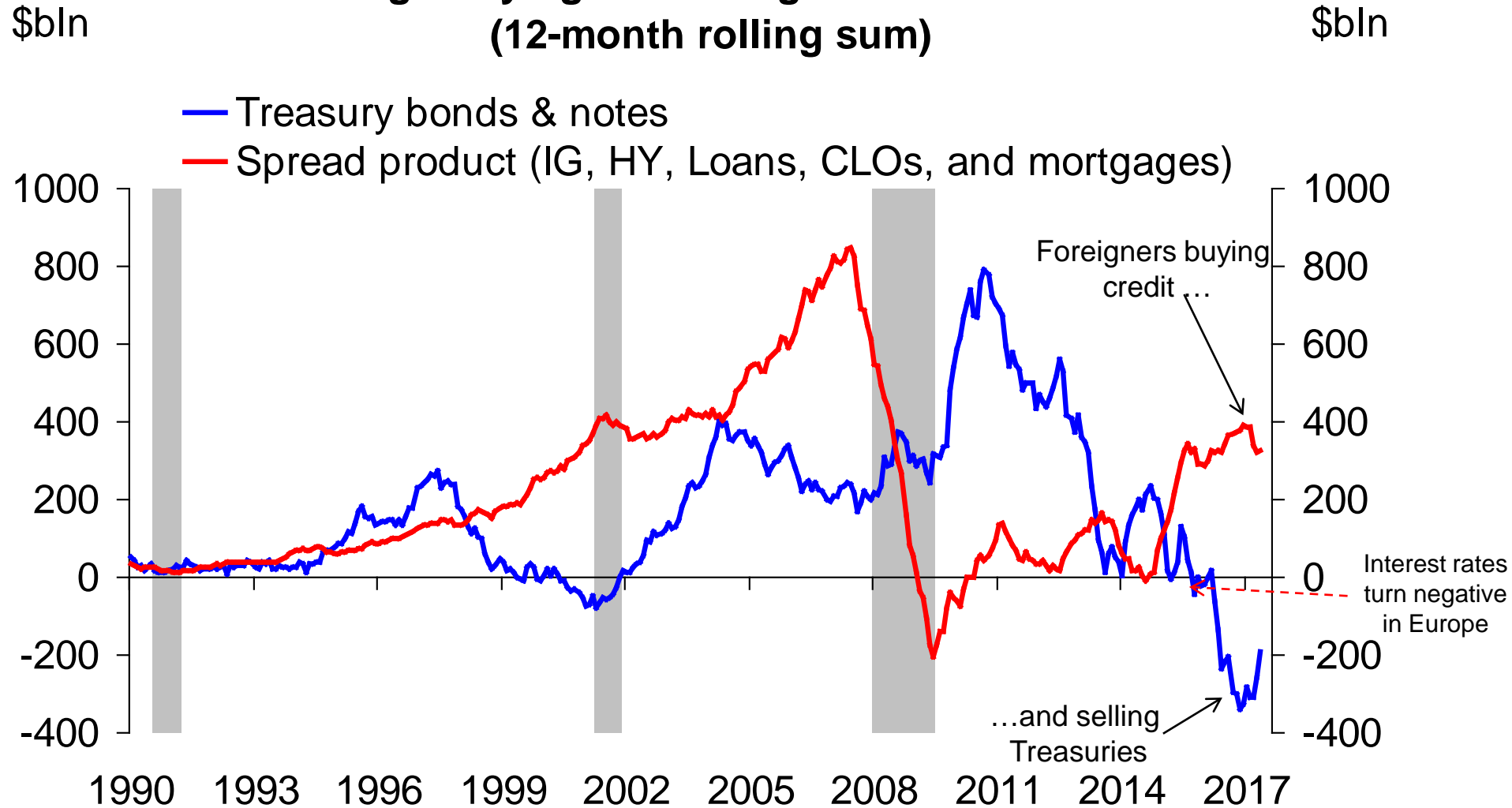


Source: ECB, Haver Analytics, DB Research

# Foreigners hunting yield in the US after interest rates turned negative in Europe and Japan



## Net foreign buying of US long-term debt securities (12-month rolling sum)



Source: Treasury, Haver Analytics, DB Global Markets Research



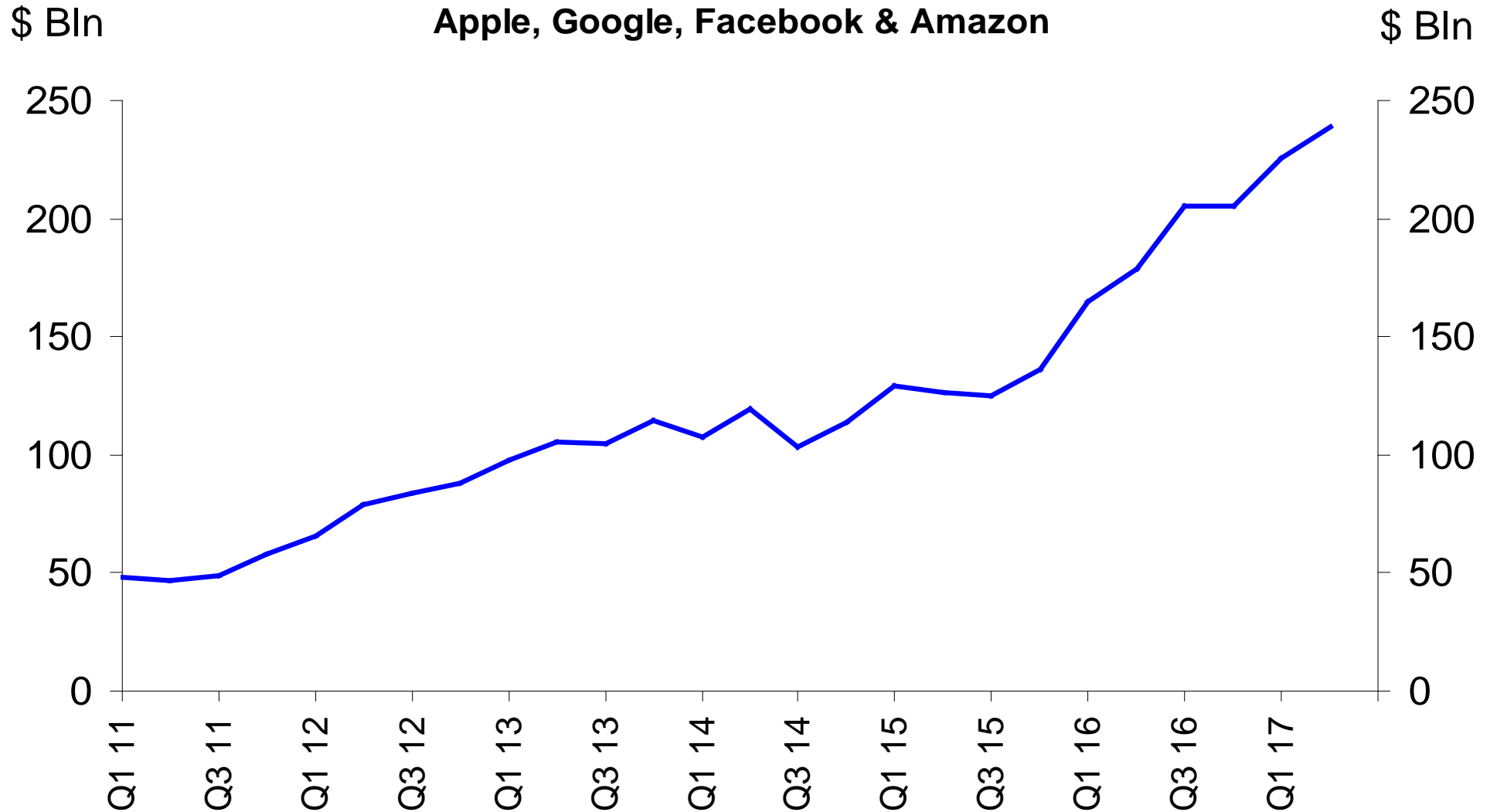


- **October 2017:** Likely to get a more hawkish message from the ECB to prepare markets for December tapering announcement.
- **December 2017:** We expect a six-month QE extension to be announced at a slower pace of EUR 40bn.
- **2018:** QE tapering process ends. And the normal but gradual MRO rate hiking cycle begins.

# Corporate holdings of Treasuries also an important driver of US rates



## Total US treasury holdings: Microsoft, Apple, Google, Facebook & Amazon

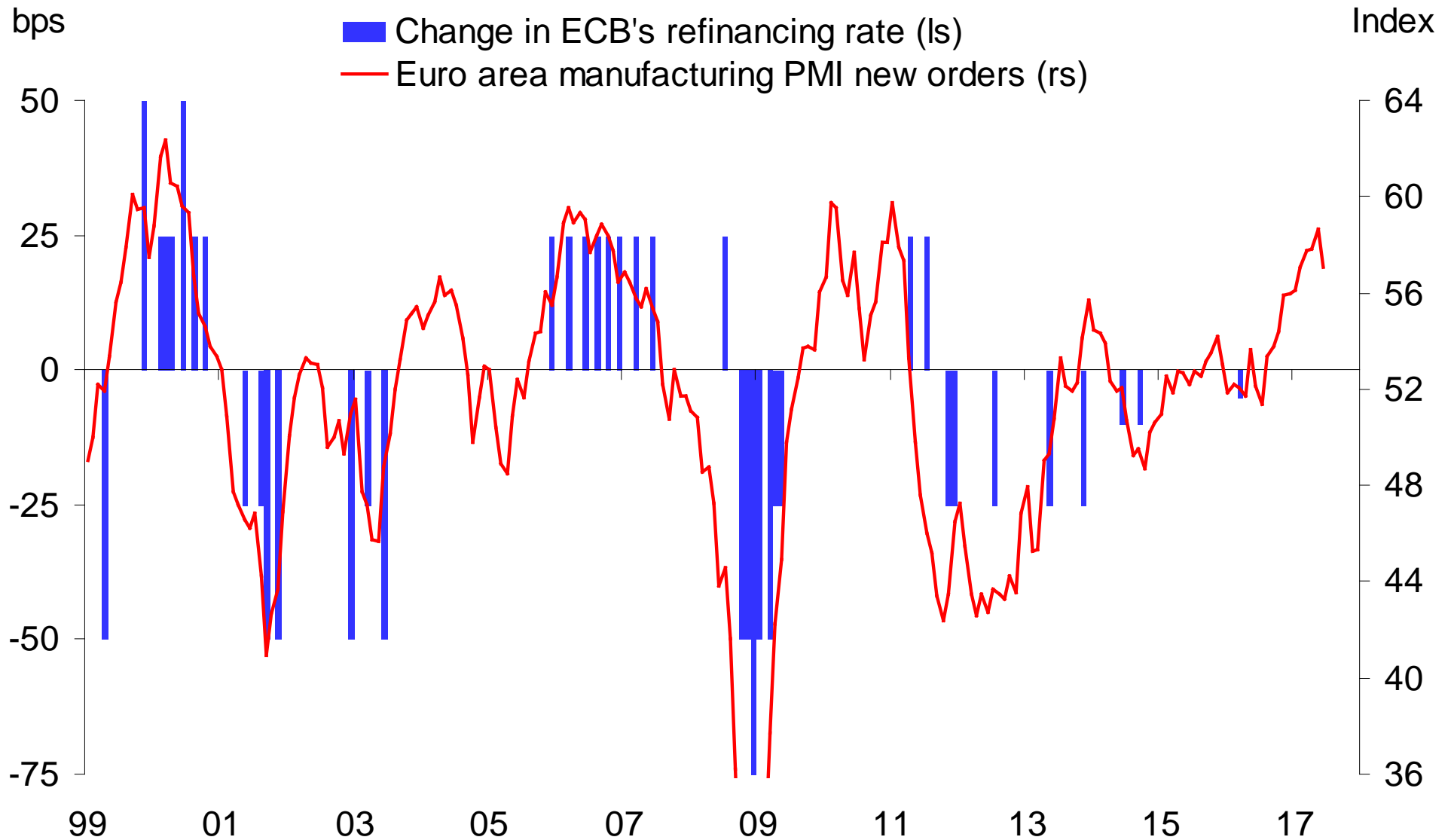


Source: Company sources, DB Global Markets Research



# Outlook for Europe and China

# ECB behind the curve?

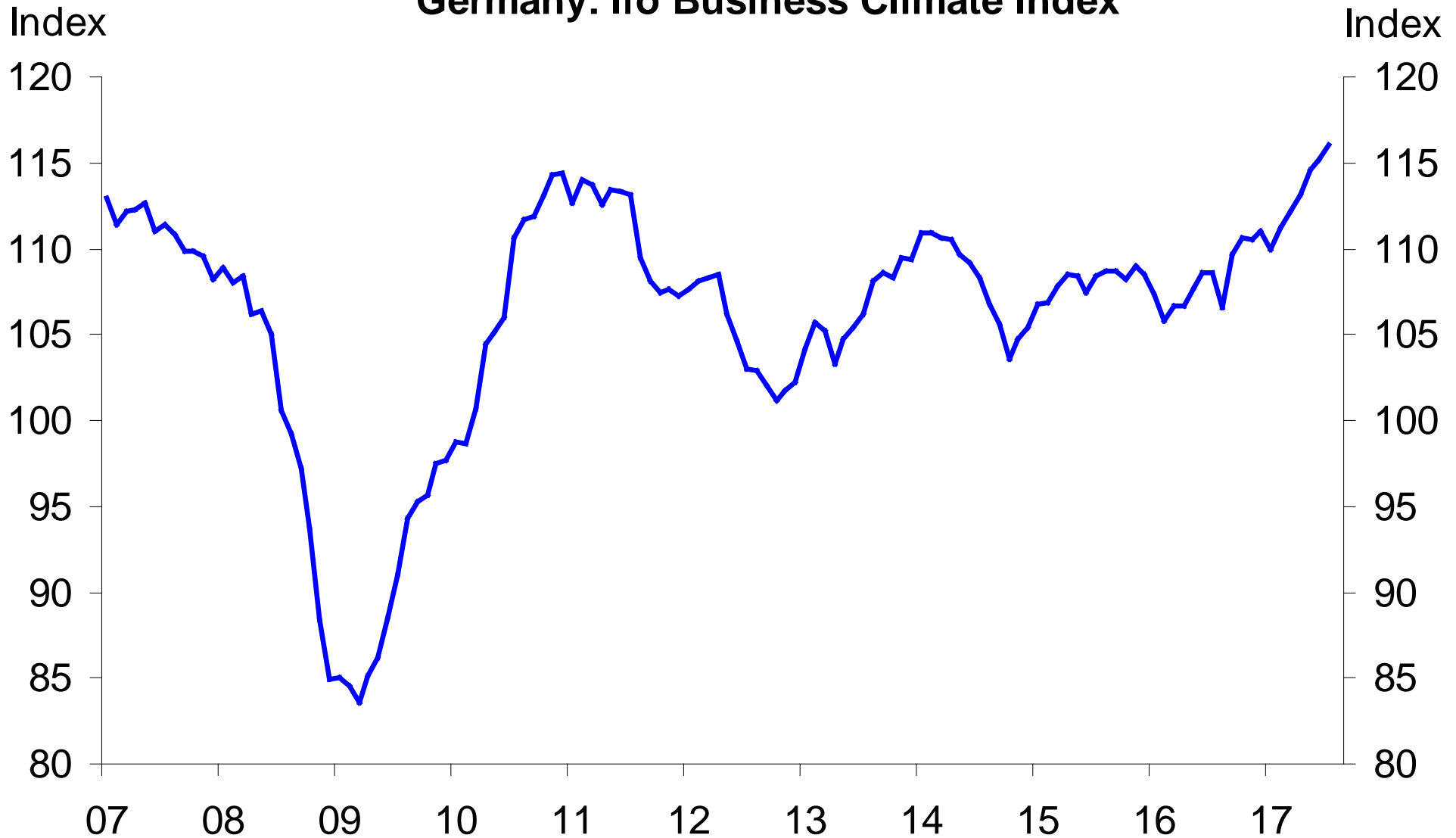


Source: ECB, Markit, Haver Analytics, DB Global Markets Research

# German economy strong



## Germany: Ifo Business Climate Index



Source: Ifo, Haver Analytics, DB Global Markets Research



# German labor market is tight

## German companies: respondents thinking labor as a factor is limiting production



Source: European Commission, Haver Analytics, DB Global Markets Research



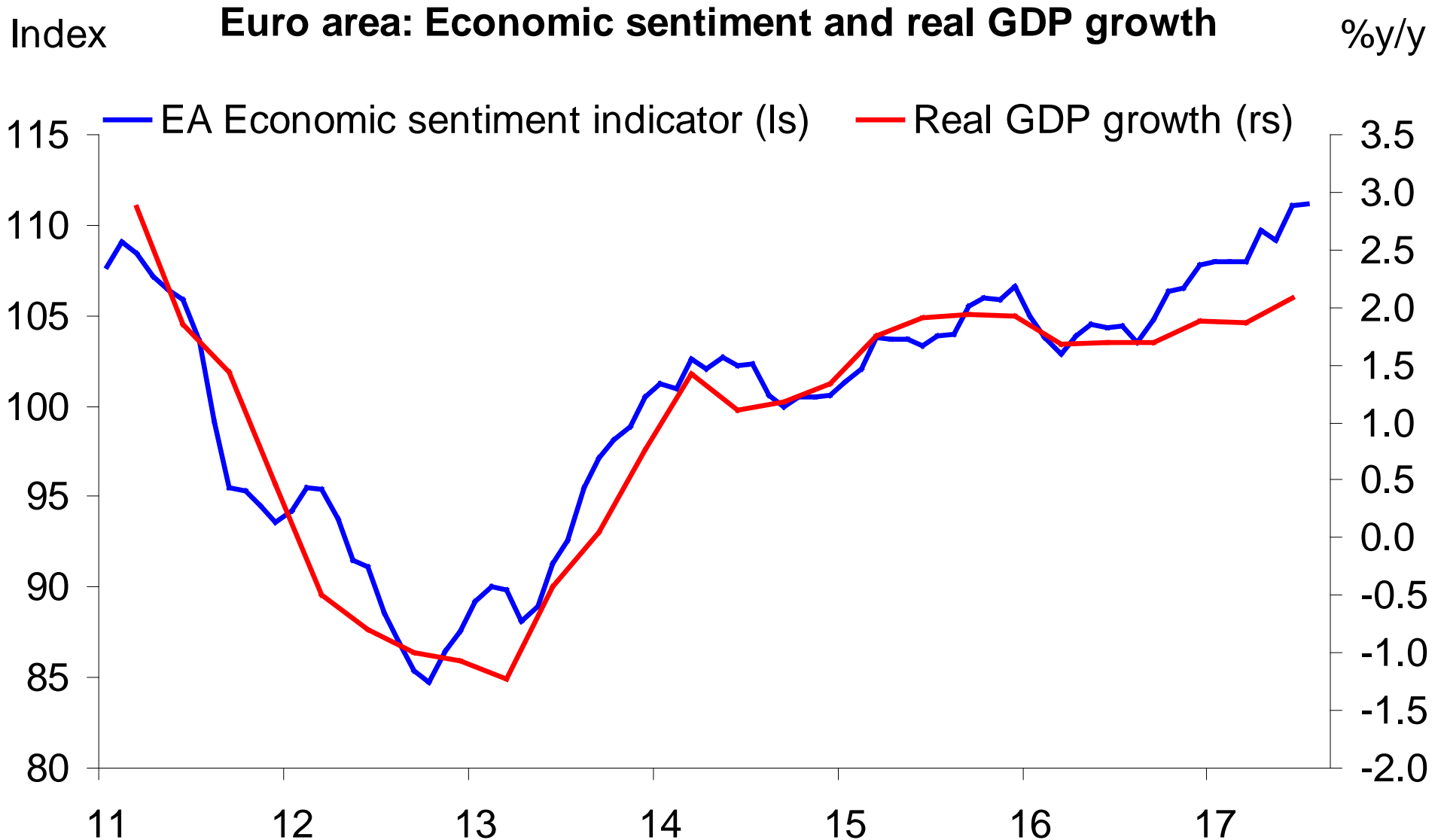
# European growth moving higher



Source: IHSM, Eurostat, Haver Analytics, DB Global Markets Research



# Europe looking better

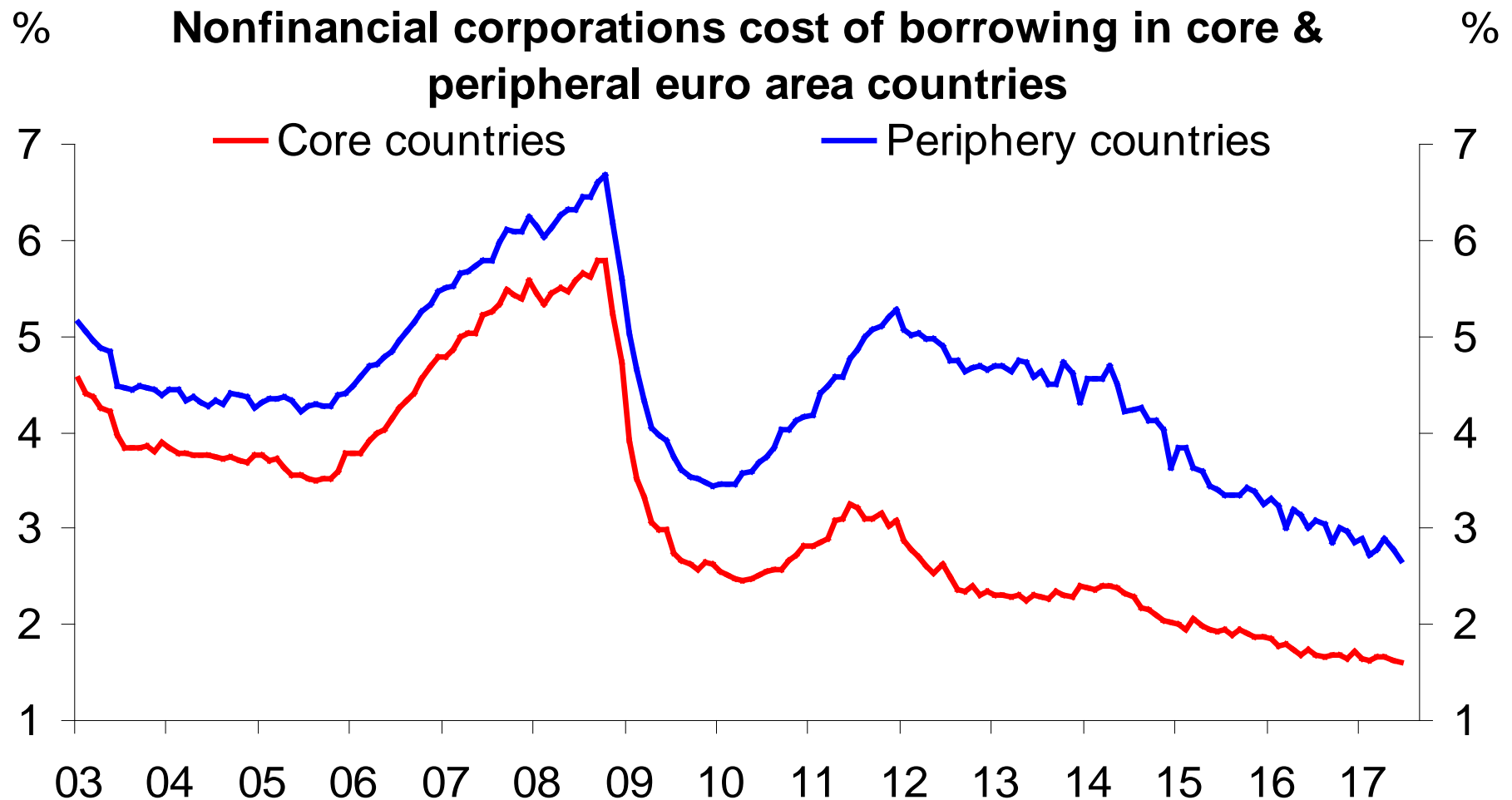


Source: European Commission, Eurostat, Haver Analytics, DB Global Markets Research





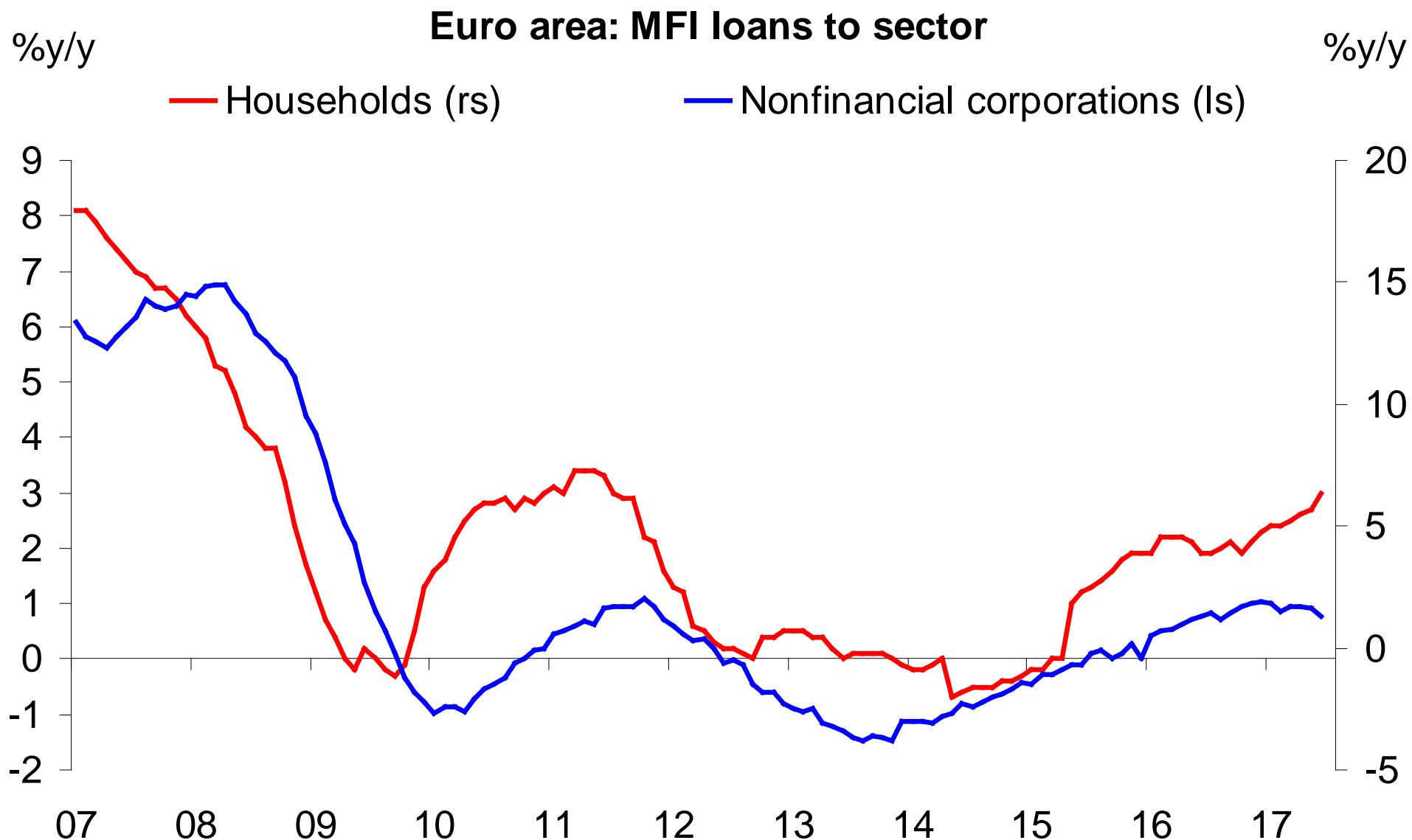
# Borrowing costs falling in Europe



Core countries: Germany, Netherlands, Belgium & Austria  
Periphery countries: Greece, Ireland, Italy, Portugal & Spain

Source: ECB, Haver Analytics, DB Global Markets Research

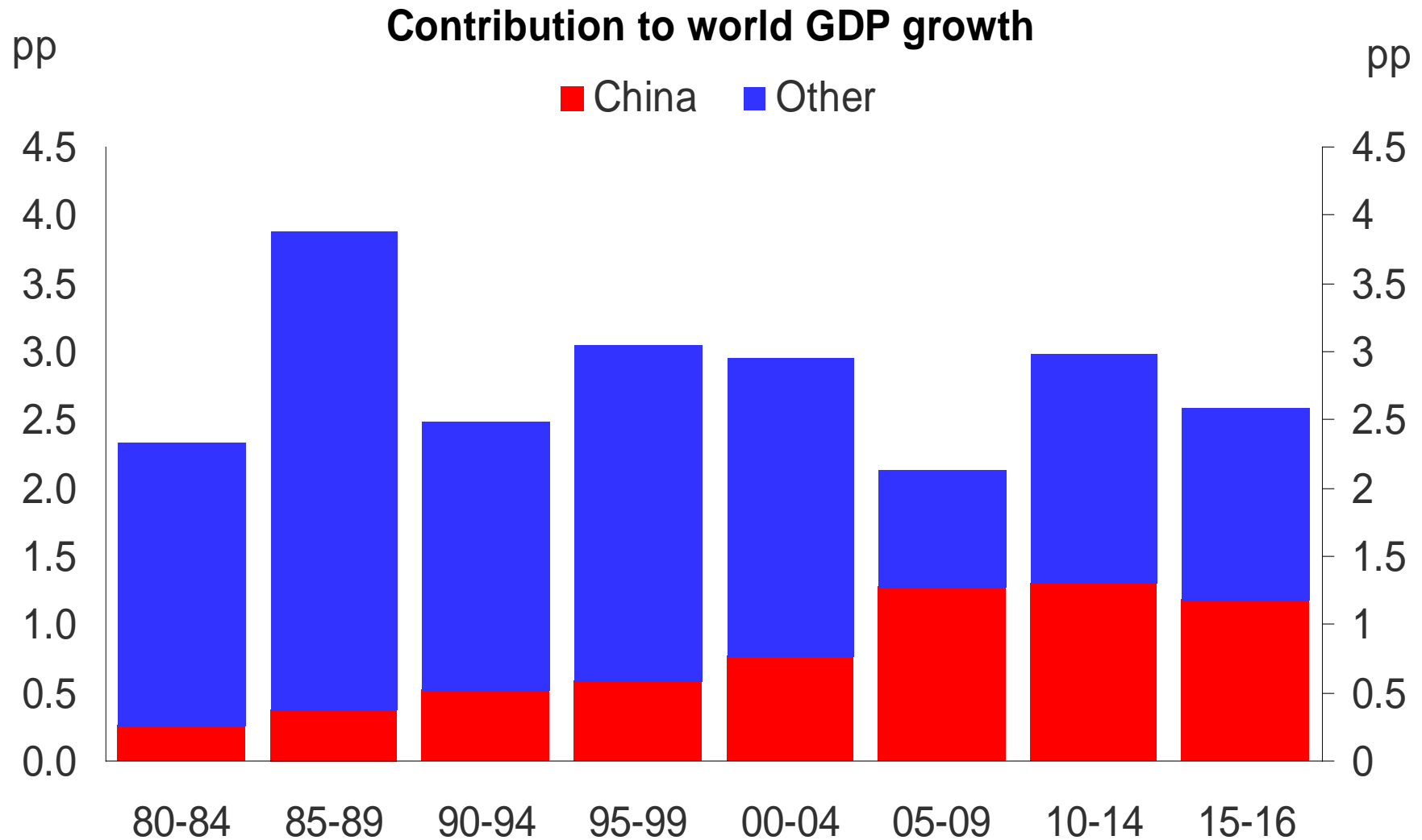
# Credit growth strengthening in Europe



Source: ECB, Haver Analytics, DB Global Markets Research



# World growth depends heavily on China

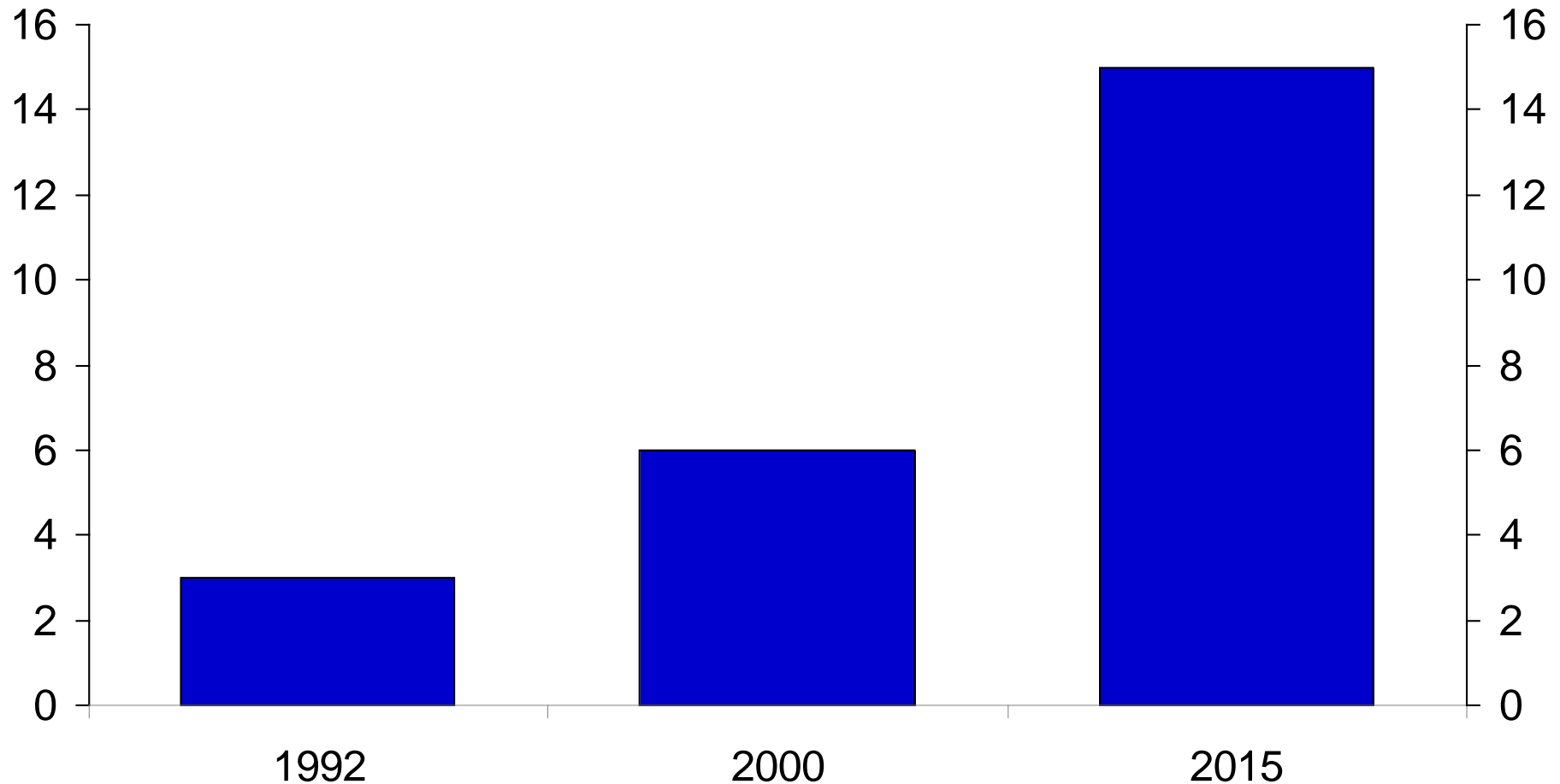


Source: IMF, Haver Analytics, DB Global Markets Research

# The global economy is more vulnerable to a slowdown in China



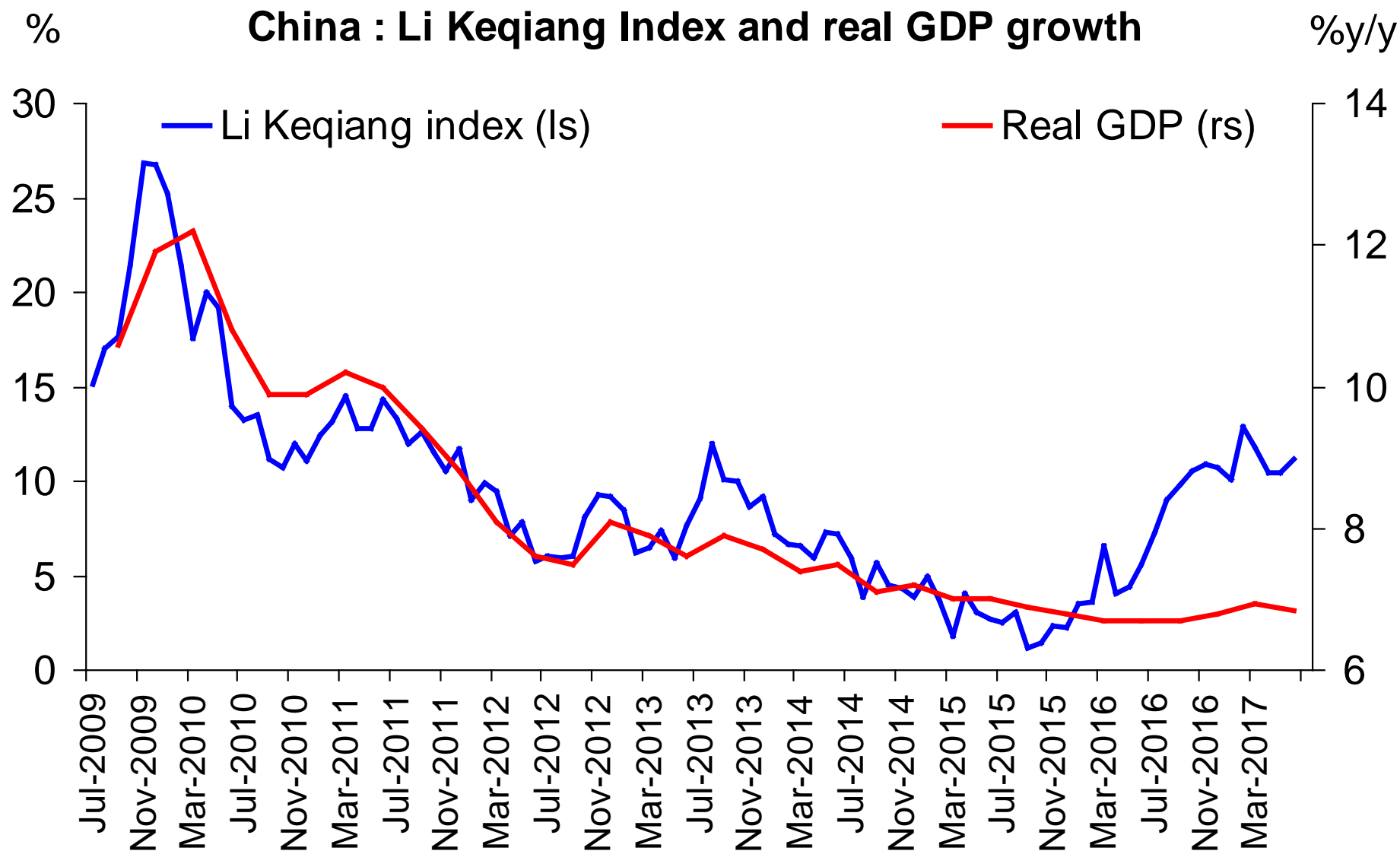
## # of G20 countries that have China as their Top 5 export destination



*Note: Data shows the number of G20 countries which have China as one of their Top 5 export destinations*

Source: WITS database, DB Global Markets Research

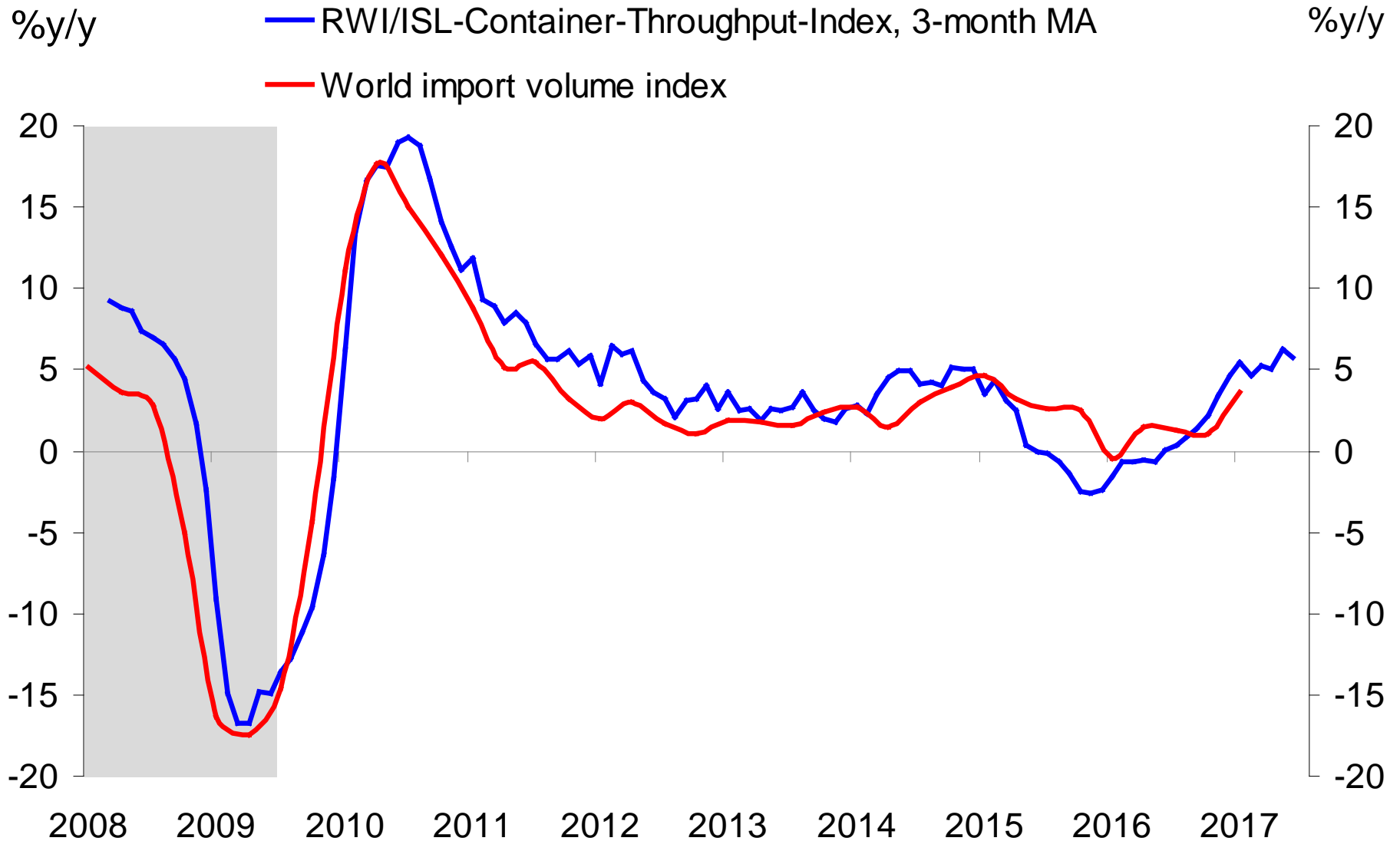
# Chinese business cycle coming back



Note: Li Keqiang index is a weighted average of annual growth rates in outstanding bank loans, electricity production, and rail freight volume

Source: Bloomberg Finance LP, CNBS, Haver Analytics, DB Global Markets Research

# Global trade coming back

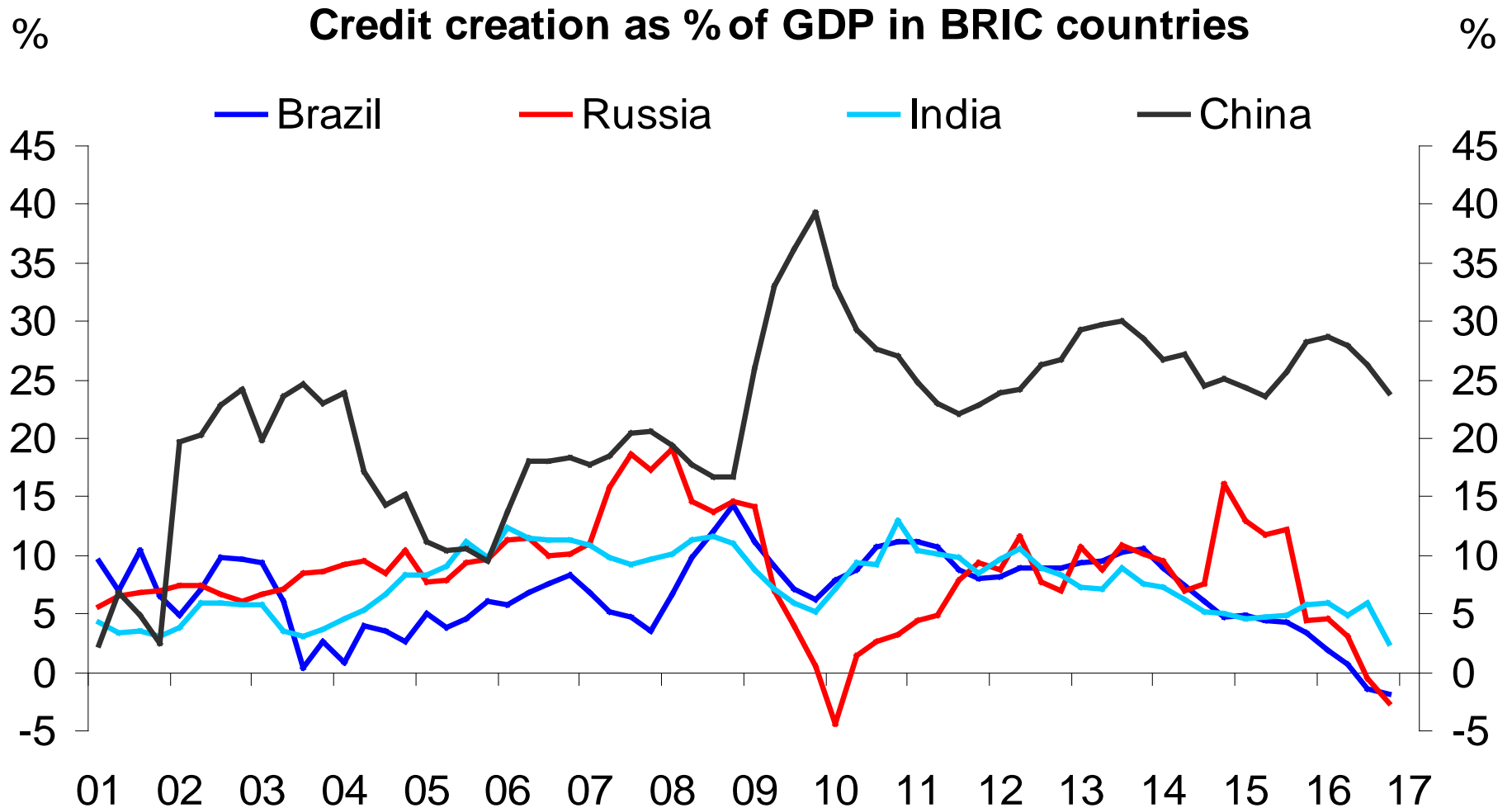


*Note: The RWI/ISL Container Throughput Index uses the fact that international trade is primarily handled by ships and containers, which means the container throughput in ports is an important indicator of global trade.*

Source: WTO, UNCTAD, ISL, DB Global Markets Research



# EM risk is all about China

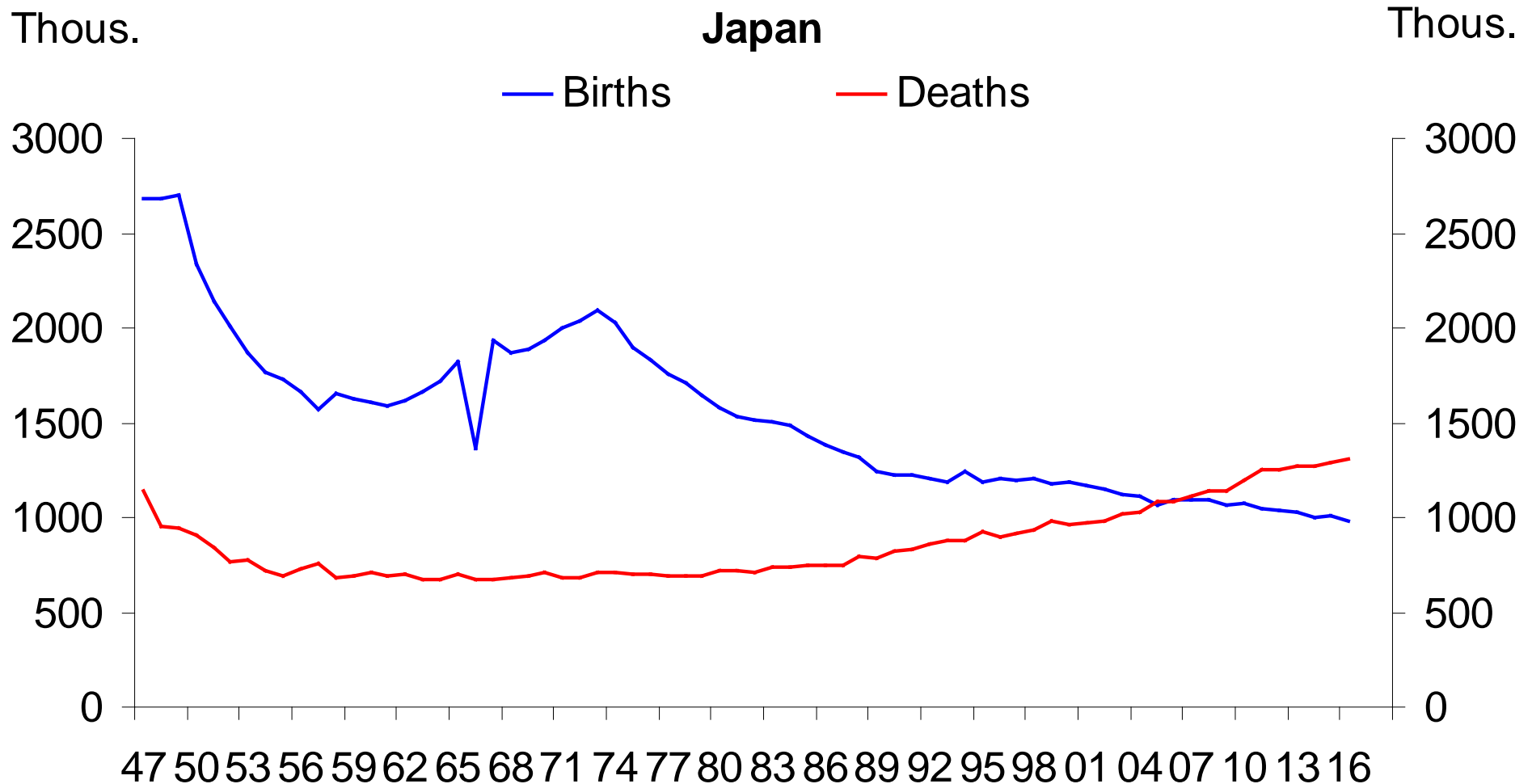


Credit creation is defined as period to period change in credit by all sectors to nonfinancial private sector  
4-quarter moving average of credit creation as % of GDP

Source: BIS, National sources, Haver Analytics, DB Global Markets Research



# Negative population growth in Japan

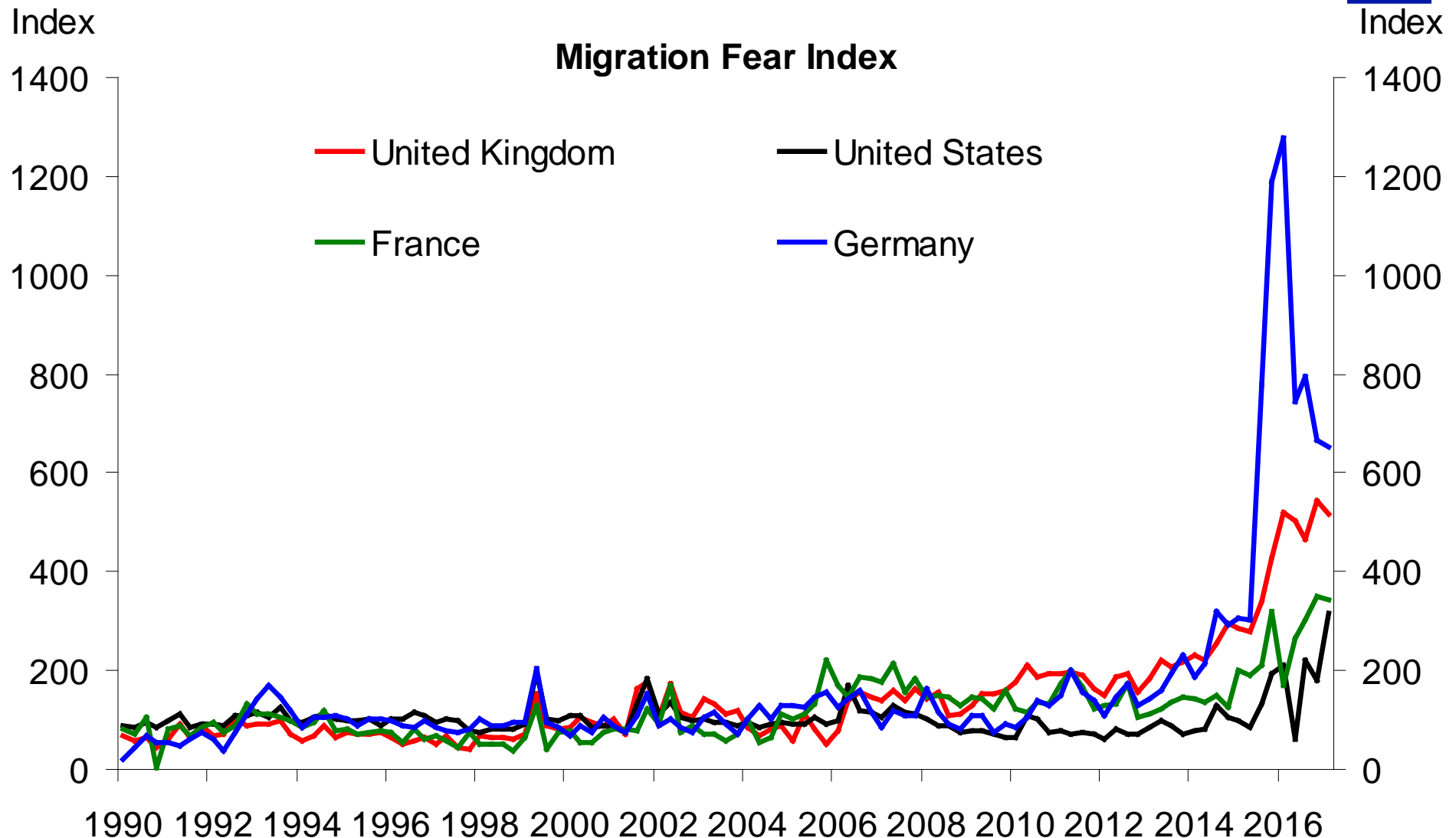


Note: 2016 figure is annualized for data available till November

Source: Ministry of Health, Labour and Welfare - Japan, DB Global Markets Research



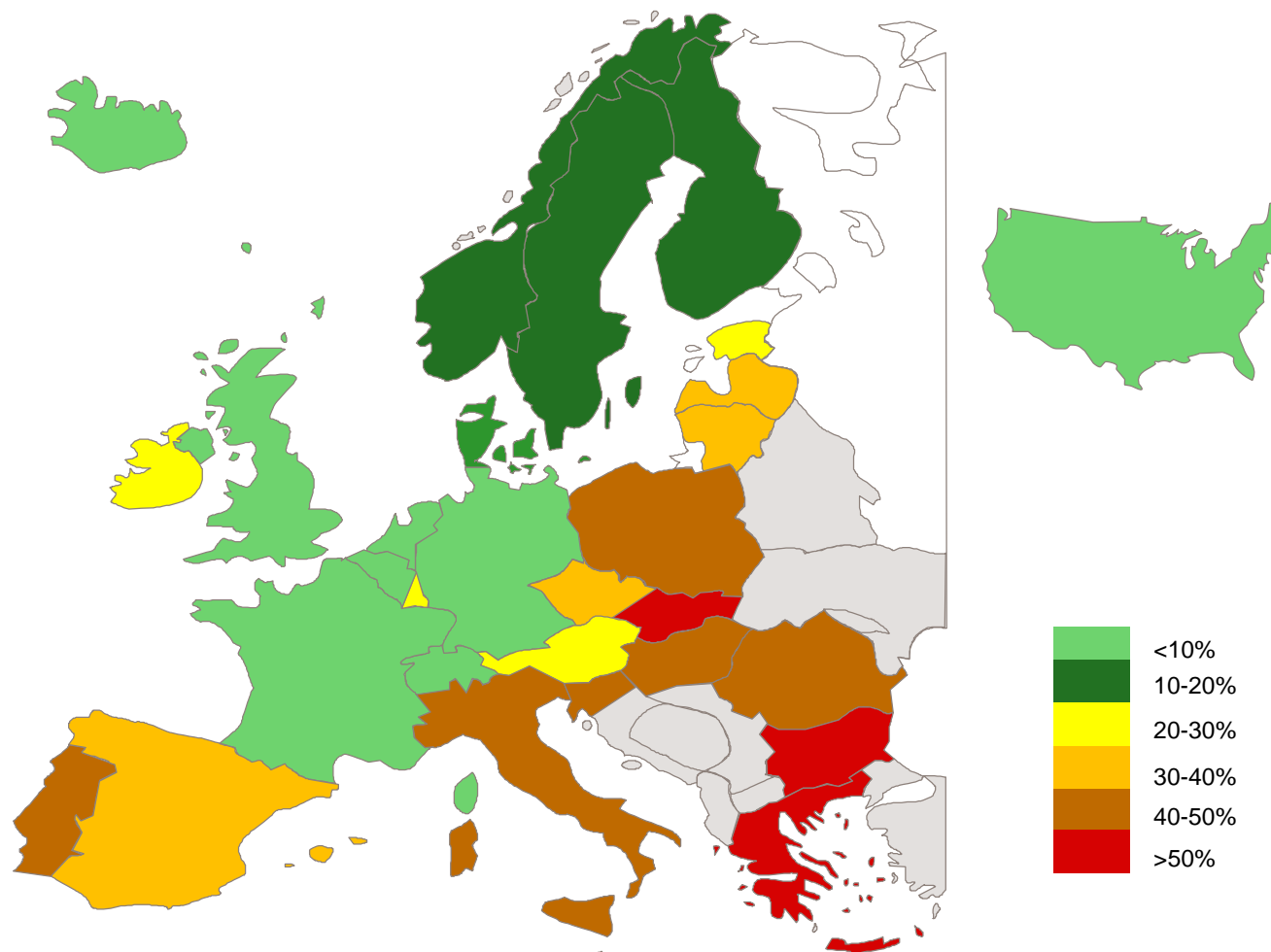
# Migration fears near all-time highs in US, UK, and France



To construct the Migration Fear Index Baker, Bloom, and Davis count the number of newspaper articles with at least one term about Migration ('border control', Schengen, 'open borders', migrant, migration, asylum, refugee, immigrant, immigration, assimilation, 'human trafficking') and Fear (anxiety, panic, bomb, fear, crime, terror, worry, concern, violent), and then divide by the total count of newspaper articles (in the same calendar quarter and country).

Source: Baker, Bloom and Davis, DB Global Markets Research

# Share of people age 25 to 34 living with their parents



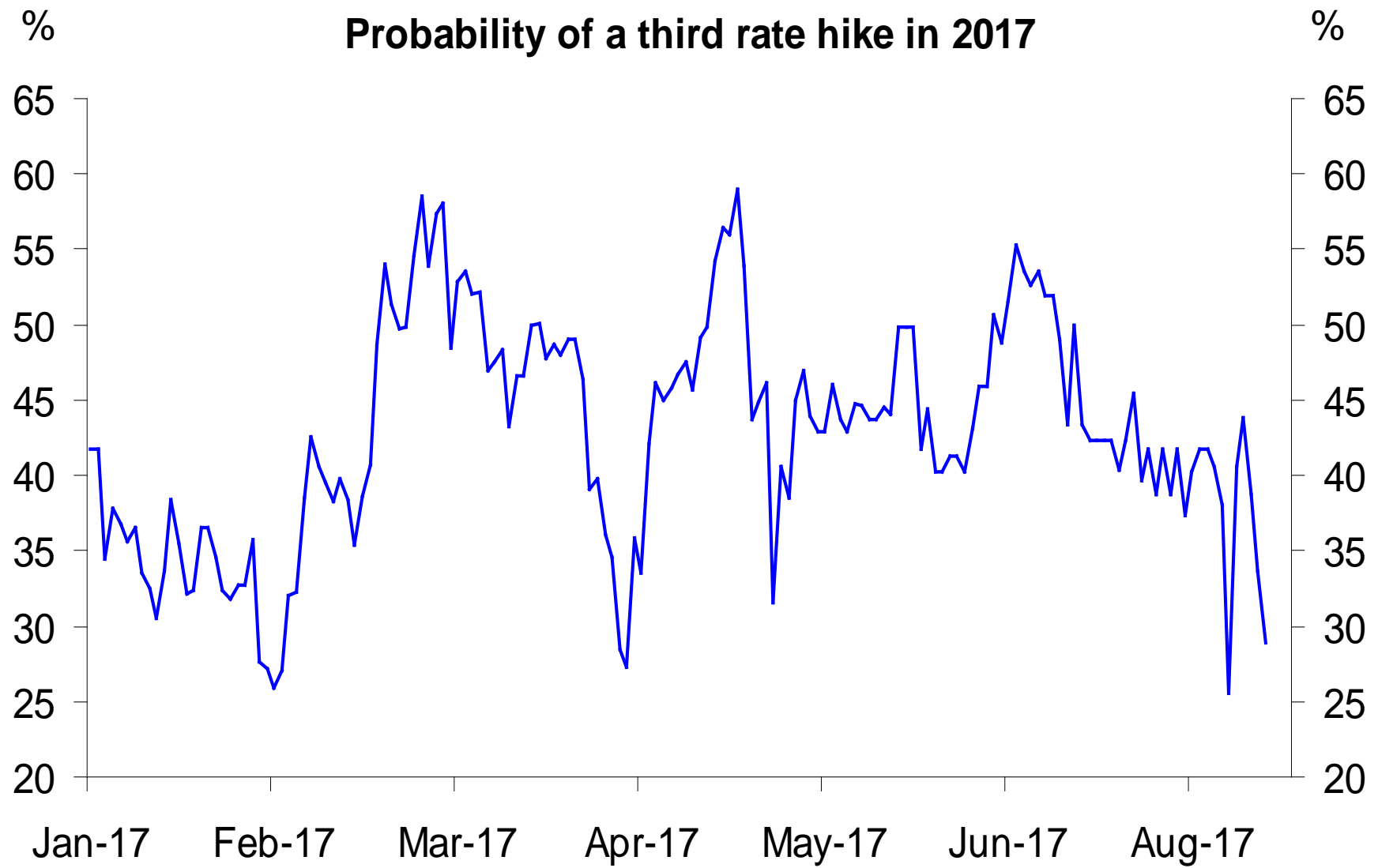
Source: Eurostat, US Census Bureau, DB Global Markets Research



# Investment implications

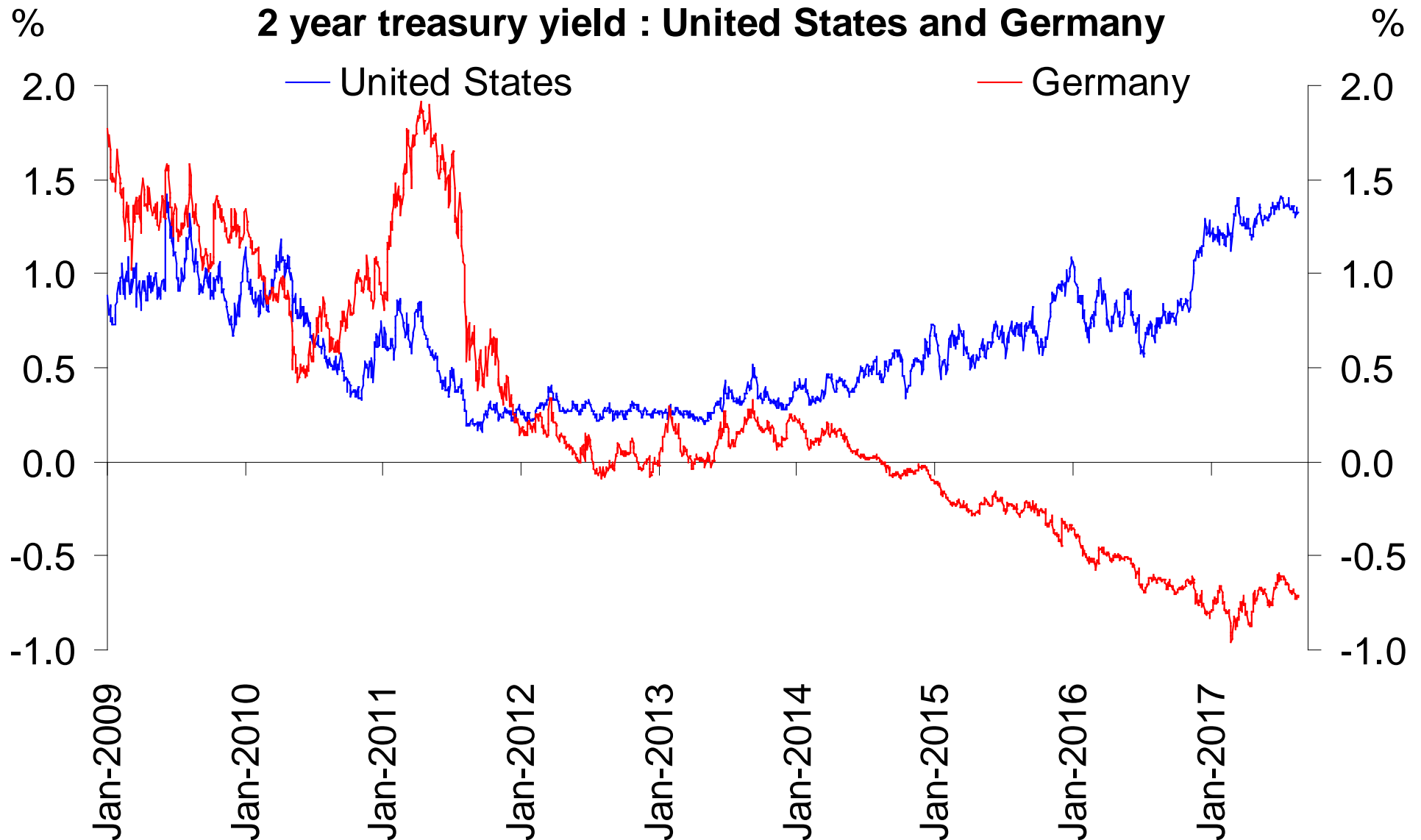


# Market probability of another Fed hike in 2017



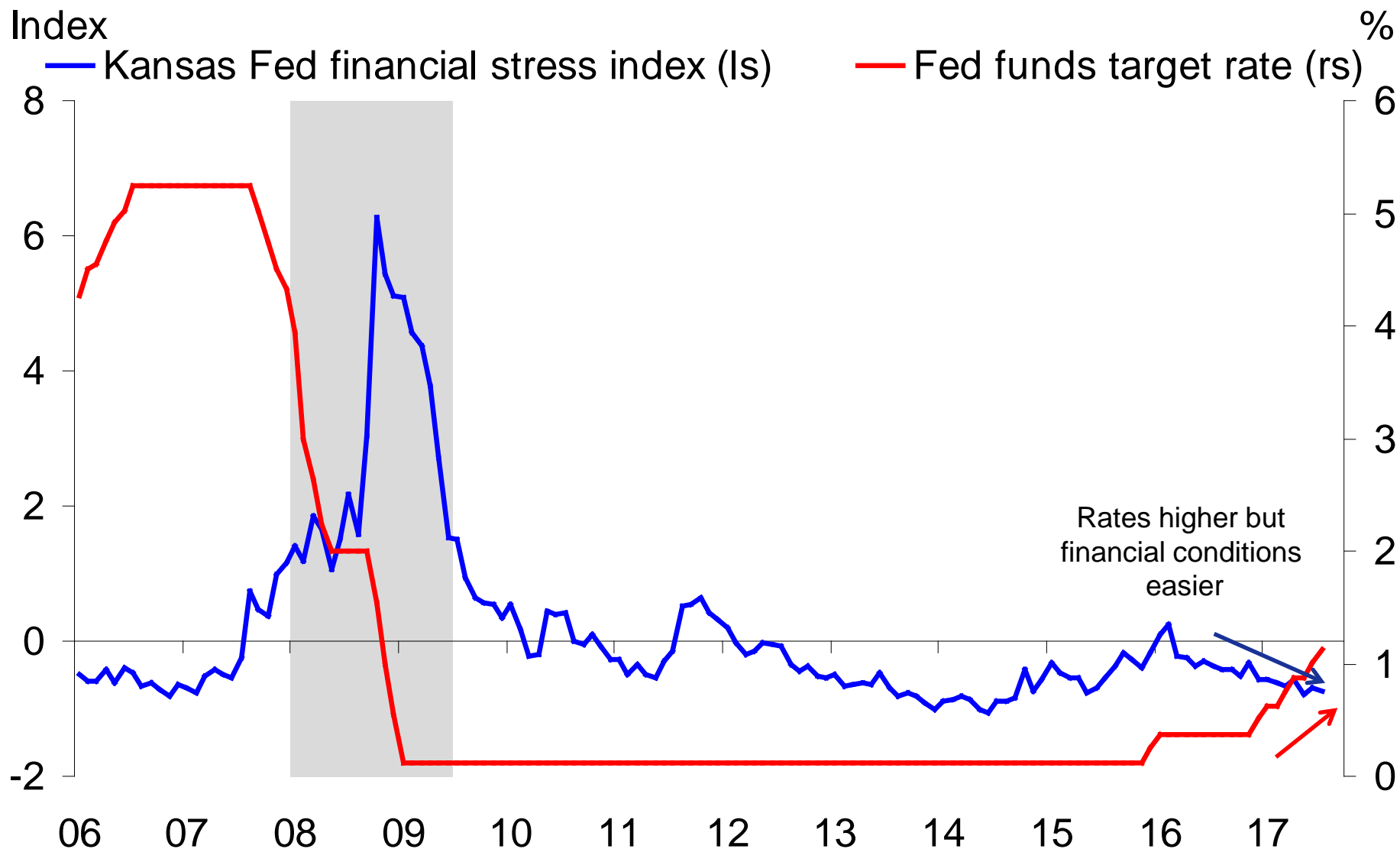
Source: Bloomberg Finance LP, DB Global Markets Research

# Gap between US and European rates should narrow going forward



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

# Still no signs of Fed hikes having any impact on financial conditions



Source: Federal Reserve Bank of Kansas City, FRB, Haver Analytics, DB Global Markets Research

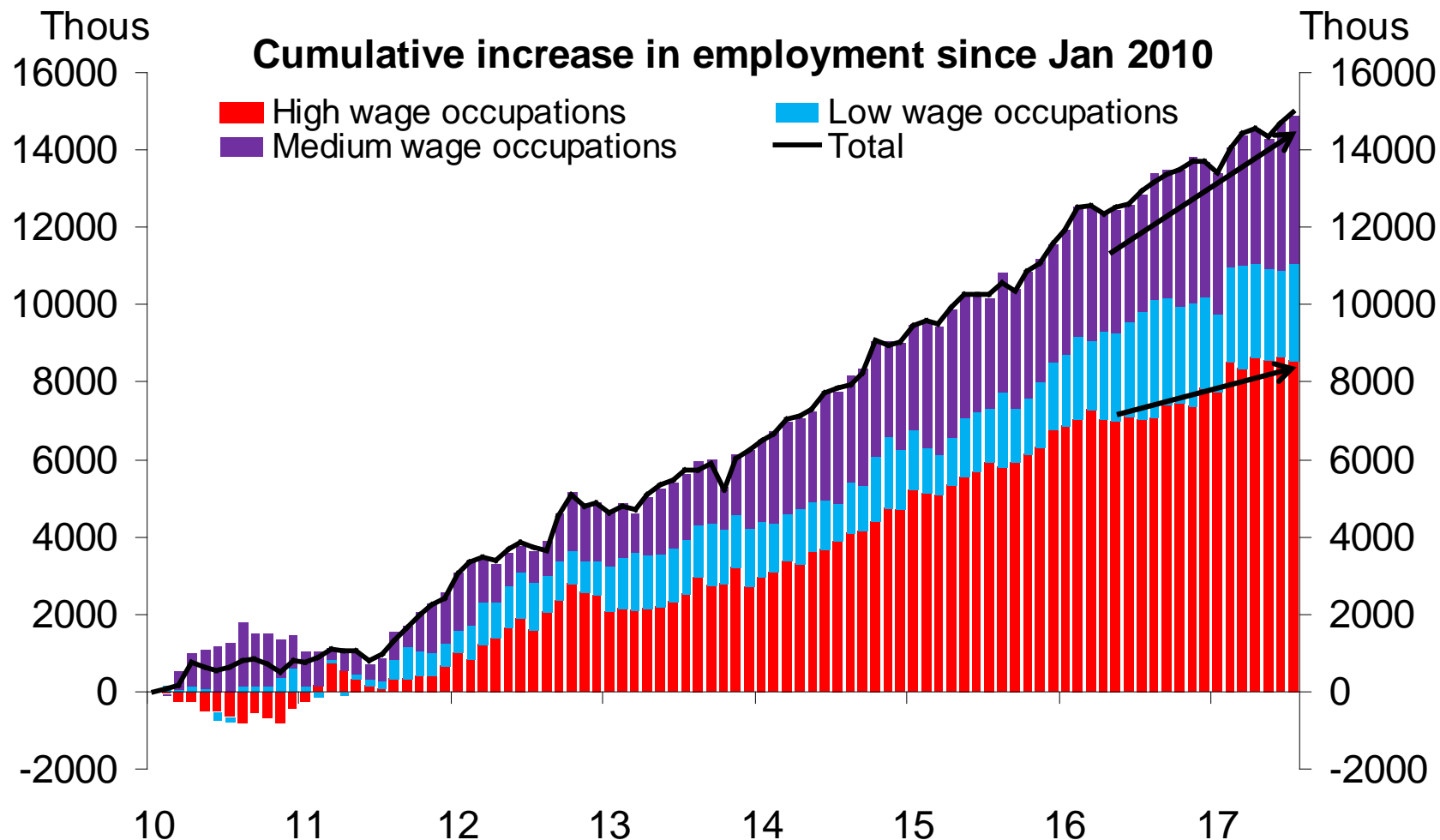
# Investment implications summarized



Fed outlook – <b>Fed hikes continuing</b>	Fed will announce run-down of balance sheet in September and hike rates in December. But inflation will remain low for the rest of 2017 and this will weigh on FOMC rate hike decisions.
Bond markets - <b>Rates gradually higher</b>	Key forces driving long rates are 1) US inflation and 2) ECB exit.
Stock markets - <b>Stocks higher</b>	Low rates, plenty of liquidity, deregulation, and corporate tax reform all likely to be positive for equities. But US valuations high. Buy European equities over US equities.
FX - <b>EUR/USD higher</b>	European growth surprising to the upside and associated ECB exit will continue to support EUR/USD.
Commodities - <b>Downside risks continue</b>	Property bubble and problems in financial system in China are worrying. Slowing Chinese growth and excess capacity likely to put downward pressure on Australia, Latam, and Canada.
Emerging markets - <b>Many imbalances in EM</b>	EM suffering from higher US rates. Structural problems exposed in a number of emerging markets.

Source: DB Global Markets Research

The expansion is finally broadening out beyond high-wage jobs. This continues to support consumer spending

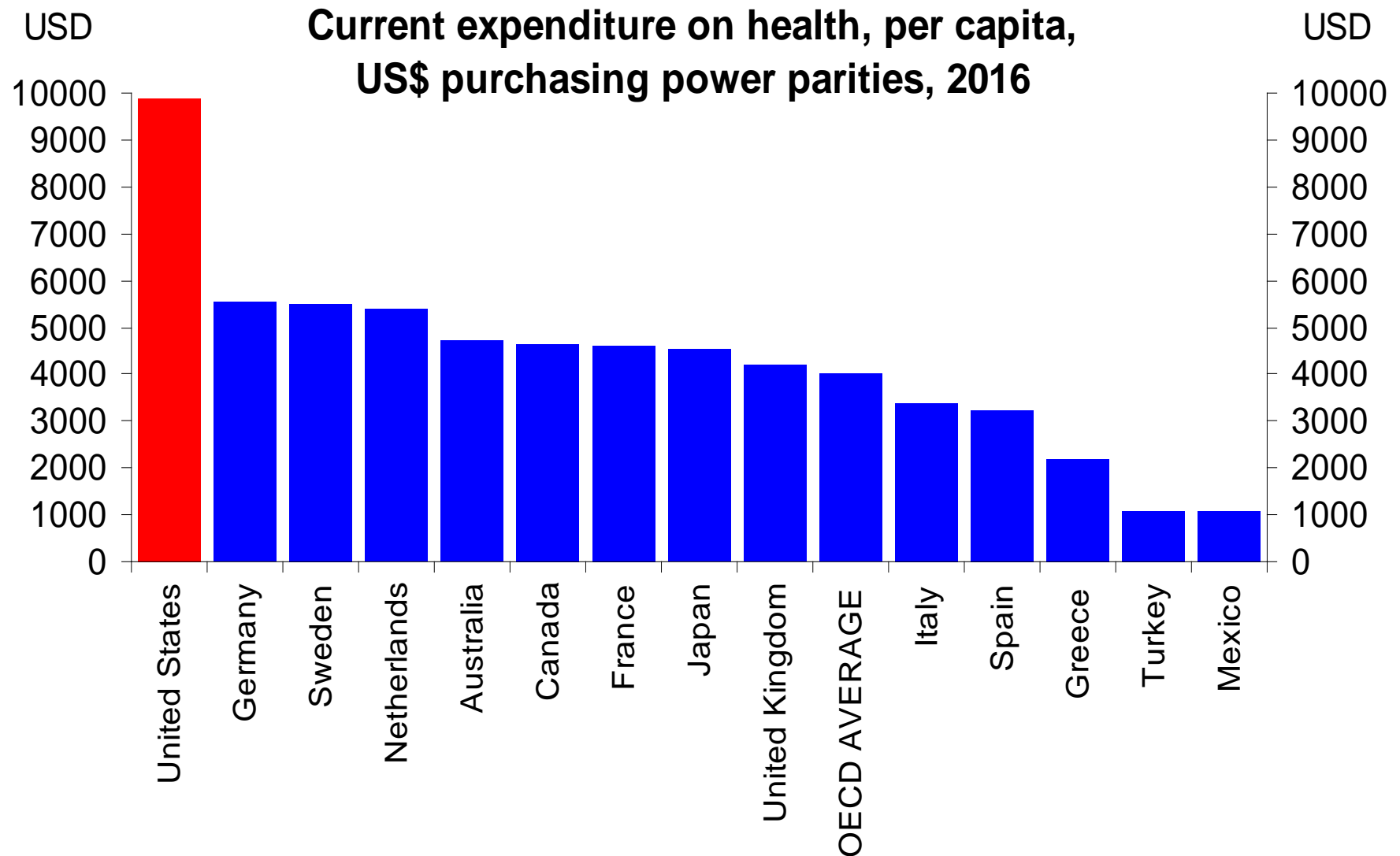


High wage occupational categories are management, professional and related occupations. Medium wage categories are sales and office occupations; construction and extraction occupations; installation, maintenance and repair occupations; and production/transportation and material moving occupations. Low wage occupations are service occupations and farming, fishing, and forestry.

Source: BLS, Haver Analytics, DB Global Markets Research



# US health care system much more expensive

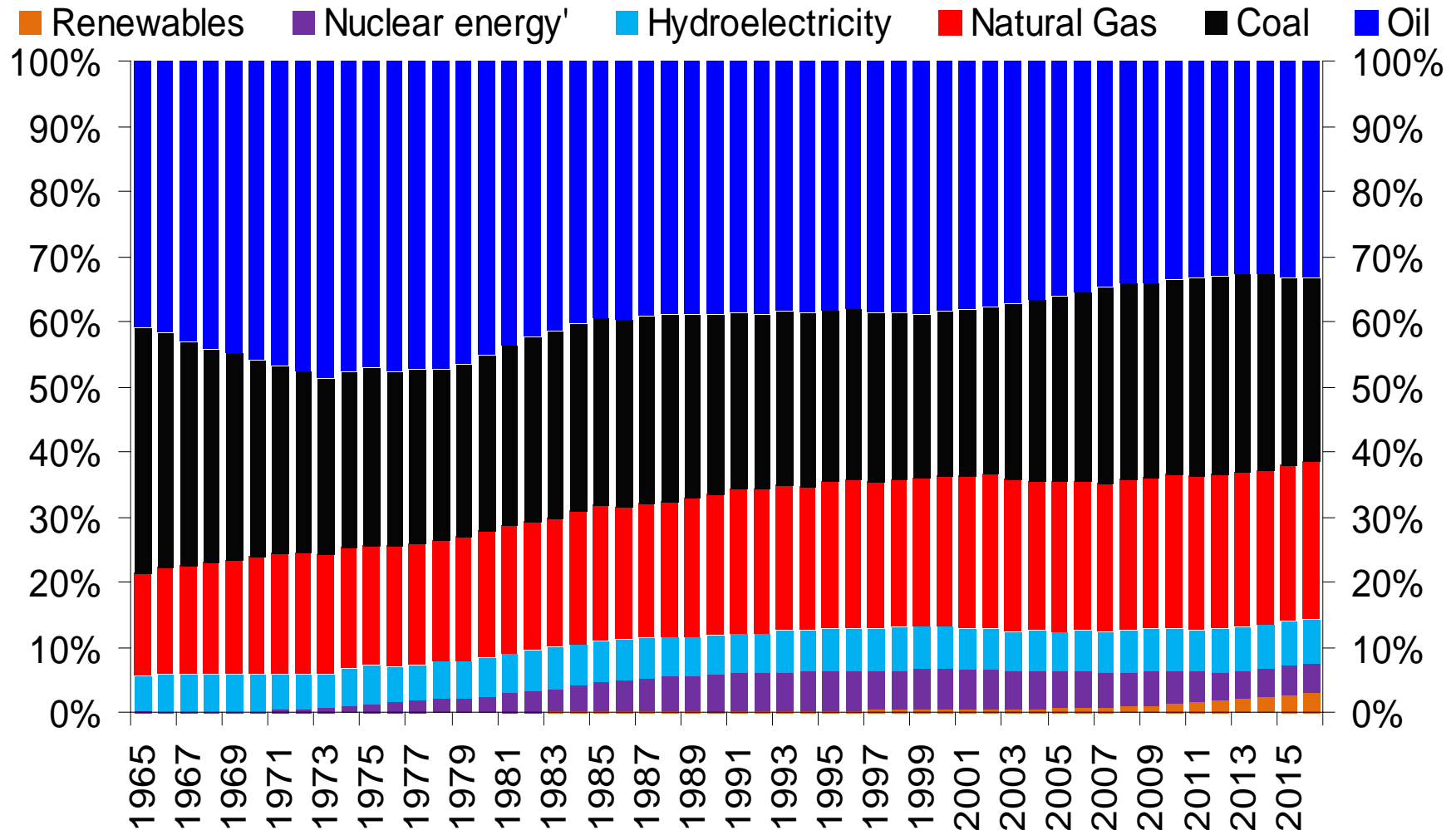


Source: OECD Health Statistics 2017, DB Global Markets Research

# Renewable energy accounts for only 5% of total energy consumption



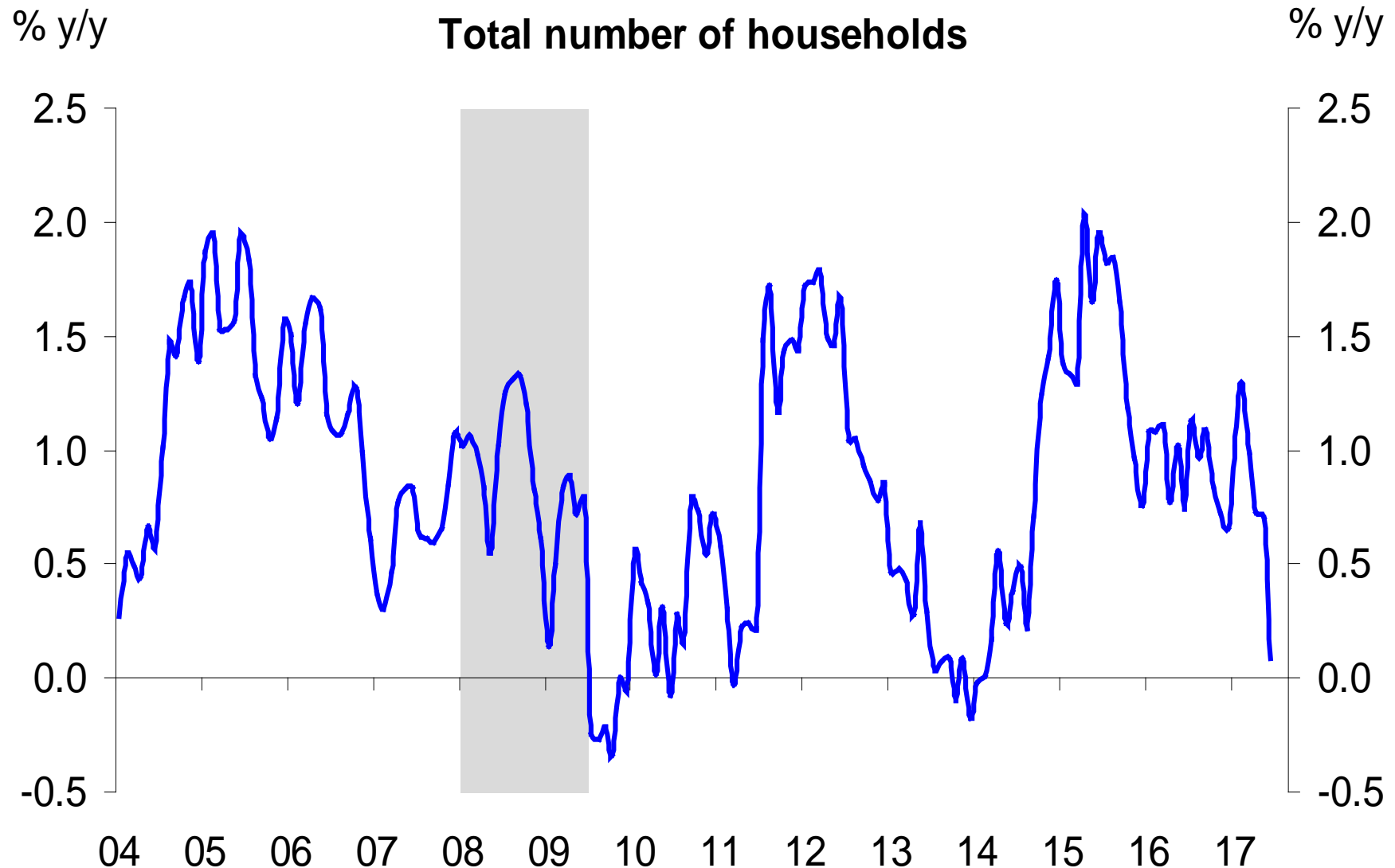
## Global primary energy consumption demand by fuel type (%)



Source: BP Statistical Review of World Energy June 2017, DB Global Markets Research



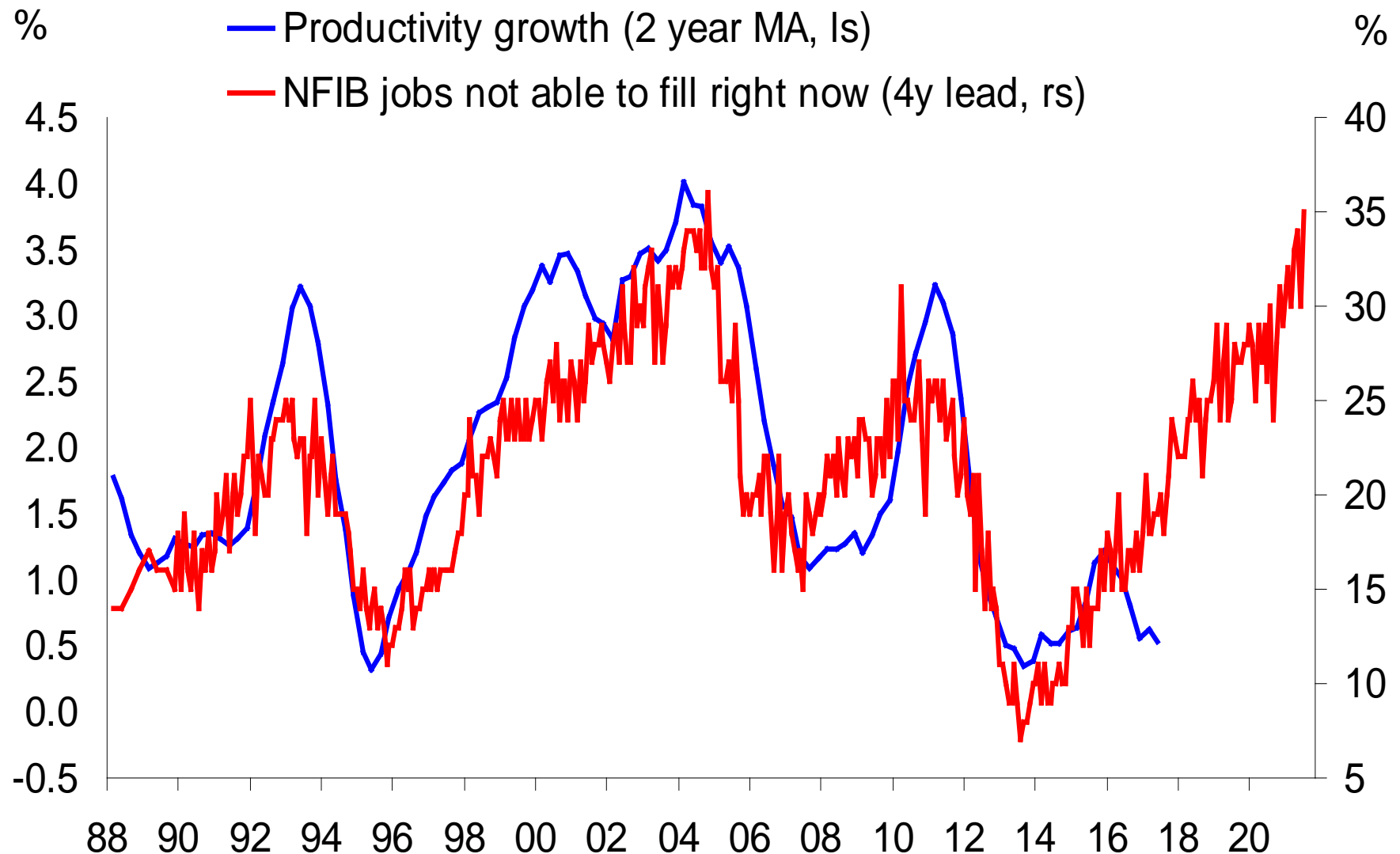
# Household formation growth slowing significantly



The monthly number of households is updated quarterly with monthly occupied housing units figures from the Housing Vacancy Survey.  
Source: Census Bureau, Haver Analytics, DB Global Markets Research



## Some upside risk to productivity growth



Source: NFIB, BLS, Haver Analytics, DB Global Markets Research

# How over/undervalued are home prices today relative to historical averages of home price/rent and home price/income?

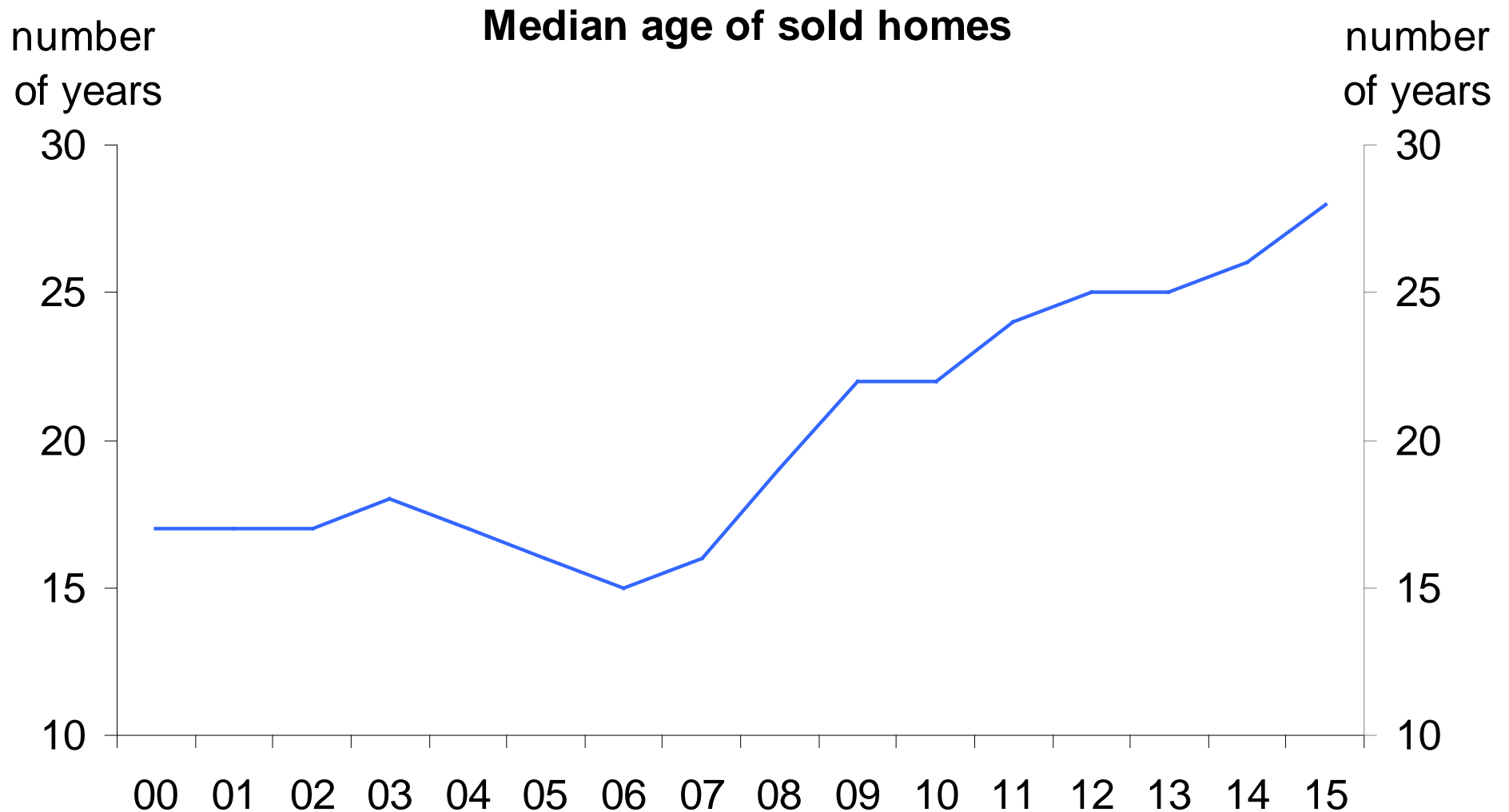


<b>Country</b>	<b>1) Home price/income (% above historical average)</b>	<b>2) Home price/rent (% above historical average)</b>	<b>Current average over/undervaluation of home prices (=average of column 1) and 2) (%)</b>
<b>New Zealand</b>	<b>59</b>	<b>114</b>	<b>86</b>
<b>Canada</b>	<b>46</b>	<b>110</b>	<b>78</b>
<b>Australia</b>	<b>57</b>	<b>72</b>	<b>64</b>
<b>Sweden</b>	<b>51</b>	<b>77</b>	<b>64</b>
<b>Norway</b>	<b>42</b>	<b>79</b>	<b>60</b>
<b>Belgium</b>	<b>42</b>	<b>46</b>	<b>44</b>
<b>United Kingdom</b>	<b>30</b>	<b>44</b>	<b>37</b>
<b>Denmark</b>	<b>23</b>	<b>30</b>	<b>26</b>
<b>France</b>	<b>21</b>	<b>28</b>	<b>25</b>
<b>Spain</b>	<b>17</b>	<b>27</b>	<b>22</b>
<b>Ireland</b>	<b>1</b>	<b>30</b>	<b>16</b>
<b>Netherlands</b>	<b>22</b>	<b>9</b>	<b>16</b>
<b>Finland</b>	<b>-4</b>	<b>25</b>	<b>11</b>
<b>Switzerland</b>	<b>0</b>	<b>3</b>	<b>2</b>
<b>United States</b>	<b>-8</b>	<b>8</b>	<b>0</b>
<b>Germany</b>	<b>-2</b>	<b>1</b>	<b>-1</b>
<b>Italy</b>	<b>-3</b>	<b>-7</b>	<b>-5</b>
<b>Greece</b>	<b>-6</b>	<b>-15</b>	<b>-11</b>
<b>Korea</b>	<b>-40</b>	<b>5</b>	<b>-17</b>
<b>Japan</b>	<b>-29</b>	<b>-20</b>	<b>-25</b>

Source: OECD, DB Global Markets Research



# The median home sold is 28 years old

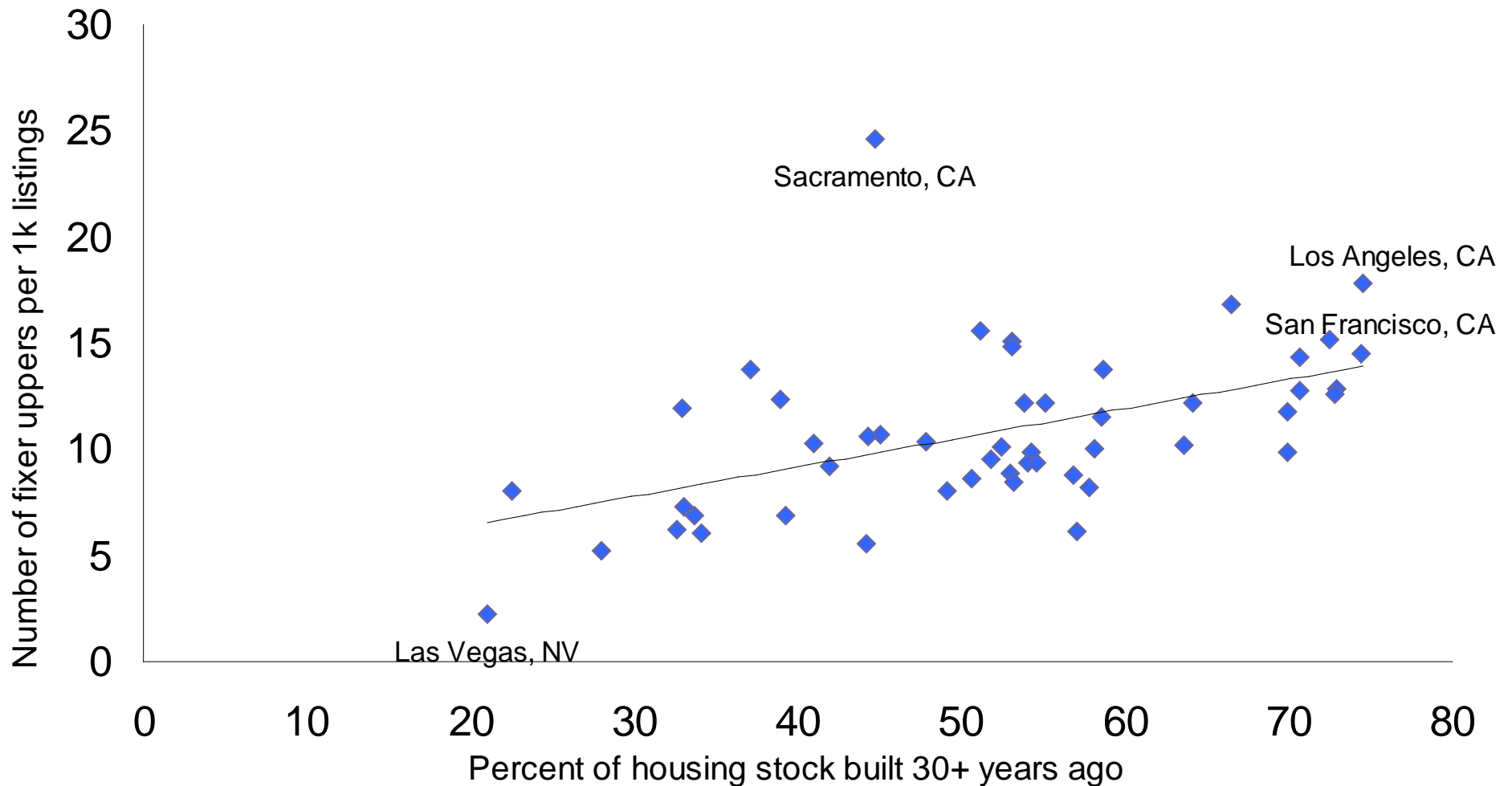


Source: Zillow, DB Global Markets Research



# More fixer uppers for sale

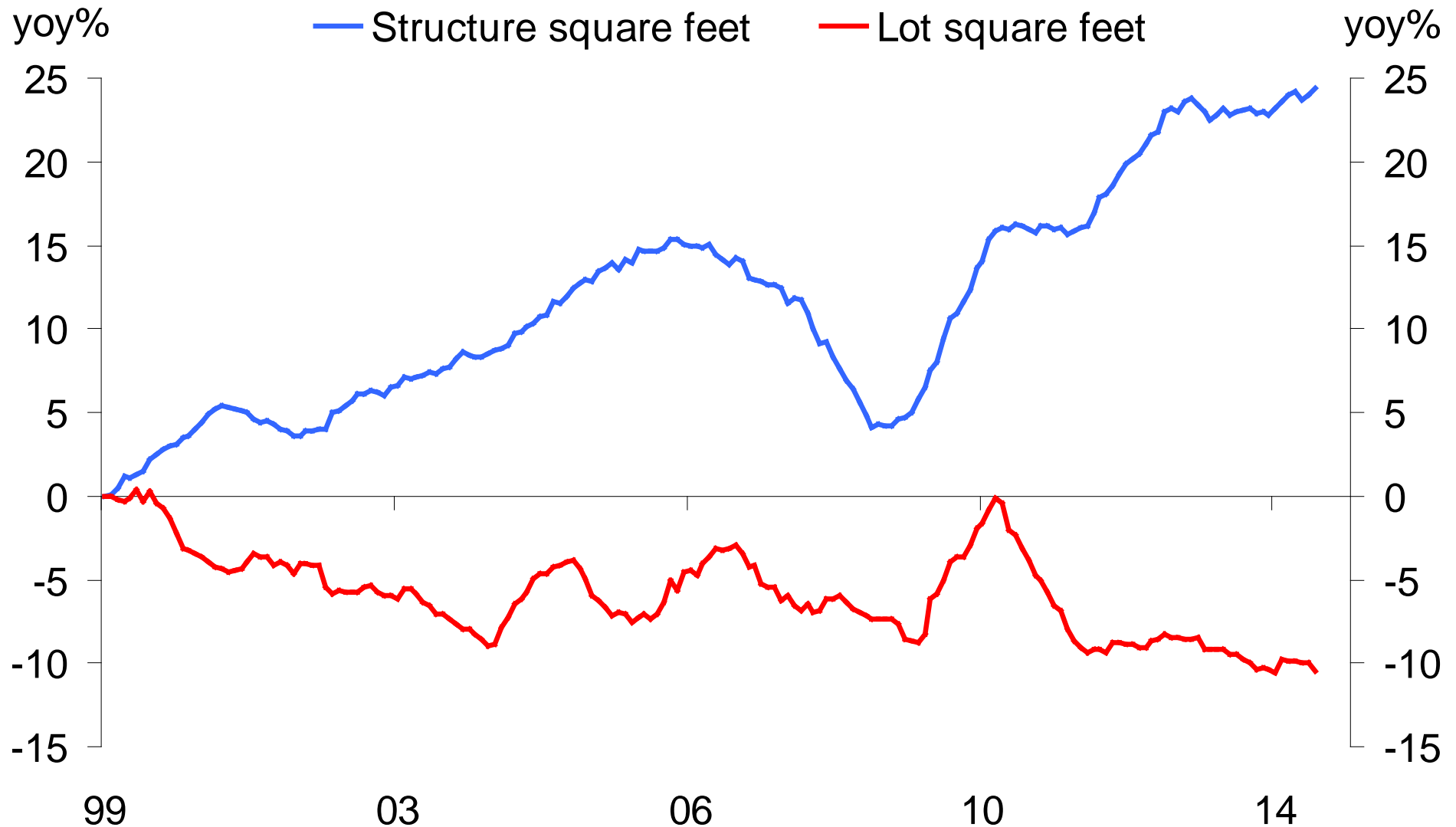
## Fixer upper share of listings



Source: Zillow, DB Global Markets Research



## Houses are growing, lots are shrinking



Source: Zillow, DB Global Markets Research





## Torsten Slok, Ph.D.

- **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 for the past five years. 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

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