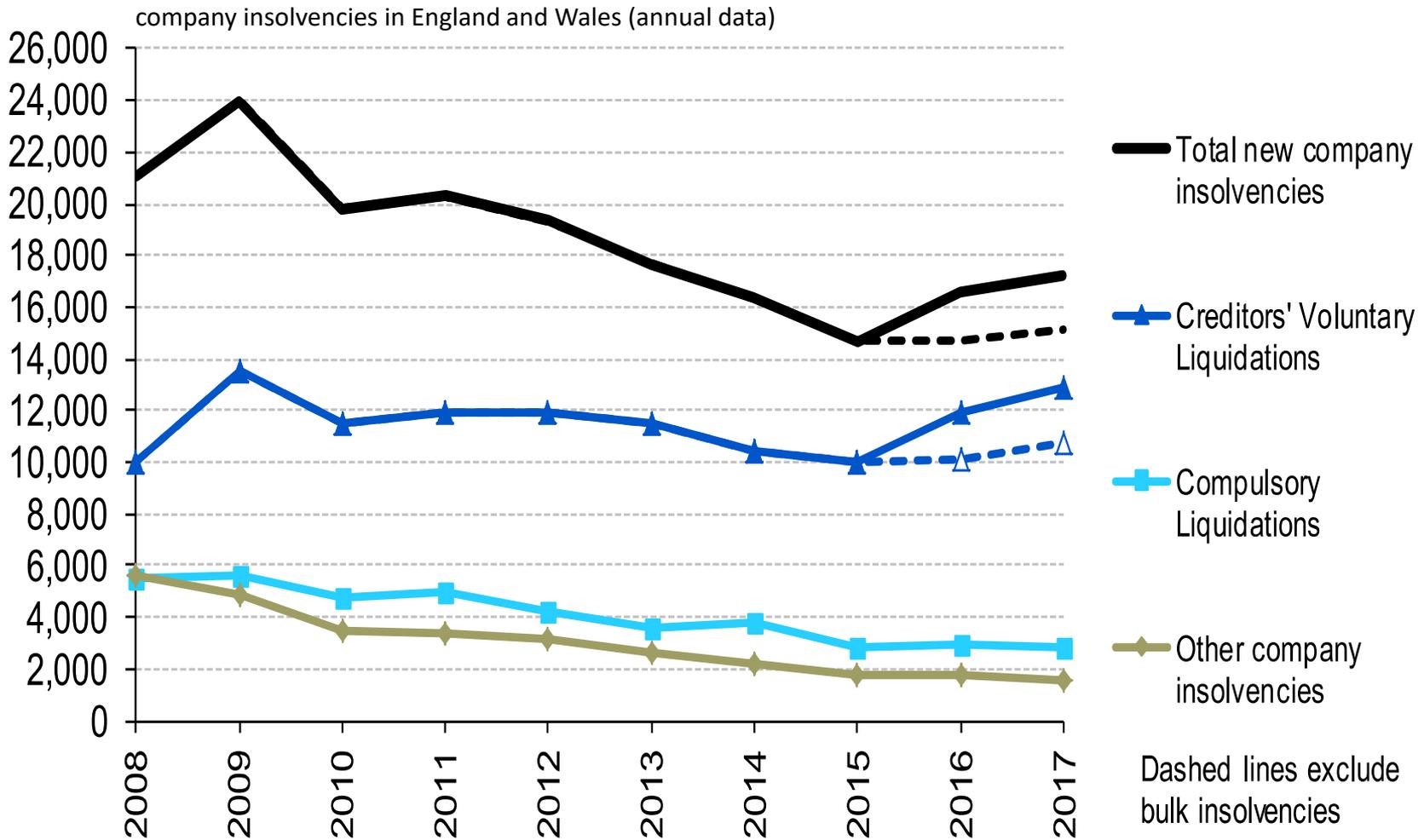

THE OUTLOOK FOR THE UK ECONOMY

Leeds CII

8 March 2018

Speaker: Professor Trevor Williams, visiting professor at University of Derby, economic consultant & Chair of IEA's Shadow MPC

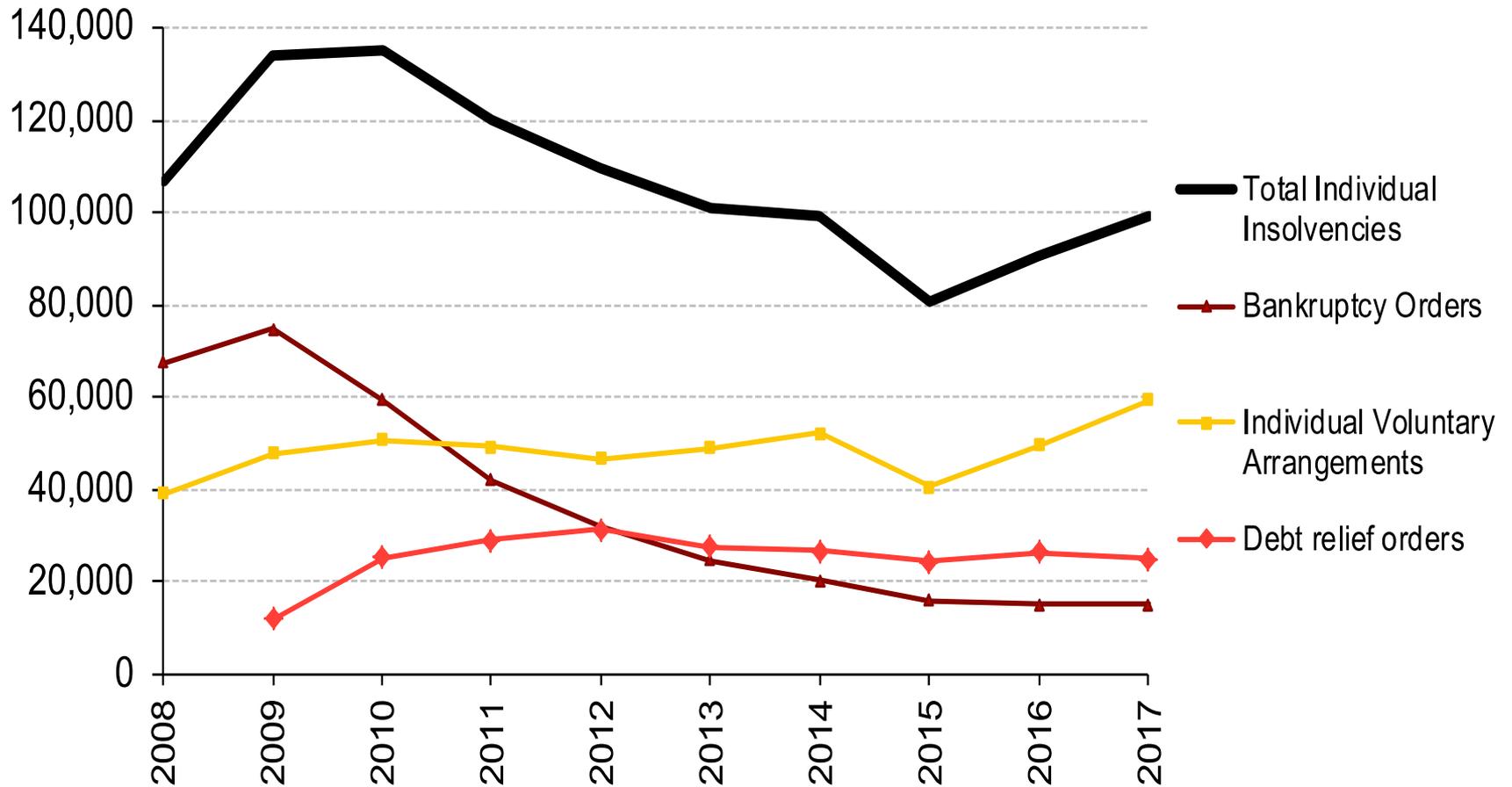
COMPANY INSOLVENCIES ARE ON THE INCREASE...



Source: insolvency service

...AND SO ARE INDIVIDUAL INSOLVENCIES

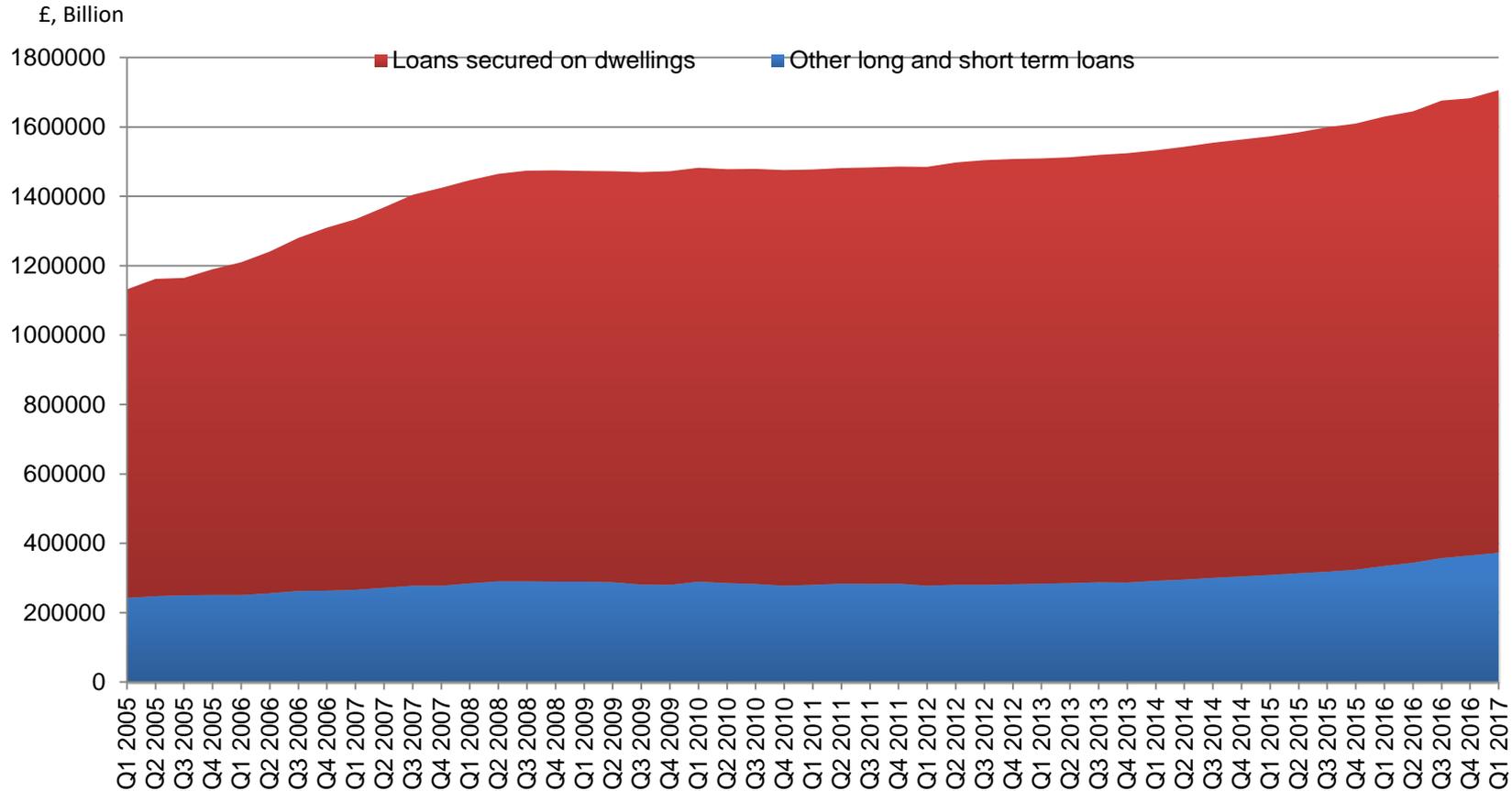
Individual insolvencies in England and Wales (annual data)



Source: insolvency service

HOUSEHOLD DEBT IS RISING...

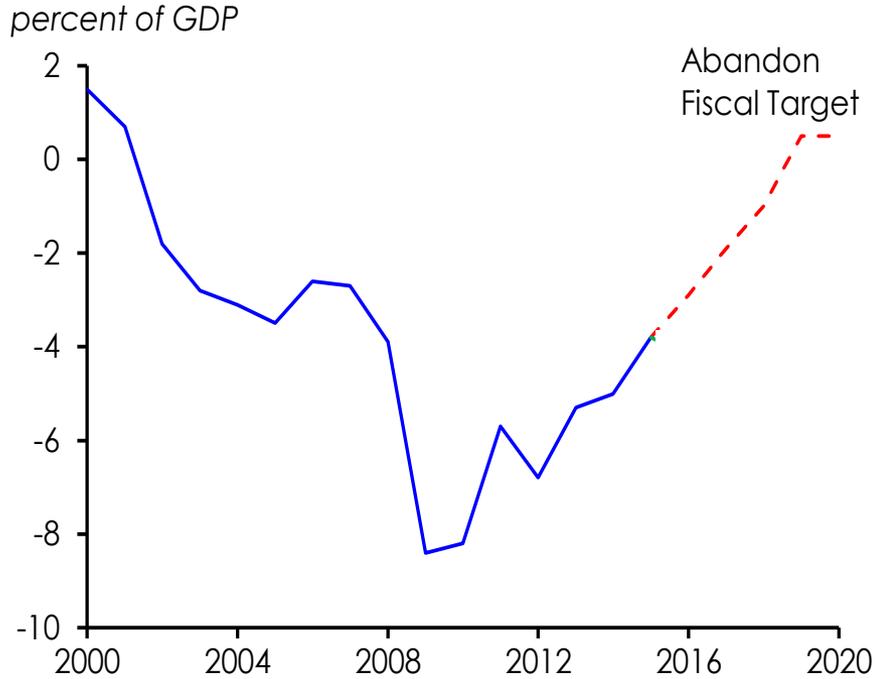
Household sector income gearing on the rise...again



Sources: TW consultancy

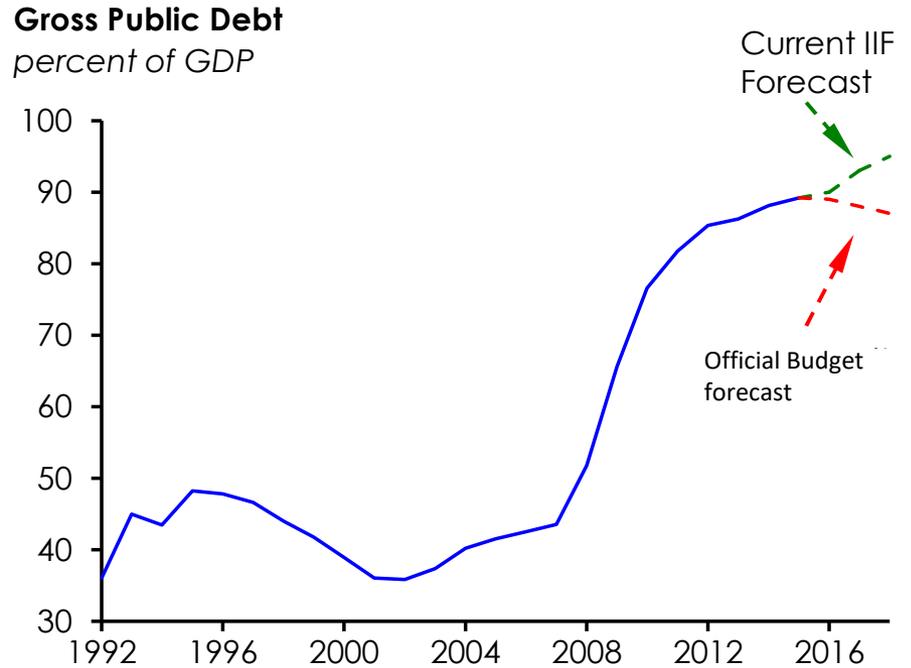
...AND PUBLIC SECTOR BORROWING REMAINS HIGH

Budget deficit to narrow...



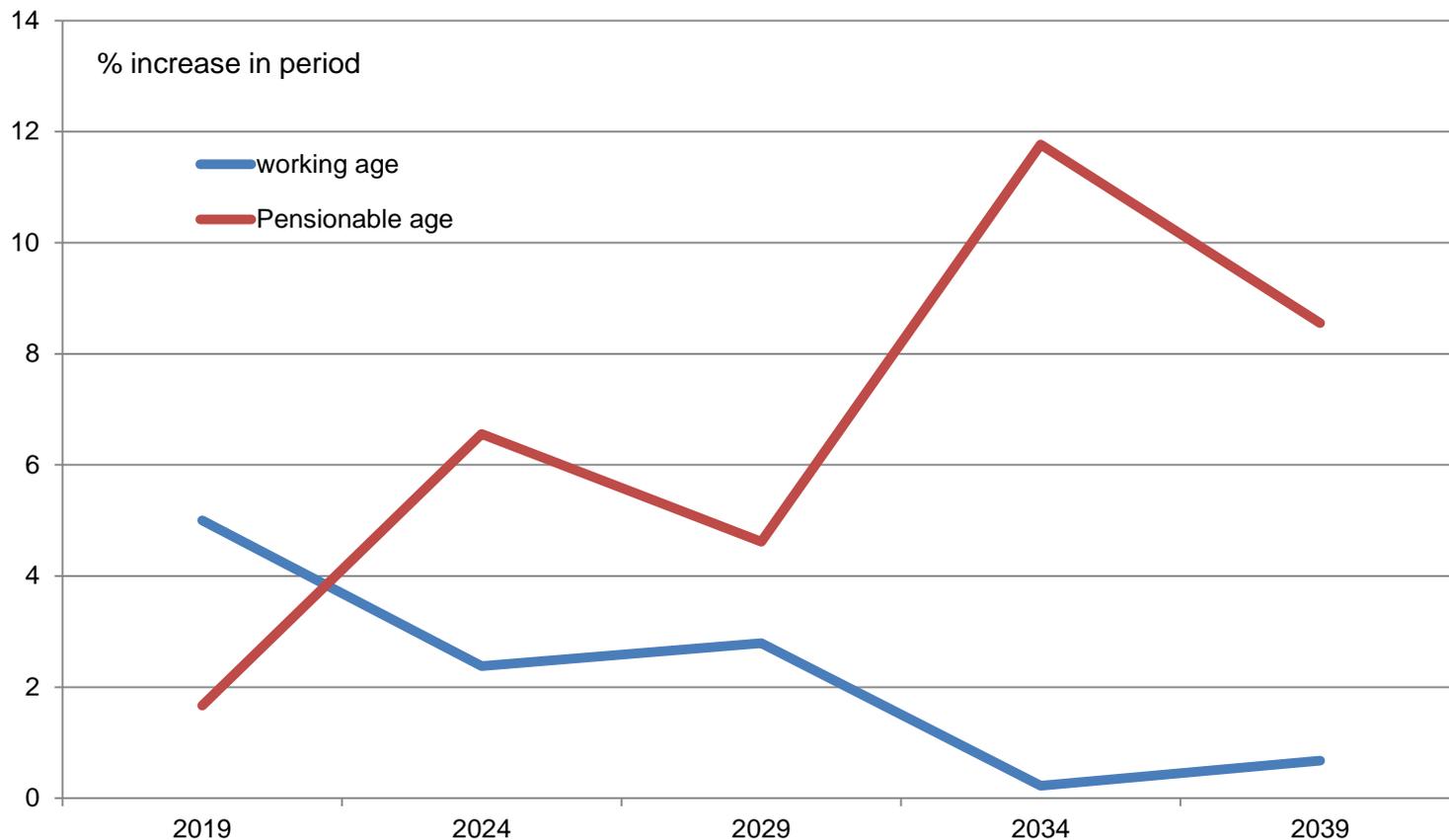
Source: ONS, TW consultancy

...but debt still rises



Source: ONS, TW consultancy

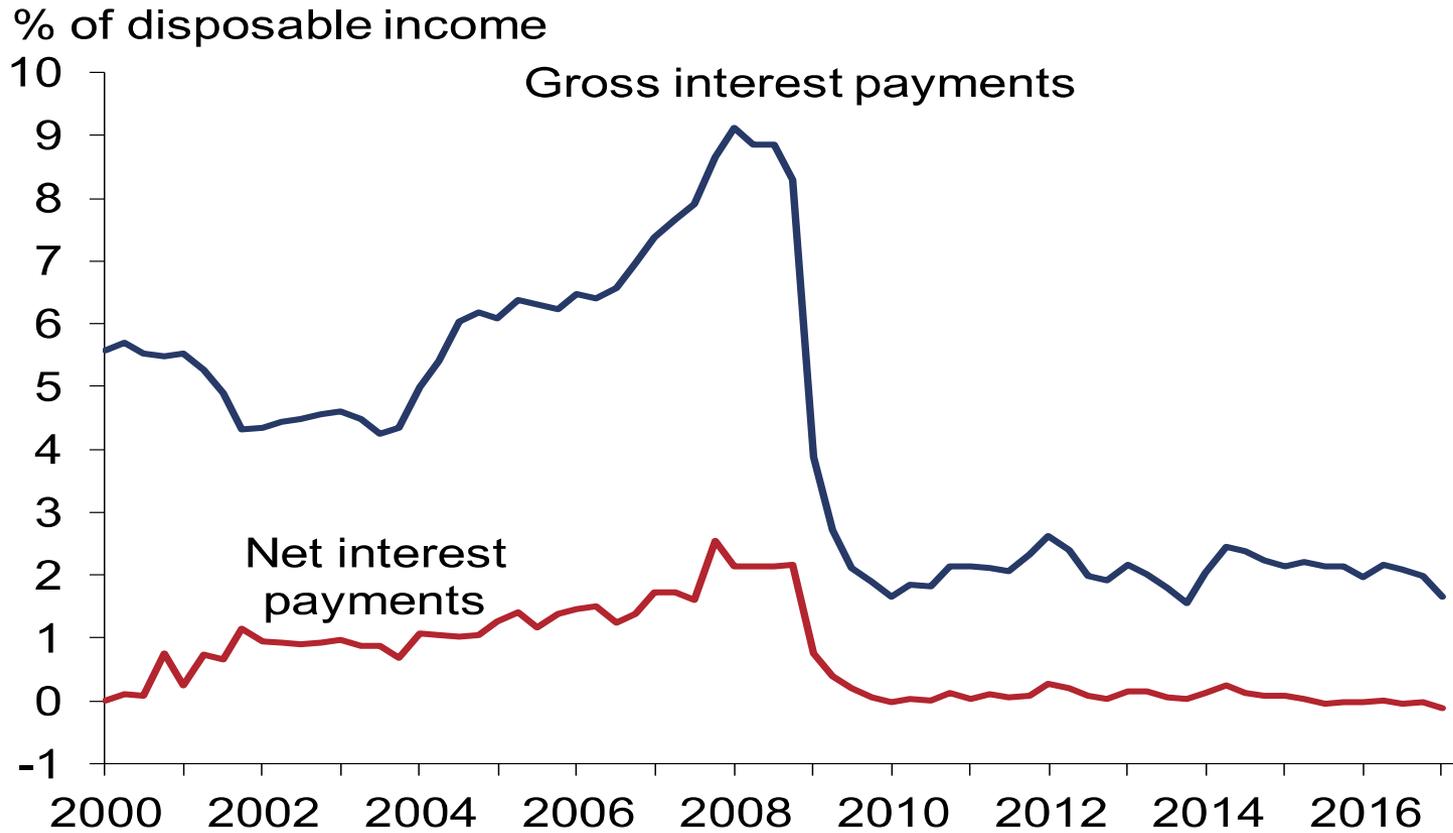
ONE REASON: AS THE POPULATION AGES, SPENDING RISES & THE TAX BASE DECLINES



- Growth of those of pensionable age will outstrip that of the working population by 3 to 1 in 20 years, so spending will rise

Source: TW consultancy, ONS projections

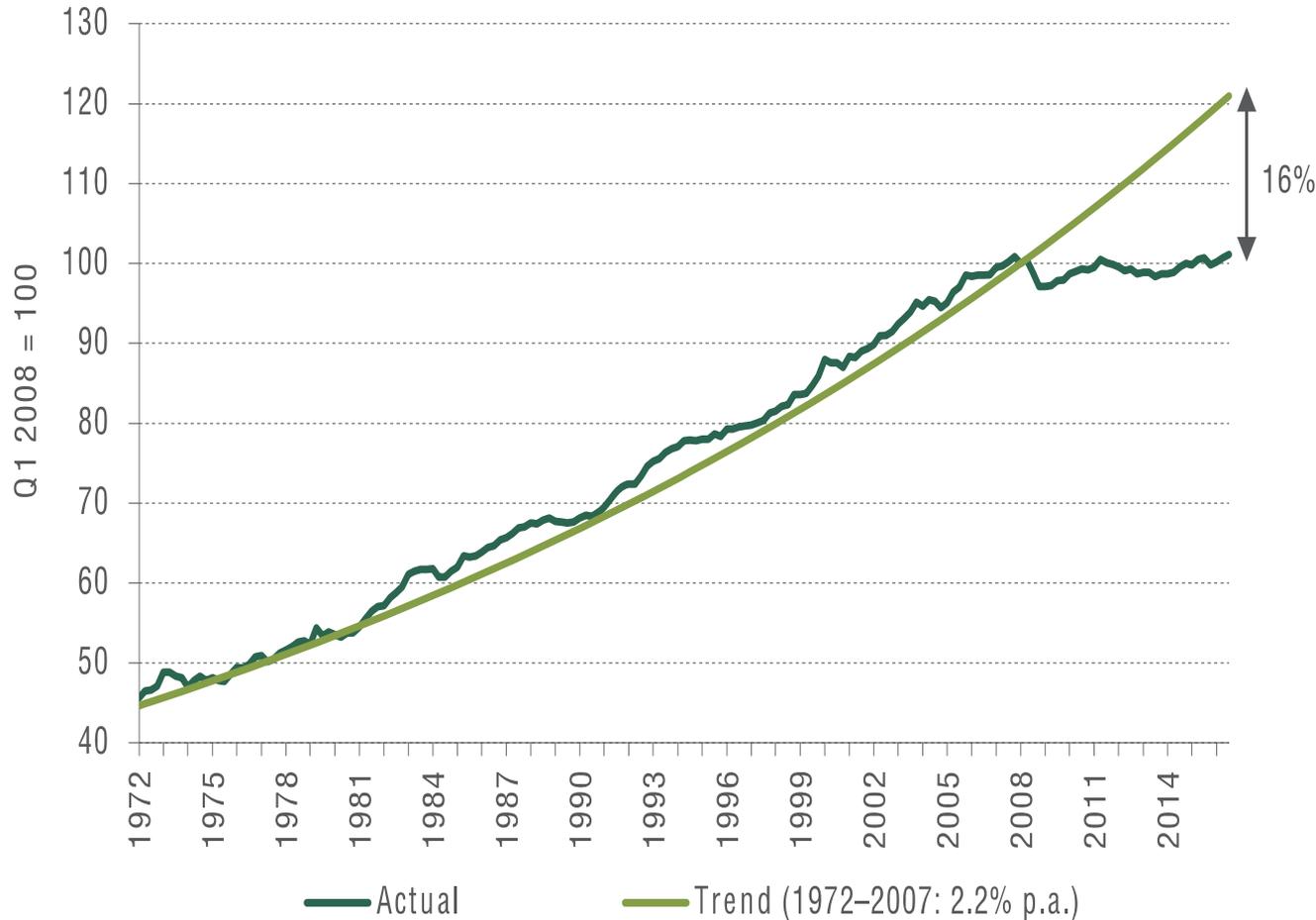
THE GOOD NEWS IS THAT INTEREST PAYMENTS REMAIN LOW...



Source: Haver Analytics

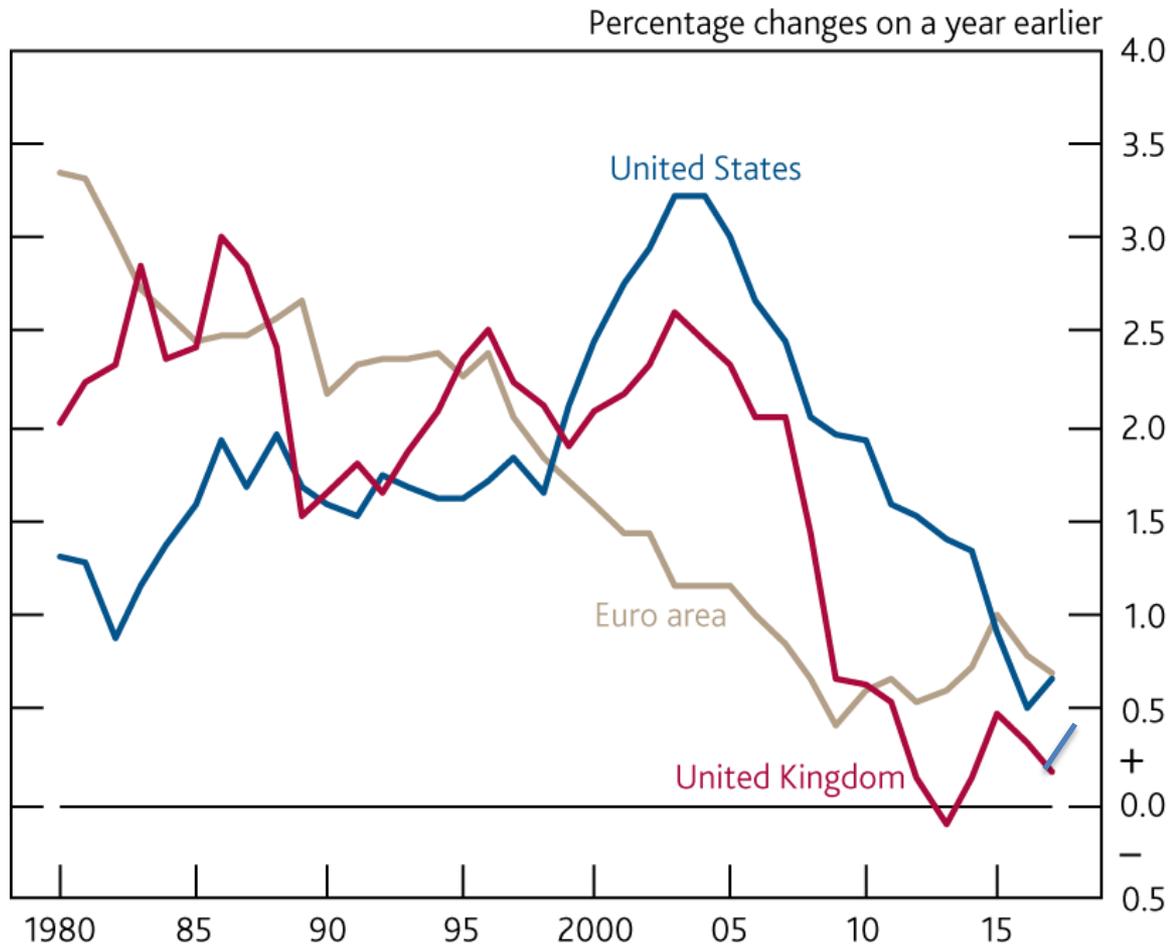
Sources: TW consultancy

...THE BAD NEWS IS THAT POOR PRODUCTIVITY IS A PROBLEM



- Over the long term, improving productivity – the amount of output produced per hour worked – is the best way to boost pay and increase living standards. More productive firms pay higher wages, are more competitive and therefore better able to succeed internationally.
- While wage and productivity growth can differ in the short run, they tend to move together over time. By supporting wages and profits, better productivity increases tax receipts and in turn the government's ability to provide public services.

ADMITTEDLY, WEAK PRODUCTIVITY GROWTH IS NOT JUST A UK ISSUE



In summary UK productivity is:

- above that of Japan by 16 percentage points
- equal to that of Canada
- lower than Italy by 9 percentage points
- lower than France by 25 percentage points
- lower than the USA by 30 percentage points
- lower than Germany by 35 percentage points
- lower than the rest of the G7 by 16 percentage points
- London and SE 30% ahead of UK average
- So is the corridor up to Bristol, parts of Manchester, York, Edinburgh, Aberdeen, Cardiff,

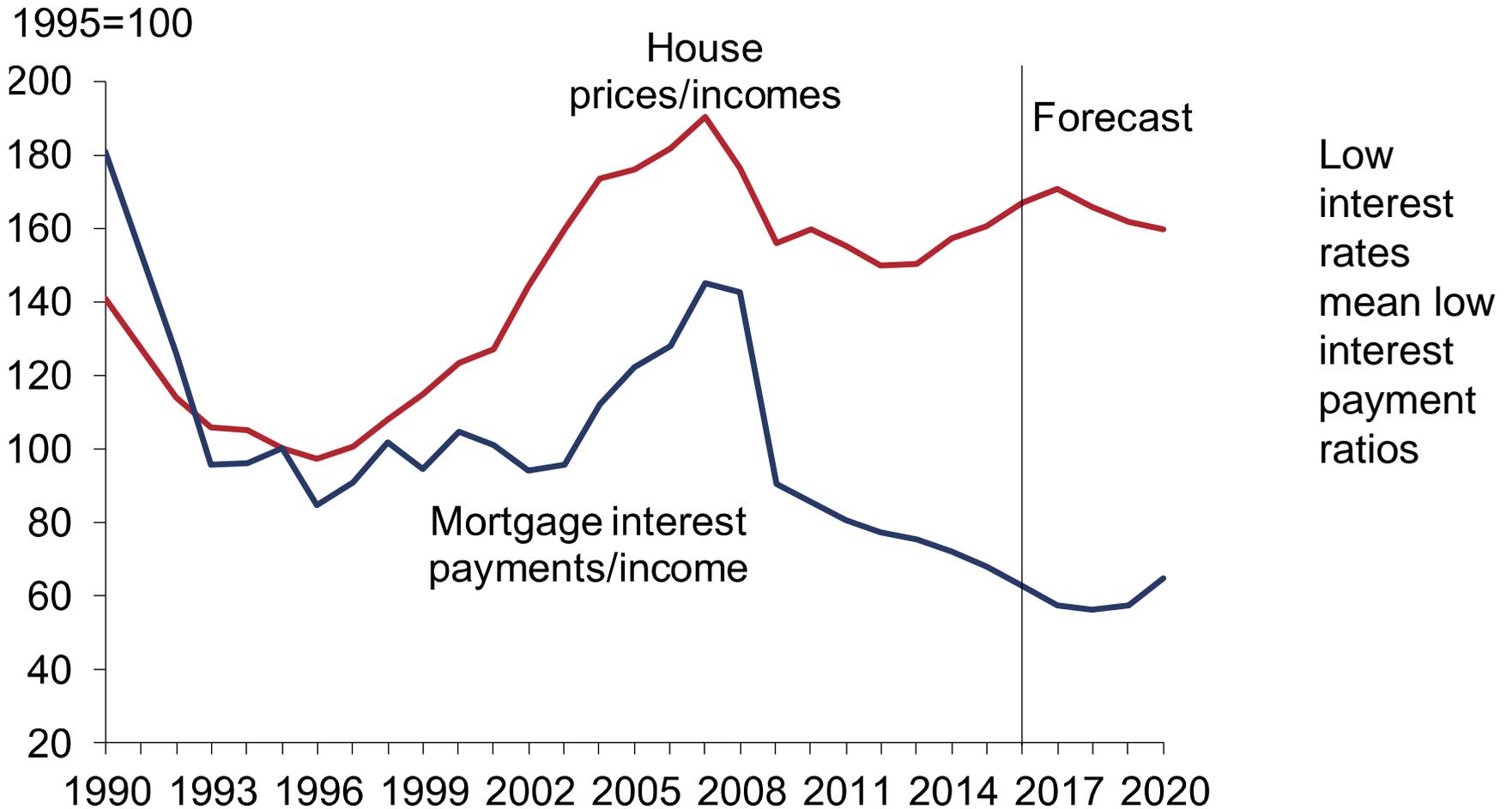
Sources: Eurostat, Feenstra, R C, Inklaar, R and Timmer, M P (2015), 'The next generation of the Penn World Table', *American Economic Review*, Vol. 105, No. 10, pages 3,150–182, OECD, ONS, US Bureau of Economic Analysis, US Bureau of Labor Statistics and Bank calculationS.

(a) Five-year rolling averages of the change in output per hour.

...HERE'S HOW TO FIX IT

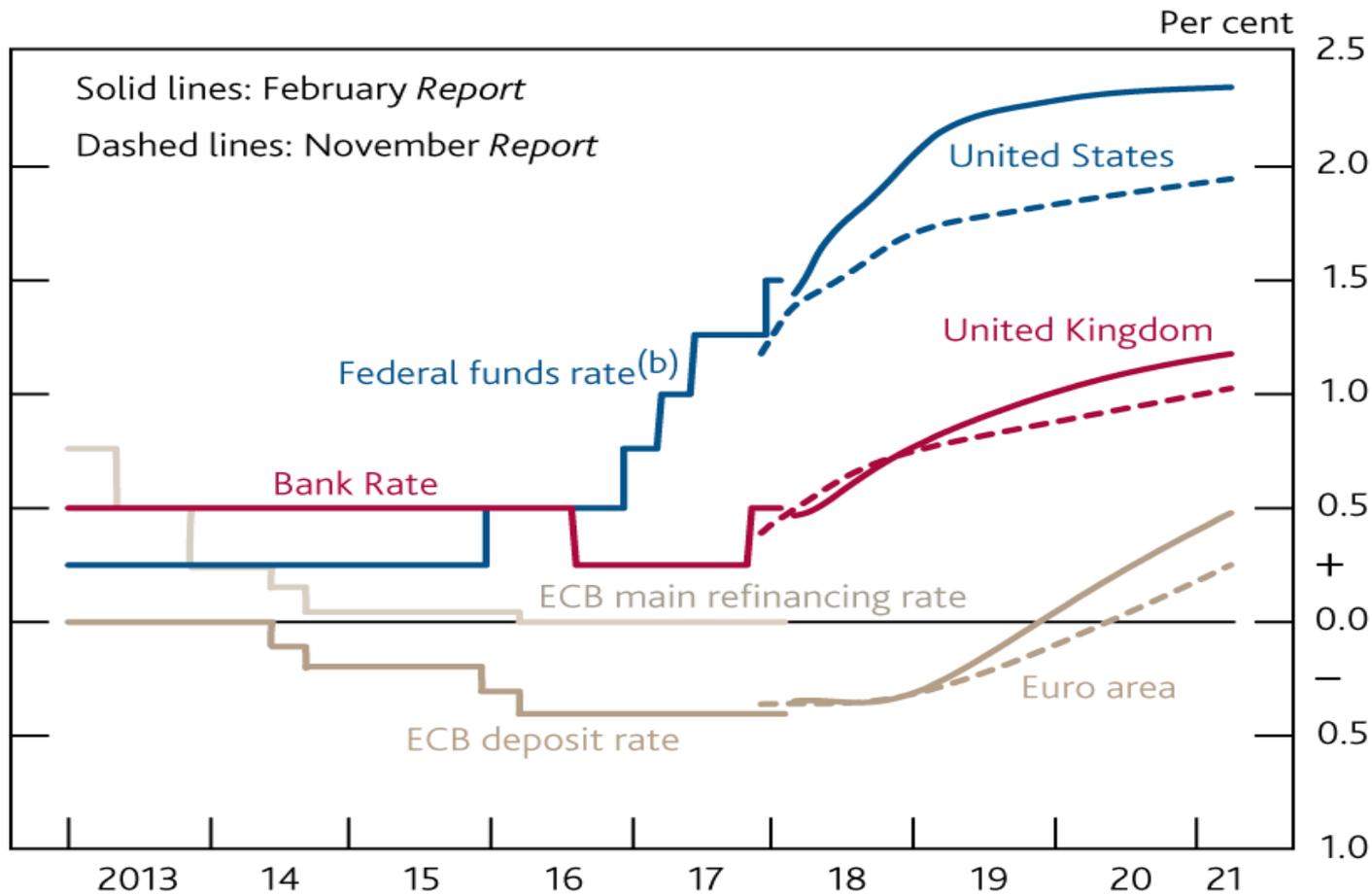
1. Skills – at all levels from basic to high end need to improve
2. Education – not an elite but everyone in a competitive world
3. Infrastructure: energy, rail, airport, road, port, broadband!
4. Reform Housing – so people can move to where jobs are within the UK
5. Decentralise decision-making to the local level
6. Allow local control of rates to allow business boost
7. Encourage FDI flows

HOUSE PRICE/INCOME RATIOS ARE STRETCHED...



Source: ONS, TW consultancy

MONETARY POLICY STILL LOOSE ALBEIT GETTING TIGHTER



Sources: Bank of England, Bloomberg, ECB and Federal Reserve.

(a) The February 2018 and November 2017 curves are estimated using instantaneous forward overnight index swap rates in the 15 working days to 31 January and 25 October respectively.

(b) Upper bound of the target range.

UK FINANCIAL MARKETS SHOW LITTLE TURMOIL SINCE 2016...

Long term interest rates have risen modestly in recent months...

...but sterling share prices remain flat

Five-year, five-year nominal forward interest rates

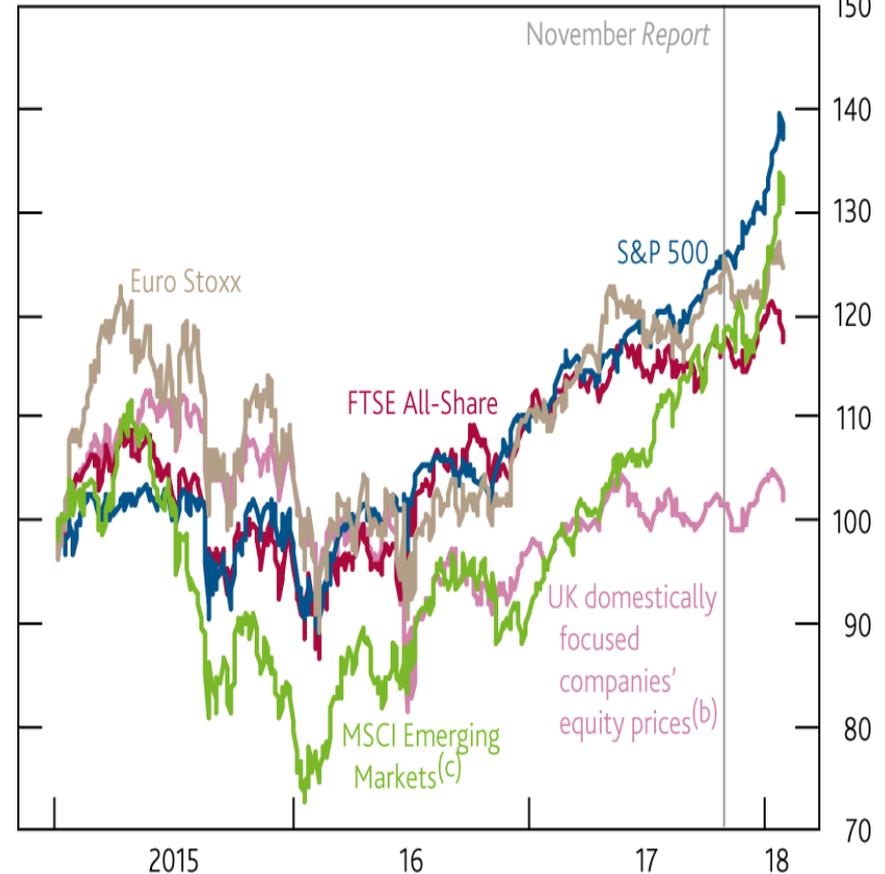
Per cent



Sources: Bloomberg and Bank calculations.

(a) Zero-coupon forward rates derived from government bond prices.

Indices: 2 January 2015 = 100

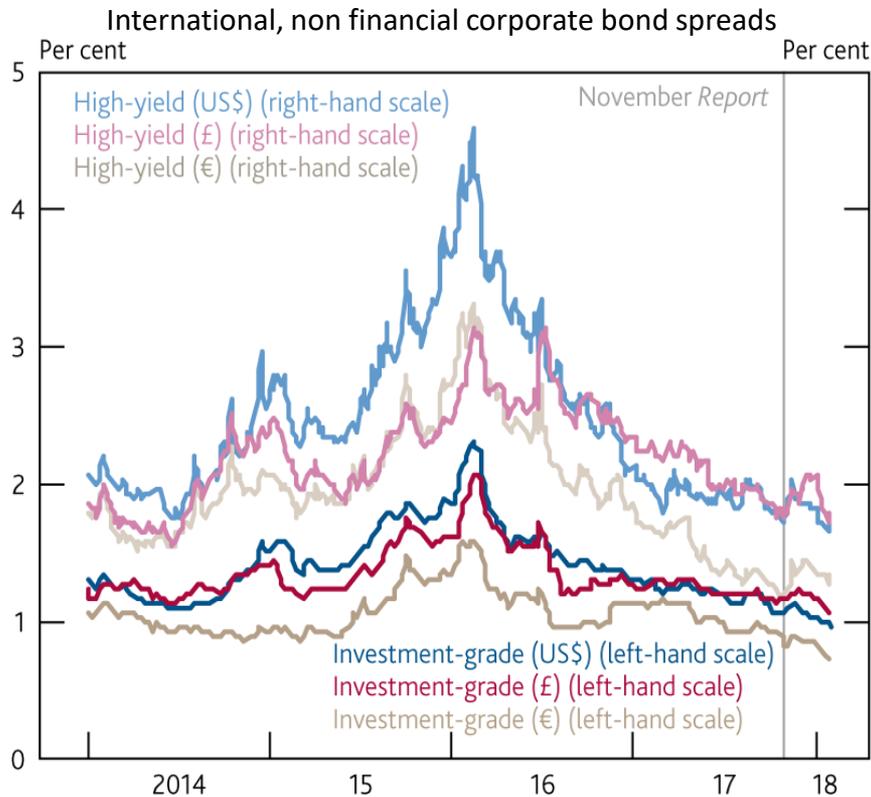


Sources: MSCI, Thomson Reuters Datastream and Bank calculations.

(a) In local currency terms, except for MSCI Emerging Markets, which is in US dollar terms. (b) UK domestically focused companies are those generating at least 70% of their revenues in the United Kingdom, based on annual financial accounts data on companies' geographic revenue breakdown. The MSCI Inc. disclaimer of liability, which applies to the data provided, is available [here](#).

...INDEED, FUNDING COSTS HAVE FALLEN FURTHER

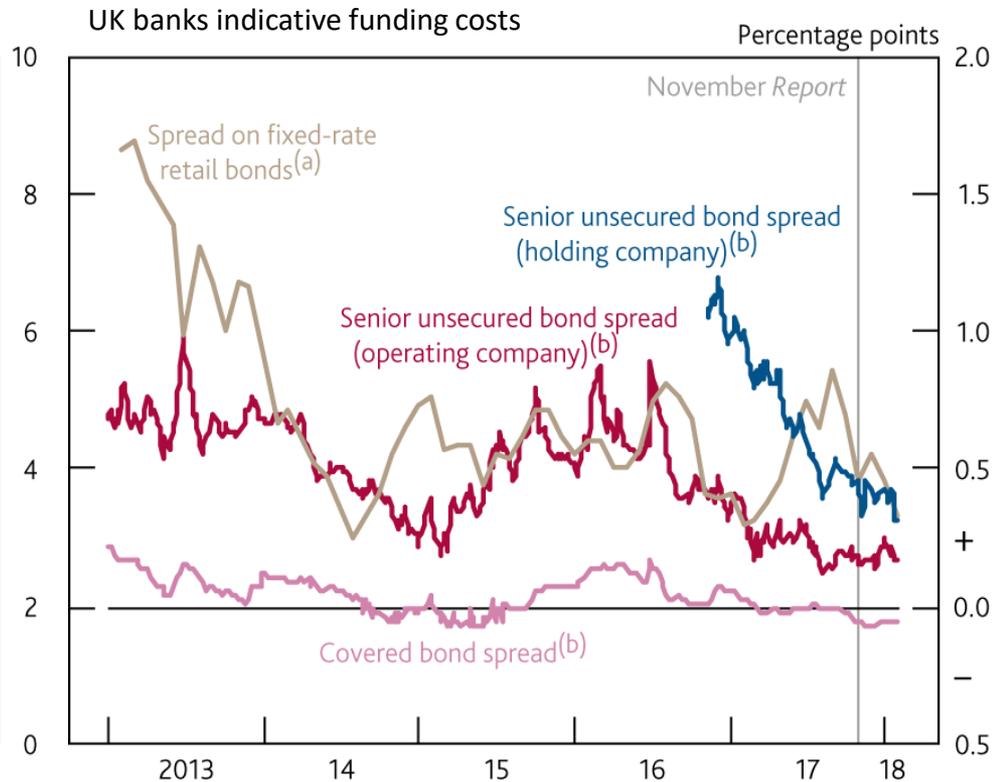
Corporate bond spreads have narrowed since 2016...



Sources: Bank of America Merrill Lynch Global Research, Thomson Reuters Datastream and Bank calculations.

(a) Option-adjusted spreads on government bond yields. Investment-grade corporate bond yields are calculated using an index of bonds with a rating of BBB3 or above. High-yield corporate bond yields are calculated using aggregate indices of bonds rated lower than BBB3. Due to monthly index rebalancing, movements in yields at the end of each month might reflect changes in the population of securities within the indices.

...and bank funding costs have also declined...



Sources: Bank of England, Bloomberg, IHS Markit and Bank calculations.

(a) Unweighted average of spreads for two-year and three-year sterling quoted fixed-rate retail bonds over equivalent-maturity swaps. Bond rates are end-month rates and swap rates are monthly averages of daily rates.

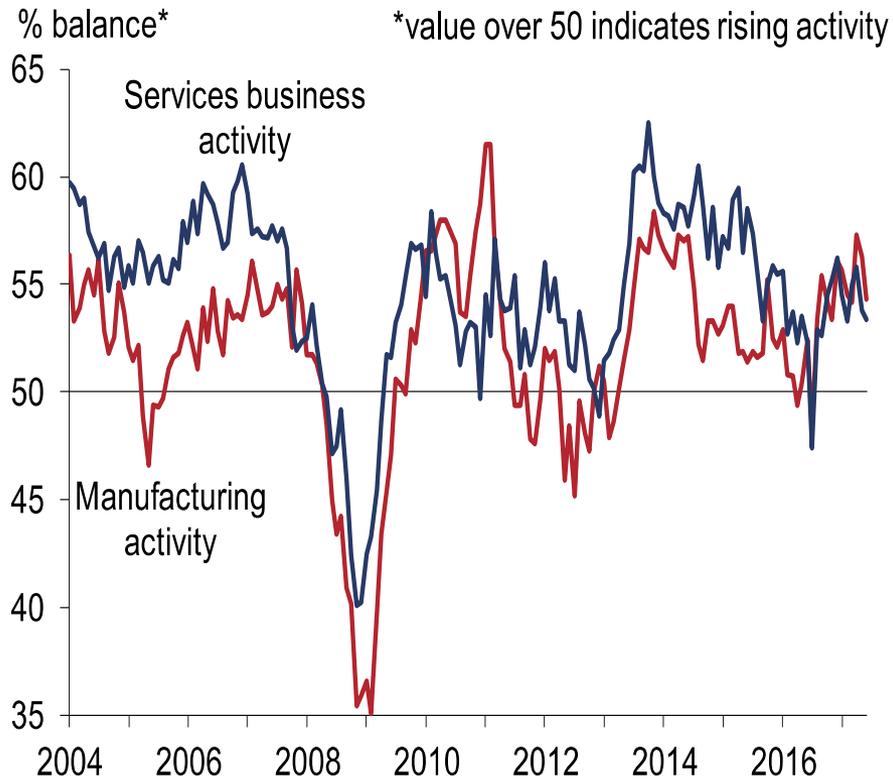
(b) Constant-maturity unweighted average of secondary market spreads to mid-swaps for the major UK lenders' five-year euro-denominated bonds or a suitable proxy when unavailable. For more detail on unsecured bonds issued by operating and holding companies, see the [2017 Q3 Credit Conditions Review](#).

STERLING STILL 15-20% BELOW ITS PEAK IN 2015

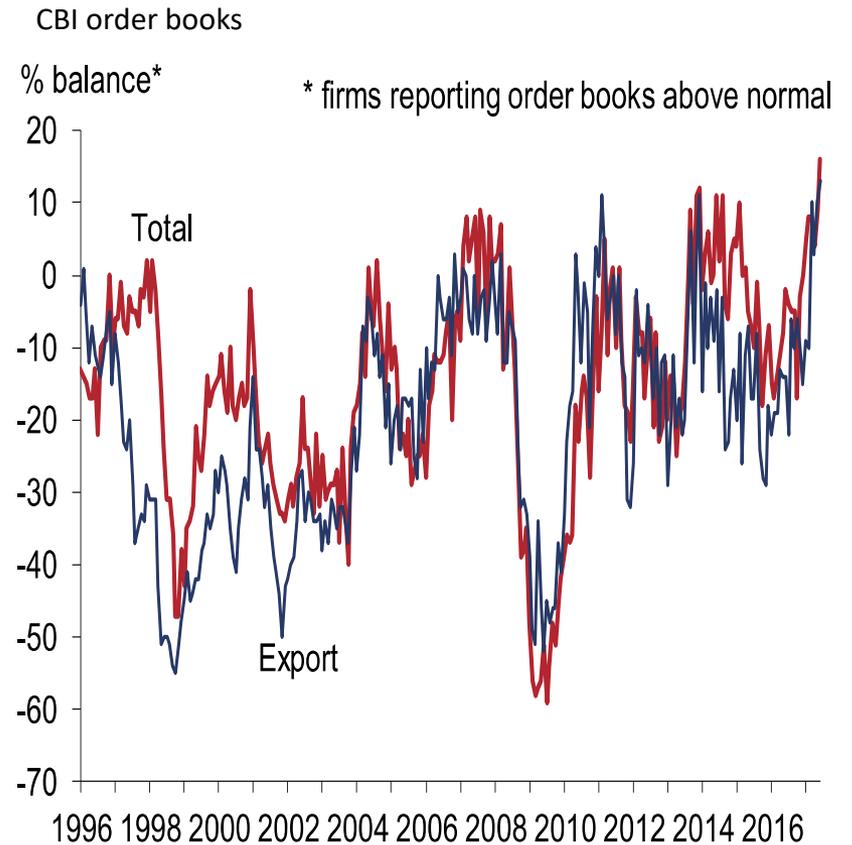


Sources: IMF, TFW

CURRENTLY, UK BUSINESS CONFIDENCE & ORDERS BOOKS ARE HEALTHY



Source: CIPS / Markit



Source: Haver Analytics

BUT INDEPENDENT FORECASTS SHOW SLOWER UK GROWTH...

	2019 Q1	2020 Q1	2021 Q1
CPI inflation ^(b)	2.2	2.0	2.0
GDP growth ^(c)	1.4	1.5	1.7
LFS unemployment rate	4.5	4.6	4.8
Bank Rate (per cent)	0.7	1.0	1.2
Stock of purchased gilts (£ billions) ^(d)	435	435	430
Stock of purchased corporate bonds (£ billions) ^(d)	10	10	10
Sterling ERI	76.5	75.6	75.7

Source: Projections of outside forecasters as of 29 January 2018.

(a) For 2019 Q1, there were 23 forecasts for CPI inflation, 23 for GDP growth, 19 for the unemployment rate, 21 for Bank Rate, 15 for the stock of gilt purchases, 12 for the stock of corporate bond purchases and 13 for the sterling ERI. For 2020 Q1, there were 18 forecasts for CPI inflation, 17 for GDP growth, 15 for the unemployment rate, 19 for Bank Rate, 14 for the stock of gilt purchases, 11 for the stock of corporate bond purchases and 10 for the sterling ERI. For 2021 Q1, there were 16 forecasts for CPI inflation, 16 for GDP growth, 13 for the unemployment rate, 17 for Bank Rate, 13 for the stock of gilt purchases, 10 for the stock of corporate bond purchases and 10 for the sterling ERI.

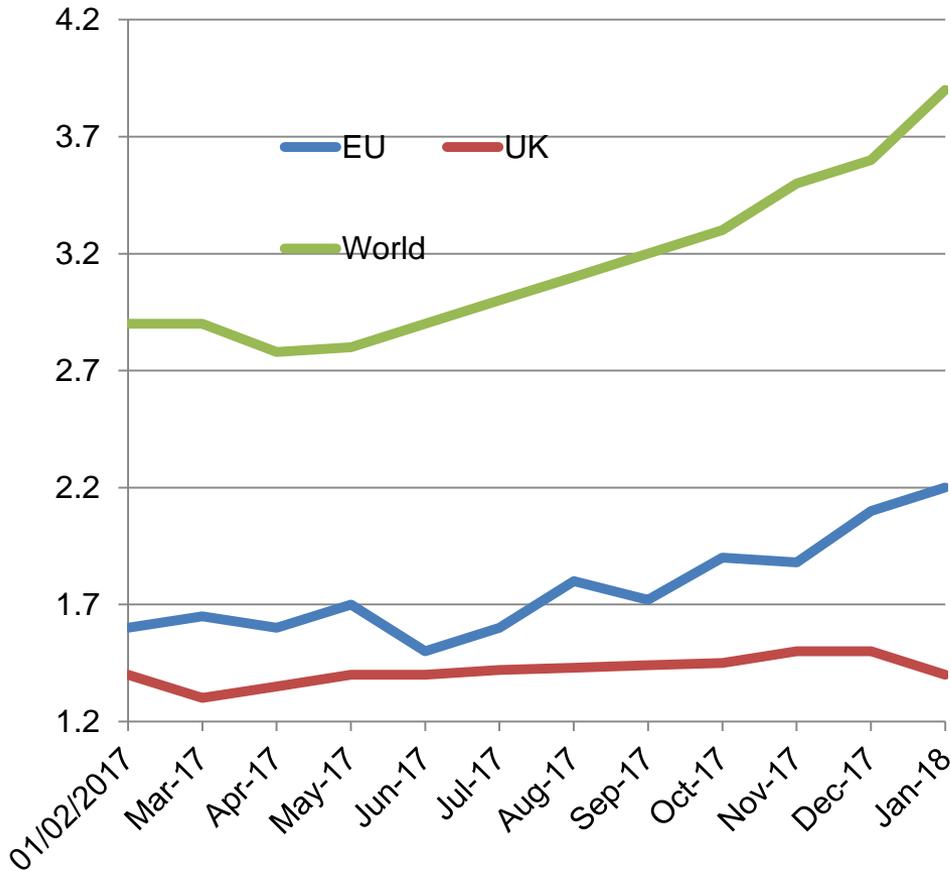
(b) Twelve-month rate.

(c) Four-quarter percentage change.

(d) Original purchase value. Purchased via the creation of central bank reserves.

...EVEN AS GLOBAL ACTIVITY ACCELERATES IN RECENT QUARTERS

Expectations for 2018, % increase in year



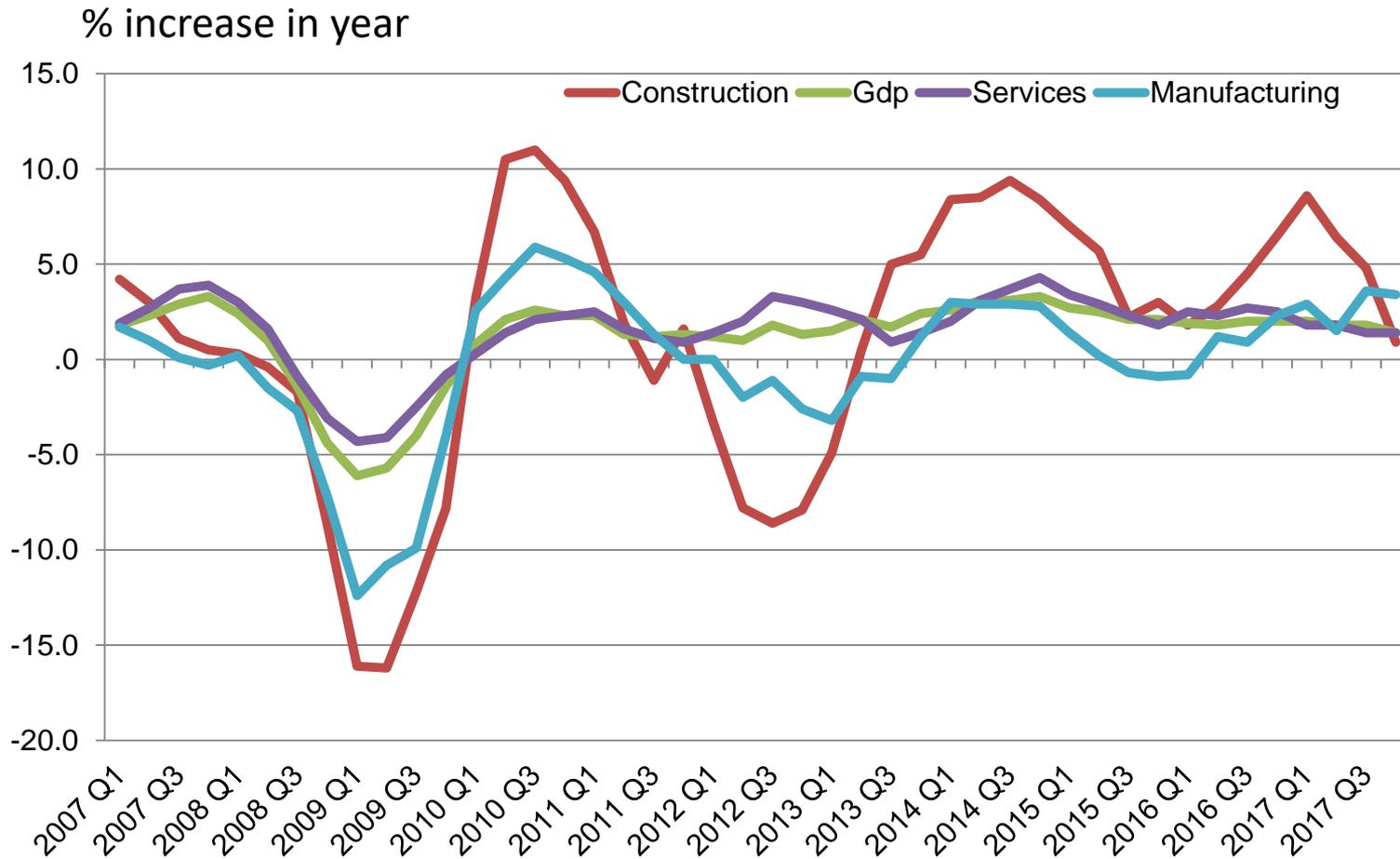
Percentage changes on a quarter earlier

	Averages			2017			
	1998–2007	2012–13	2014–16	Q1	Q2	Q3	Q4
United Kingdom	0.7	0.5	0.6	0.3	0.3	0.4	0.5
Euro area (38%)	0.6	0.0	0.4	0.6	0.7	0.7	0.6
United States (18%)	0.7	0.5	0.5	0.3	0.8	0.8	0.6
China (3%) ^(b)	2.5	1.9	1.7	1.4	1.9	1.8	1.6
Japan (2%)	0.3	0.4	0.2	0.4	0.7	0.6	n.a.
India (1%)	1.8	1.5	1.8	1.4	1.4	1.6	n.a.
Russia (1%) ^(c)	1.9	0.6	-0.2	0.8	1.0	0.1	n.a.
Brazil (1%)	0.8	0.6	-0.7	1.3	0.7	0.1	n.a.
UK-weighted world GDP ^(d)	0.7	0.4	0.6	0.6	0.8	0.8	0.8

But the UK economy is forecast to slow – why?

Sources: TW consultancy

UK RECOVERY HAS BEEN LED BY SERVICES, BUT IT'S SLOWED

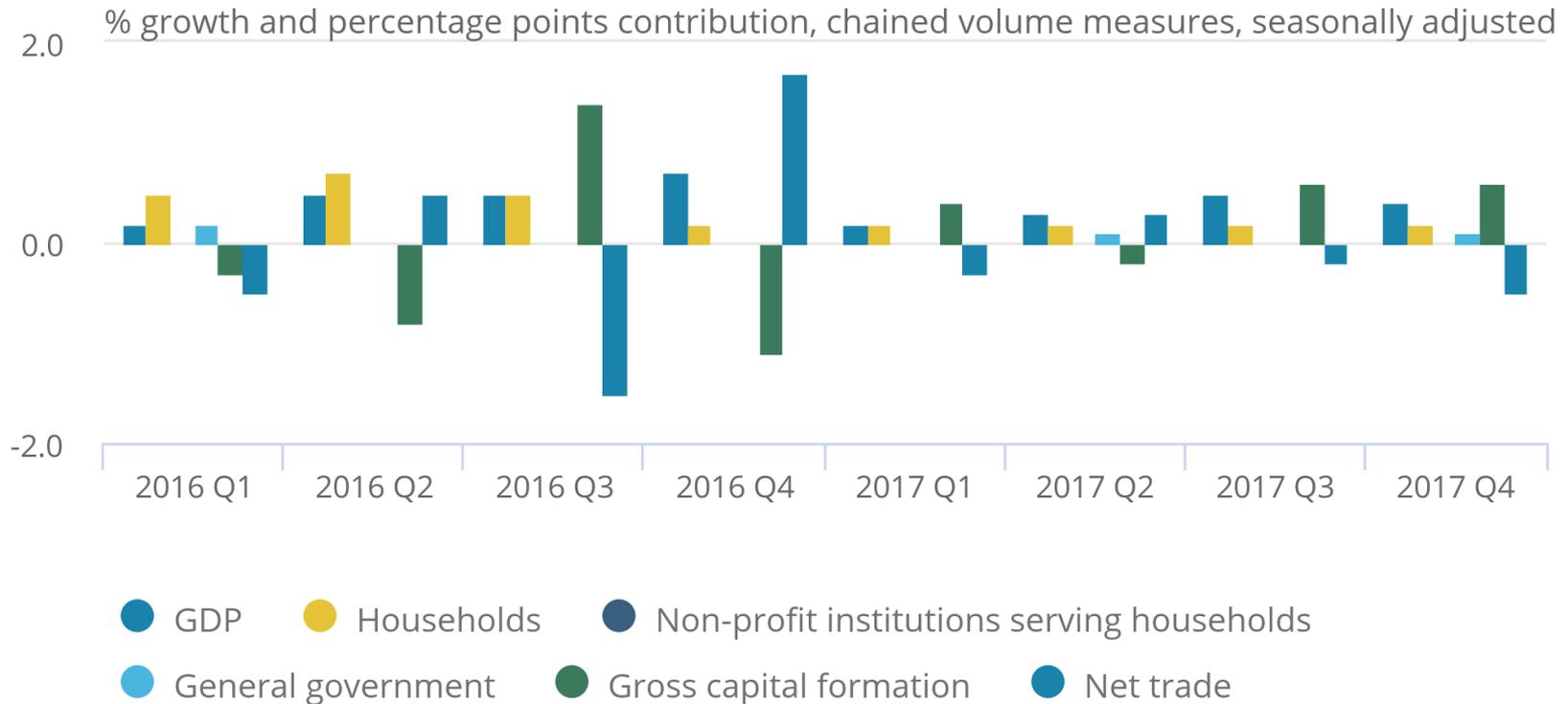


2/3 year cycle in construction?
 Manufacturing also volatile
 GDP growth was 1.4% annual in Q4 2017

Sources: TW consultancy

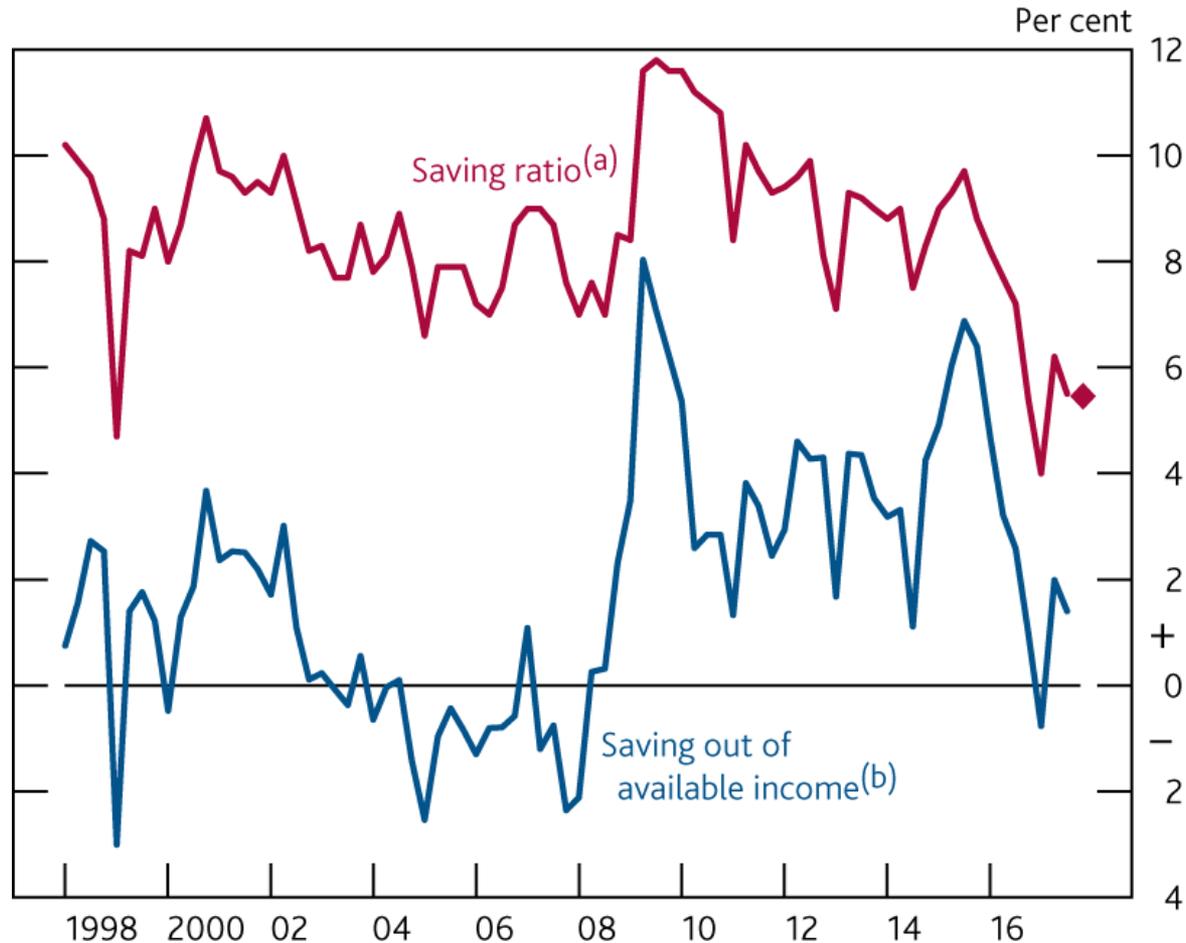
...AND INVESTMENT SPENDING IS NEUTRAL AT BEST

In the last eight quarters, UK capital investment has been up 4 times but down 4!



Sources: TW consultancy

...UK HOUSEHOLDS STILL KEY TO RECOVERY

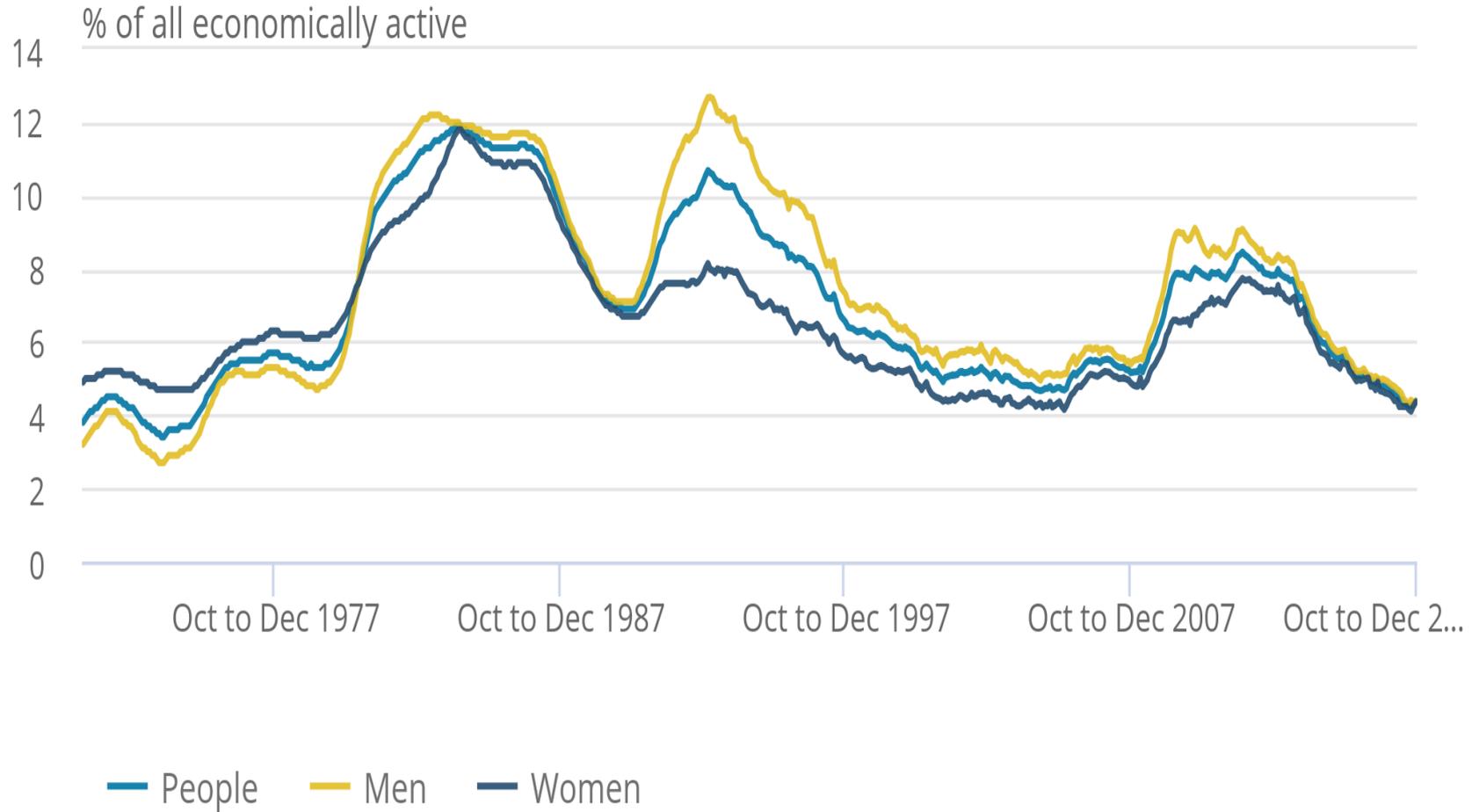


(a) Saving as a percentage of household post-tax income. Includes NPISH. The diamond shows Bank staff's projection for 2017 Q4.

(b) Saving as a percentage of household post-tax income, excluding income not directly received by households such as flows into employment-related pension schemes and imputed rents. Excludes NPISH.

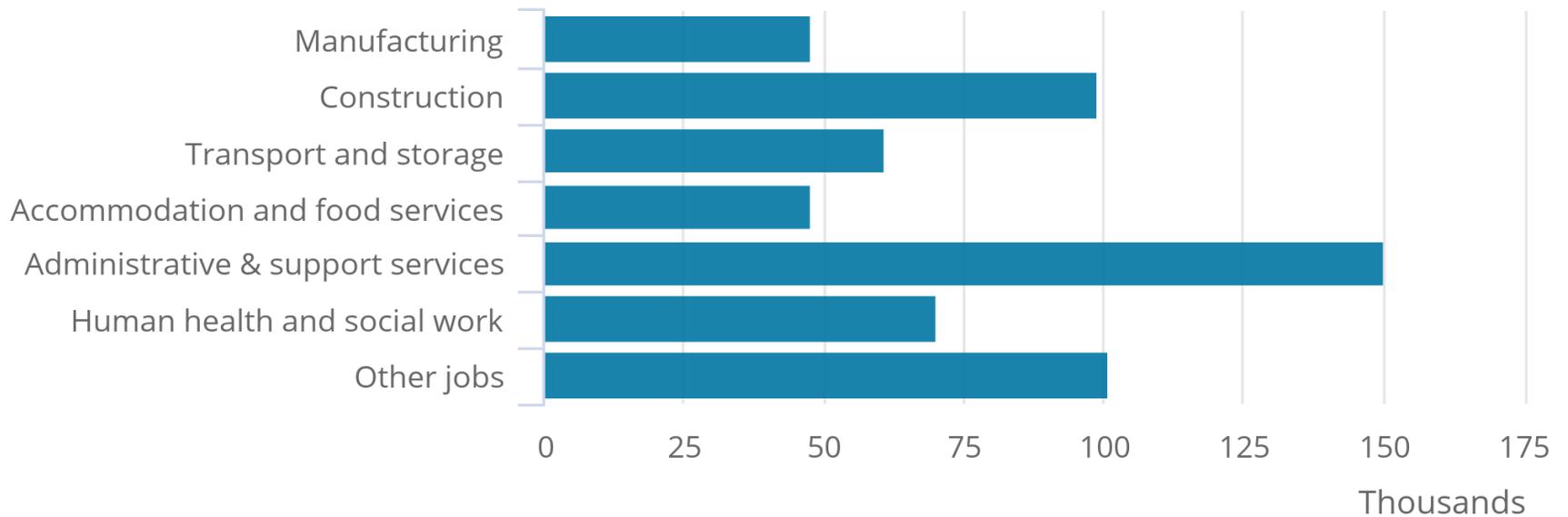
THE GOOD NEWS IS THAT UNEMPLOYMENT REMAINS LOW...

UK unemployment rates (aged 16 and over), seasonally adjusted

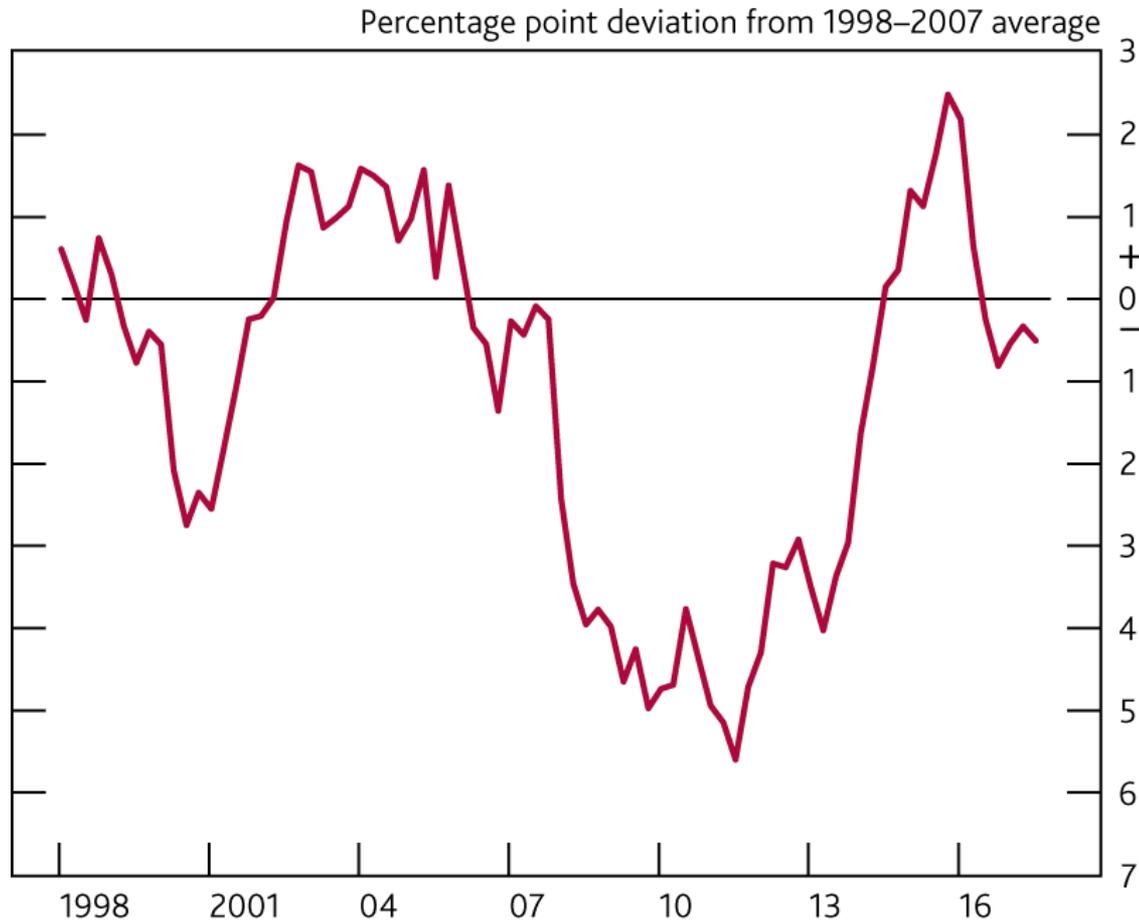


...JOBS ARE BEING CREATED...

Changes in the number of jobs in the UK between September 2016 and September 2017, seasonally adjusted



...BUT CONSUMER FIRMS PROFIT MARGINS ARE BEING SQUEEZED...



Sources: ONS and Bank calculations.

a) Calculated as differences in the ratio of the CPI, seasonally adjusted by Bank staff, and estimated costs of production and distribution for consumer goods and services relative to 1998–2007 averages. Costs consist of labour, imports, energy and taxes, weighted to reflect their intensity in CPI.

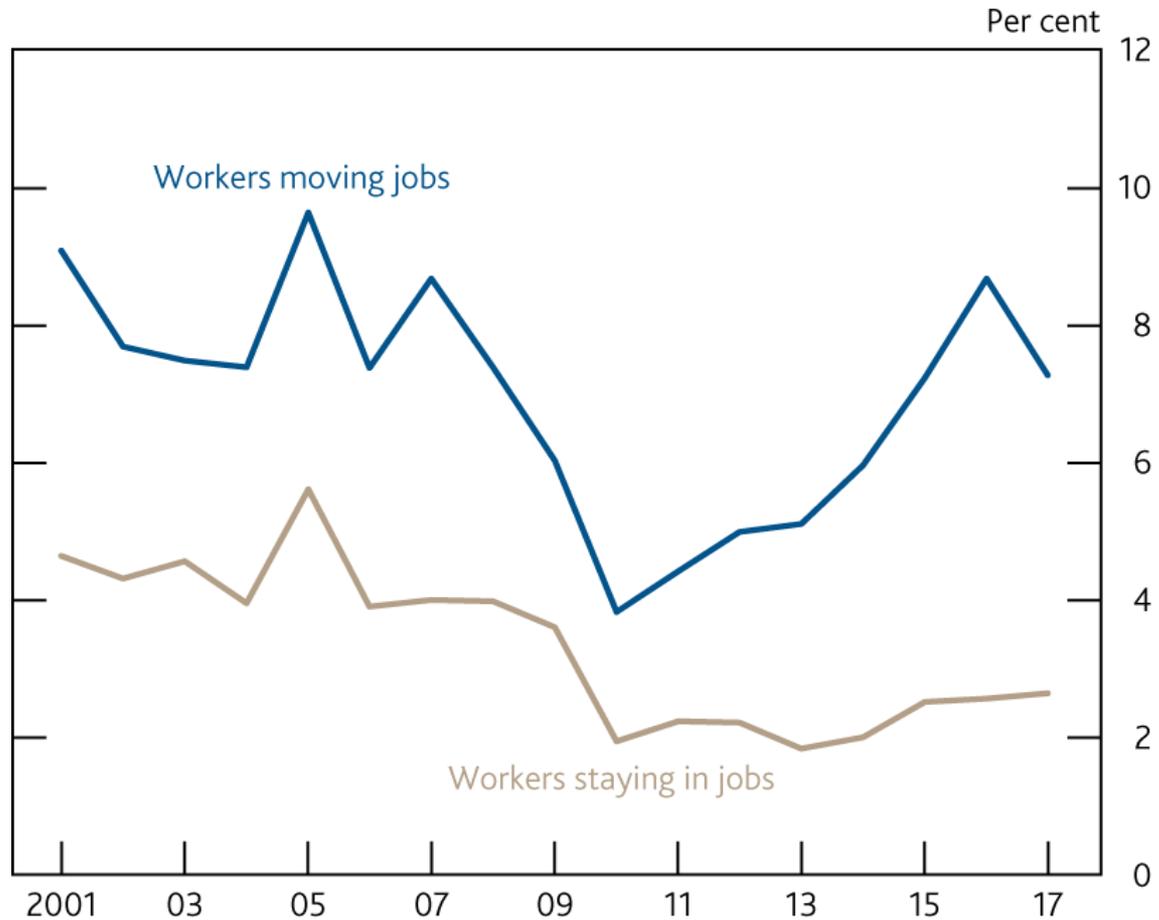
...SO REAL PAY GROWTH REMAINS UNDER PRESSURE...

Great Britain average weekly earnings at constant 2015 prices, seasonally adjusted



2007 to 2016 was the first ten-year period to see average weekly earnings fall in real terms since at least the middle of the nineteenth century. Prior to the financial crisis, real average earnings typically grew by around 1.8% over a given ten-year period.

...AND INCREASES ARE DUE TO PEOPLE SWITCHING JOBS

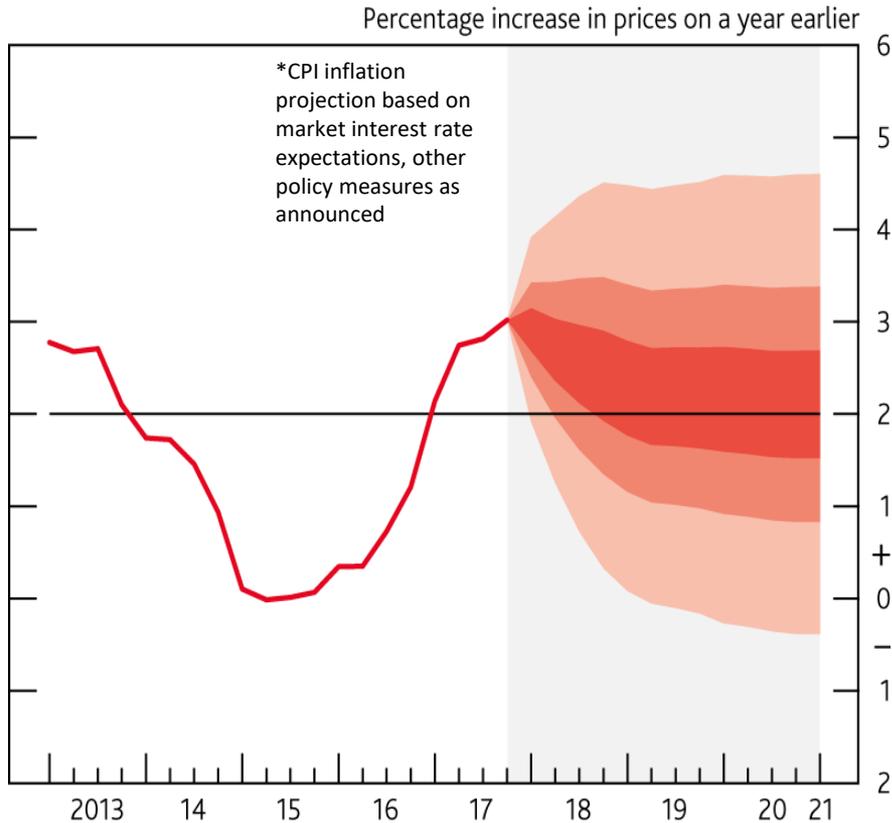


Sources: Annual Survey of Hours and Earnings and Bank calculations.

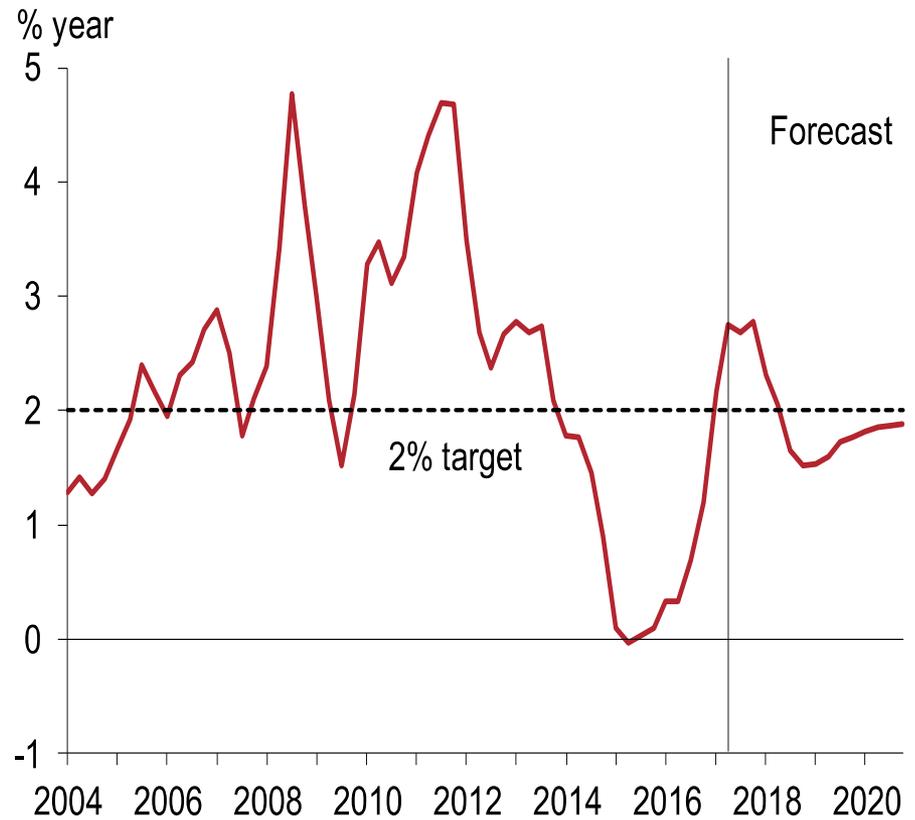
(a) Workers moving jobs are defined as workers in employment in consecutive years in a different job. Workers staying in jobs are defined as workers in employment in consecutive years in the same job.
(b) Pay growth is median growth rate in April. Based on hourly gross earnings obtained by dividing gross pay in the reference week by total hours worked.

...SO WHITHER THE INFLATION TARGET?

Bank of England forecasts that inflation will be just above target in 2 years' time*....



...but why instead shouldn't it undershoot its target and inflation fall back sharply?



Sources: Bank of England, TW consultancy

SUMMARY...

- BREXIT – generating uncertainty and consuming political energy
- Low productivity
- Falling real / nominal Pay
- An ageing population
- Rising household debt
- Public spending pressure – NHS in particular?

MANY DIFFERENT POST-BREXIT OUTCOMES ARE POSSIBLE

	Votes on EU law	Tariff-free trade	Customs union & external trade	'Ever closer union'	Justice and Home Affairs	Full labour mobility	Schengen Agreement	EU Funding	Eurozone membership
UK - EU	Partial	Partial	Partial	None	Partial	Partial	None	Partial	None
Standard - EU	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Norway - EEA	None	Partial	None	None	Partial	Partial	Partial	Partial	None
Switzerland	None	Partial	None	None	Partial	Partial	Partial	Partial	None
Canada	None	Partial	None	None	None	None	None	None	None
Turkey	None	Partial	Partial	None	None	None	Partial	None	None
WTO	None	None	None	None	None	None	None	None	None

Partial/Voluntary /Special Arrangement

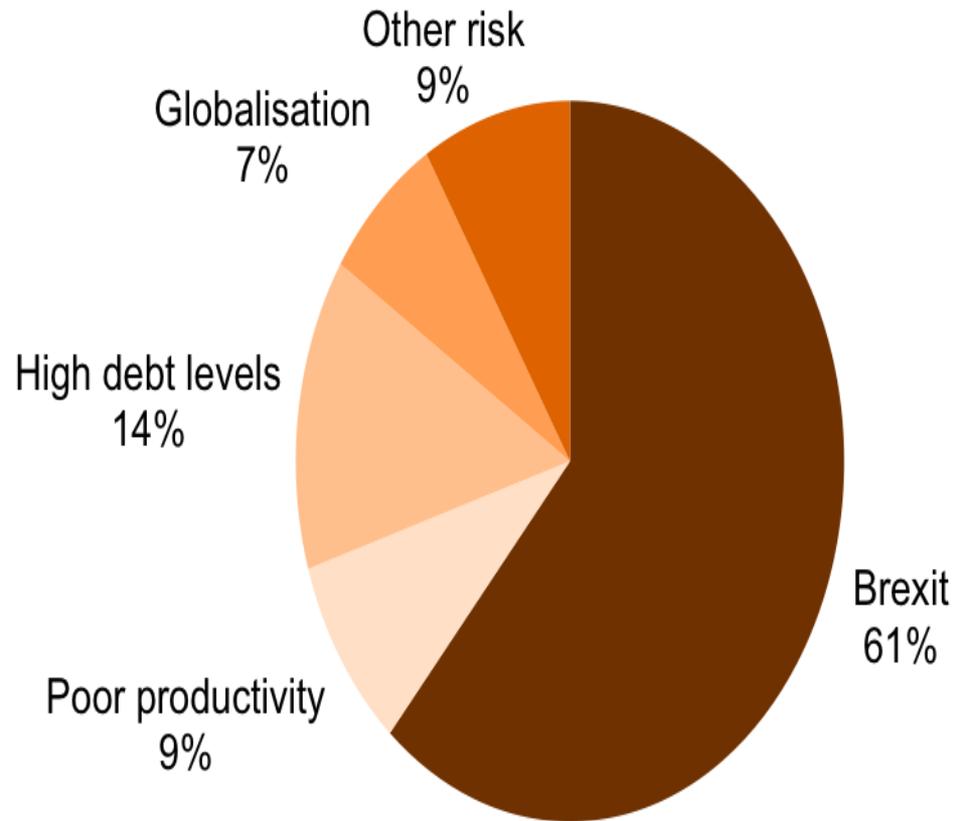


Source: ONS, Marsh research

BREXIT SPECIFIC CHALLENGES...

- Port delays
- Passporting
- Trade deals will take 5 to 10 years, so benefits of leaving delayed but costs immediate
- Representation on international bodies
- Agricultural subsidies, fishing, R & D spending etc
- EU agencies leaving the UK, medical council, patents body, EBRD

WHAT DO YOU THINK IS THE KEY CHALLENGE FOR THE UK?

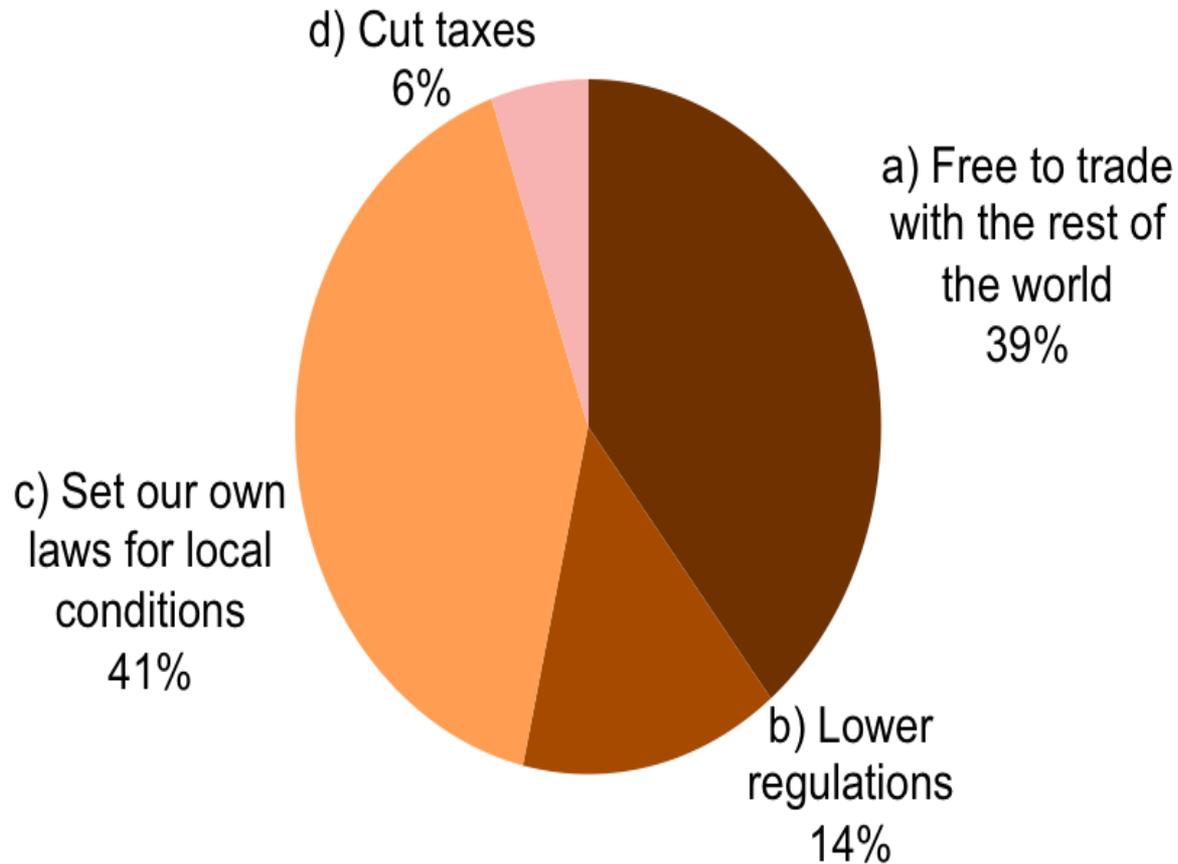


Source: AON survey of London based investors, TW consultancy

BREXIT - PLUSES AND MINUSES

GAINS	LOSSES
Tailored migration policy	Lower investment flows
Savings on EU contributions	Preferential access & tariffs
Less regulation	Financial services
'Better' trade deals	UK breakup

WHAT OPPORTUNITIES ARE THERE FROM LEAVING THE EU?



Source: AON survey of London based investors, 2016, TW consultancy

THE EXPECTED IMPACT OF BREXIT

SHORT TERM:

- Volatility in asset prices
- Political uncertainty?
- Financial markets price in some long-term costs, eg FX fall.

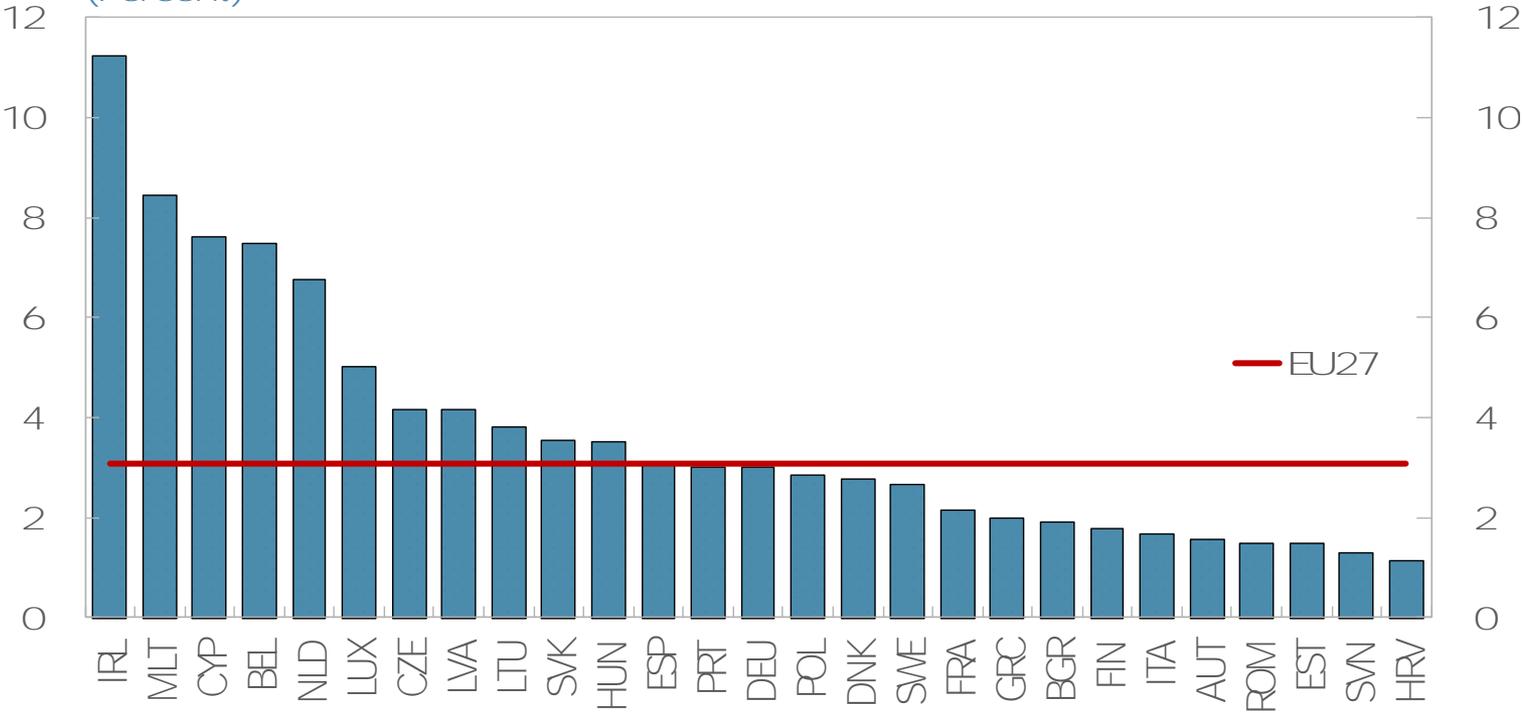
LONG TERM:

- Trade with the EU and other countries
- Inward investment to the UK
- Migration and labor flows
- Regulation
- Contributions to EU budget

EU IS MORE SIGNIFICANT FOR THE UK

UK Imports in Terms of Source Country GDP

(Percent)

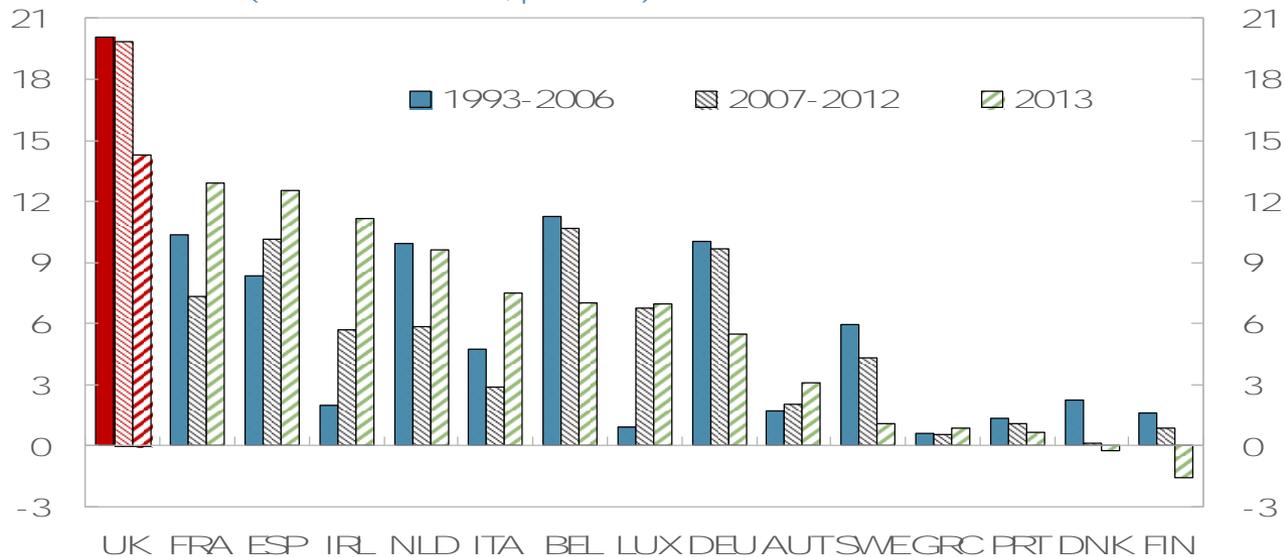


Source: OECD, IIF.

THE UK REMAINS A MAGNET FOR FDI

- UK a magnet for FDI—mostly from the EU
- Direct effects on output; additional productivity benefits, funds C/A deficit

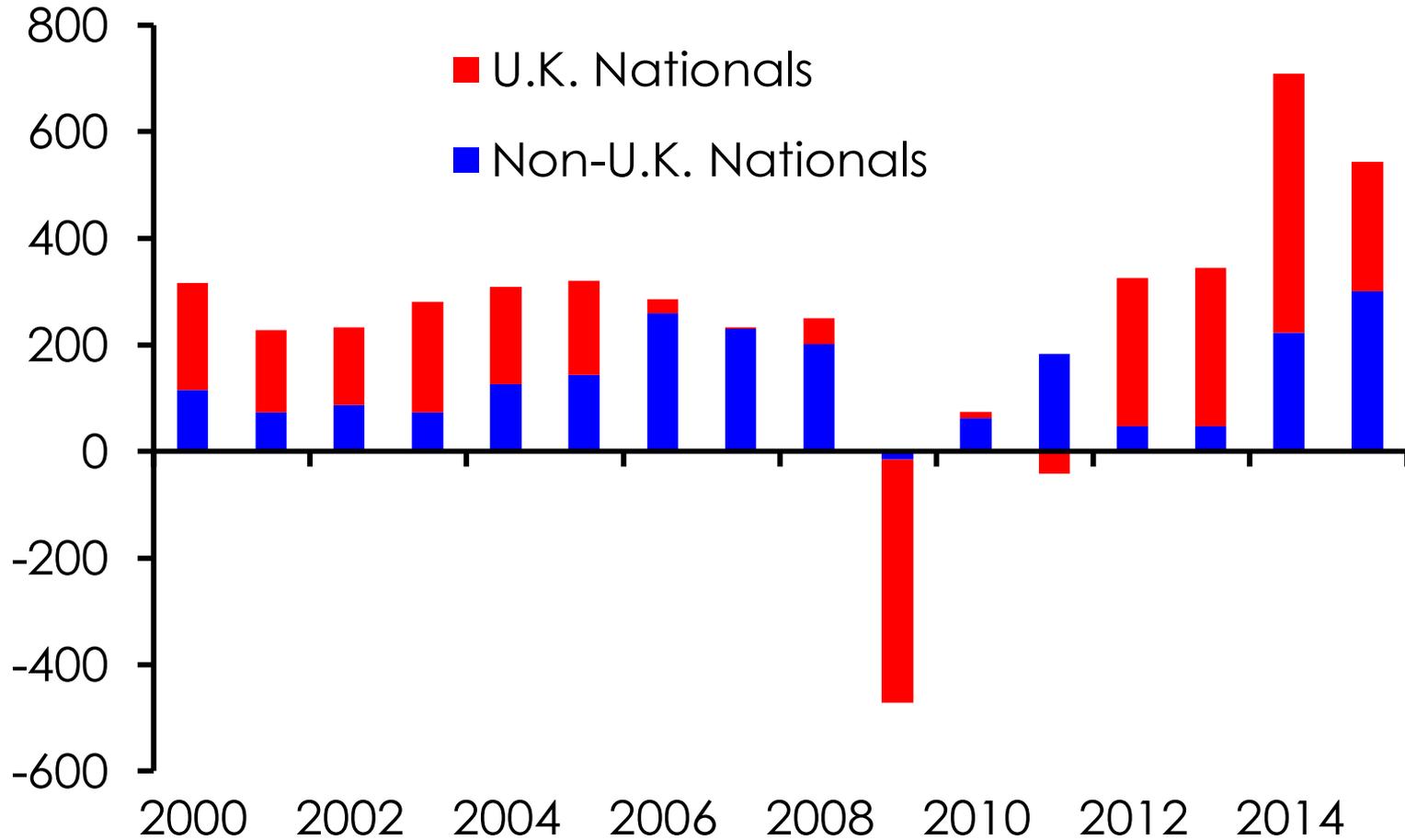
EU-15 Countries' Share of Average Annual FDI Inflows into the EU (Share of EU FDI, percent)



Source: OECD, IIF.

GROWTH MODEL TO ADJUST AS MIGRANT LABOUR FALLS

UK and migrant employment, 000s

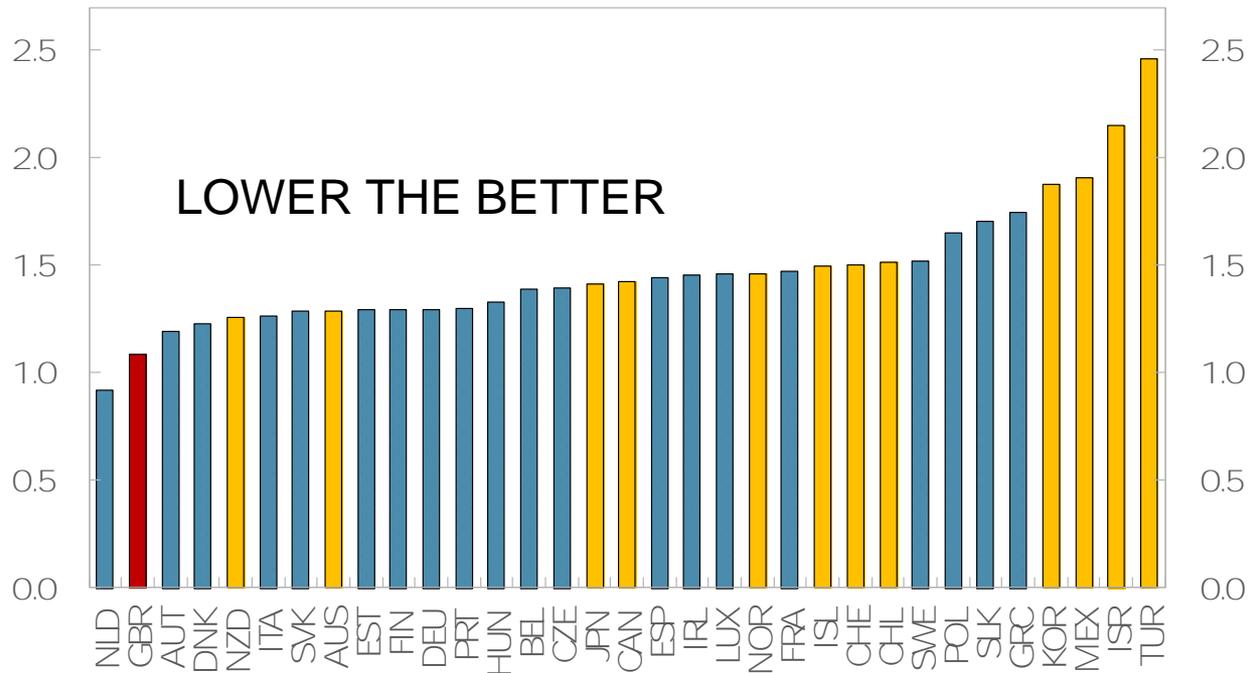


Source: Haver & ONS

FURTHER DEREGULATION MAY NOT HELP UK MUCH

Limited potential for gains from further deregulation?

OECD Product Market Regulation Indices Comparison, 2013



Source: OECD.

Notes: Blue color denotes EU countries; yellow color denotes non-EU countries.

SO UK MAY HAVE TO BECOME EVEN MORE ECONOMICALLY FREE

2018 INDEX OF ECONOMIC FREEDOM WORLD RANKINGS

World Rank	Regional Rank	Country	Overall Score	Change from 2017	Property Rights	Judicial Effectiveness	Government Integrity	Tax Burden	Government Spending	Fiscal Health	Business Freedom	Labor Freedom	Monetary Freedom	Trade Freedom	Investment Freedom	Financial Freedom
1	1	Hong Kong	90.2	0.4	92.5	84.3	82.8	93.1	90.2	100	96.3	89.4	84.3	90.0	90	90
2	2	Singapore	88.8	0.2	98.4	90.9	91.2	90.4	90.6	80.0	90.9	92.6	85.2	90.0	85	80
3	3	New Zealand	84.2	0.5	95.1	88.4	95.7	70.5	49.5	98.3	91.5	84.4	90.0	87.4	80	80
4	1	Switzerland	81.7	0.2	84.2	82.1	82.8	70.5	65.4	95.9	75.7	73.9	85.2	90.0	85	90
5	4	Australia	80.9	-0.1	78.7	93.4	77.4	63.0	61.2	84.3	89.1	79.7	87.4	86.2	80	90
6	2	Ireland	80.4	3.7	87.7	79.0	79.0	76.1	69.6	80.8	81.8	76.4	87.4	86.9	90	70
7	3	Estonia	78.8	-0.3	80.4	83.9	75.7	80.7	52.6	99.8	75.6	54.8	85.1	86.9	90	80
8	4	United Kingdom	78.0	1.6	92.2	93.8	79.0	65.2	44.4	53.5	91.1	74.4	85.2	86.9	90	80
9	1	Canada	77.7	-0.8	87.5	77.1	78.3	76.7	52.3	81.2	81.8	71.3	77.5	88.1	80	80
10	1	United Arab Emirates	77.6	0.7	76.3	83.4	77.3	98.4	70.9	99.0	79.9	81.1	80.2	84.3	40	60

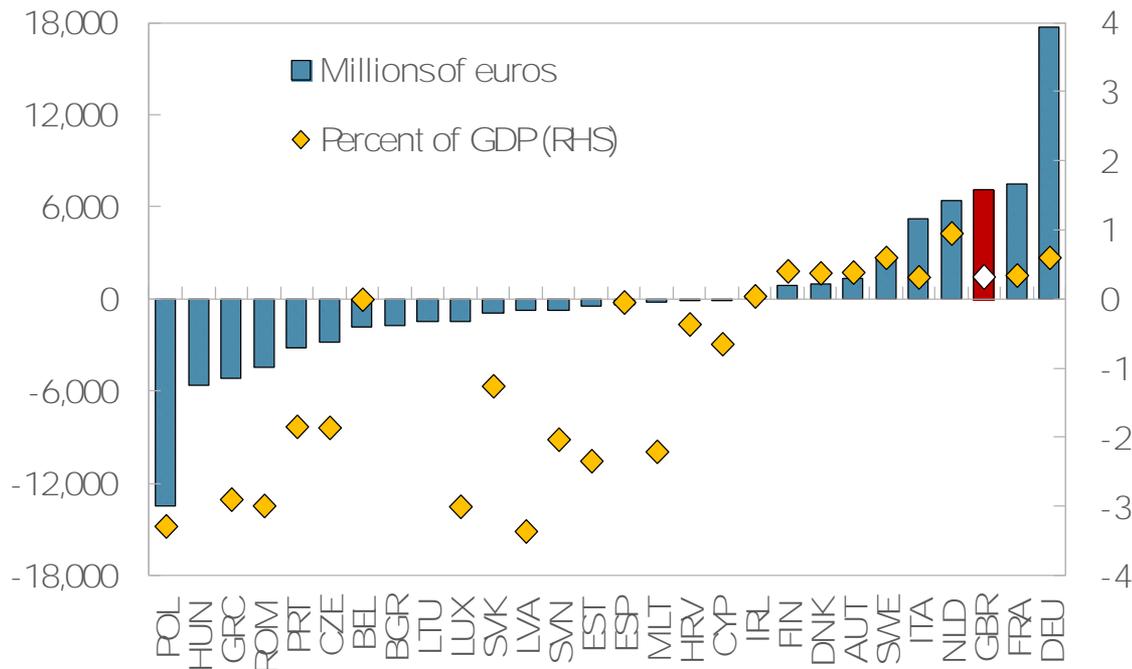
Economic Freedom Scores

- 80–100 Free
- 70–79.9 Mostly Free
- 60–69.9 Moderately Free
- 50–59.9 Mostly Unfree
- 0–49.9 Repressed

Source: Heritage foundation, 2018

RETURN OF EU FUNDS

Net Contribution to EU Budget by Country, 2014



SOURCE: OECD

Large contribution in nominal terms

- ...but small net contribution in terms of size of economy.

- EU payments go to agriculture, regional development, R&D and universities

CAN BREXIT CREATE OPPORTUNITIES?

1. Replacing EU trading partners with ones from elsewhere
2. Force pace of change in growth areas
3. Working around restrictions from new relationship
4. Set up new operations abroad
5. New roles and responsibilities
6. Focus on harnessing all of the UK's talent
7. No one to blame for UK problems

THE FUTURE REMAINS FULL OF POSSIBILITIES

Overview

- Global growth recovering is occurring because global trade has picked up
- The logic of husbanding resources through technical innovation as the global population heads to 9bn – 11bn is inescapable
- David Ricardo showed 200 years ago (February 1817) how international trade lifts the incomes of all those involved in the process
- The poorest countries are those least involved in international trade, and least economically free

Geography will tilt world GDP to Asia, where population growth and rising incomes combine best to generate a rising share of global income. Africa has most resources and catch-up potential. Europe / US remain rich, get caught in aggregate terms but remain wealthier per head.

Technological revolution to 'speed up': advent of quantum computers hastens this process

- **Agriculture** – sensors in soil telling when to water, to pick, to fertilise; drones to monitor, water, spray; machines to plant and pick = lower cost, and prices and so greater incomes
- **Manufacturing**: printed circuits. Remote printing, printable parts (in 3D), sensors in machines, human robot interface; self repair & reusable machines, driverless cars, boats, trains, planes,
- **Financial sector**: block chain, less people, more trust, fewer banks, fewer barriers to entry, less 'friction', more income to invest
- **Energy**: advent of block chain, smart systems, climate change and regulation to drive innovation
- **Resultant lower transaction** costs can lead to disruption in all industries.

THANK YOU – QUESTIONS?

www.trevorwilliams.co.uk