Economic Perspectives

The Little Inflation with the Big Bite

Peter Warburton

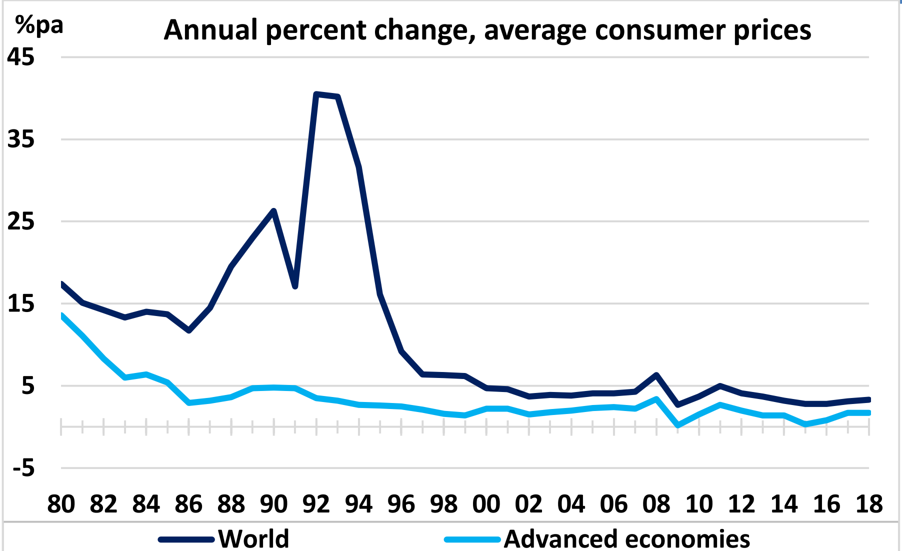
Assisted by Yvan Berthoux, Liseth Galvis-Corfe and Tom Traill

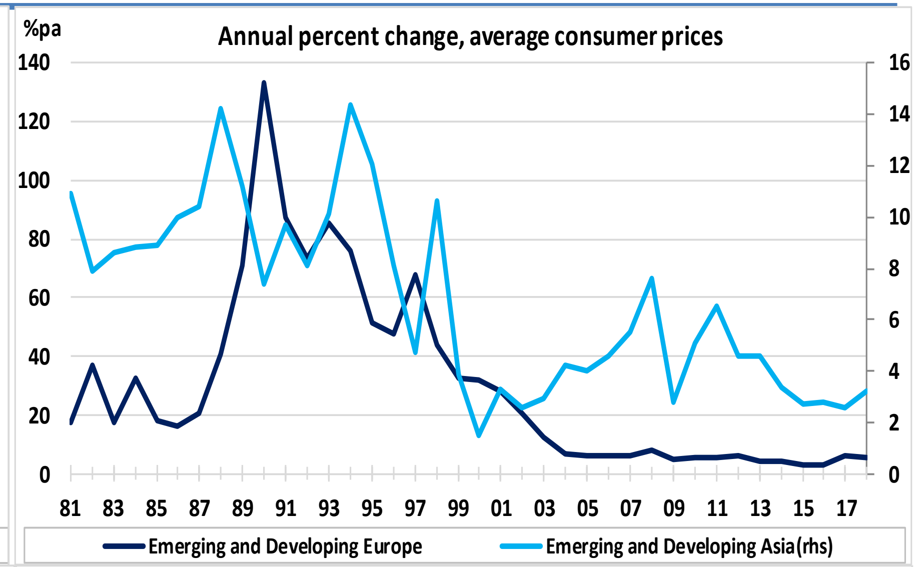
25 April 2018

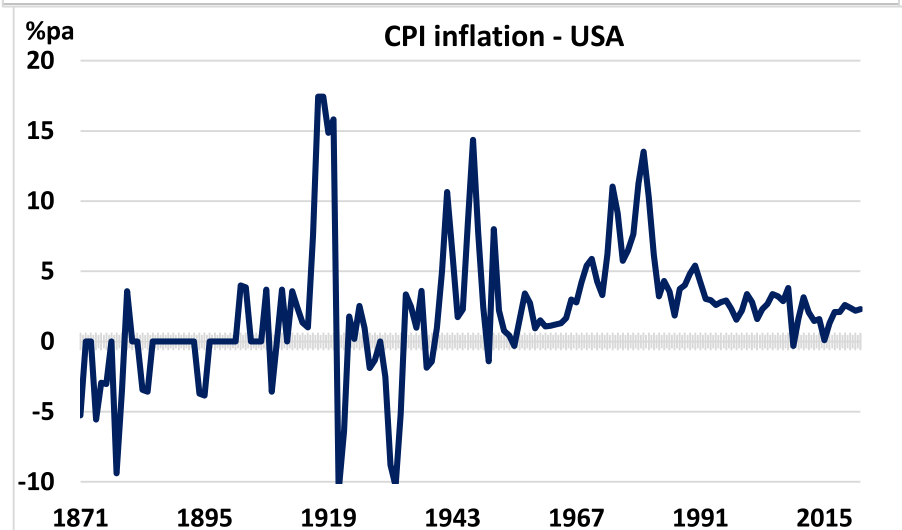
Introduction

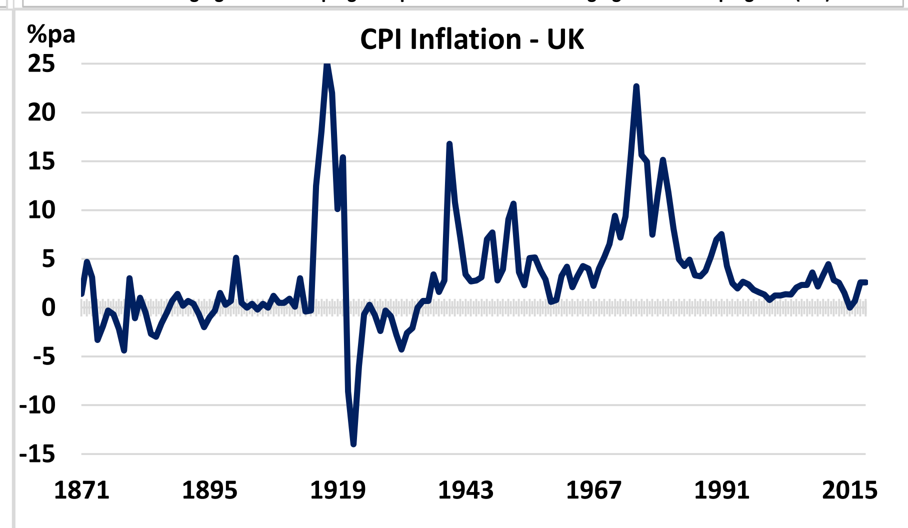
- Historically, DM and EM inflation rates look well-behaved: the immediate prospect is for the Little Inflation to grow a little larger
- Inflation volatility has almost evaporated, lowering the threshold for surprise
- Yet, the tide of global inflation turned in early 2016
- Global annual nominal GDP growth has lifted from 4 per cent to 6 per cent
- Asia and Europe have led the way in the inflationary turn, with North America catching up and Latin America stabilising

Consumer price inflations: Little and Large





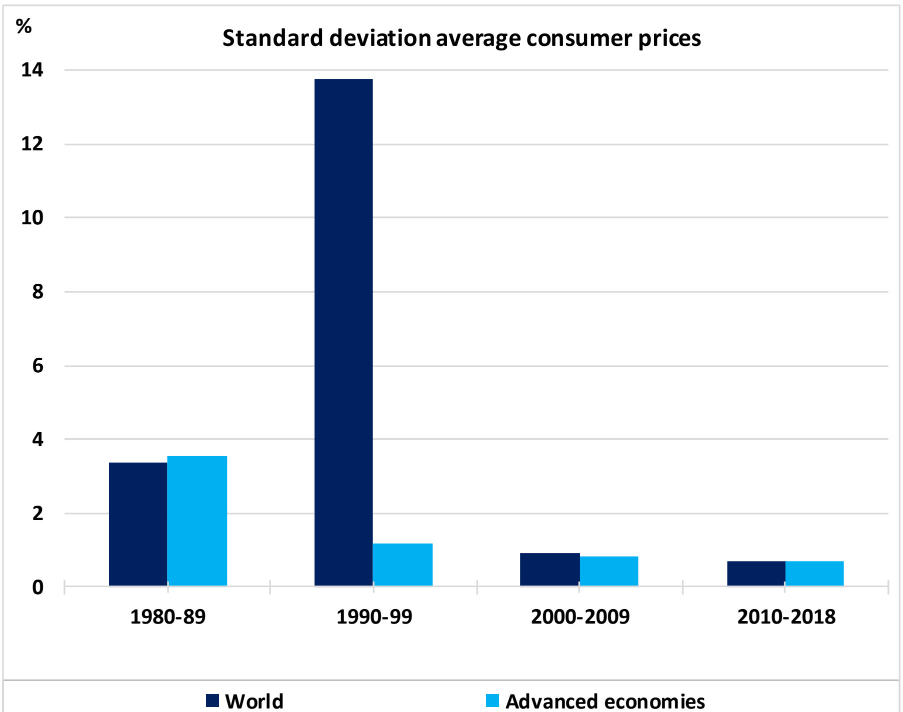


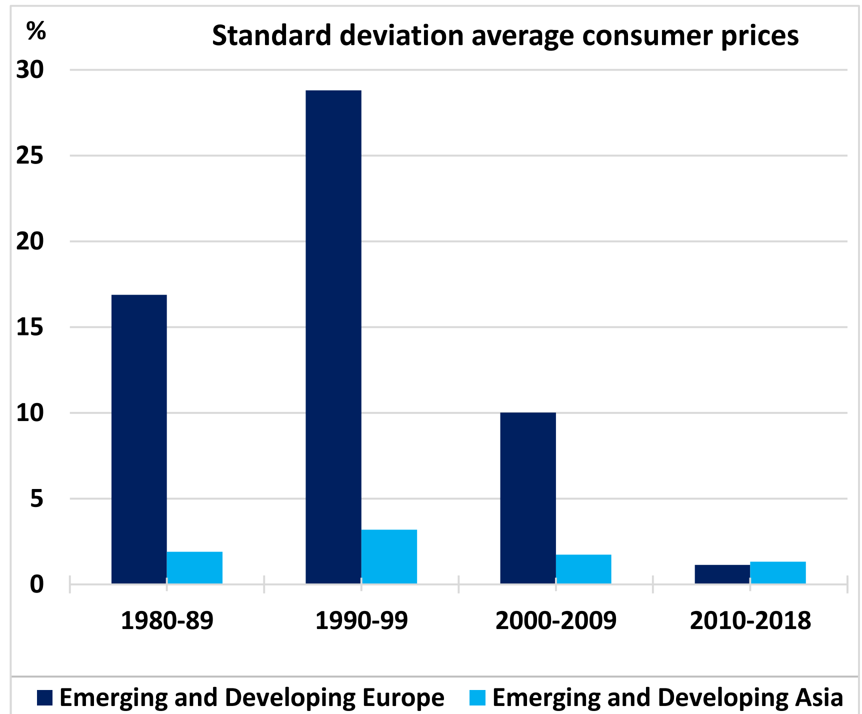


Data sources for all charts: CBO, CEIC, EC, FRED, IEA, IMF, McKinsey Global Institute and Thomson Reuters Datastream

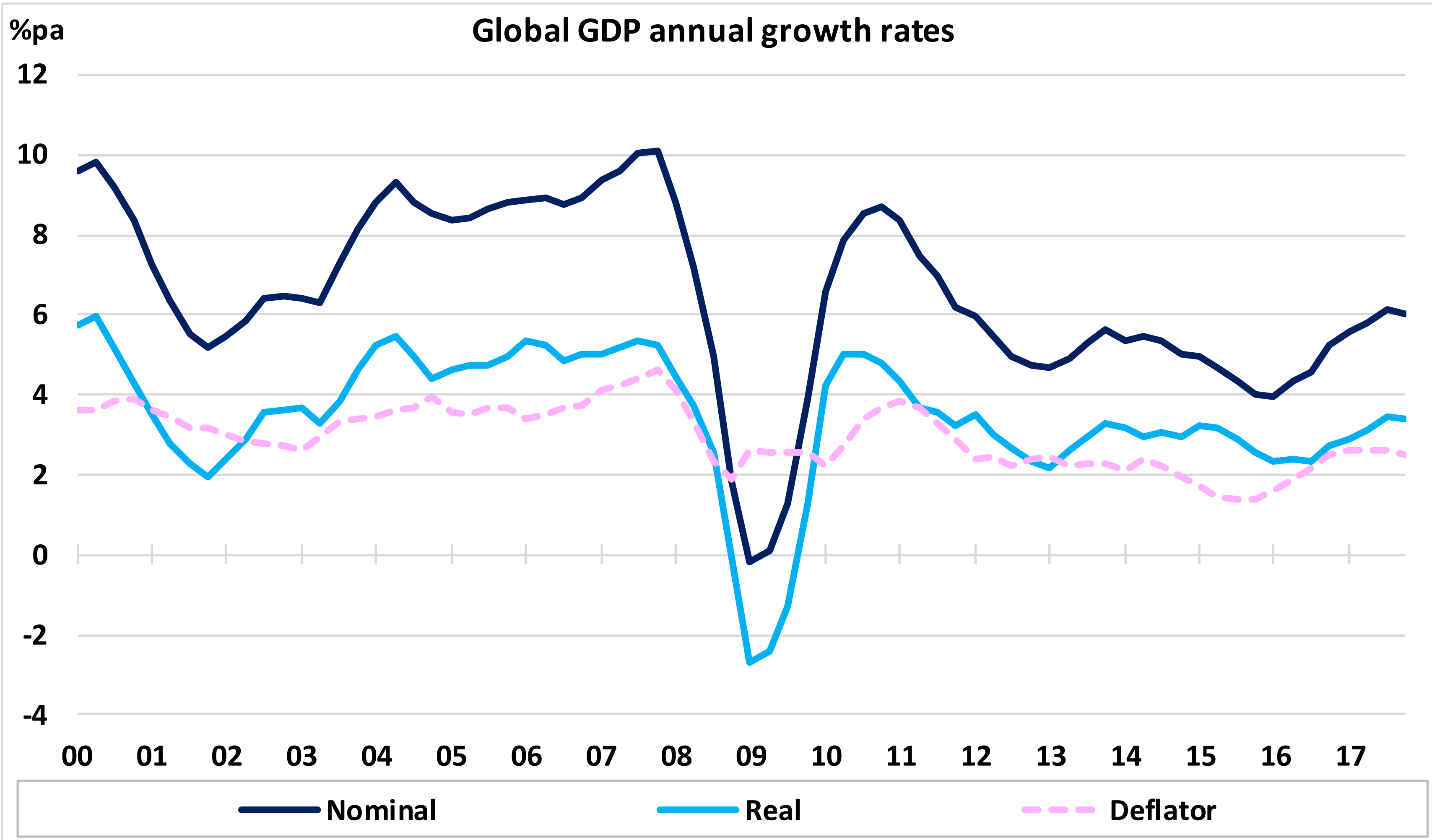
Declining inflation volatility lowers the surprise threshold

- 2% inflation does not exert a magnetic force

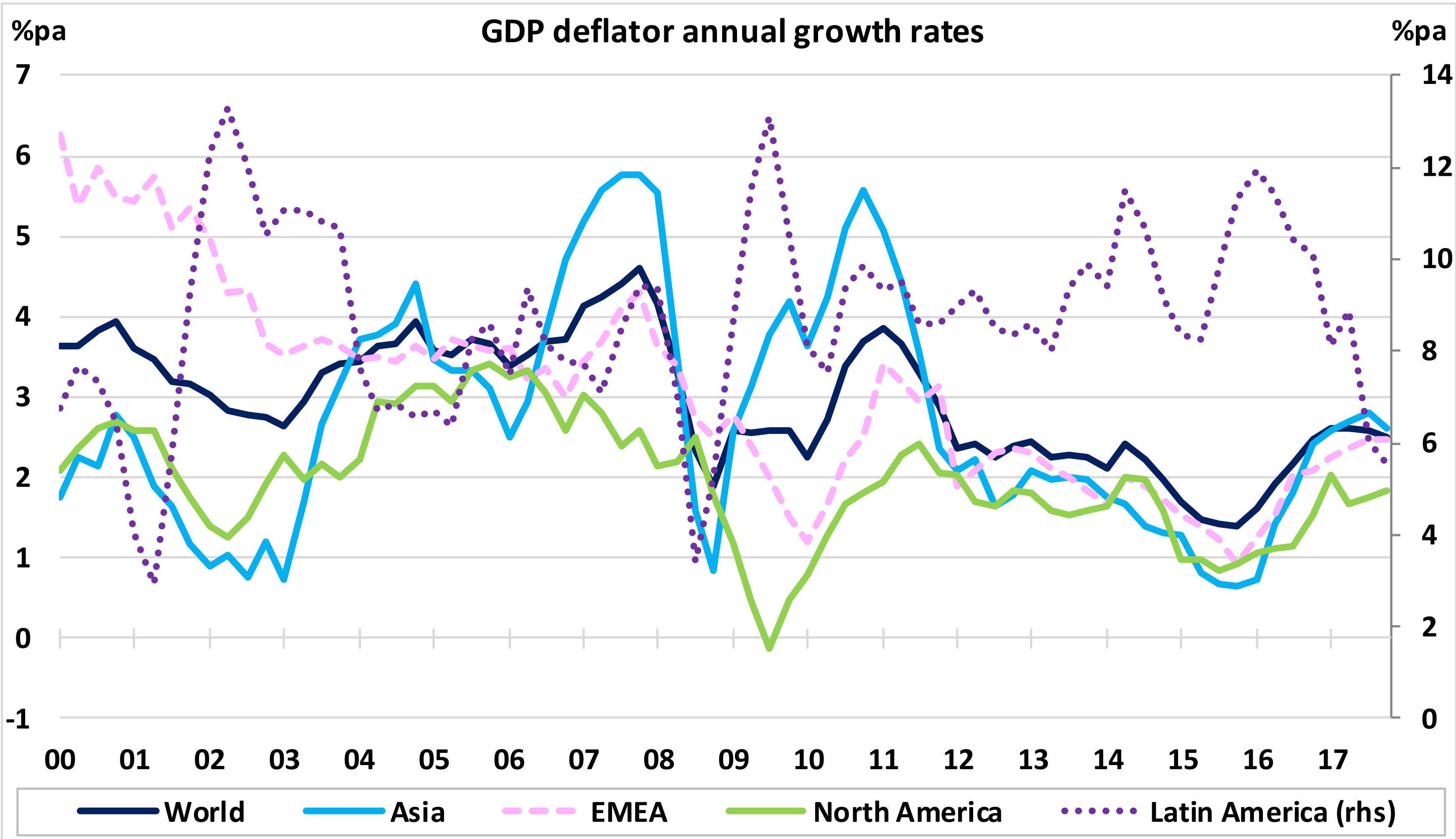




Global nominal GDP: lifted from a 4% to a 6% world



North America is the laggard in the global procession

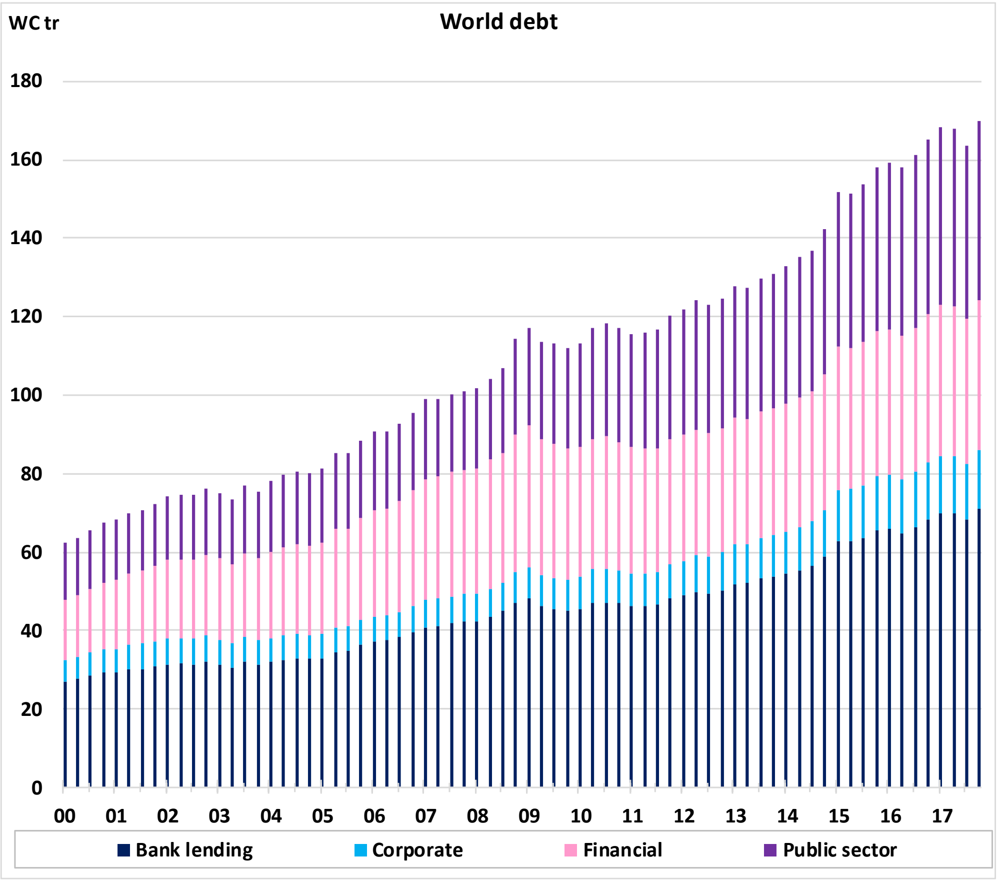


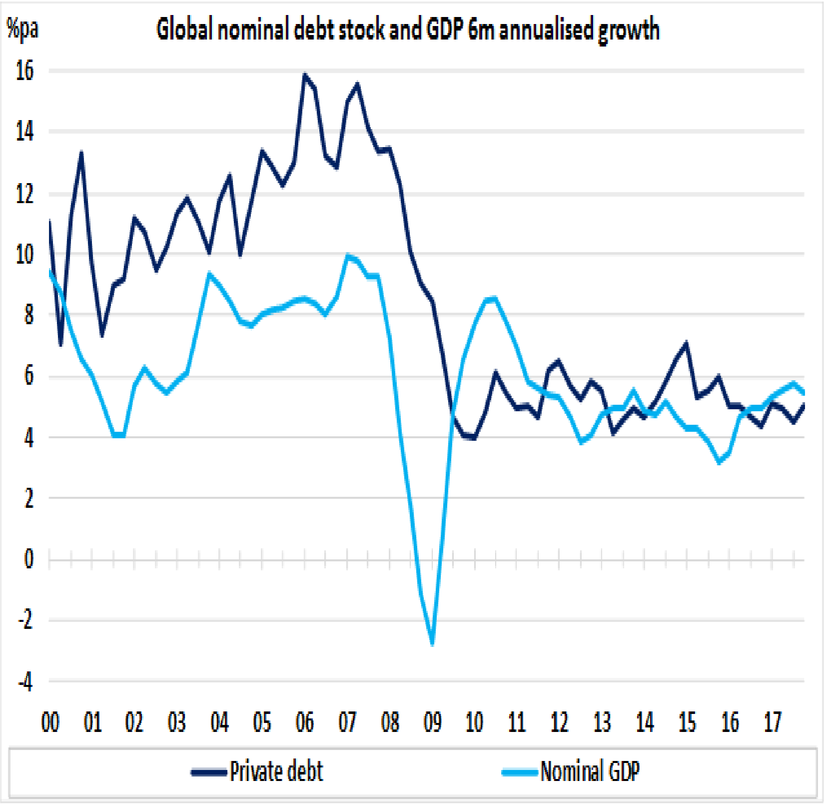
Observe the nominal framework

- Global debt is growing at a moderate pace, underpinning nominal GDP growth
- Weakening broad money growth reflects greater corporate use of capital markets
- Government bond yields adapt to the nominal framework of the domestic and international economy
- The widest gap since 1979, suggests that bond yields have some catching up to do
- This would tend to steepen yield curves and stress credit spreads (as investors switch to ‘safety’)

The nominal framework: debt growth unabated

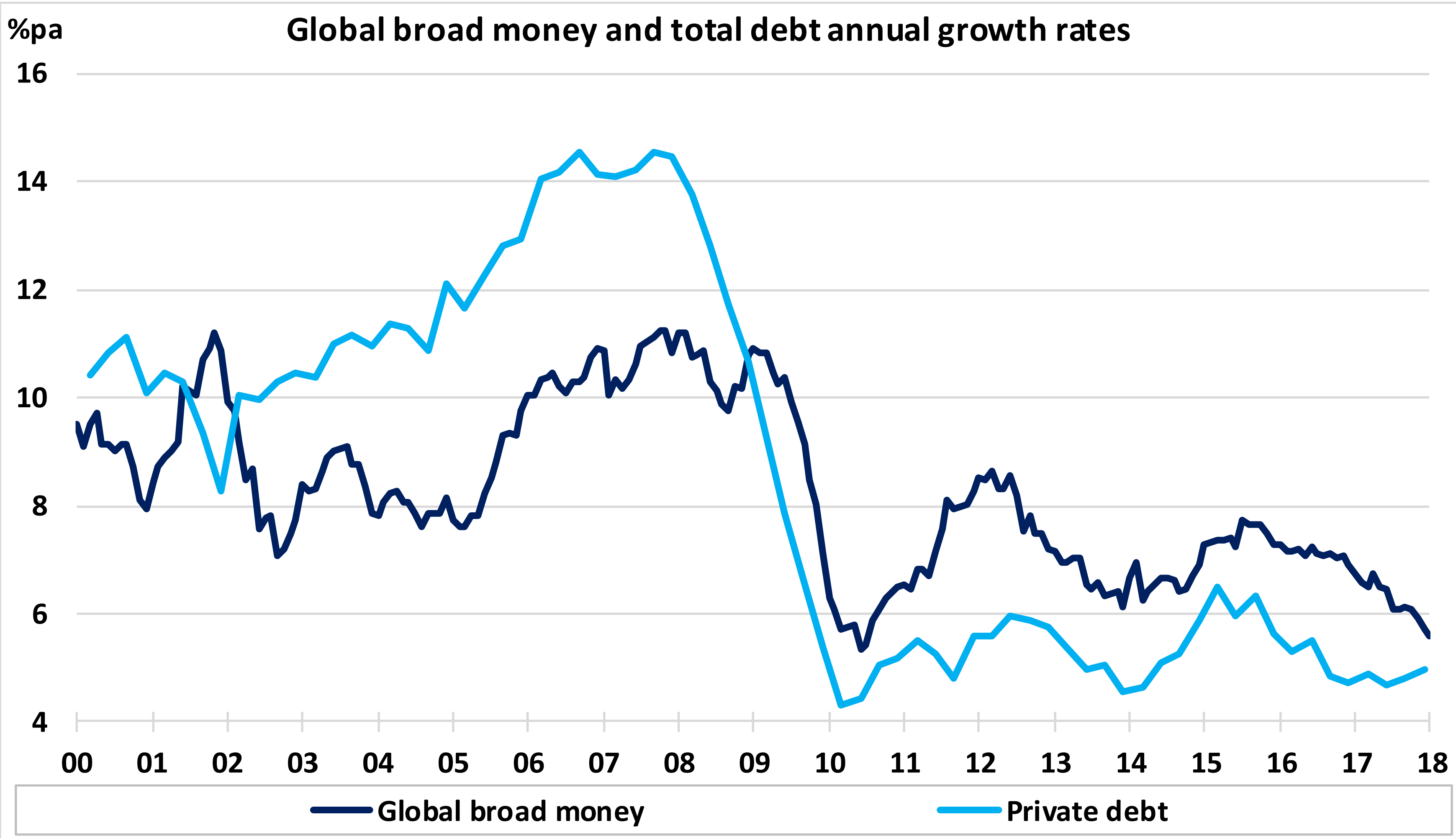
- Delays in normalising interest rates will be costly





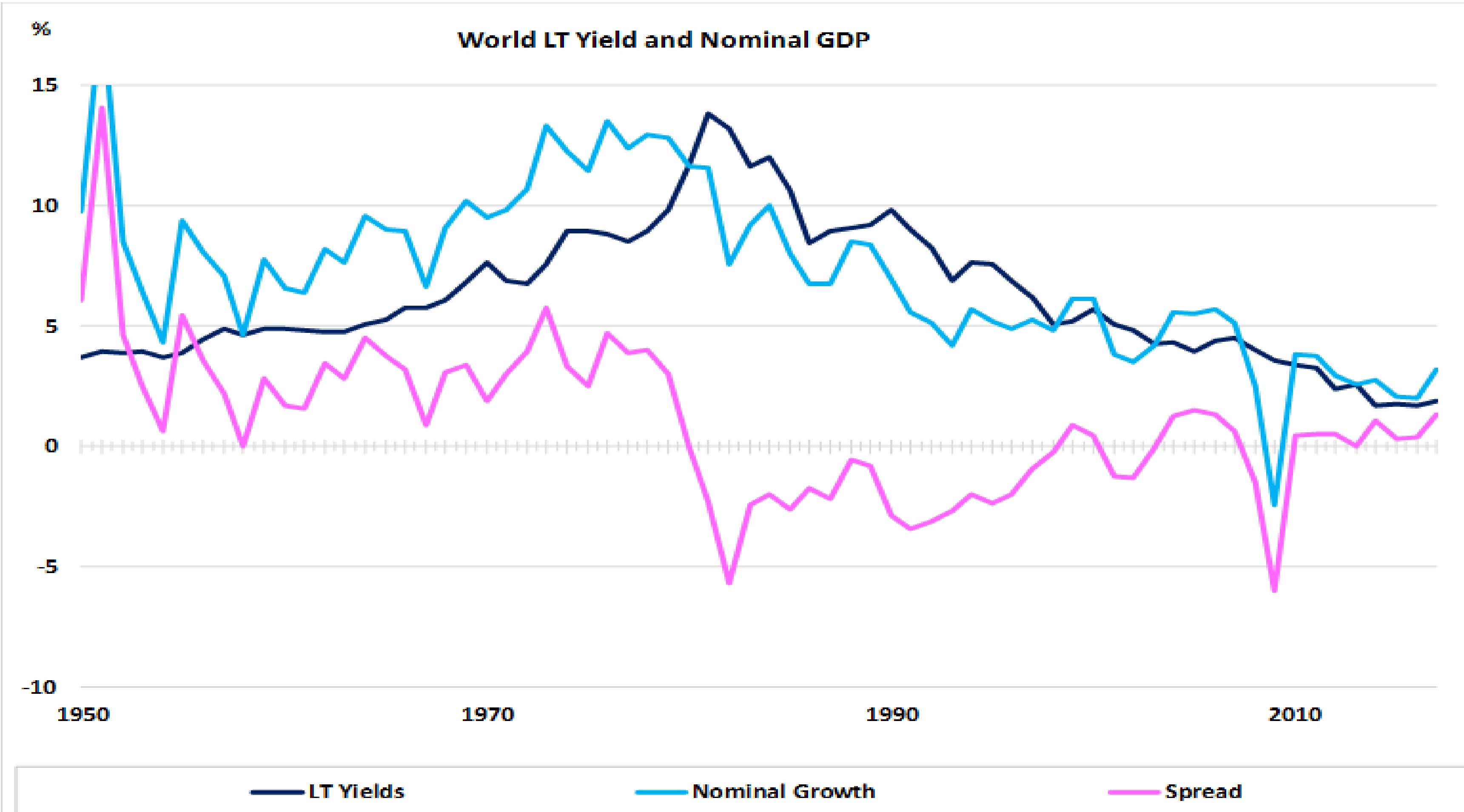
Debt and money growth have sustained a steady pace

- Private debt growth is picking up again



Benchmark bond yields adapt to nominal GDP growth

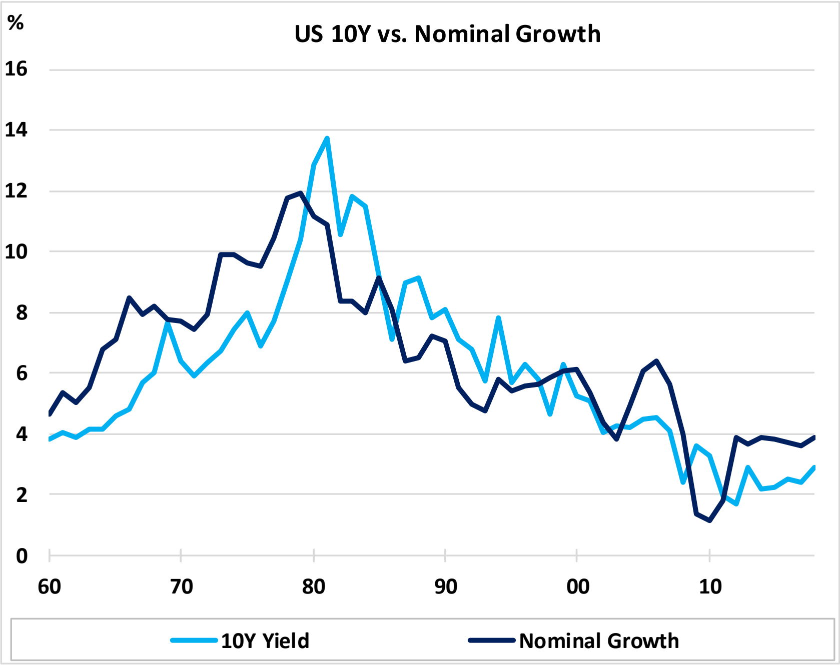
- Widest spread since 1979

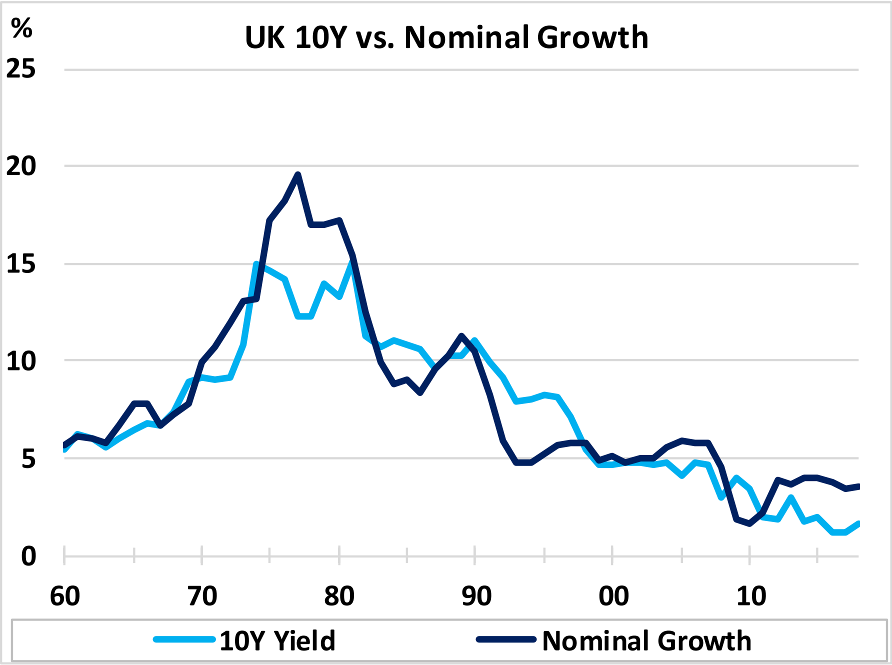


Economic Perspectives

Government bond yields and nominal GDP growth: US, UK

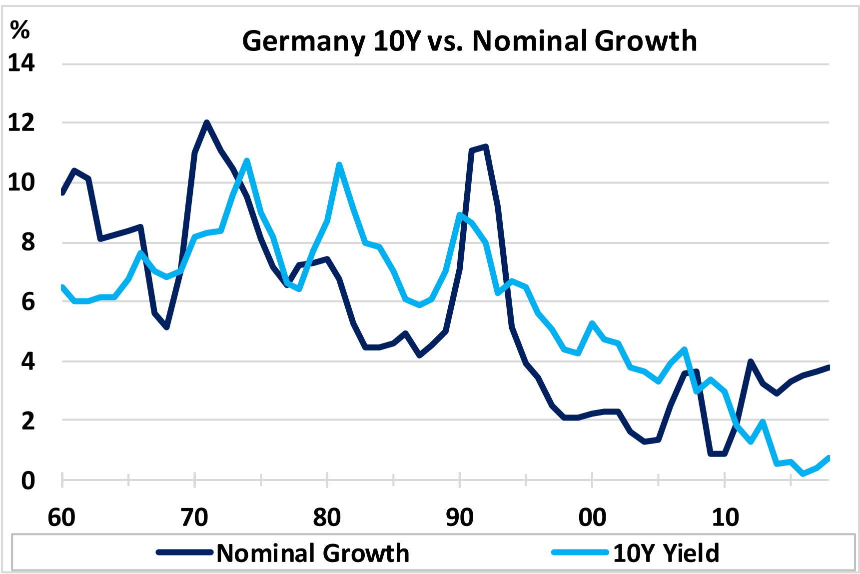
- How confident that yields have adjusted?

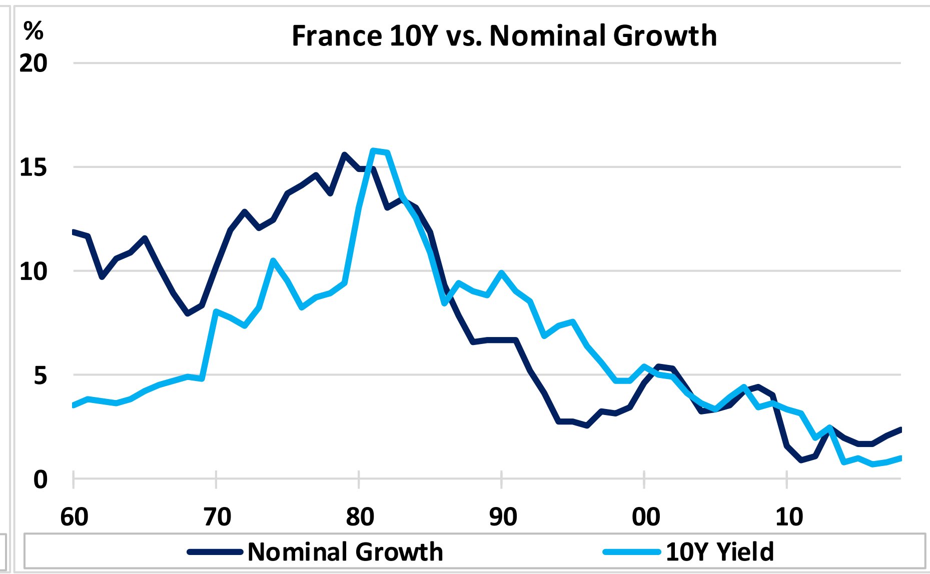




Bond yields and nominal GDP growth: Germany & France

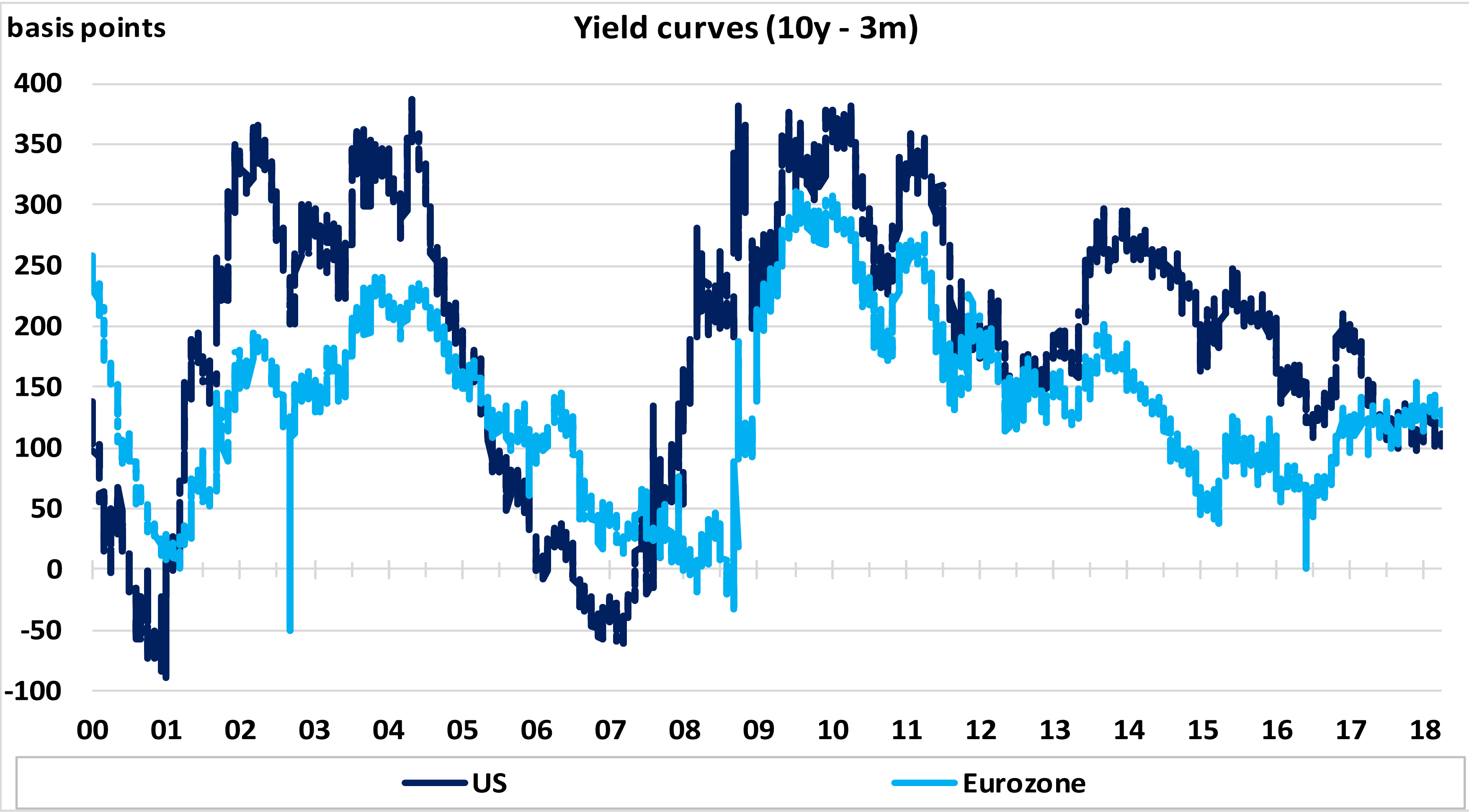
- Waiting for the end of QE





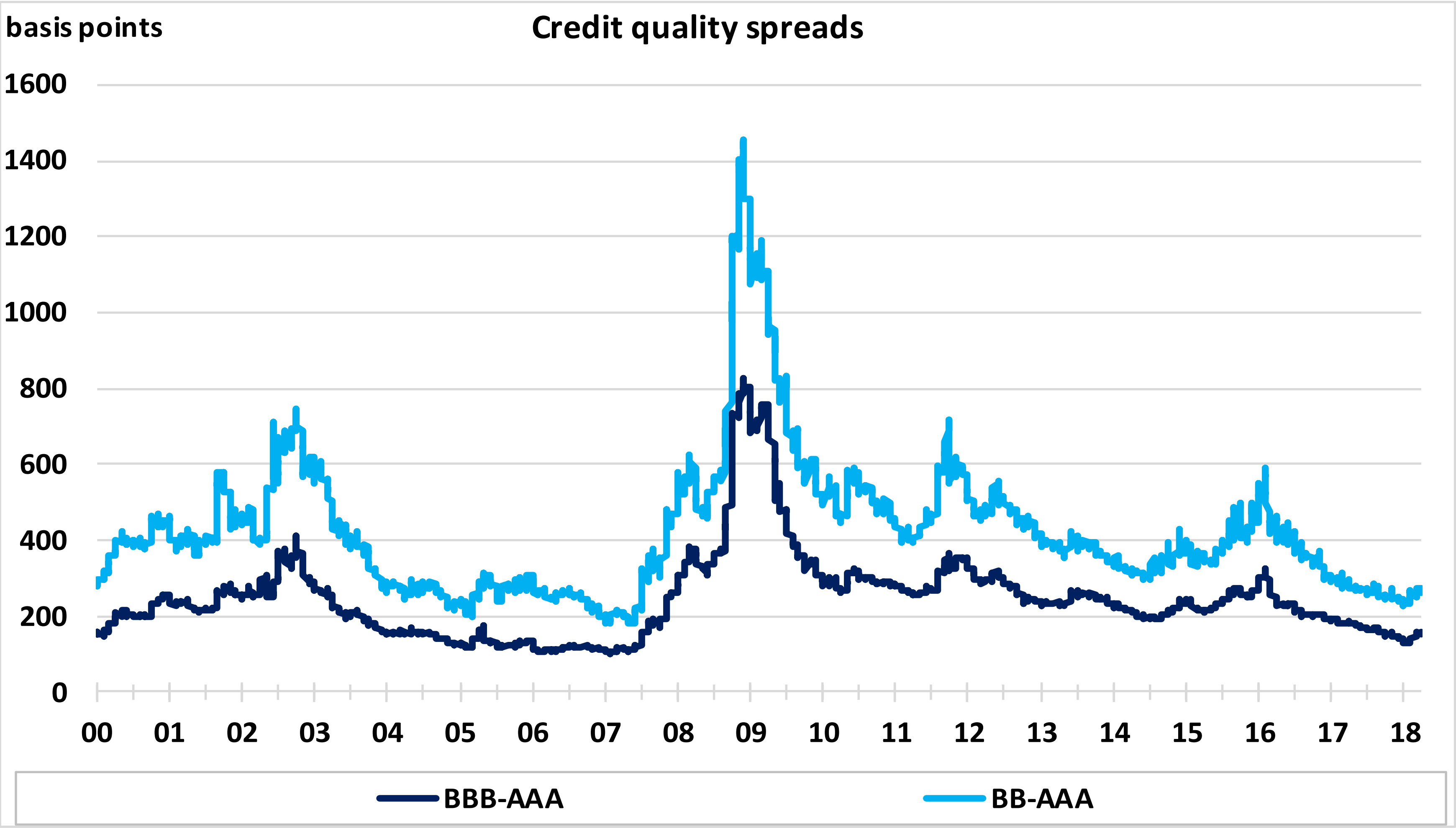
Market consensus believes 10y yields are capped!

- EZ to flatten, US to steepen?



Credit spreads will feel the pinch from QT

- The inklings of an end to spread tightening

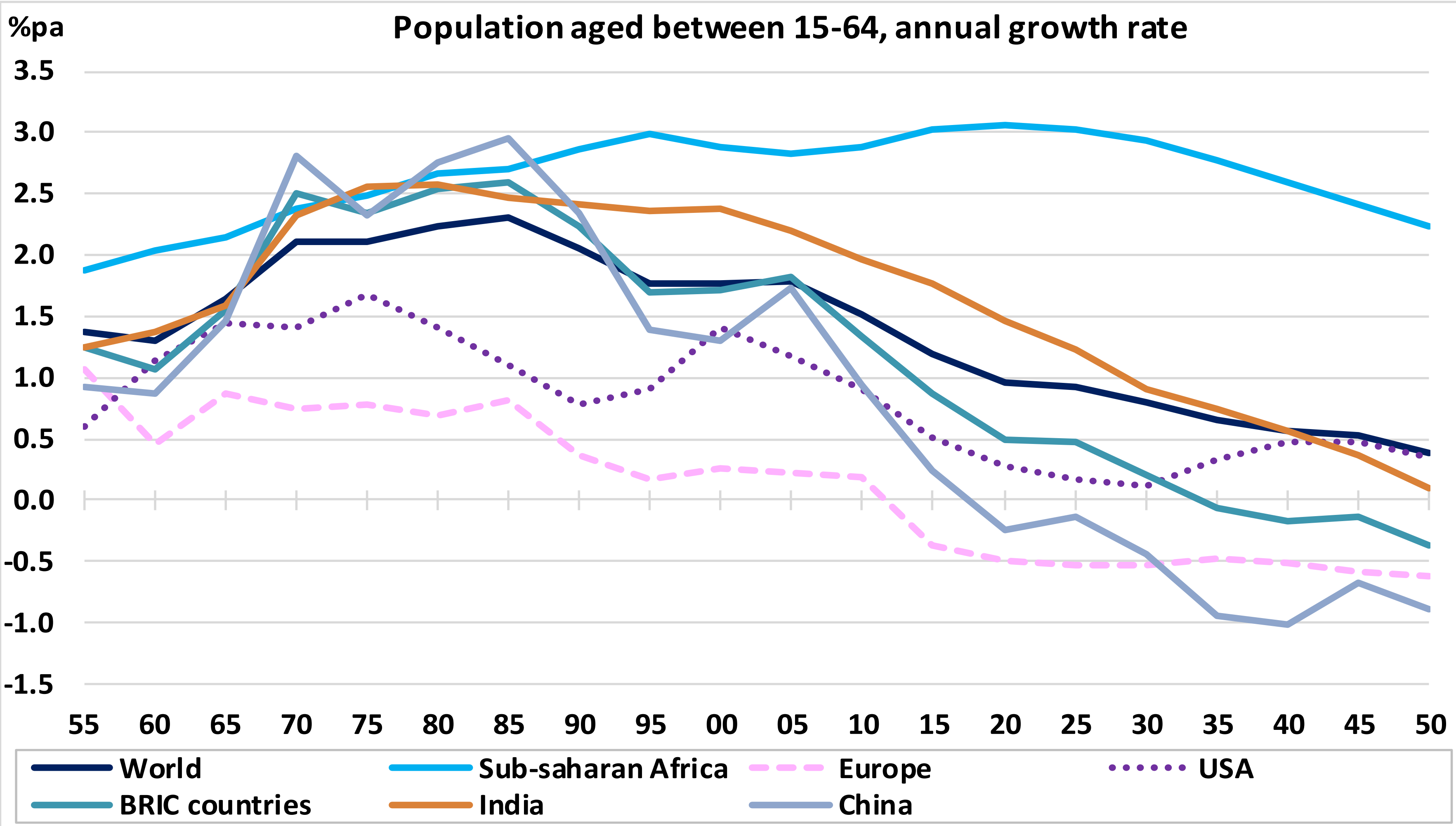


Supply-side constraints are at work

- We're running out of working-age adults!
- The robots *are* coming – but not fast enough
- The GFC has prompted a significant lengthening of asset lives of capital goods
- DMs have lost interest in maintaining the "dull and boring" economic infrastructure – and have no idea how to finance it
- Capex drought in energy and natural resources bodes ill for supply capabilities
- Increasing market dominance restricts supply

Supply-side obstacles: slowing working-age population

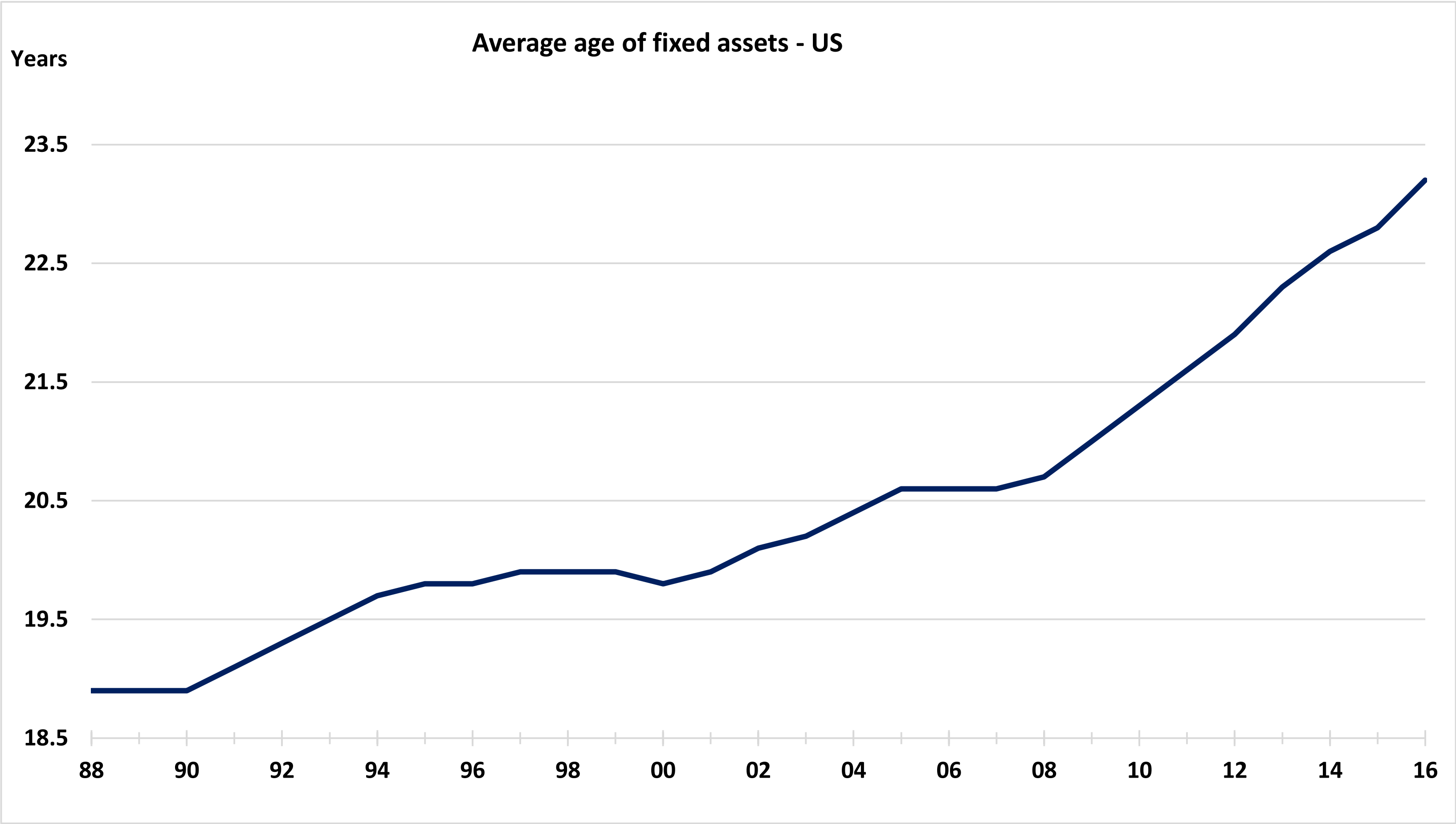
- Bring on those robots!



Economic Perspectives

Supply-side obstacles: physical capital is aging

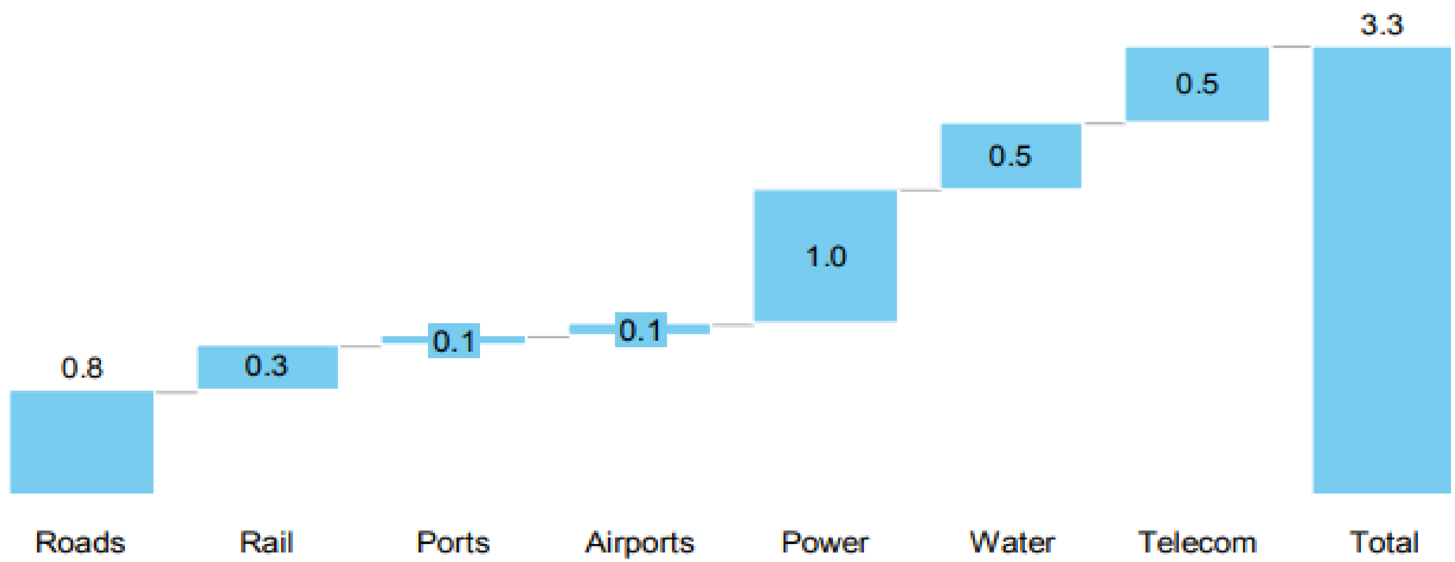
- US experience is replicated in Europe and Japan



Supply-side obstacles: failing to renew infrastructure

The world needs to invest $3.3 trillion in economic infrastructure annually through 2030 to keep pace with projected growth

Average annual need, 2016–30
$ trillion, constant 2015 dollars

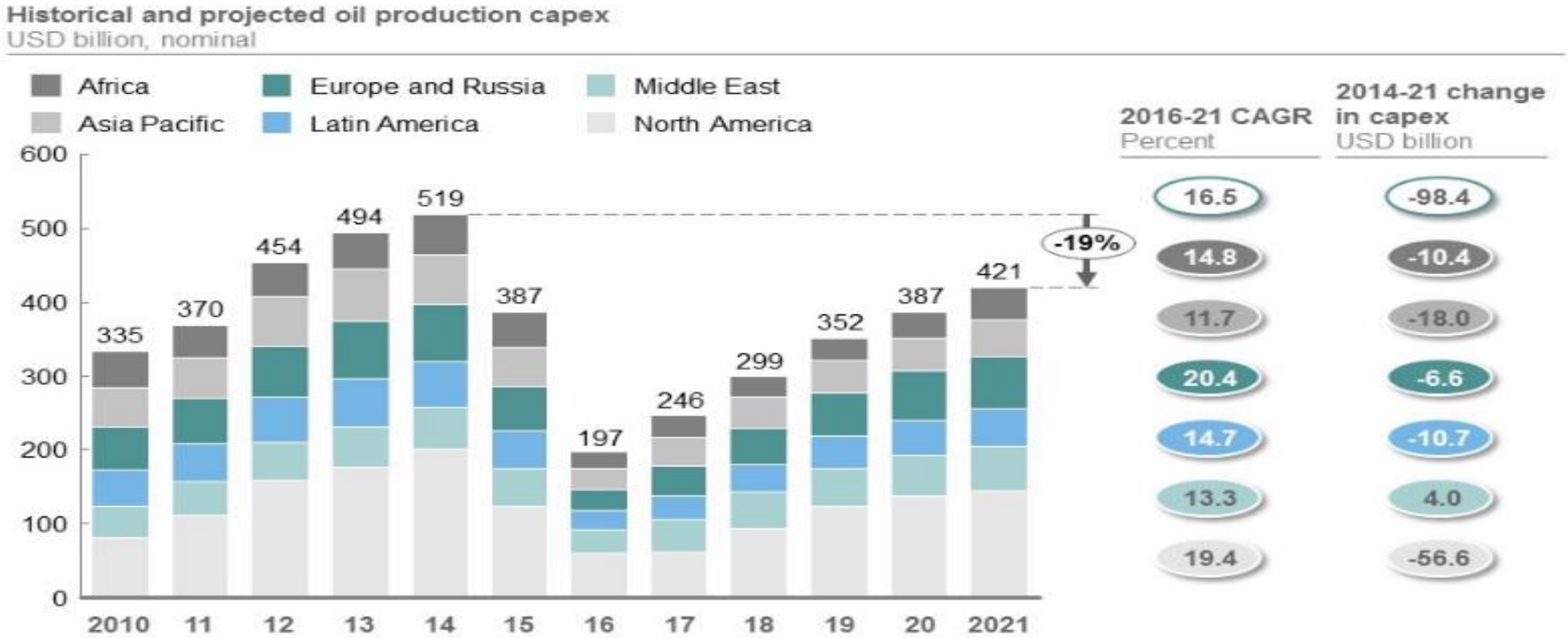


	Roads	Rail	Ports	Airports	Power	Water	Telecom	Total
Annual spending % of GDP	0.9	0.4	0.1	0.1	1.1	0.6	0.6	3.8
Aggregate spending, 2016–30 $ trillion	11.4	5.1	0.9	1.3	14.7	7.5	8.3	49.1[1]

Supply-side obstacles: still reeling from oil price plunge

- Global energy investment has plunged

Oil production capex[1] is projected to grow by 16% through 2021 driven by rebound in the Americas, but stay depressed compared to 2014



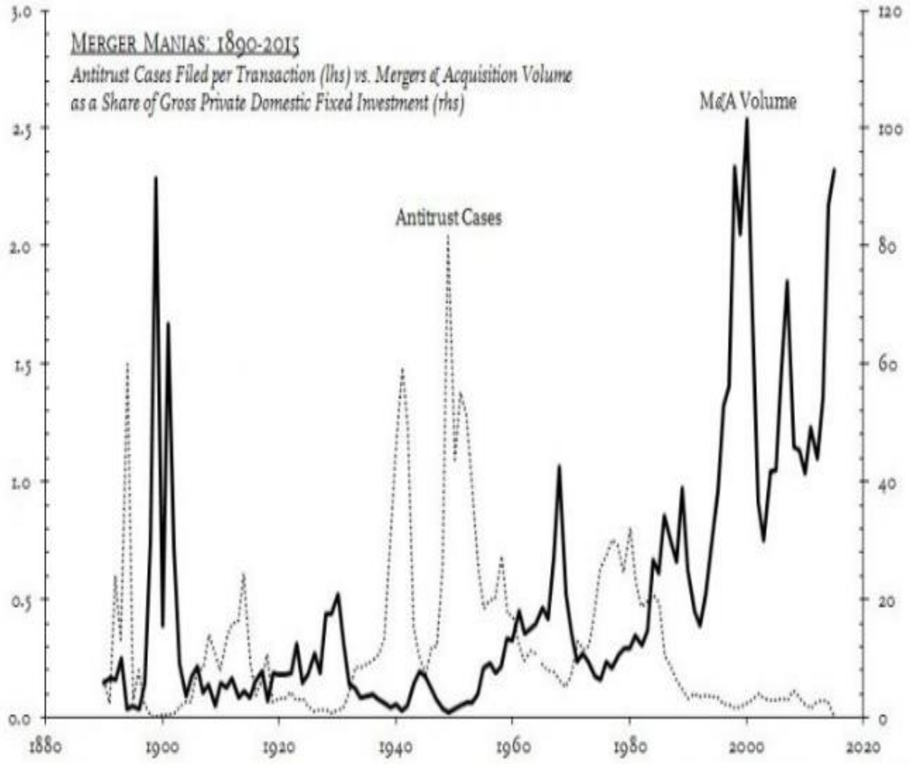
1 Includes capital spending in oil development and production, both greenfield and brownfield, excludes exploration spending

SOURCE: McKinsey Energy Insight's Global Liquids and North American supply models, Rystad Energy

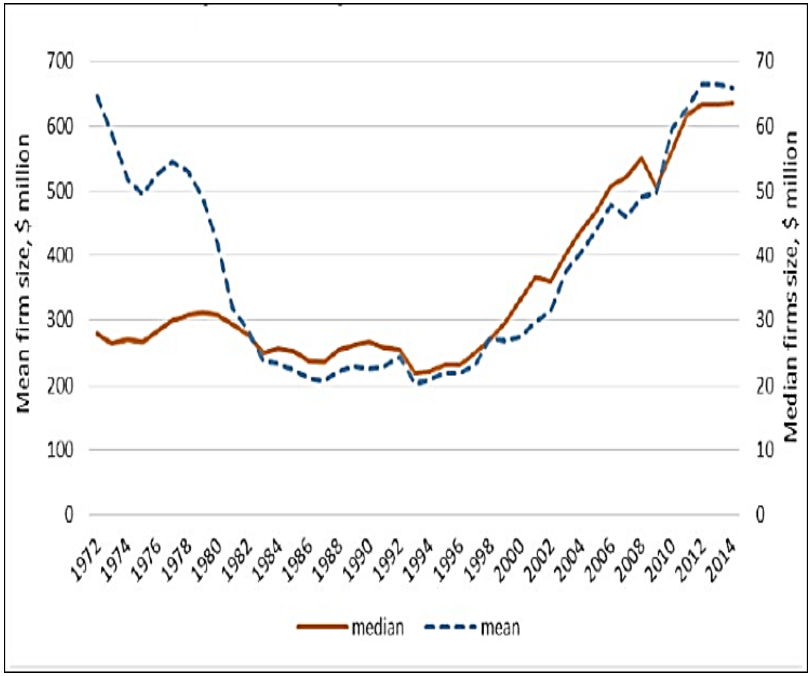
Energy Insights

Supply-side obstacles: rising industrial concentration

- *The number of US listed firms has dropped by more than half, from 7,322 in 1996 to roughly 3,200. Grullon et al. (2017) study the increase in concentration in the US across most industries over the past two decades, which has had a positive implication to firm performance in terms of profitability, innovation and returns to investors (RoA, market reaction to M&A announcements or abnormal stock returns).*



Average and median size of US publicly-listed firms

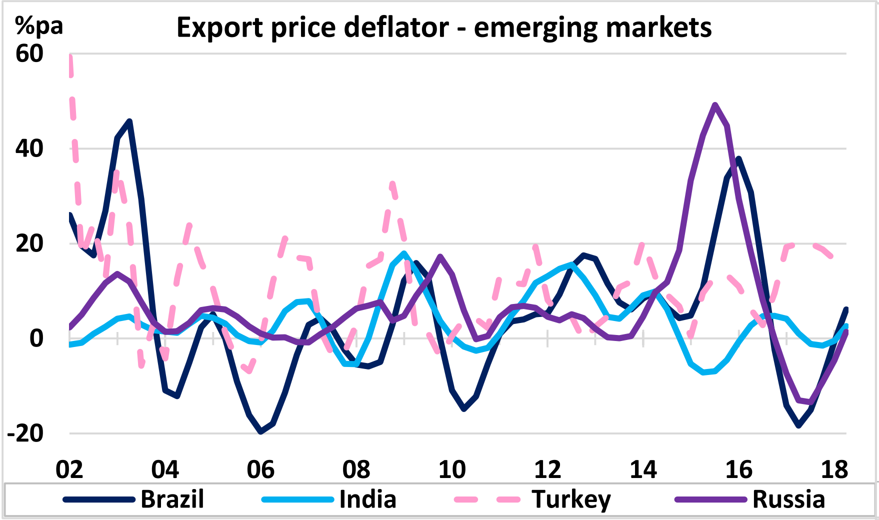


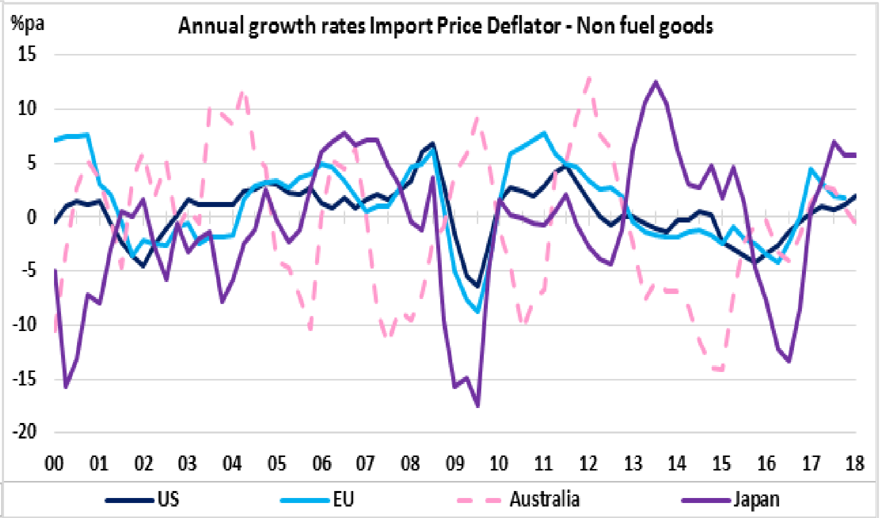
The multifaceted inflationary process

- Global supply chains are laden with higher EM inflation: showing up as increasing import price inflation in DM
- DM labour market overheating is materialising as faster wage inflation – at last
- Increasing pressures for fiscal relaxation
- Industrial commodity prices reacting to stronger nominal demand and supply bottlenecks
- Food and energy are inflation wild cards

Supply chain inflation pressures

- EM inflation transmitted to DM via export prices





Significant headwinds, but some wage acceleration

		Employment level	Av weekly hours	Total hours	Nominal wages	Real wages	Vacancy ratio*	Skills shortages*
USA	growth							
	acceleration							
UK	growth							
	acceleration							
Germany	growth							
	acceleration							
China	growth		x	x			x	
	acceleration		x	x				
Japan	growth		x				x	
	acceleration		x					
Eurozone	growth			x				
	acceleration			x				

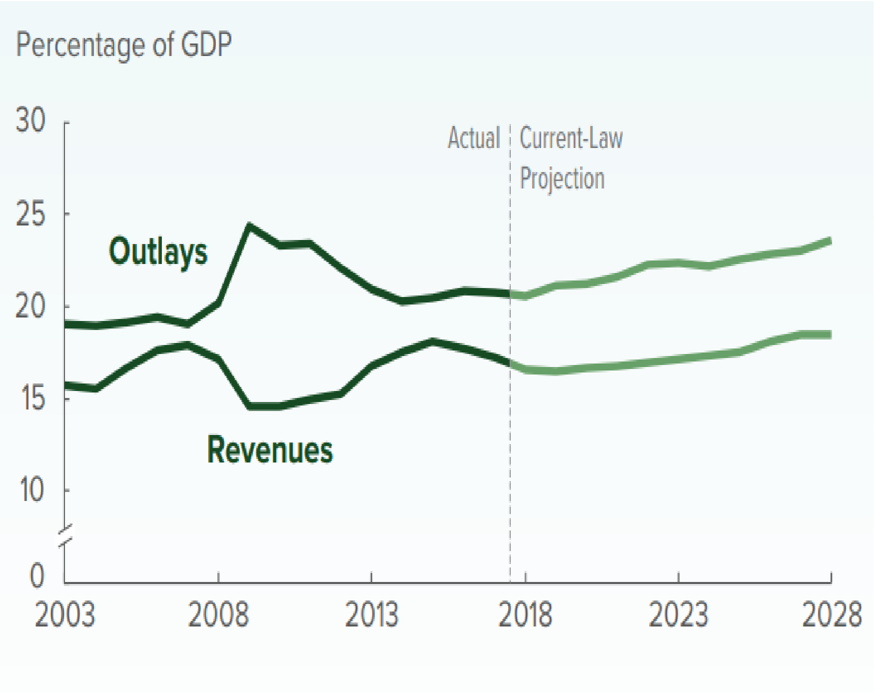
Above average				Below average				
							x	*
≤ 5%	5% ≤ 10%	10% ≤ 15%	70%	10% ≤ 15%	5% ≤ 10%	≤ 5%	no data	ratios

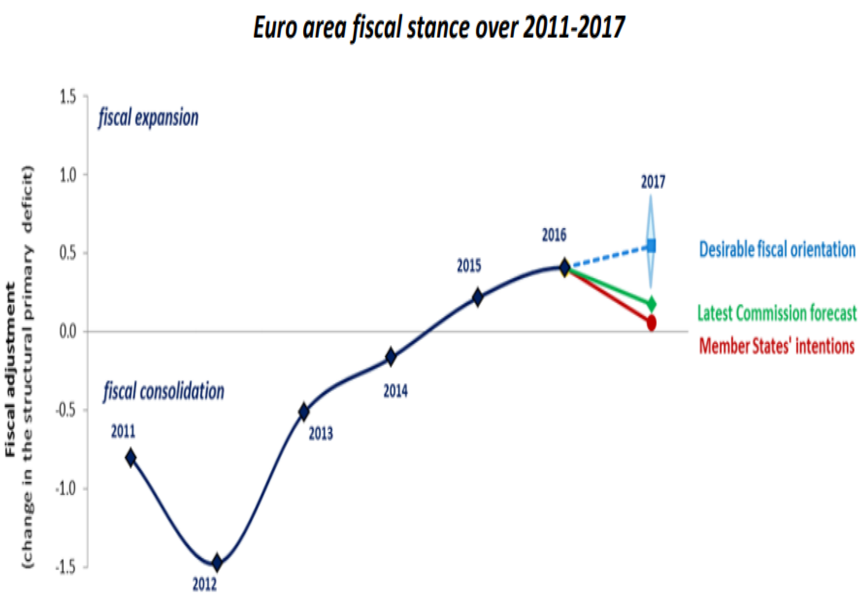
NB Heatmap uses the most recently available data point

US fiscal relaxation despite a structural deficit

- Increasing pressure for EZ fiscal relaxation

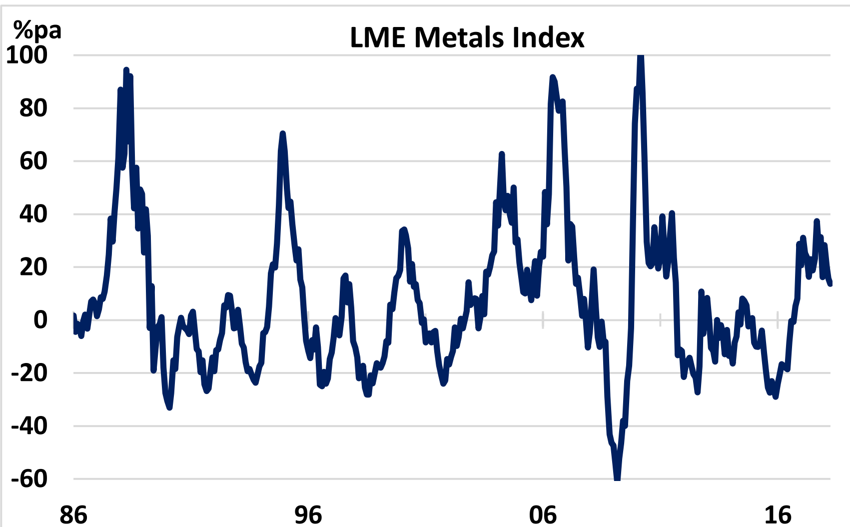
USA

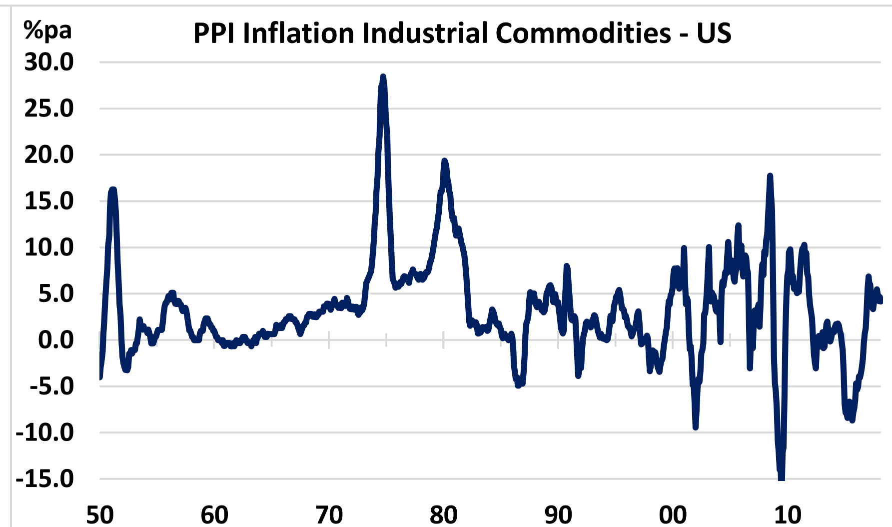




Industrial commodities – prices can also rise

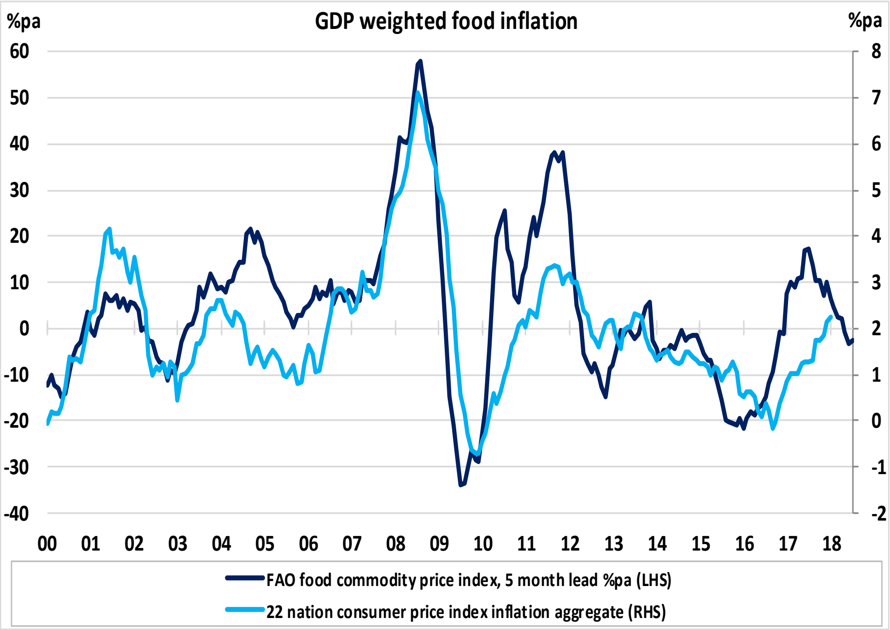
- Still sceptical about China slowing

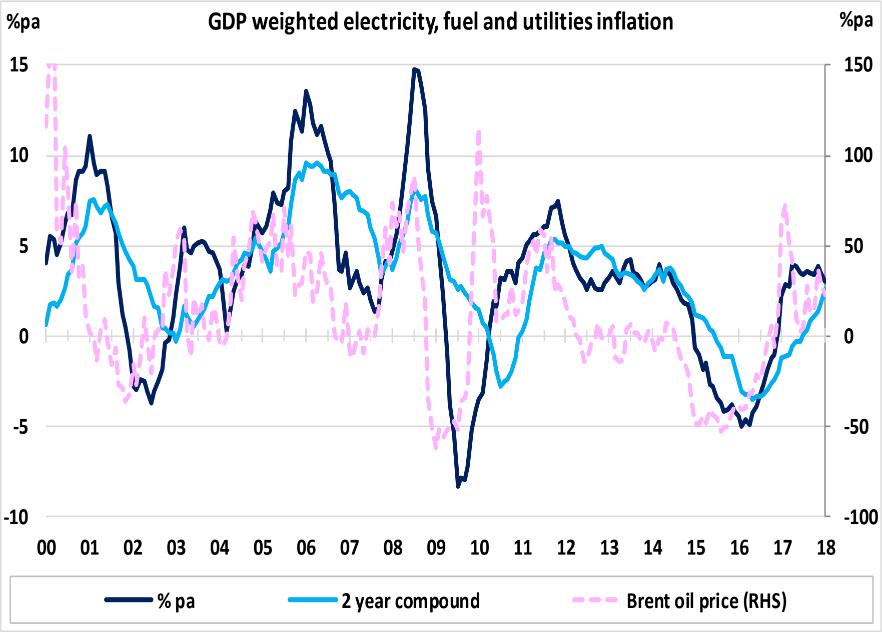




Food and energy inflation is a wild card

- Not the main event, but a disruptive influence





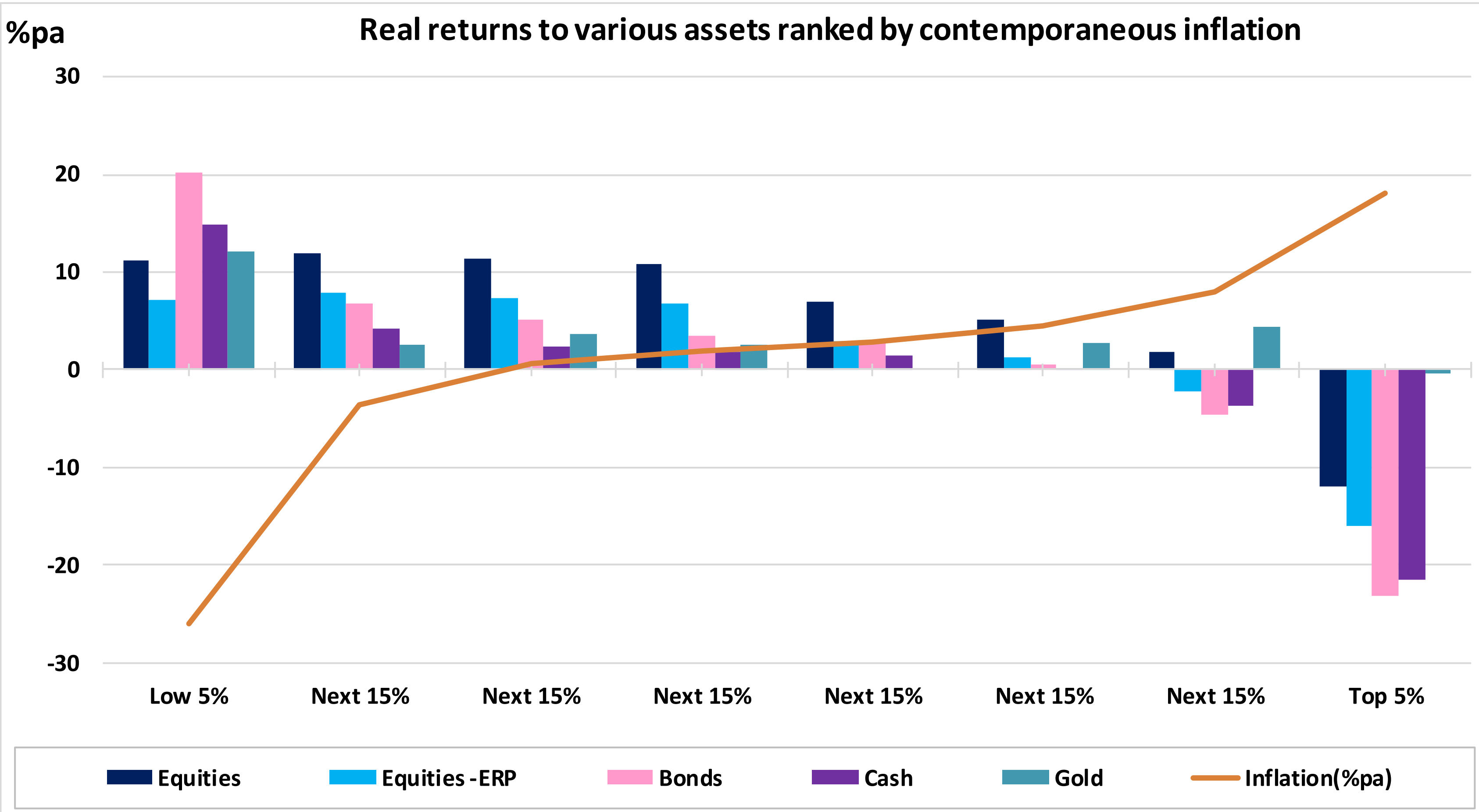
Economic Perspectives

Who cares about a Little Inflation?

- If it is (largely) unanticipated, then everyone should care
- Central banks have fostered false notions of precision in policy-making
- Inflation doesn't have a favourite number!
- Models gravitate to 2 per cent, but real life can wander
- Inflation is Kryptonite to fixed income investments
- Equities may suffer a cliff-edge correction if core inflation exceeds 3 per cent

Bonds have the strongest (inverse) inflation correlation

- Even a Little Inflation will wreak carnage

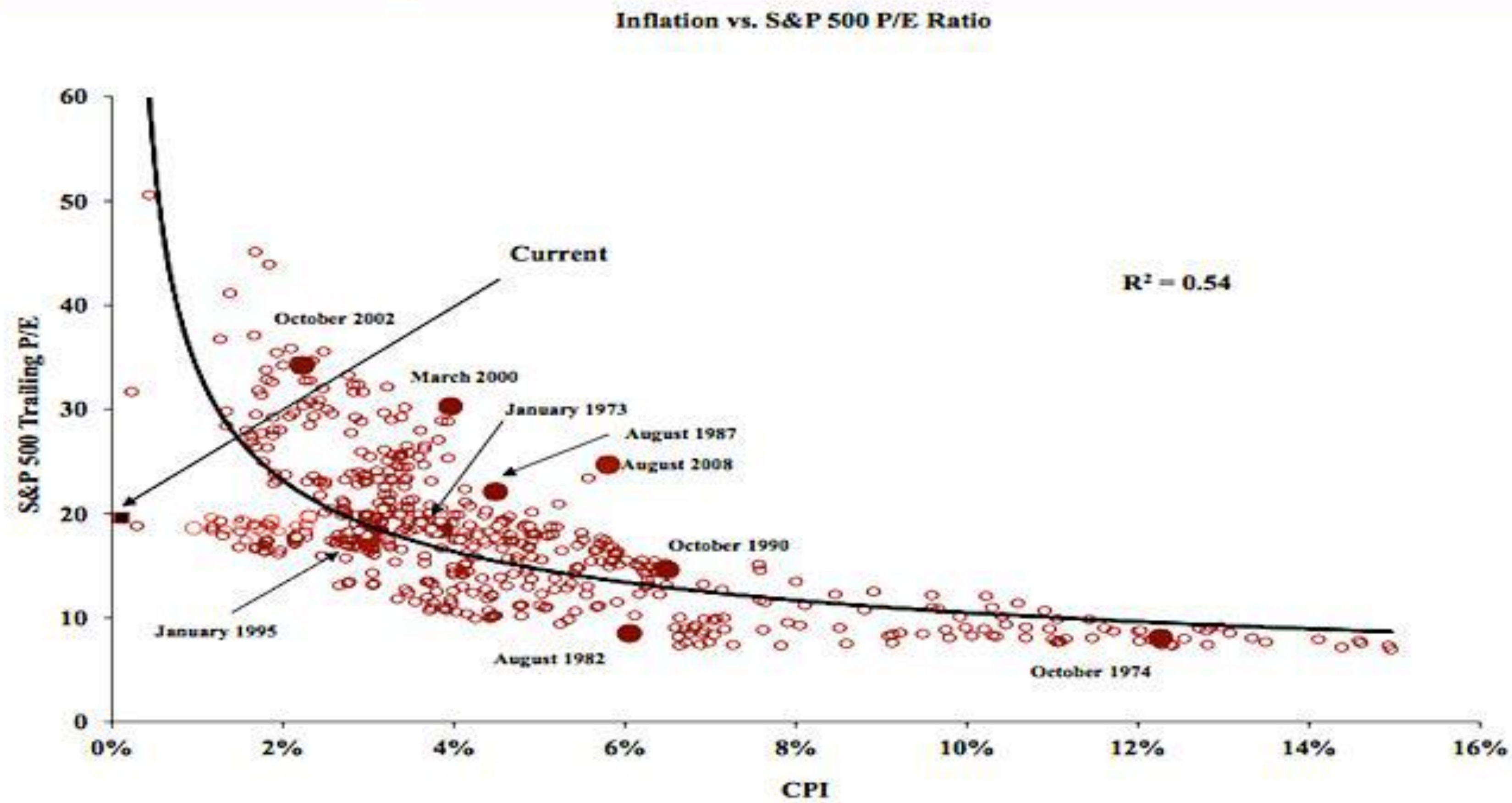


Source: Credit Suisse Global Investment Returns Yearbook, 2013

Inflation and P/E: a negative non-linear relationship

- The sting is in the tail

Inflation vs. P/E Model (1965 to Present)

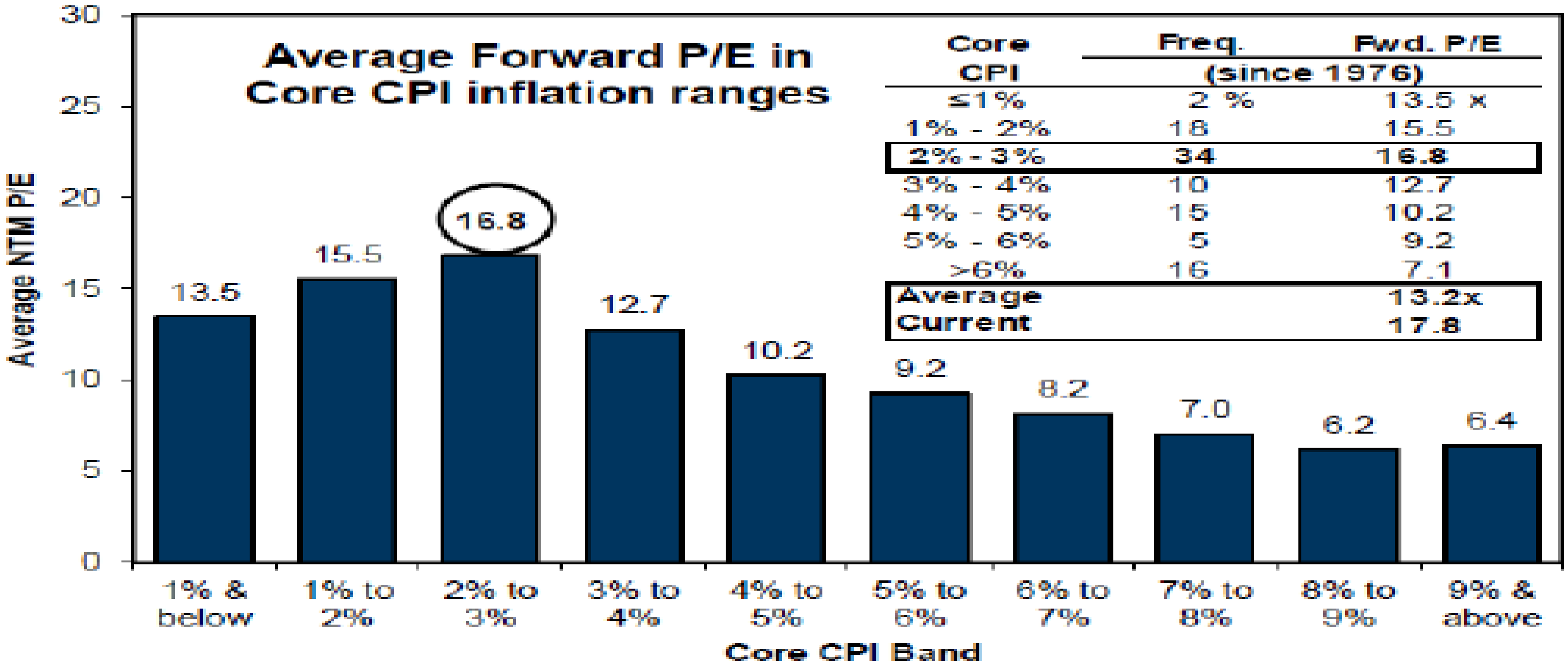


Source: BofA Merrill Lynch US Quantitative Strategy

Forward-looking P/E versus US core CPI inflation

- Mind the gap, above 3% core!

Exhibit 16: Average forward P/E given level of inflation
as of April 18, 2017



Core CPI	Freq. (since 1976)	Fwd. P/E
≤1%	2 %	13.5 x
1% - 2%	18	15.5
2% - 3%	34	16.8
3% - 4%	10	12.7
4% - 5%	15	10.2
5% - 6%	5	9.2
>6%	16	7.1
Average		13.2x
Current		17.8

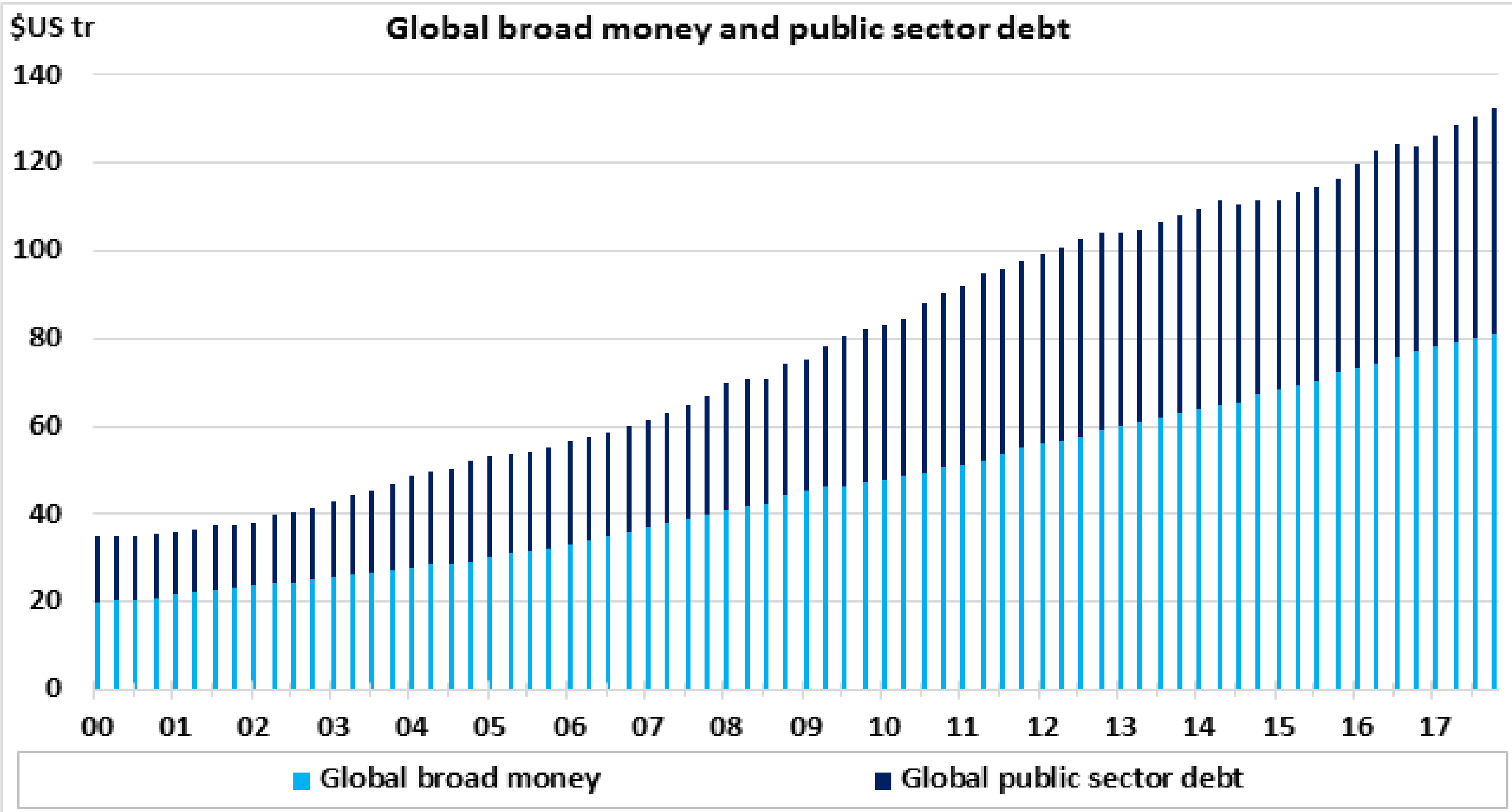
Source: Computstat, BLS, Goldman Sachs Global Investment Research

From the Little Inflation to the Large Inflation

The Inflationists

From the Little Inflation to the Large Inflation

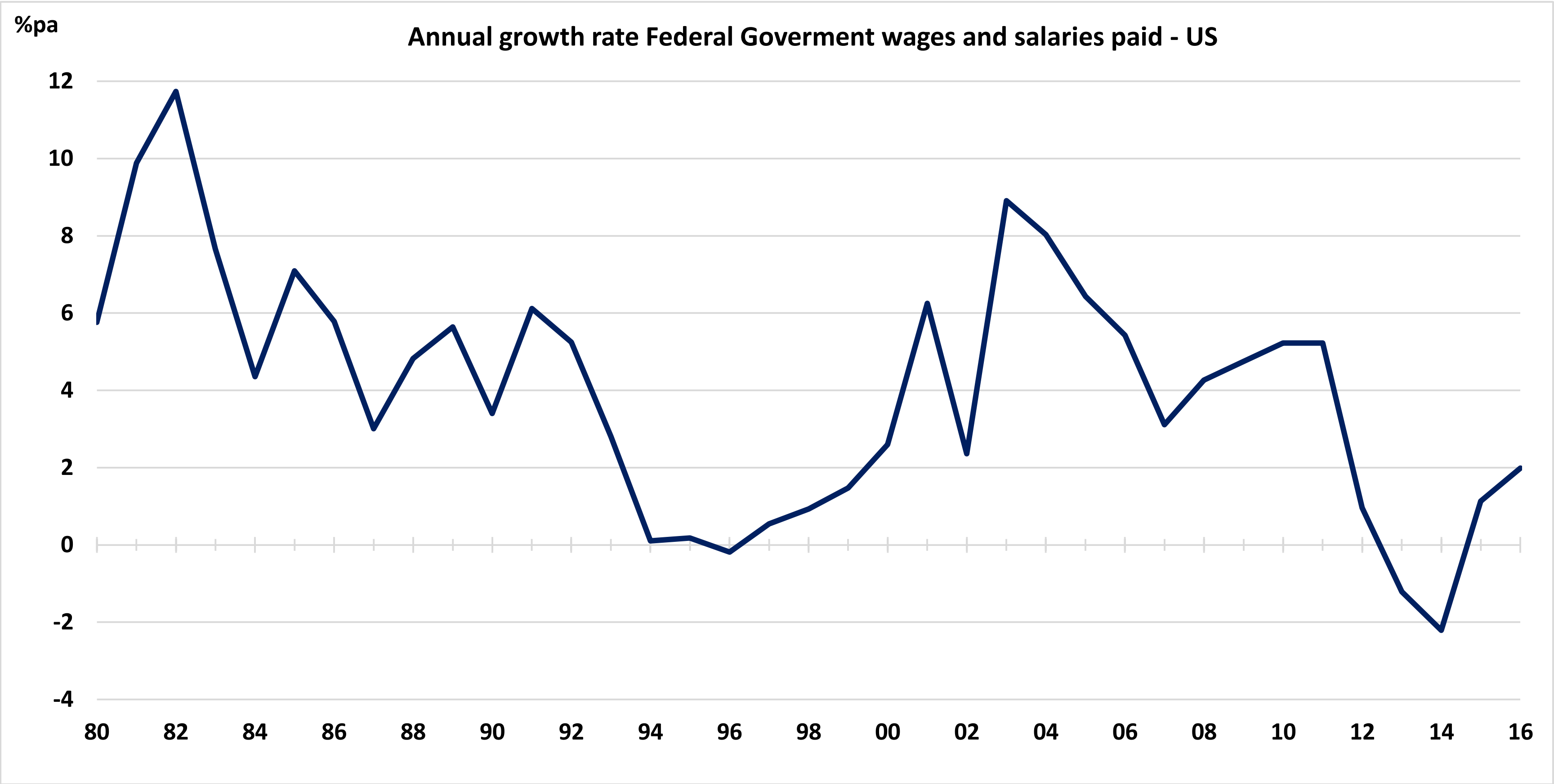
- The risk of public debt monetisation



Data sources: CEIC, CIA, Thomson Reuters Datastream and national sources

From the Little Inflation to the Large Inflation

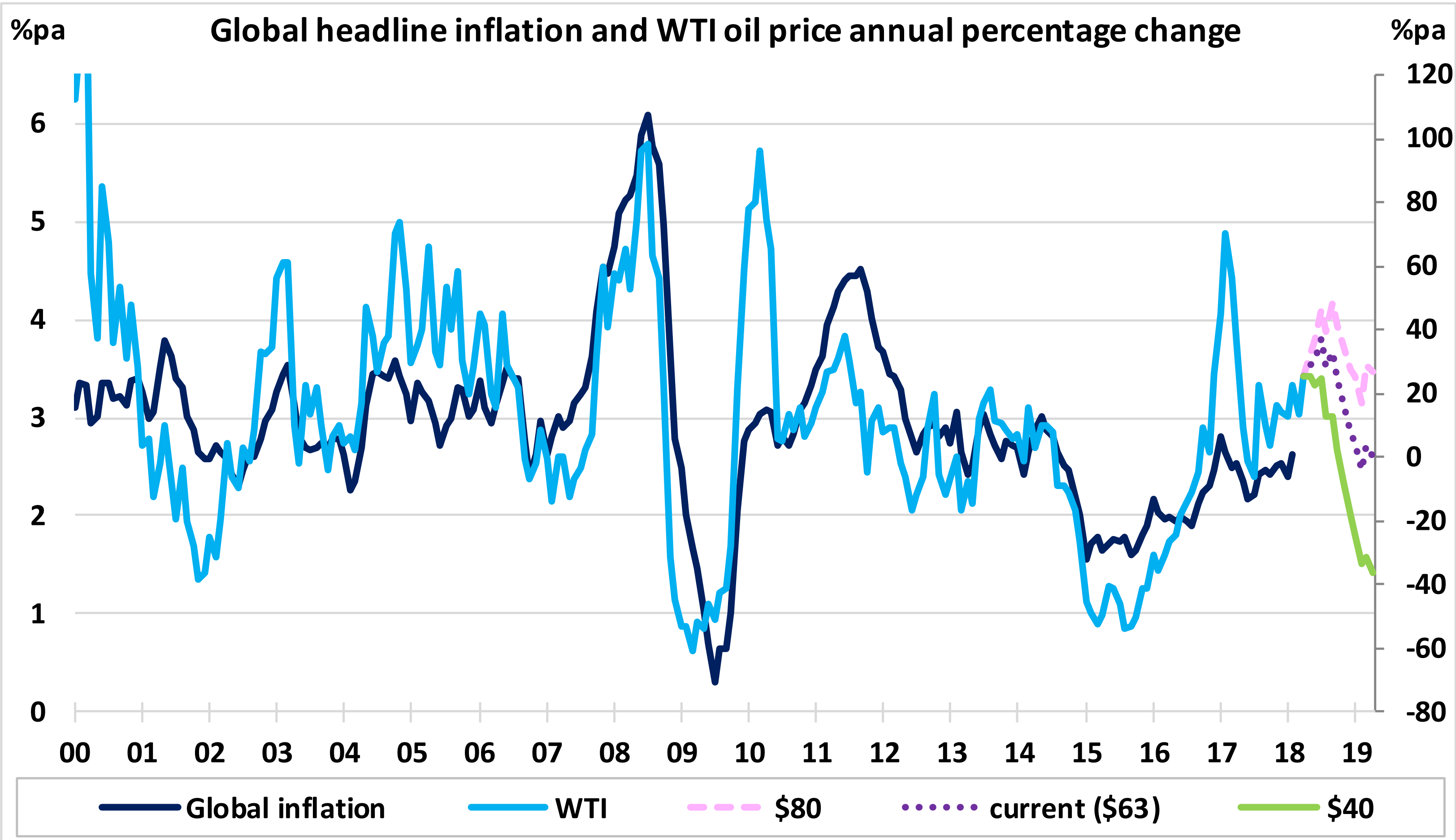
- The risk of public sector-led pay acceleration



Economic Perspectives

From the Little Inflation to the Large Inflation

- The risk of another oil price blowout



Key messages

- We expect global inflation to keep rising over the next 12 months, but not by a huge amount
- It's a multifaceted inflation process, combining EM-to-DM supply chain pressures, tightening labour market pressures, fiscal relaxation and industrial commodity price inflation
- Supply constraints are also at work
- Nominal interest rates need to catch up to a faster nominal growth pace
- It's still a **Little Inflation** but it can take a **Big Bite** out of investment performance

Become a Research Partner with Economic Perspectives

At Economic Perspectives, we appreciate that our Research Partners have diverse appetites for thematic insights and research ideas, and differing capacities to engage with our research output. Engagement implies interaction, and we value every opportunity to understand the questions and conundrums that our Research Partners are grappling with. These interactions help to shape our research agenda and hence the content of our publications.

The table below shows the different levels of partnership on offer, from Platinum to Gold to Silver. We also have Bespoke Partners, for whom we undertake specific and exclusive research projects or writing assignments. We aim to offer a unique and flexible service dedicated to meet your standards and requirements.

	Research Partnership Selections		
	Platinum	**Gold**	**Silver**
Publications			
Our full publication library includes:			
Global Credit Perspective	✓	✓	
Global Inflation Perspective	✓	✓	
Global Credit Update	✓	✓	
Global Inflation Update	✓	✓	
UK Economic Perspective	✓	✓	
North America Economic Perspective	✓	✓	
Eurozone Economic Perspective	✓	✓	
Research Digest	✓	✓	✓
Global Inflation Heatmaps	✓	✓	
GDP Heatmaps	✓	✓	
Research publication archive access	✓	✓	
Onsite meetings or conference calls	7 per year	3 per year	
Research Insight presentations	2 per year	1 per year	1 per year
Private lunches with Dr Peter Warburton	✓	✓	
Response to ad-hoc requests	✓		
Seminar invitations	✓	✓	✓
Bespoke Partnership Services	Available upon request		

Economic Perspectives – Partnership selections

Platinum Partner

Platinum partners are entitled to frequent onsite meetings or dedicated conference calls, all publications, research archive access, Research Insight presentations, seminar invitations and private lunches with our chief economist Dr Peter Warburton. Platinum partners are welcome to submit ad hoc requests and to suggest items for our research agenda.

Gold Partner

The gold partnership includes three onsite meetings or dedicated conference calls per year, with full access to our publications and our research archive. Gold partners are entitled to an additional Research Insight presentation each year, invitations to seminars and private lunches with Peter Warburton.

Silver Partner

Silver partnership is intended as a minimum level of engagement with our research agenda, but with the flexibility to add on some of the other elements of the service. The table shows the basic level of engagement but silver partners are encouraged to tailor the package to meet their requirements.

This more flexible arrangement will be provided with an agreed upfront cost with the option to upgrade to gold or platinum partner at a first-year discounted rate.

Bespoke Partner

Economic Perspectives has carried out numerous bespoke assignments for our research partners over the years, covering a wide spectrum of global macro topics and projects. We've tackled assignments on the US auto finance sector, the China over-investment thesis, the macro outlook for Canada and the impact of negative interest rates on European financial institutions.

We also write regular articles and essays on global macro and investment themes for the exclusive use of our Research Partners. If you would like to see a sample report, please get in touch.

Become a Research Partner with **Economic Perspectives** today.

Economic Perspectives

Dr Peter Warburton

Peter@EconomicPerspectives.co.uk
+44 1582 696999
www.EconomicPerspectives.co.uk