

# *Accelerating Agile*

Empowerment • Performance • Reward

February 2020

# More, with less

## Why secular pressures on workers are not going away

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Prepared for Matthew King

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures

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A secular slowdown in growth

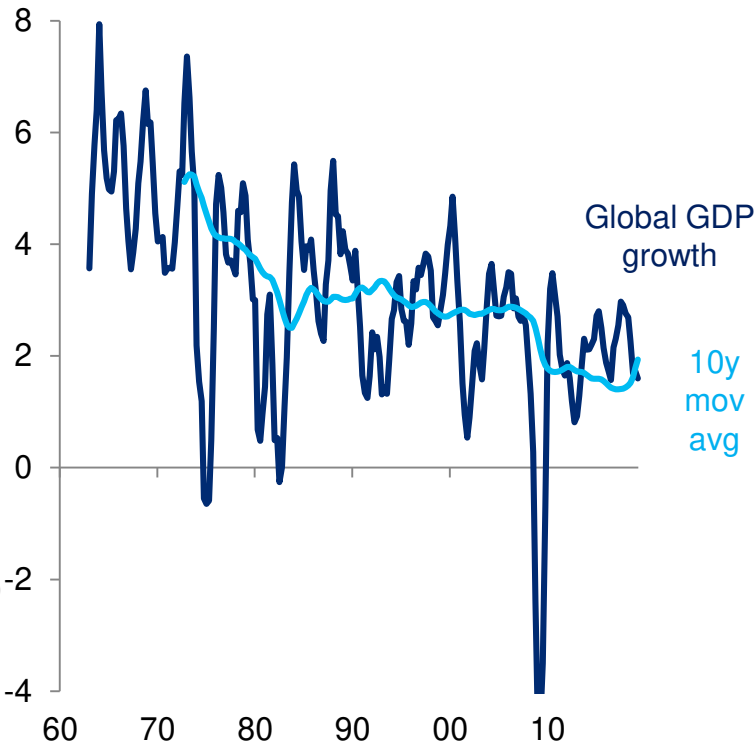
A secular decline in investment

A secular rise in inequality

# Slower growth: inevitable, but not necessarily a disaster

## Slower growth: a policy failure?

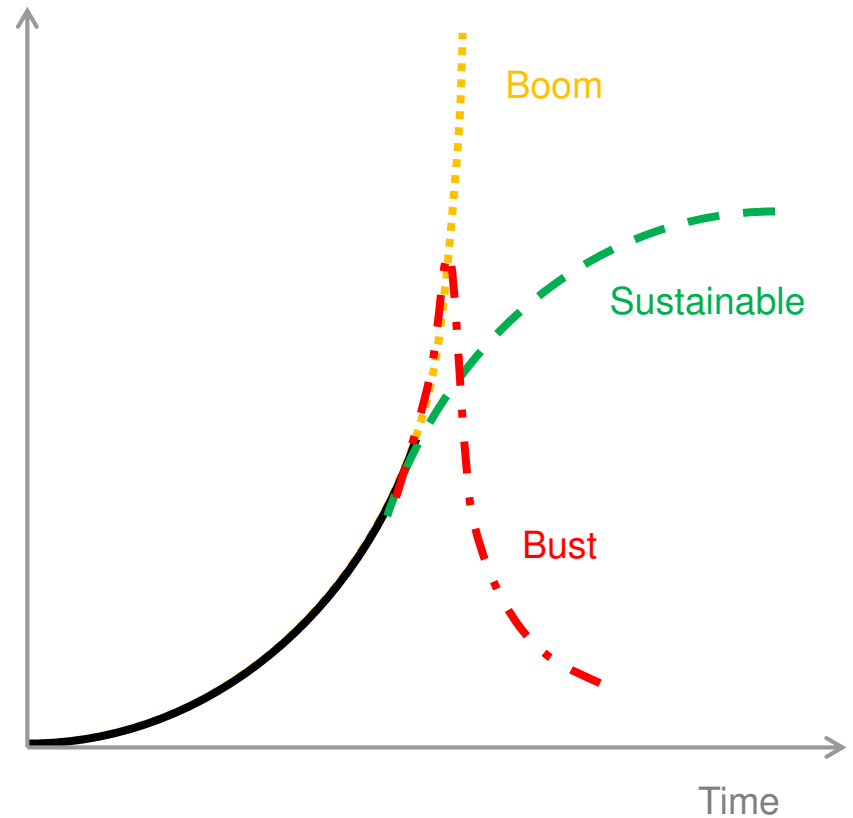
World real GDP growth, %



Source: OECD.

## Or a transition to a more sustainable future?

Think not just of growth but also of debt



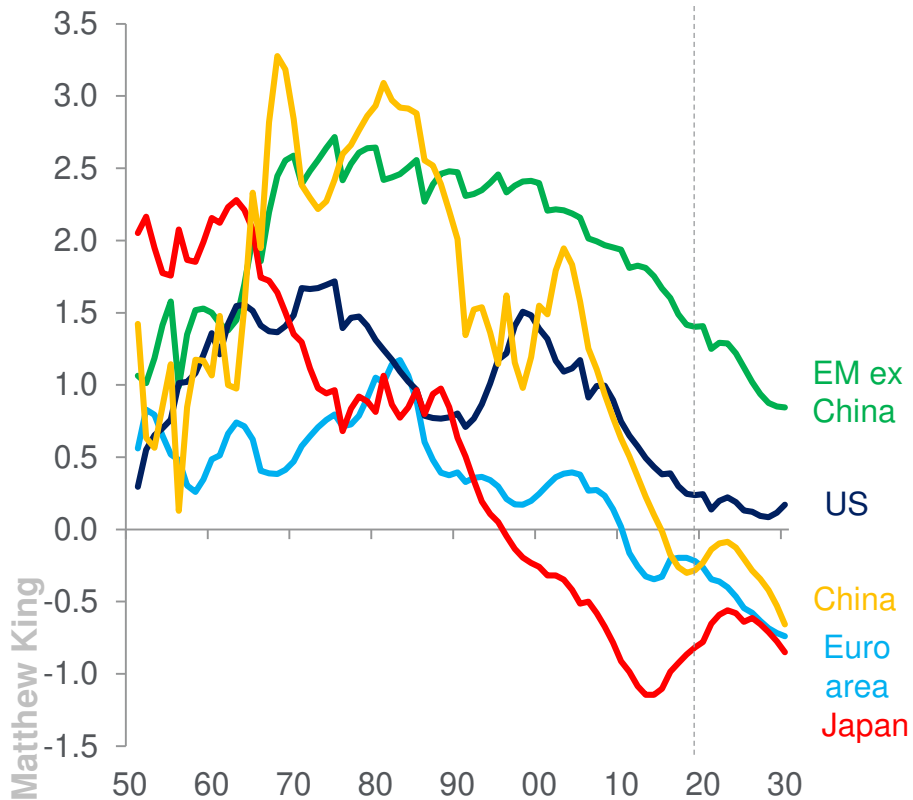
Source: Citi Research. See [Unsustainable investing](#), M. King, Sep19.

Best case = benign Japanification and deleveraging  
Risk = boom + bust

# 1. Demographics

## Following Japan in both number...

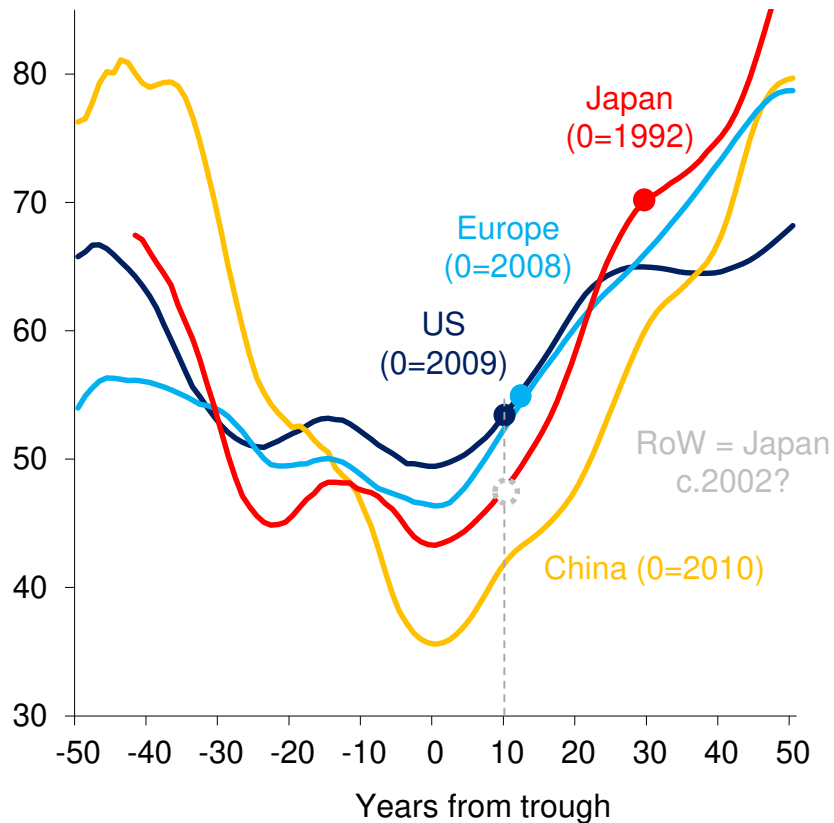
Annual growth in working age population, %



Source: UN.

## ...and proportion of elderly

Dependency ratios per 100 population relative to trough

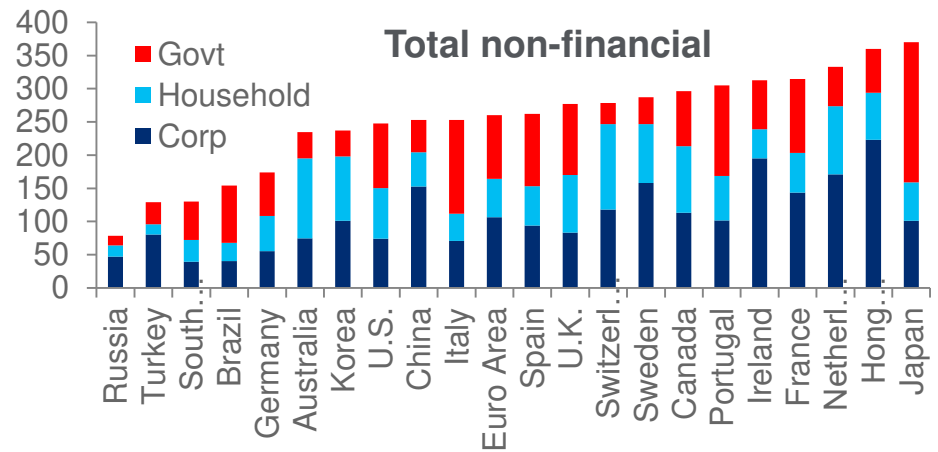
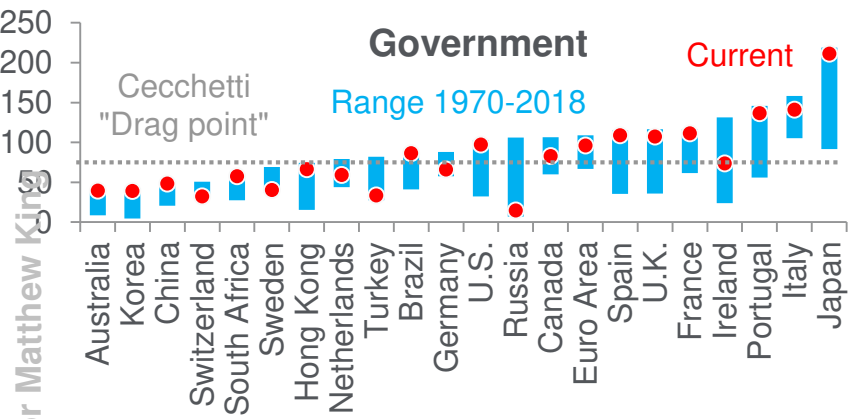
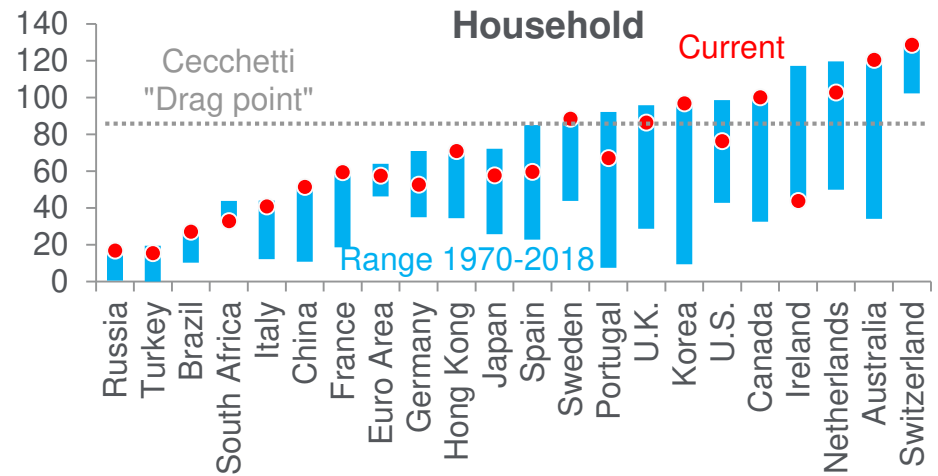
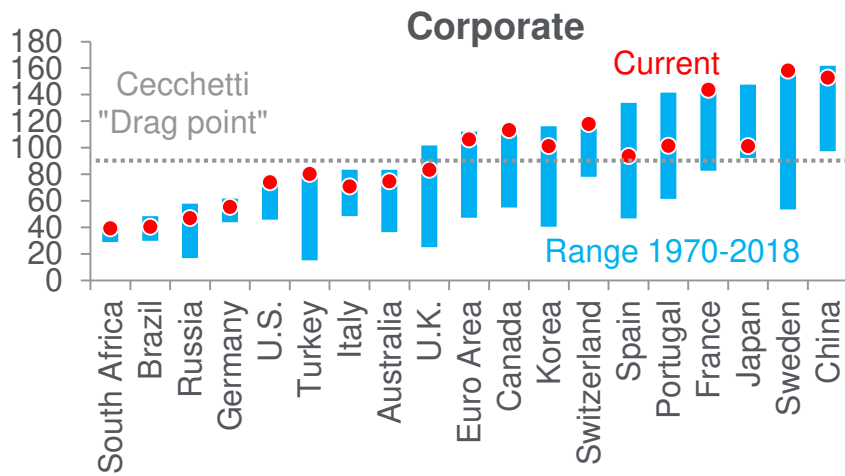


Source: UN, Citi Research.

Smaller, greyer populations consume less

# 2. Debt

Debt/GDP is well above thresholds historically associated with slowdowns



Prepared for Matthew King

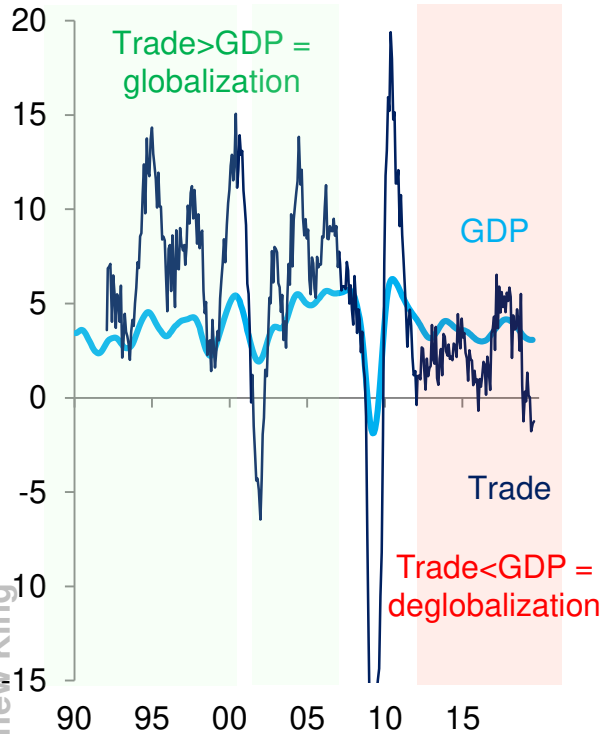
Source: BIS. For more on the Cecchetti "drag point", see ["The real effects of debt"](#), BIS (2011). For a rebuttal, see ["Debt and Growth: Is There a Magic Threshold?"](#), and a counter-rebuttal, ["The real effects of household debt in the short and long run"](#). For net debt figures see also [How much debt is too much debt?](#), M. King, Oct 2010.

Record debt levels are constraining behaviour

# 3. Deglobalization

## Bye-bye, globalization

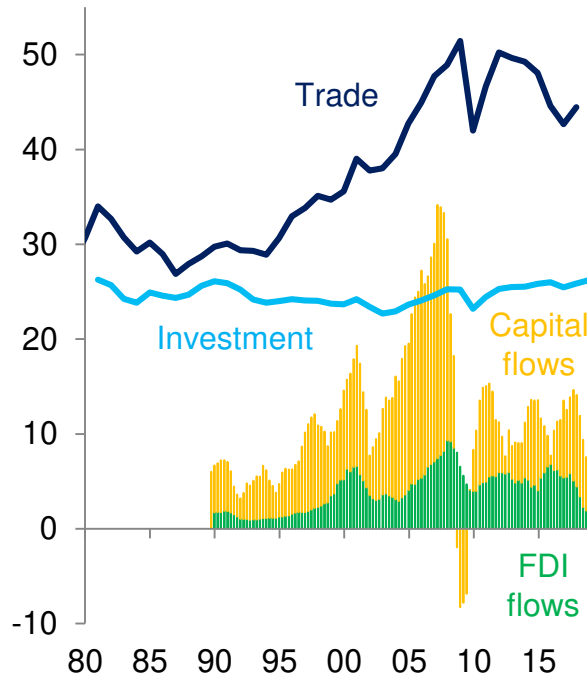
Global trade and GDP growth, % yoy



Source: IMF, World Bank. See also [For better or worse, has globalization peaked?](#), Citi GPS Aug19.

## Value chains maxxed out

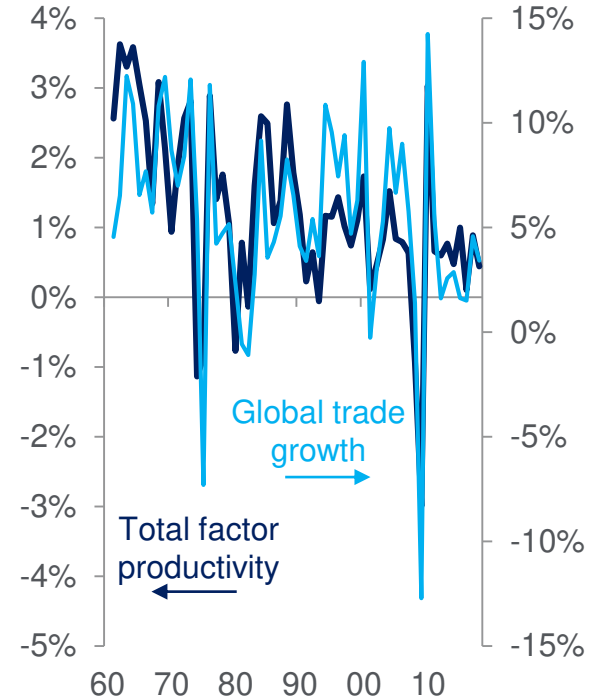
Share of global GDP, %



Source: IMF, Citi Research. See also [Global Prospects: Policy Insurance Double-Down](#), Apr19.

## Means productivity suffers

Annual global trade growth vs avg US / EU15 / Japan TFP



Source: European Commission, World Bank, CPB, IMF, Citi Research.

Uses simple arithmetic average. Data prior to 1980 are US+Europe only.

Even without Trump, trade growth had probably peaked

A secular slowdown in growth

A secular decline in investment

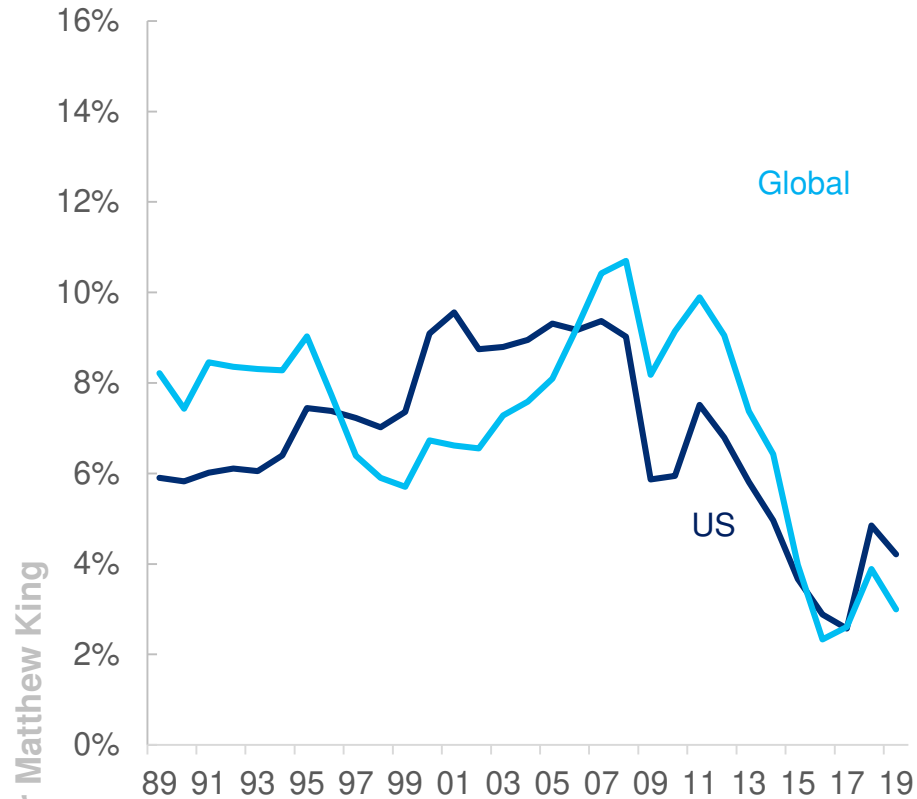
A secular rise in inequality



# Slower GDP growth is reflected in corporate revenues

## Slower sales

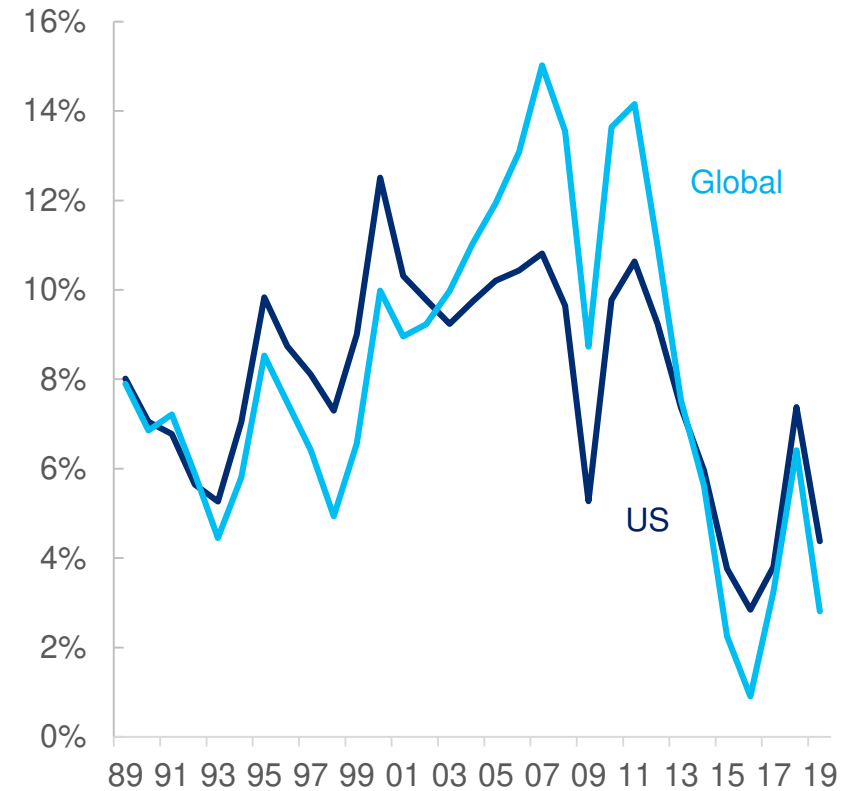
Annual corporate sales growth, %



Source: MSCI, Citi Research.

## Have also been a drag on profits

Annual corporate EBIT growth, %



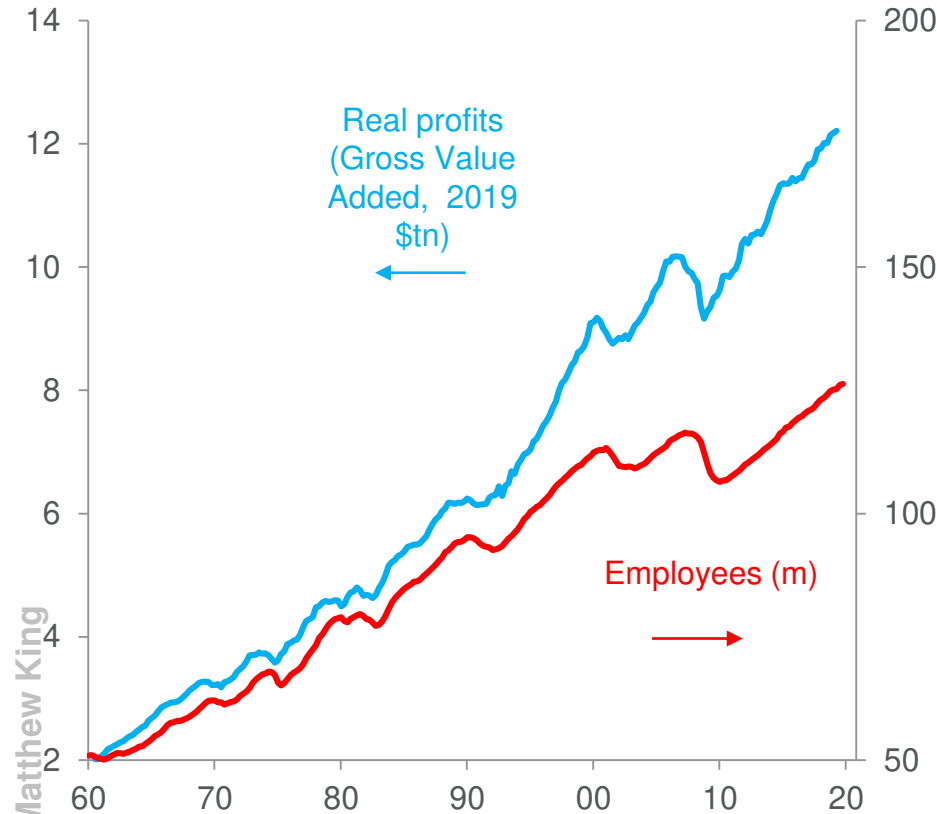
Source: MSCI, Citi Research.

## So how can companies remain profitable?

# Companies used to boost profits through investment and hiring

## Who needs employees these days?

US corporate sector real profits vs nonfarm employment



Source: BEA, FRB, Citi Research.

## So who makes the profits? The robots?!

Japan real corporate profits vs total employment



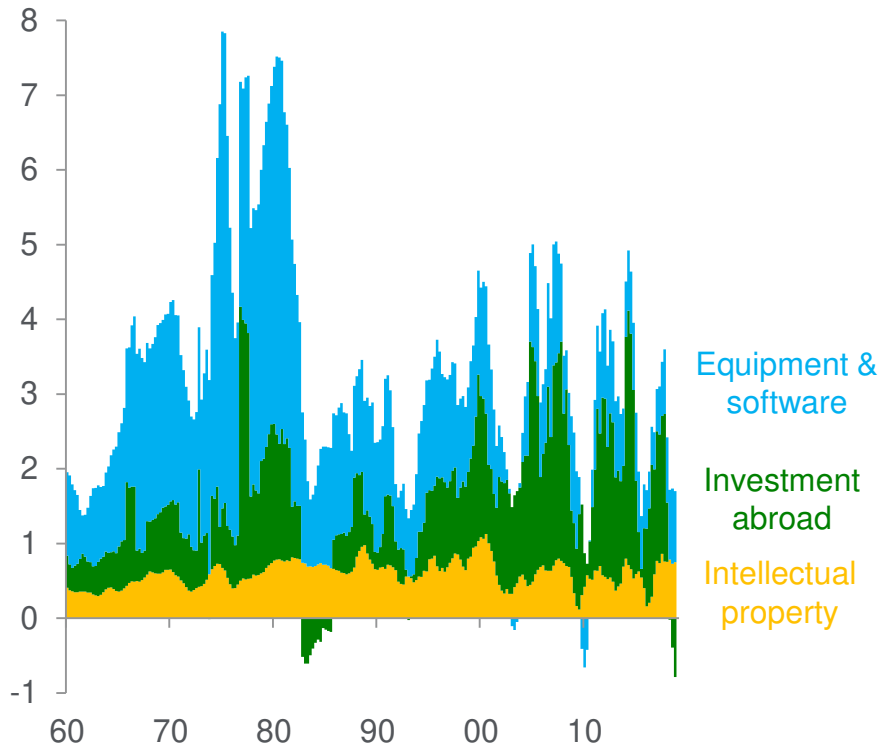
Source: MIC, MoF, Citi Research.

But over the last few decades, that's changed

# For a while, investment moved to emerging markets

## Investment shifting to EM

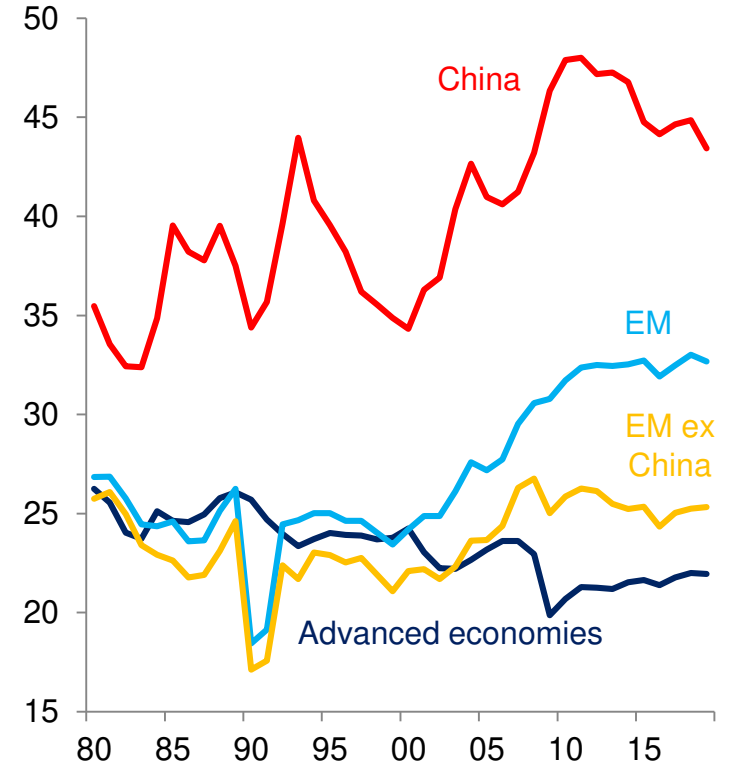
US nonfin corp investment by type, rolling 4Q, % GDP\*



Source: Federal Reserve, BEA.  
\*Uses 4Q change in balance sheet assets.

## But even that may not be sustained

Investment/GDP ratios, percent



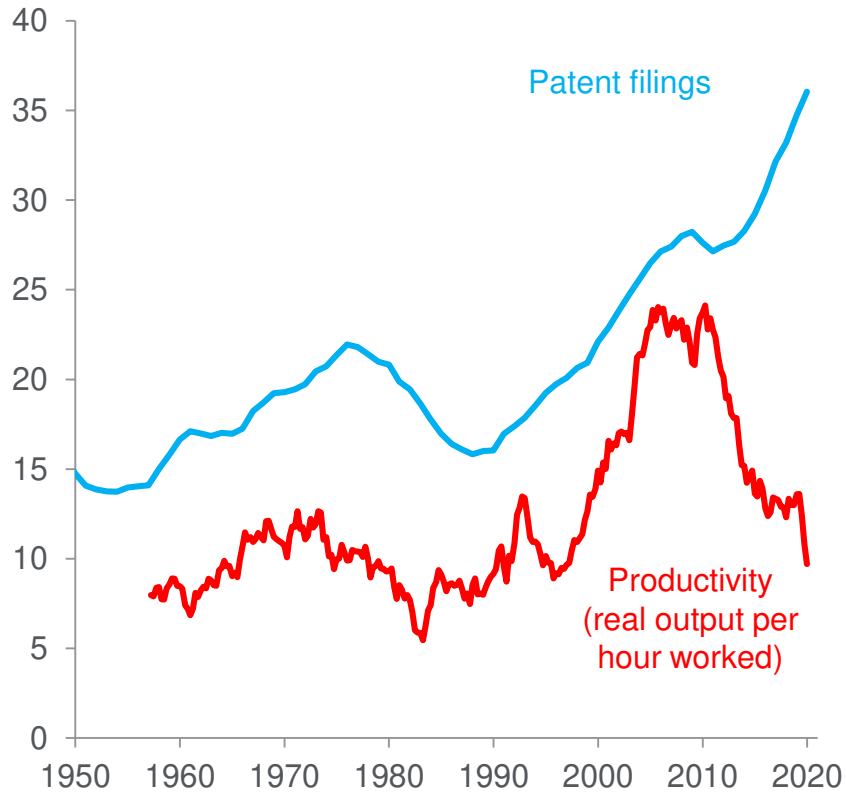
Source: IMF.

## But now even that is fading

# It's not that there's a lack of innovation

## Innovation itself is accelerating

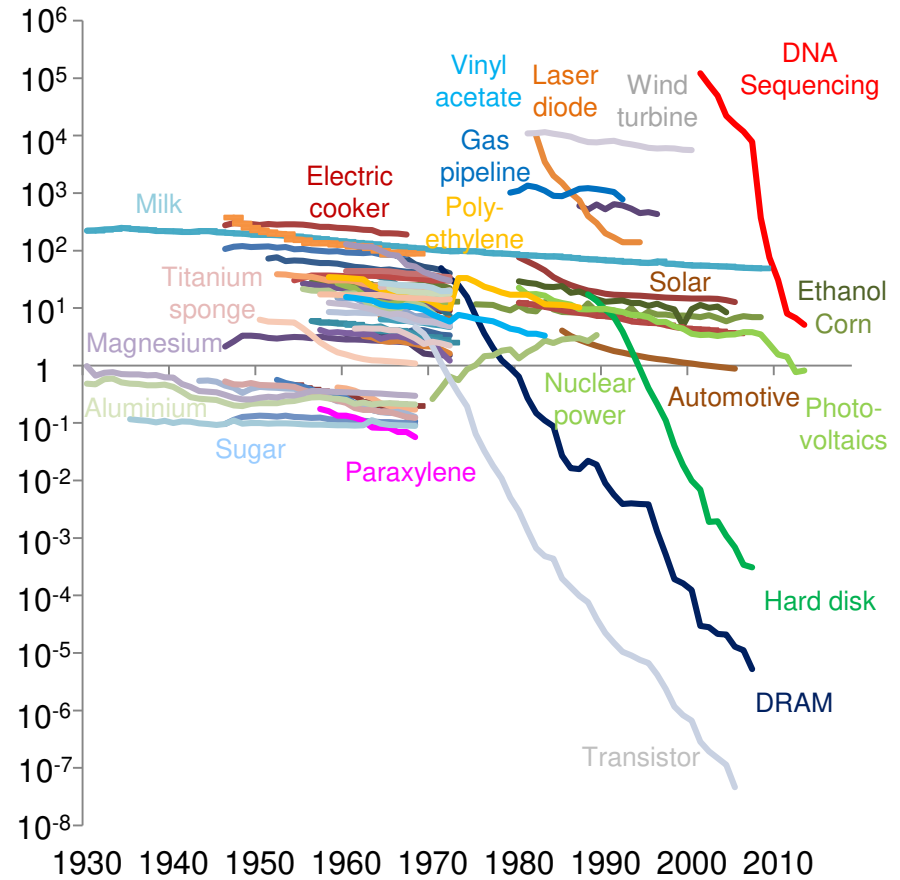
US patent filings vs productivity, 10y growth rates, %



Source: US patent office, BLS. See [Why has economic growth slowed when innovation appears to be accelerating?](#), R. Gordon, Apr18.

## And the costs associated with it are declining

Cost of 66 technologies over time, log scale



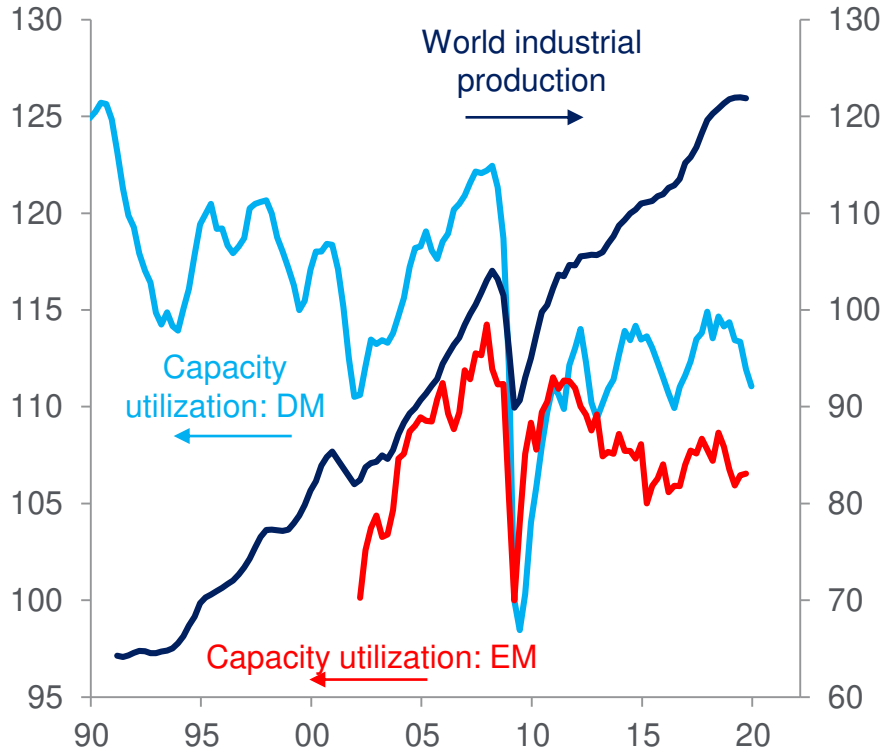
Source: [How predictable is technological progress?](#), J. Doyne Farmer & F. Lafond.

It's that modern technologies are more scalable

# The scalability makes for excess capacity

## Production up, utilization not

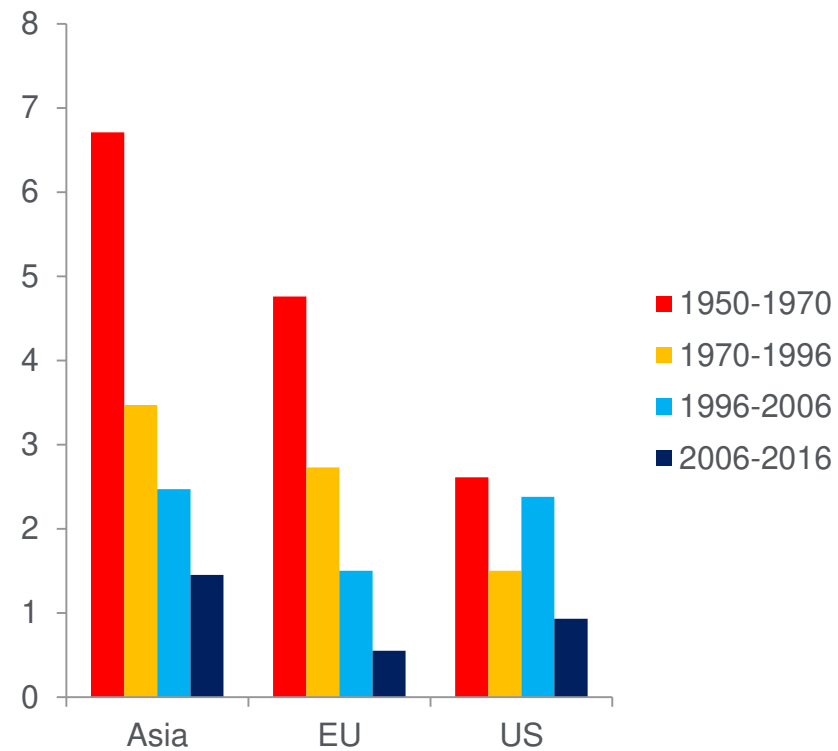
World industrial production vs capacity utilization indices



Source: National statistical agencies, Citi Research.

## Which makes for declining productivity

Average annual growth in labour productivity, %



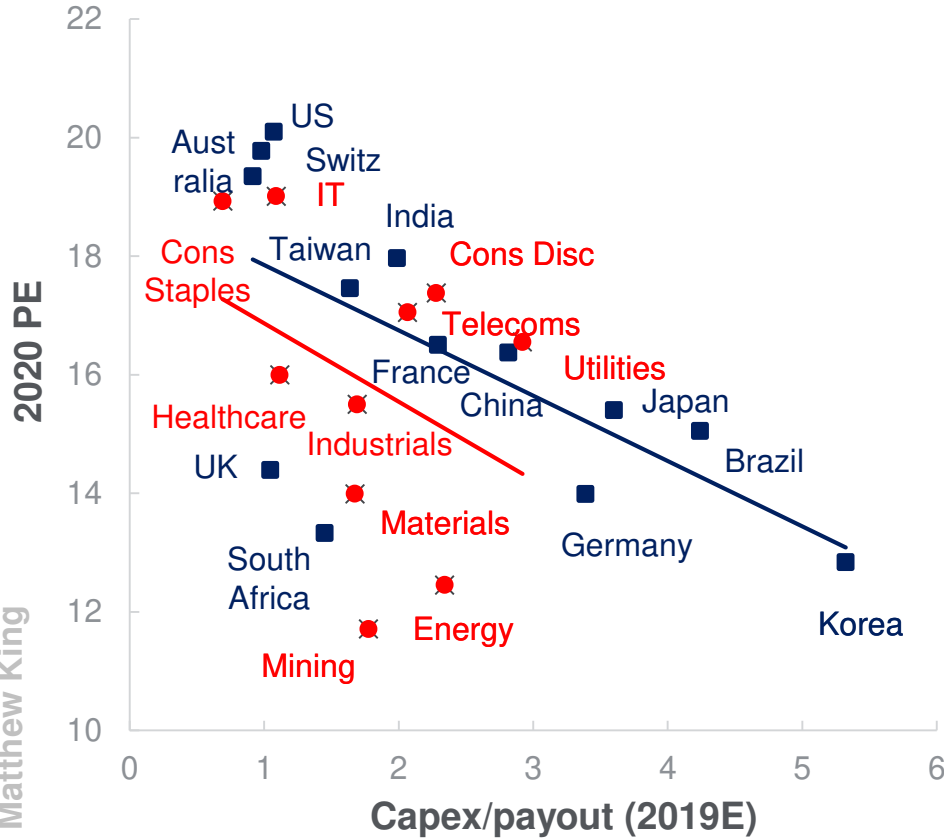
Source: Conference Board. See [Why has economic growth slowed when innovation appears to be accelerating?](#), R. Gordon, Apr18.

Individual companies are highly efficient –  
but GDP-level productivity declines

# But if excess capacity becomes a structural feature...

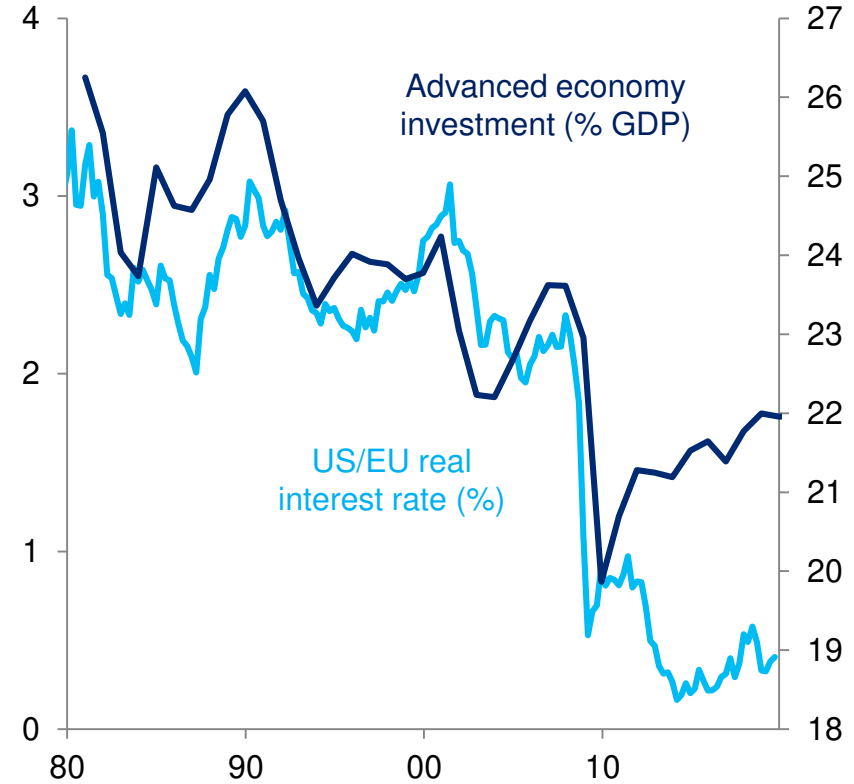
## The stock market won't want investment

Capex/payout ratios vs P/E ratios



## And lower rates won't help either

Investment/GDP vs real interest rates, %



Source: Citi Research. See [The capex/payout conundrum](#), R. Buckland et al, Aug18.

Source: IMF, FRBNY, Citi Research.

Companies will focus on brand value and payouts,  
not investment

A secular slowdown in growth

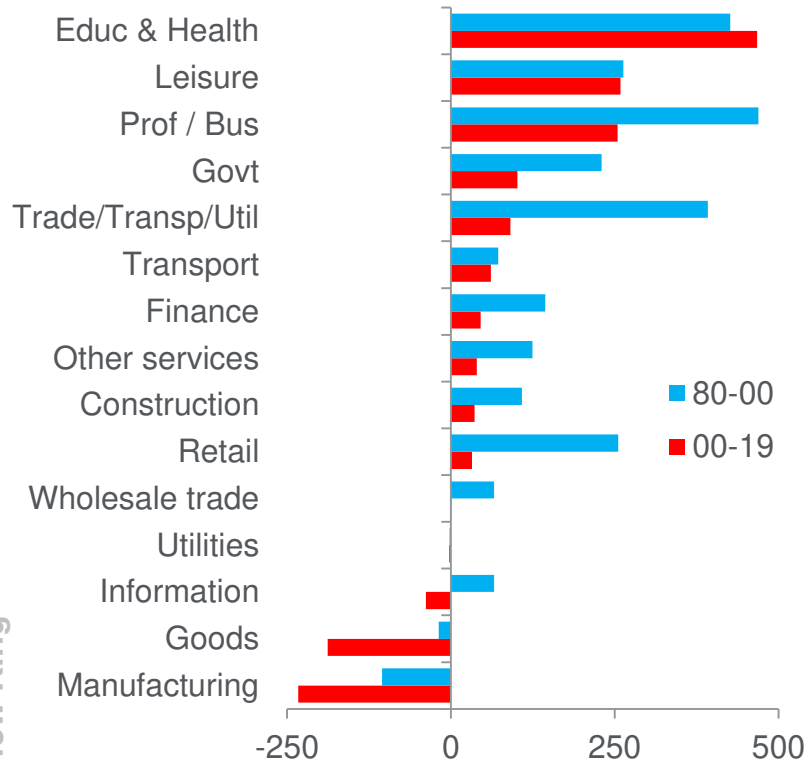
A secular decline in investment

A secular rise in inequality

# What does this mean for employees? (1)

## The jobs we're creating...

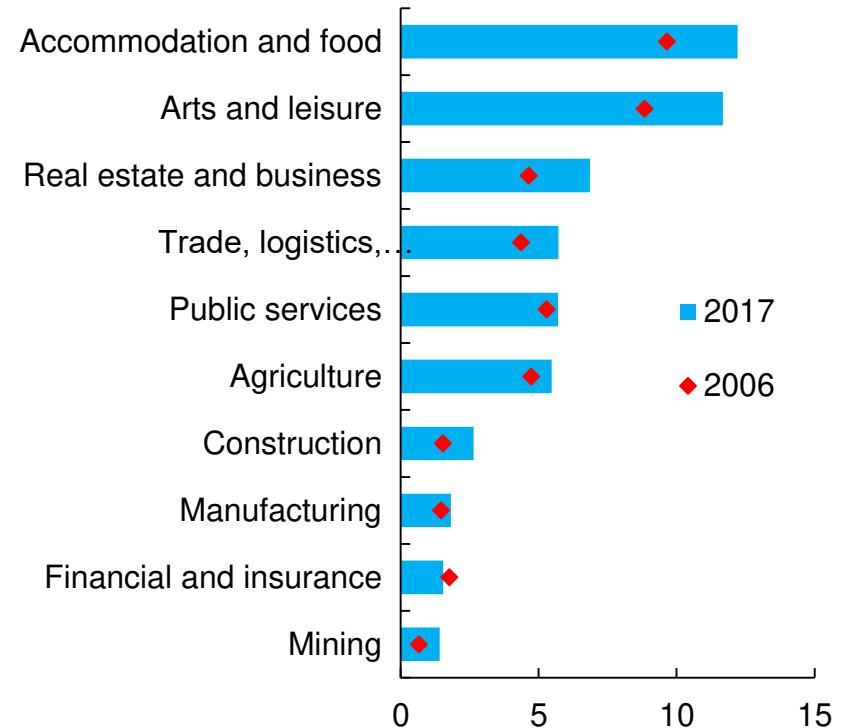
Change in employment by sector, '000



Source: BLS, Citi Research.

## ...aren't the ones people want

Percentage of workers indicating underemployment\*



Source: OECD (unweighted average across countries).

\*Those who are in part-time employment who report either that they could not find a full-time job or that they would like to work more hours.

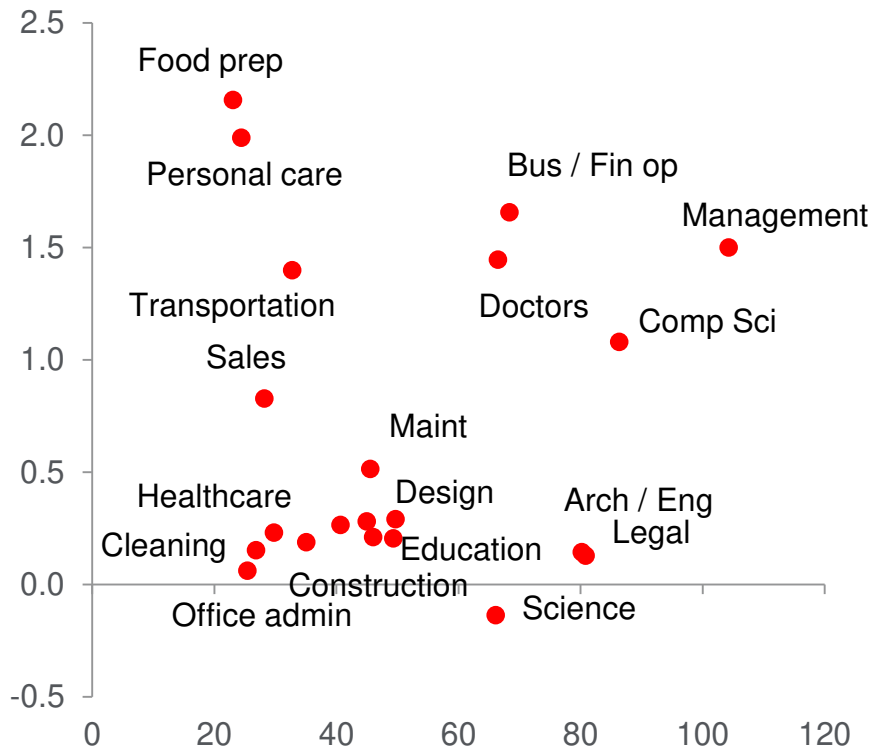
Most jobs are in services –  
often associated with underemployment



# What does this mean for employees? (2)

## Chefs & CEOs, with not much in between

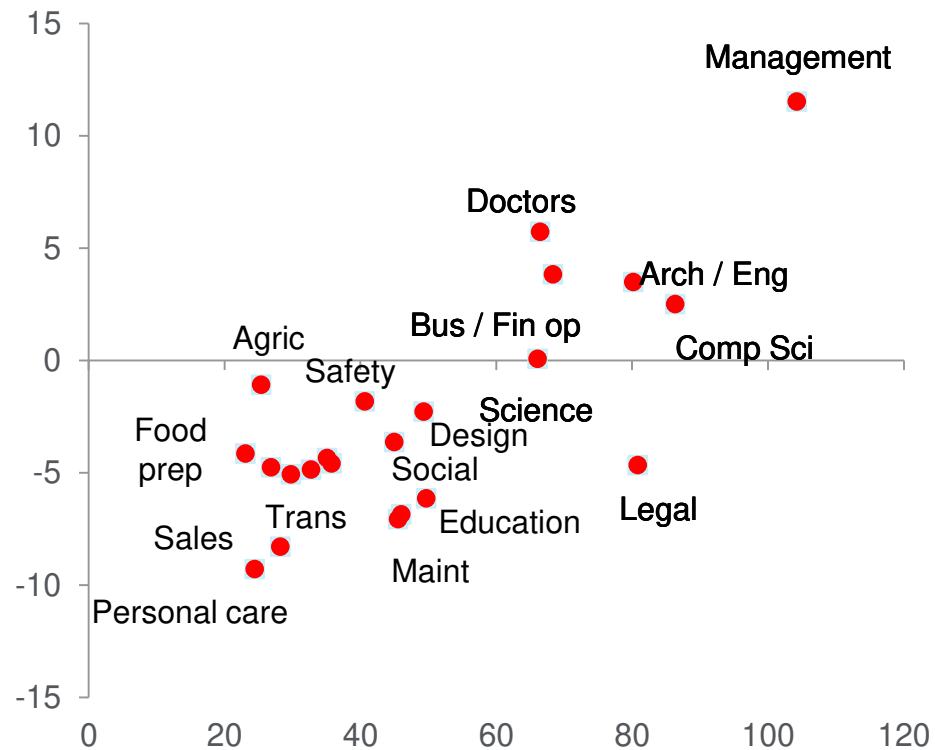
US jobs created (m) by median wage (\$k), 00-18



Source: BLS, Citi Research.

## Wage growth only for the wealthy

Real median wage growth by median wage, 00-18 cumulative, %



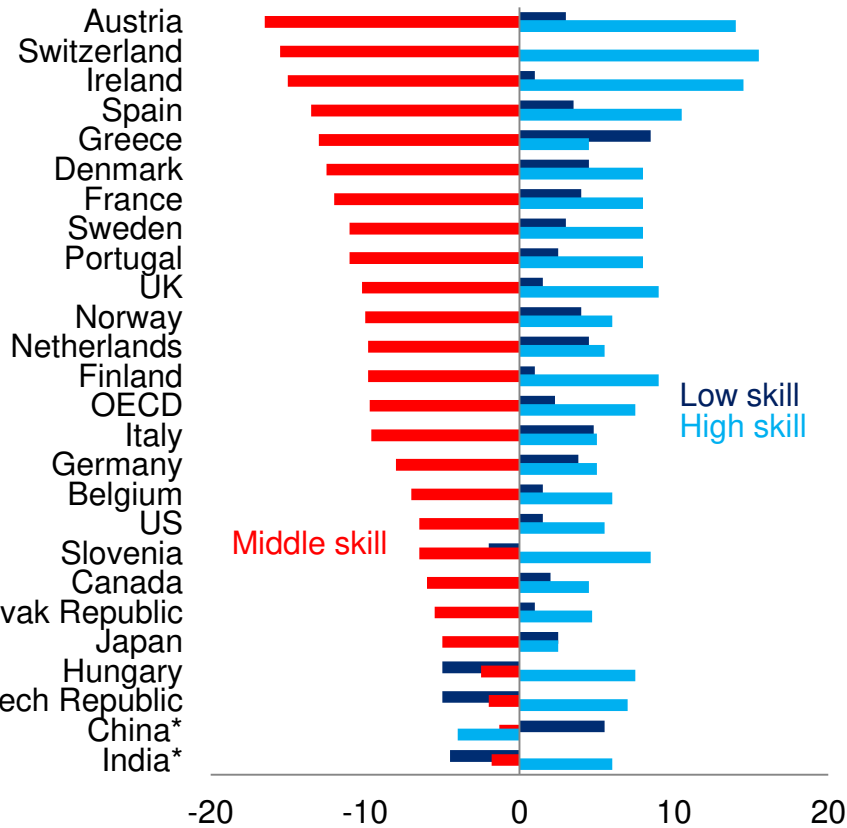
Source: BLS, Citi Research.

Scalability suppresses wage growth  
– except for a few top managers

# What does this mean for employees? (3)

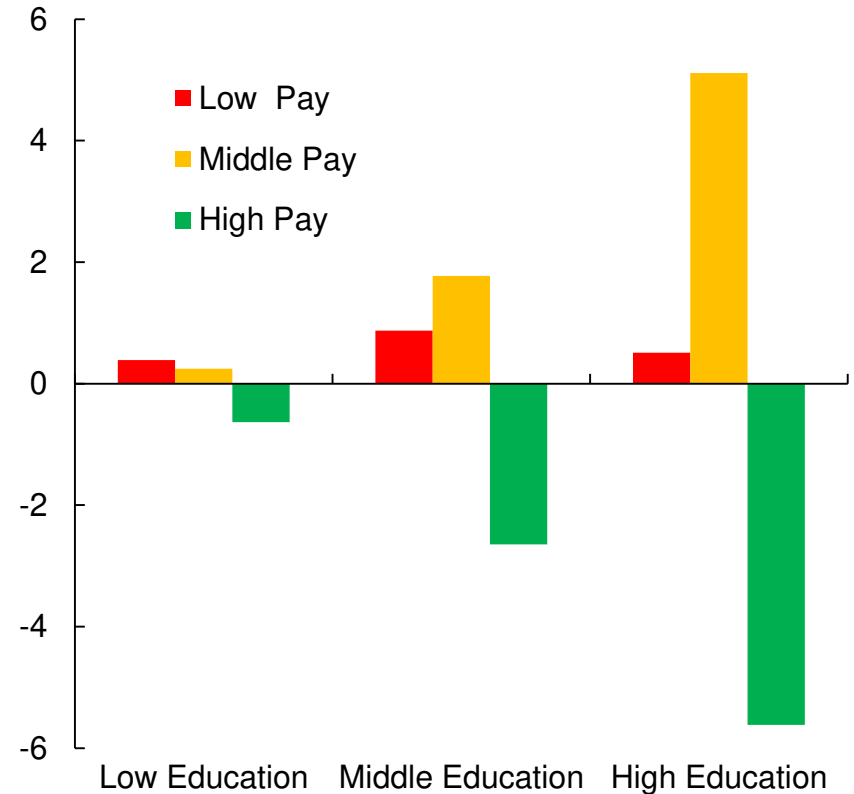
## The missing middle

Change in employment, 1995-2015, %



## Even "high skill" doesn't mean high pay

Percentage point change in share of jobs by pay level, 2006-16



Prepared for Matthew King

Source: OECD Employment Outlook 2017.  
\*China & India 2000-2010.

Source: OECD Employment Outlook 2019.

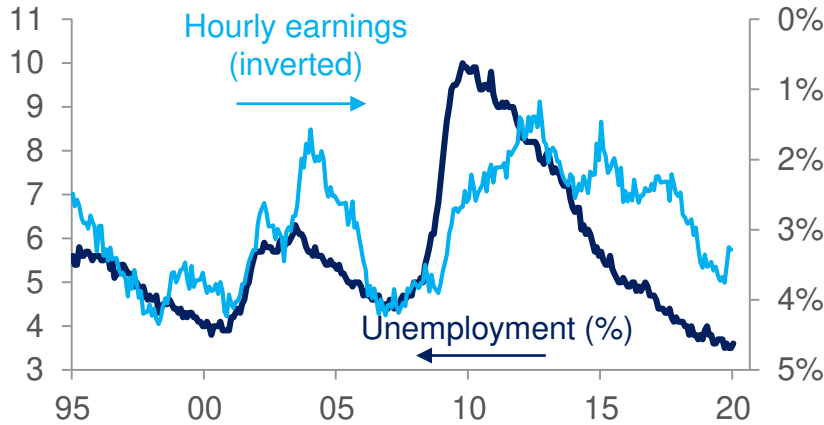
# The labour market is being hollowed out

# Plenty of jobs – but no wage growth

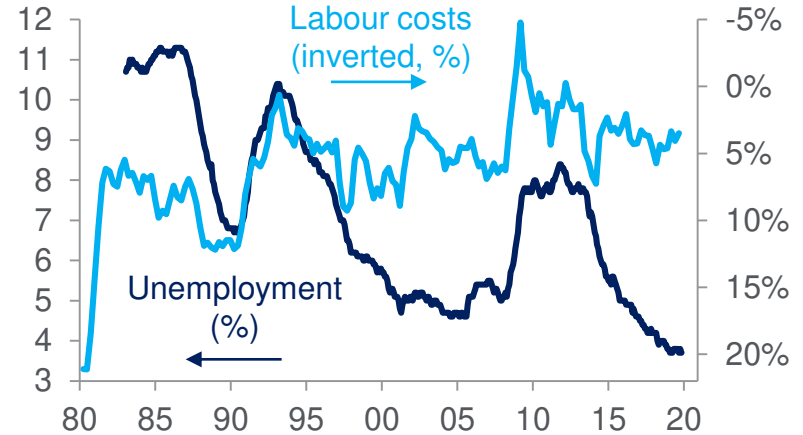
## Record low unemployment – but wages not responding

Labour force statistics, %

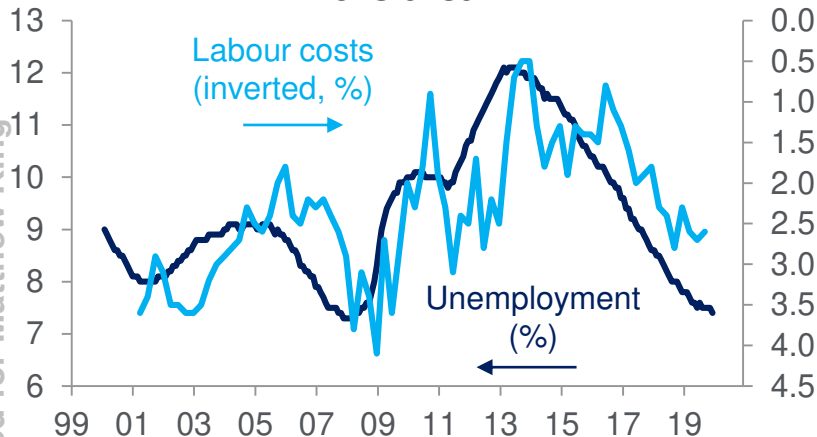
**US**



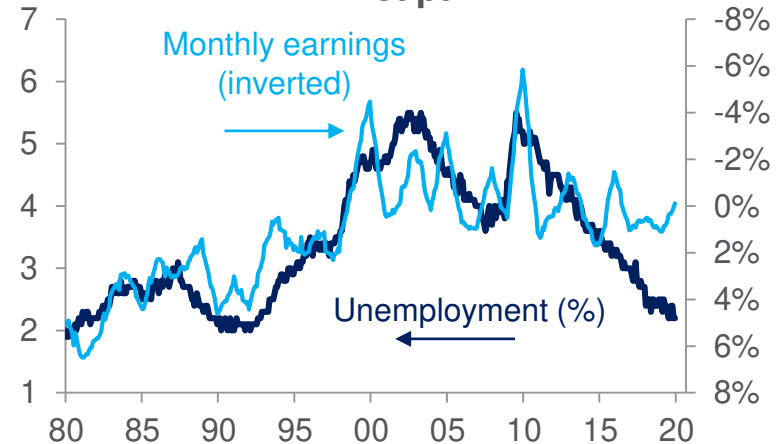
**UK**



**Euro area**



**Japan**



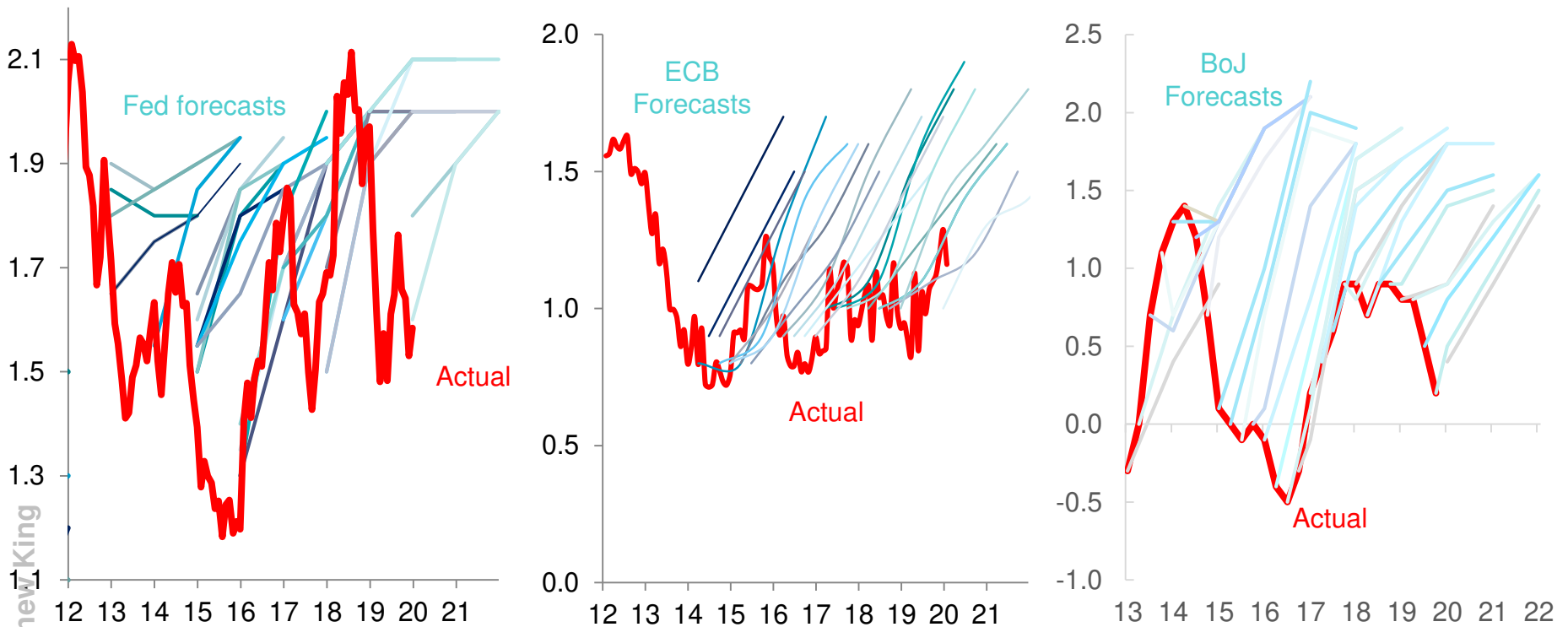
Source: BLS, ECB, MHLW, Eurostat, ONS, Citi Research.

People keener on finding a 'proper' job than wage rises

# This leaves inflation falling short of central banks' targets

## “Porcupine” forecasts

Central bank inflation projections vs realized, %



Source: Fed, ECB, BoJ.

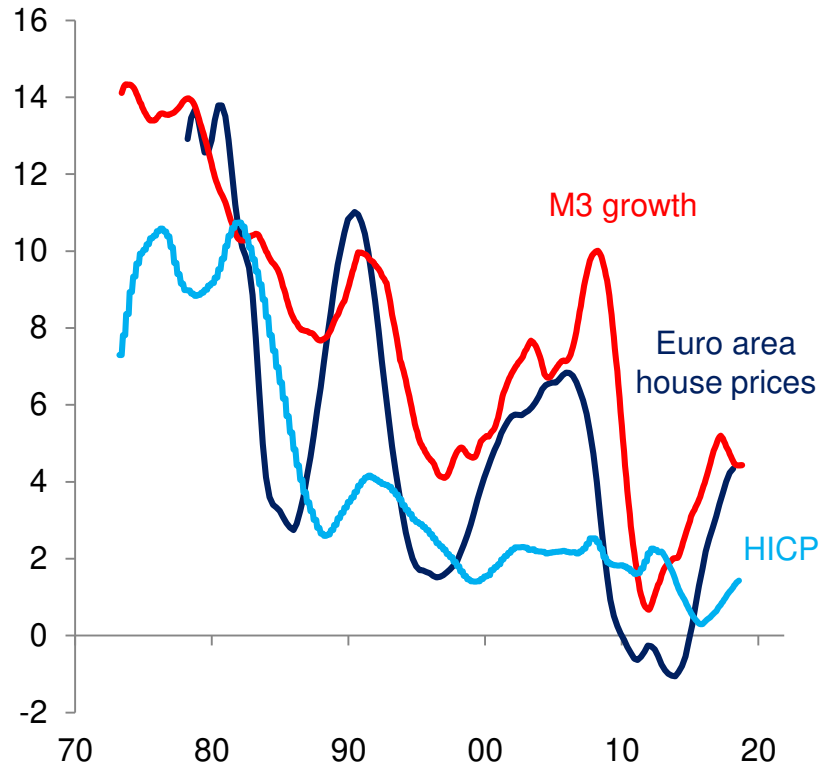
Prepared for Matthew King

## Central banks haven't done a good job creating inflation

# But lower rates have had an effect elsewhere

## Credit driving house prices, not CPI

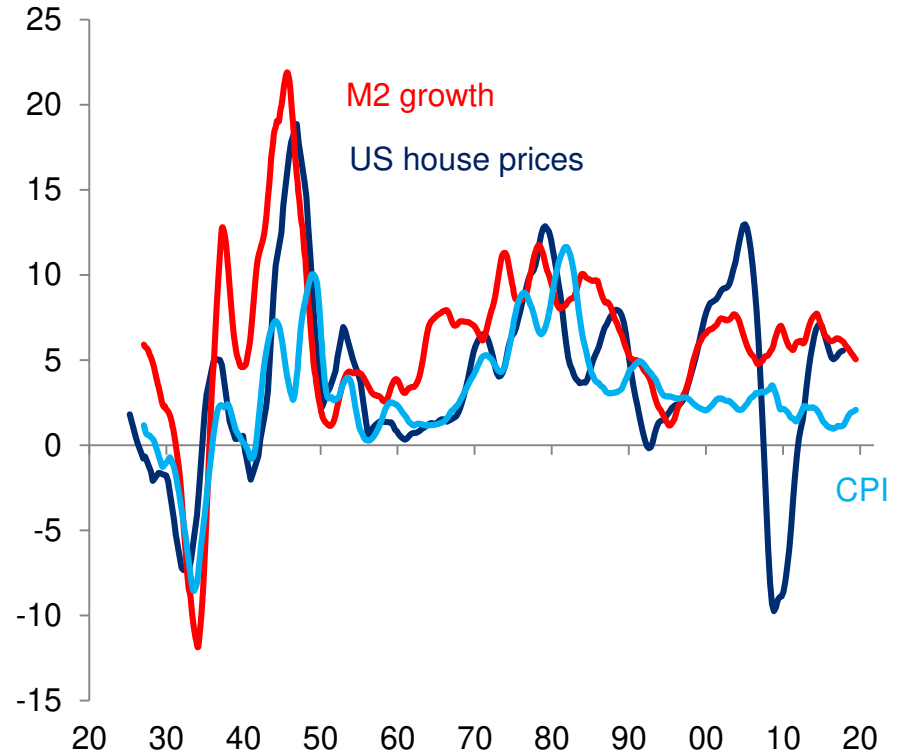
Euro area M3, CPI and house prices (3y mov avg, %)



Source: ECB.

## Also in the US

US M2, CPI and house prices (3y mov avg, %)



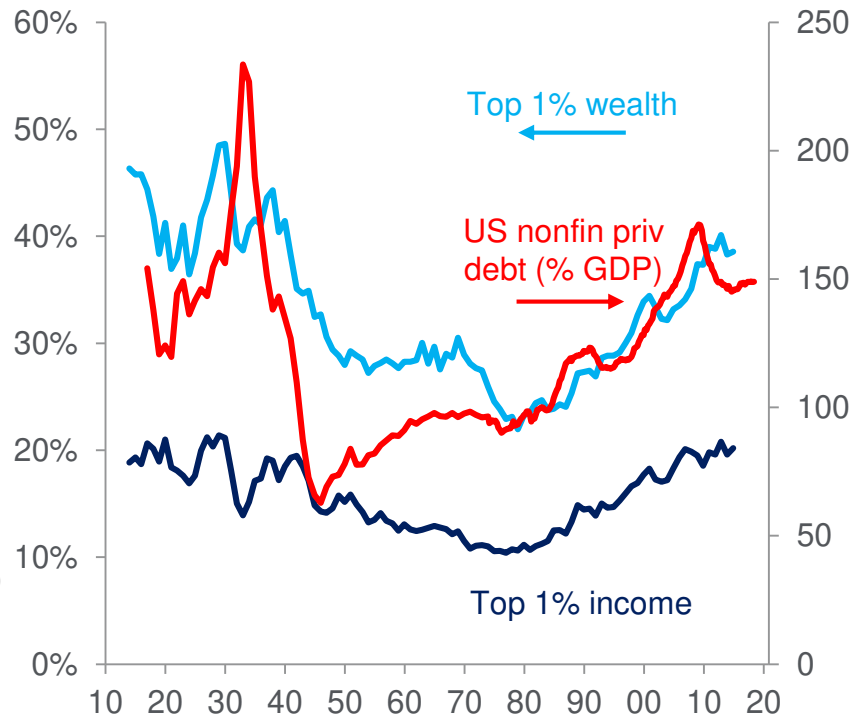
Source: Federal Reserve, Shiller.

Credit growth has driven asset price inflation

# Asset price inflation has fuelled wealth inequality

## Higher debt and asset prices = inequality

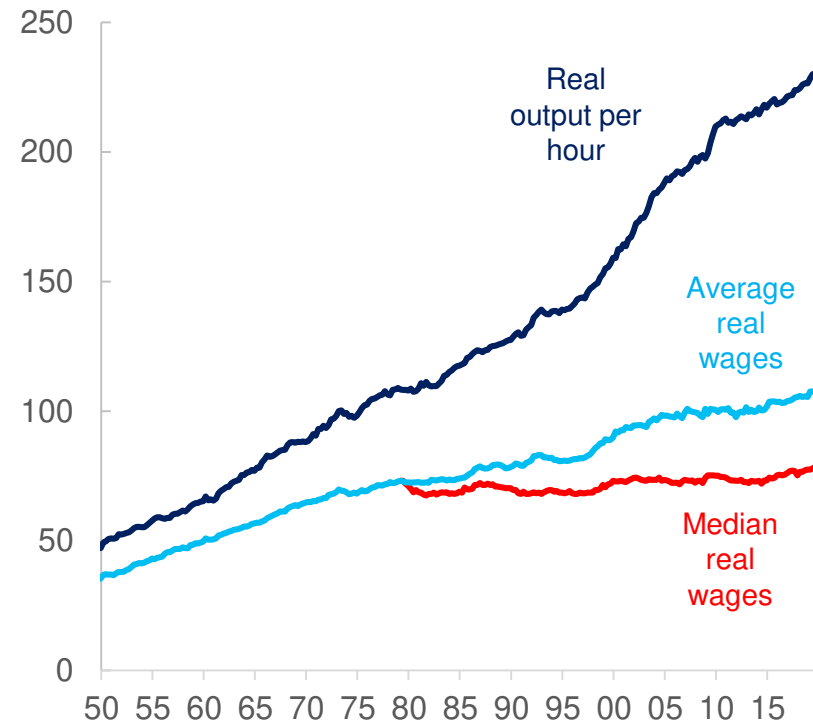
US income and wealth shares vs debt levels



Source: World Inequality Database, Federal Reserve.

## Adding insult to the existing wage injury

US labour productivity vs wages, indexed series

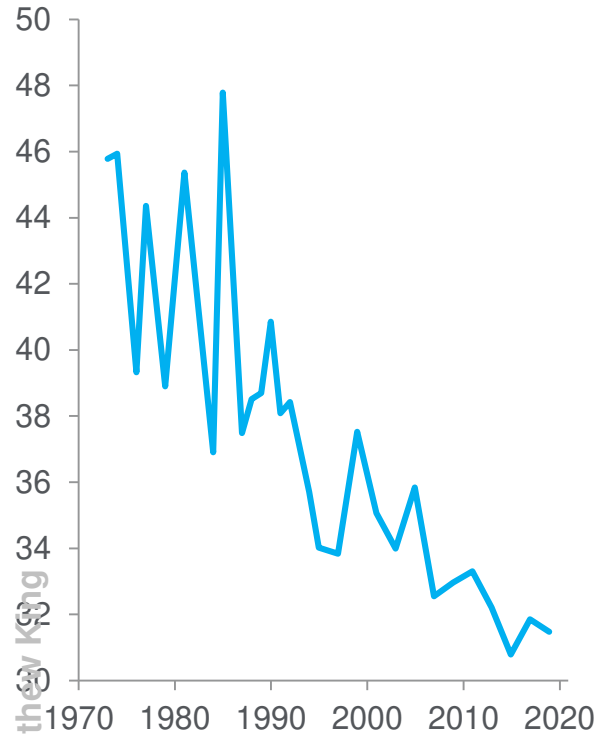


Source: BLS. The pattern for other OECD countries is very similar.

## No wonder workers are upset

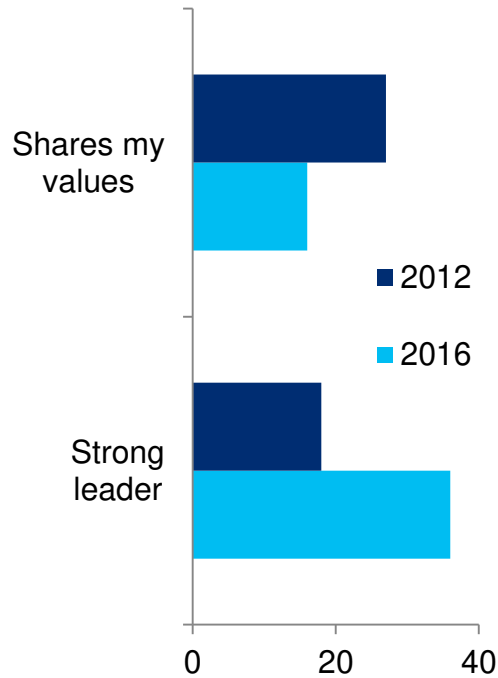
# The final irony

**Given the collapse in trust**  
 “Generally speaking, would you say that most people can be trusted?”, percent



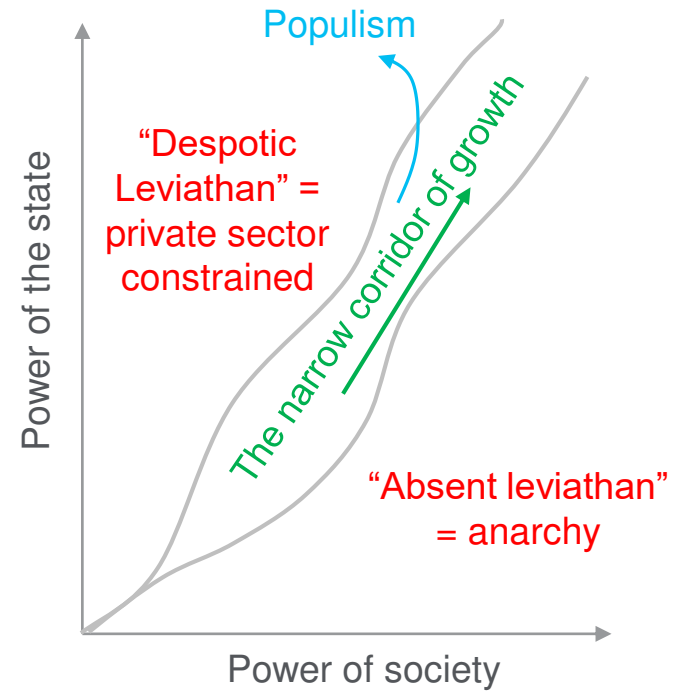
Source: University of Chicago.

**Populism beats policy**  
 Most important qualities when voting for US president, %



Source: CNN, Morning Consult, Politico.

**But does not make for growth**  
 The “narrow corridor” created by checks and balances

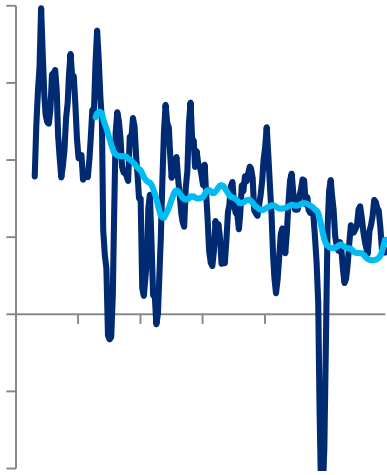


Source: *The Narrow Corridor: States, Societies and the Fate of Liberty*, D. Acemoglu & J. Robinson.

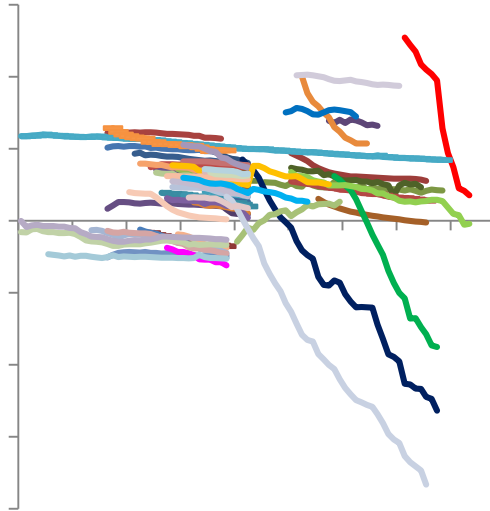
Upset workers are increasingly voting for policies that will further damage growth

# Conclusion

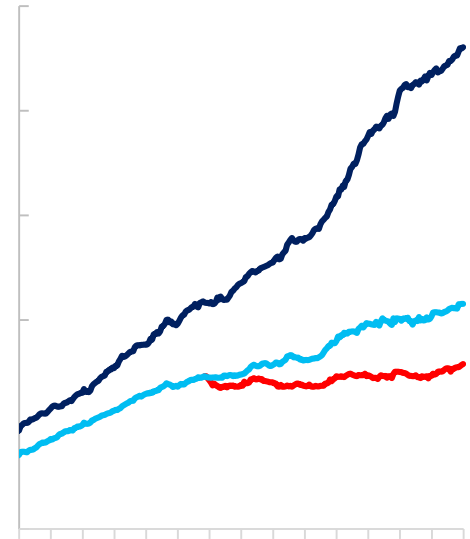
More headwinds,  
less growth



More profits,  
less investment



More inequality,  
less satisfaction



Tough to be an employee when companies don't really need workers



# Appendix A-1

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