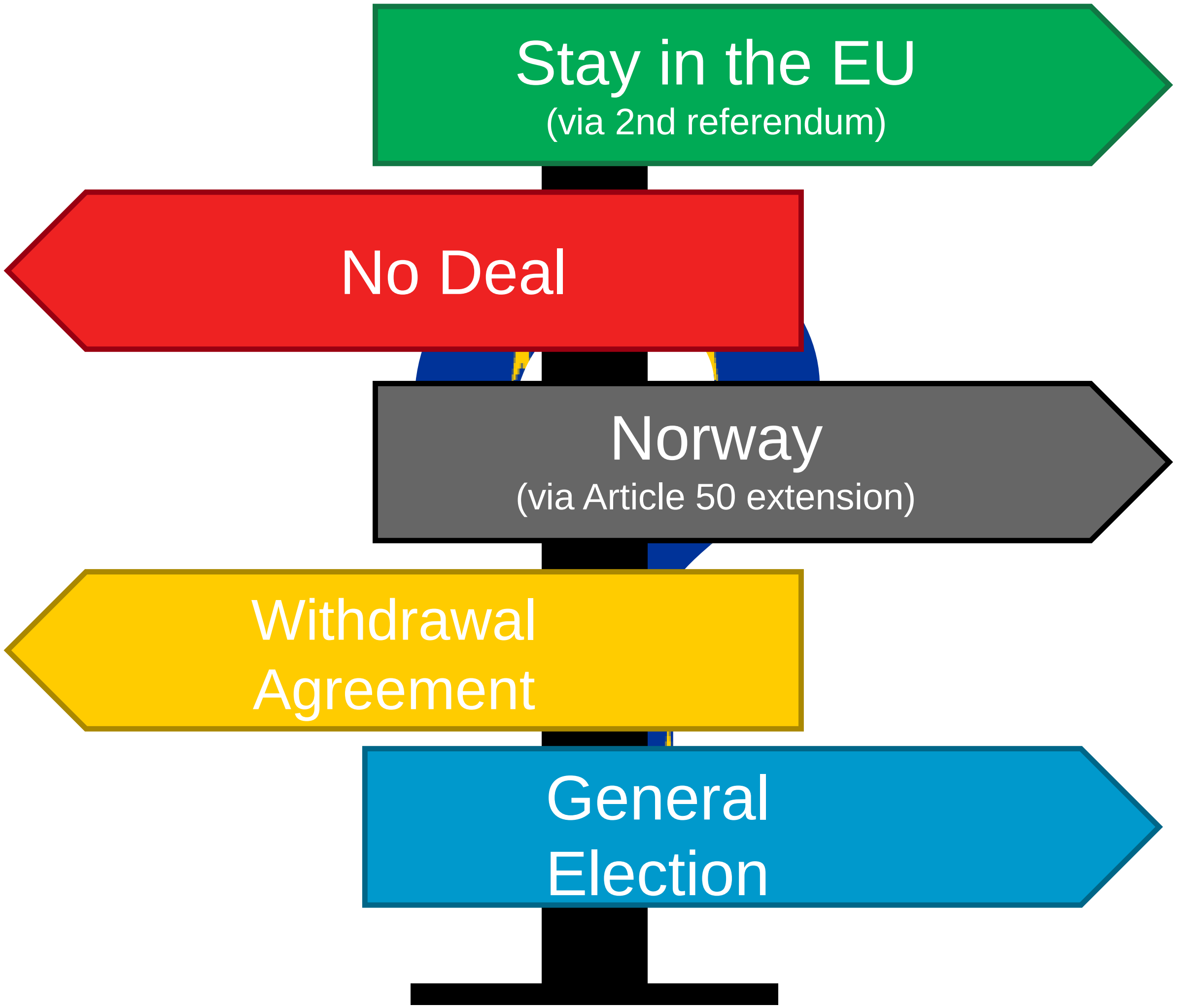
UK economic prospects

Association of Consulting Actuaries, 31st Jan 2019

James Carrick, Global Economist
Chris Jeffery, Asset Allocation Strategist

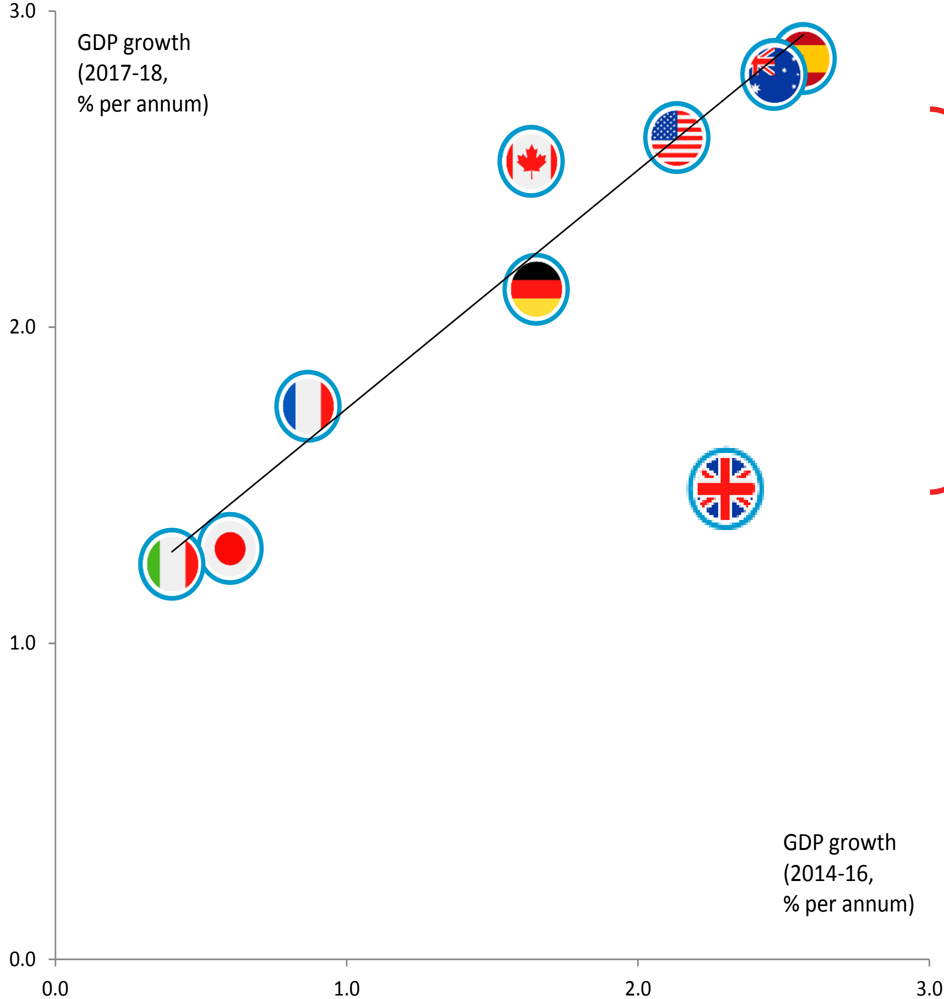
LGIM REF: MA0076

Signposts for the UK economy



Spot the odd one out

Growth has picked up everywhere in 2017/18 except the UK

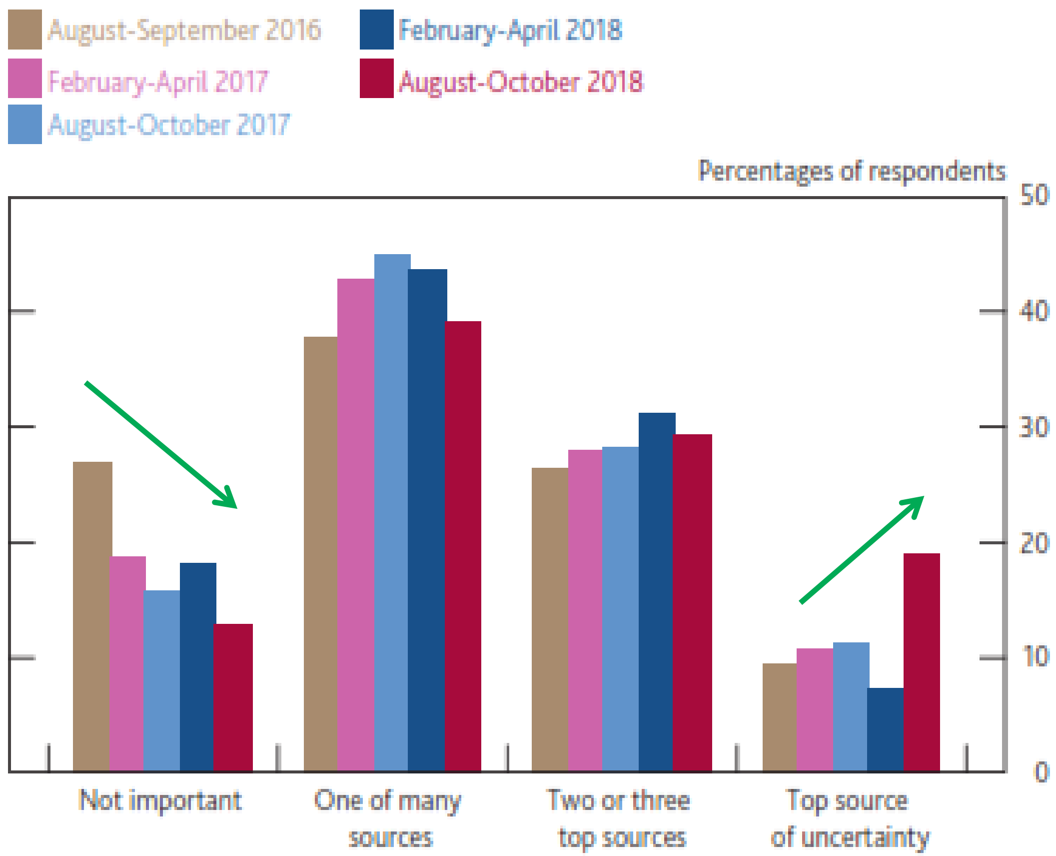


1% per annum ≈ £40bn over two years ≈ £350mn per week

Source: IMF

Legal & General INVESTMENT MANAGEMENT

Growing Brexit uncertainty weighing on investment



(a) Responses to the question 'How much has the result of the EU referendum affected the level of uncertainty affecting your business?'.

Source: Bank of England

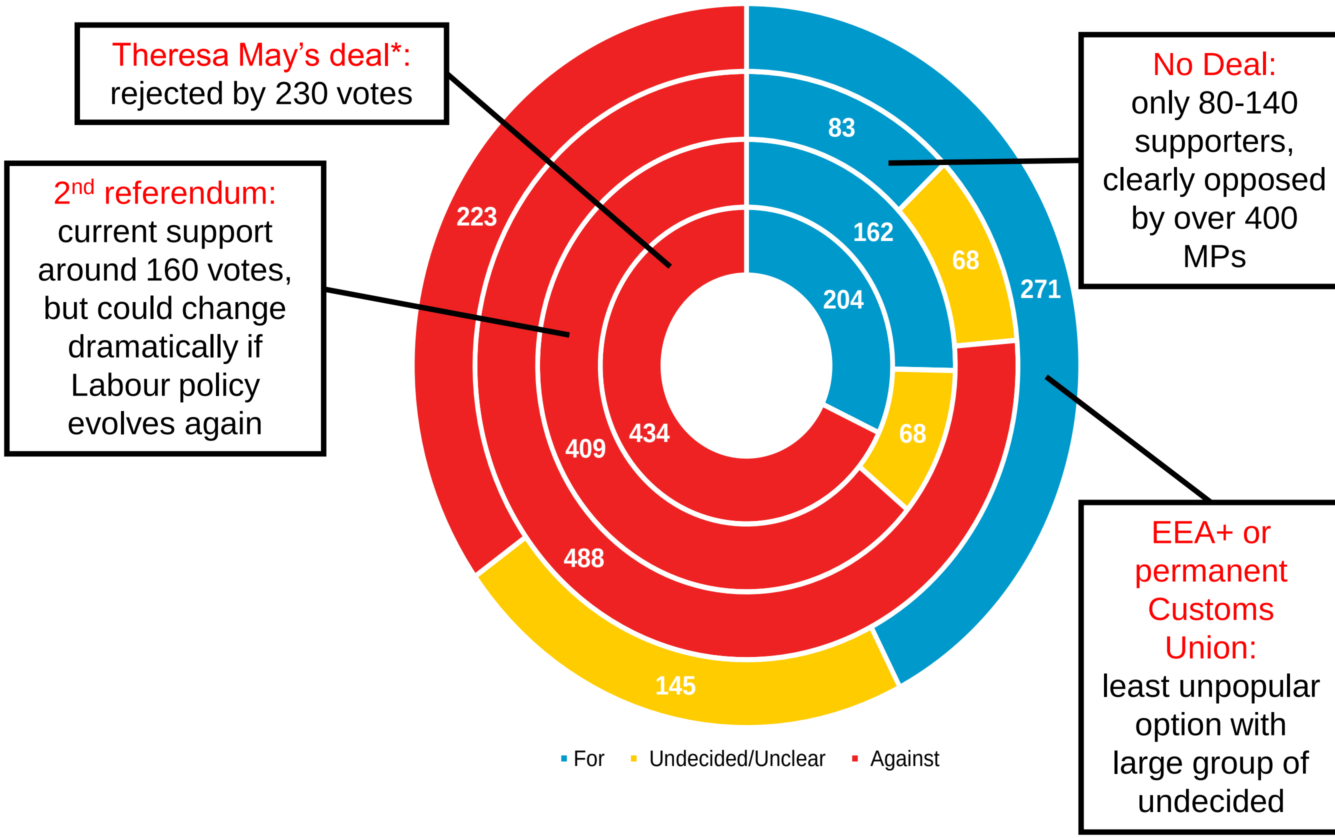
320 is the magic number in parliament

Composition of House of Commons

Conservatives*	316
Labour*	254
SNP	35
Lib Dems	11
DUP	10
Independents	8
Sinn Fein	7
Plaid Cymru	4
Green Party	1
Speakers	4
Total	650

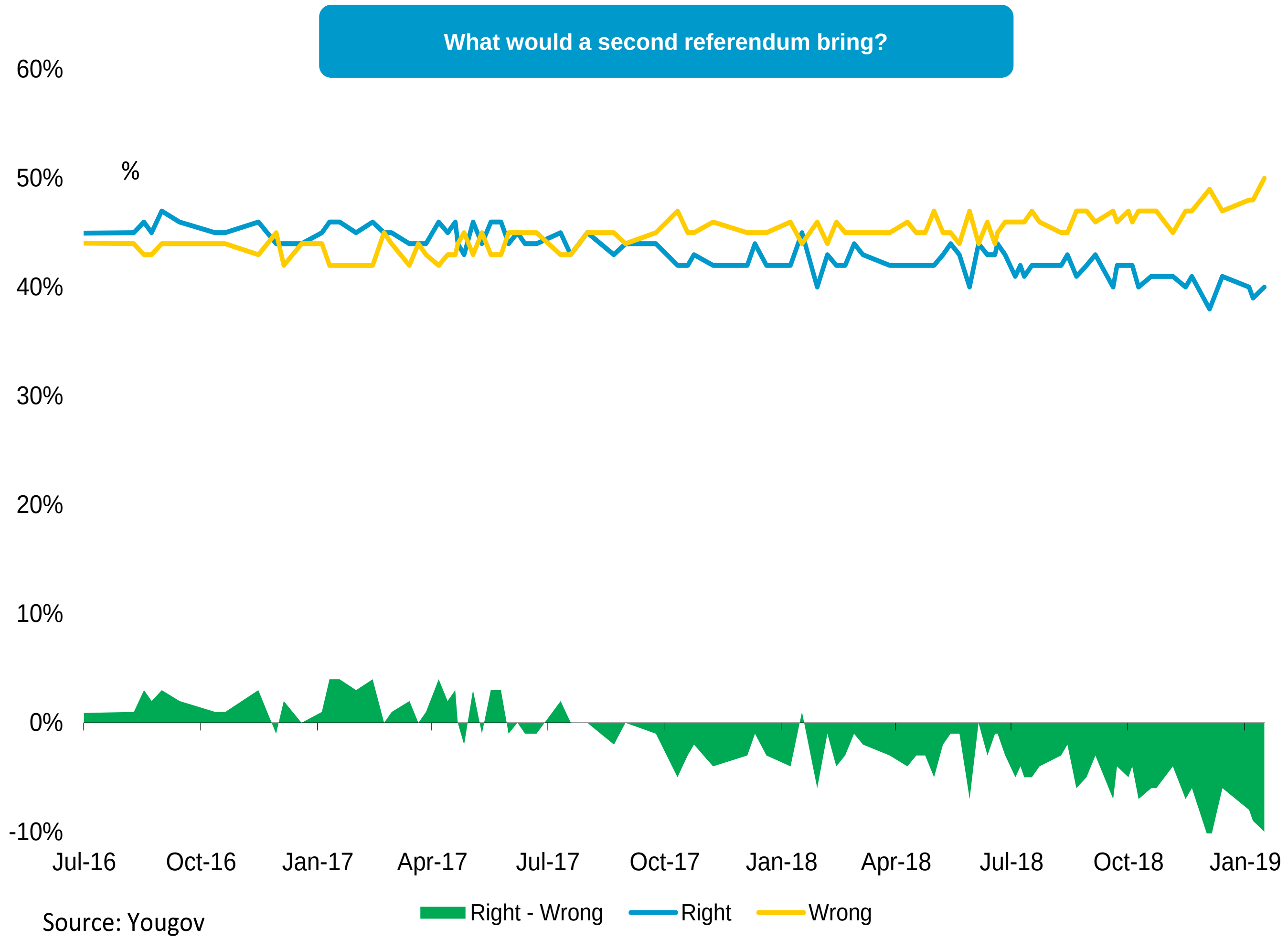
* Excluding speaker and three deputies

No deal is easily the least popular option



Source: House of Commons Library, LGIM calculations
* Numbers include 2 tellers on each side who are not included in the official totals

In hindsight do you think Britain was right or wrong to leave the EU?



Source: Yougov

Legal & General INVESTMENT MANAGEMENT

Play your cards right…

2^{nd} referendum in 2019

38%

Next general election in 2019

35%

General Election before Brexit

43%

Labour as largest party after GE

49%

Source: Betfair, 17^{th} Jan 2019

An introduction to Corbynomics

Extra spending commitments:

- Council housebuilding programme
- Extra NHS funding
- Infrastructure
- Abolition of tuition fees

£50bn - £90bn per annum

Nationalisation

- Energy
- Rail
- Water
- Postal

£50bn - £100bn

Cost to public sector

Higher taxation commitment:

- Increased corporation tax
- Increased taxes on higher earners
- Increased capital gains tax
- Increased inheritance tax

£30bn - £50bn per annum

Regulation

- Higher minimum wage
- Ban zero hours contracts
- Double length of paternity leave

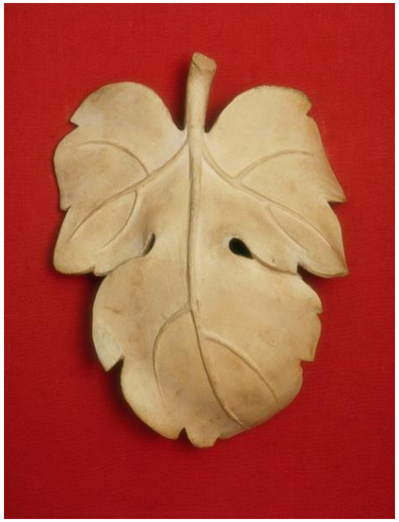
£15bn - £20bn per annum

Cost to private sector

Source: LGIM

Under extreme circumstances, what is BoE independence worth?

"The Treasury, after consultation with the Governor of the Bank, may **by order** give the Bank directions with respect to monetary policy if they are satisfied that the directions are required in the public interest and by extreme economic circumstances"

BoE independence **=** 

Source: Bank of England Act (1998)

Legal & General
INVESTMENT MANAGEMENT

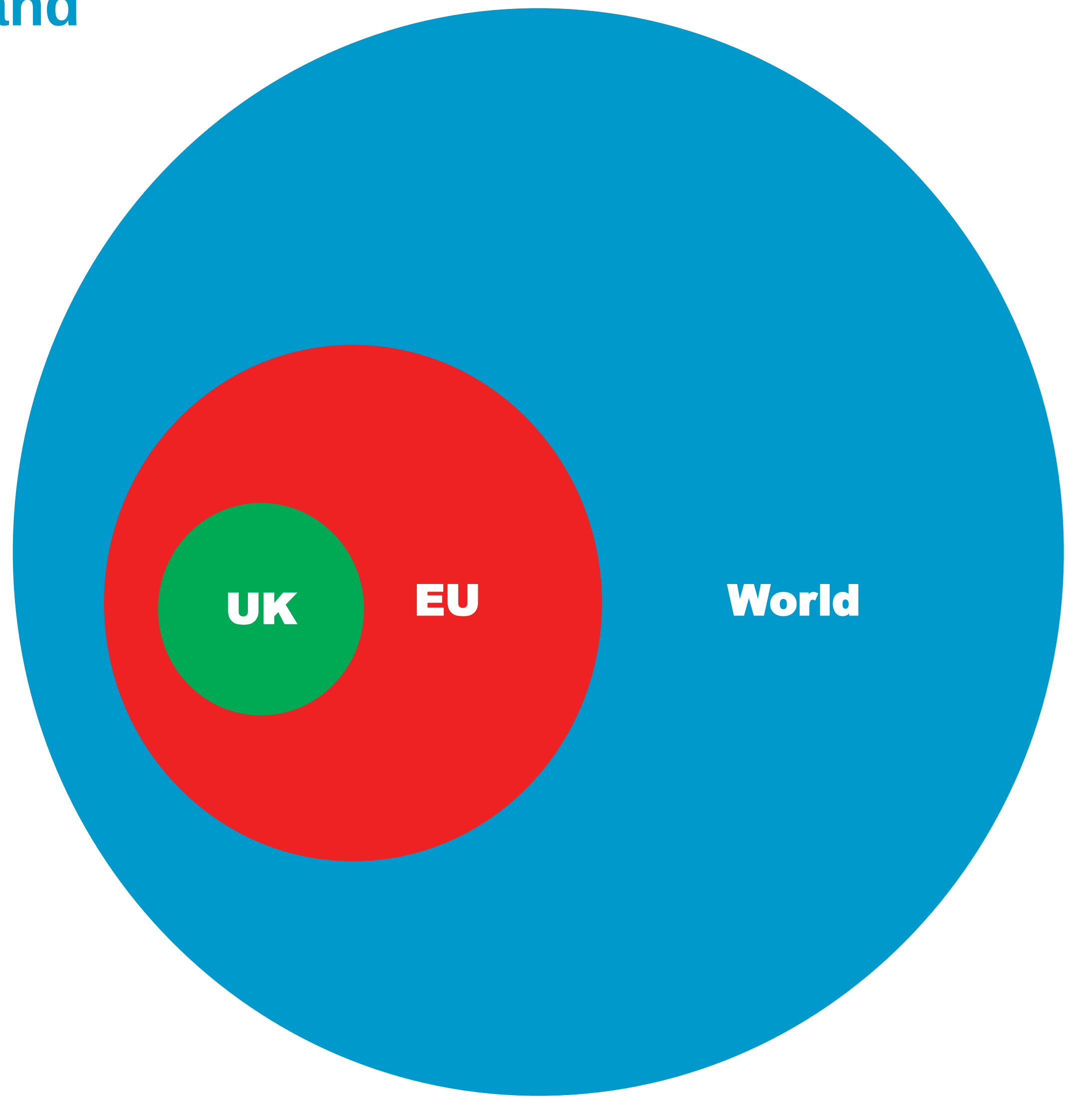
Notes from a Small Island

GDP (2017)

$3 trn

$17 trn

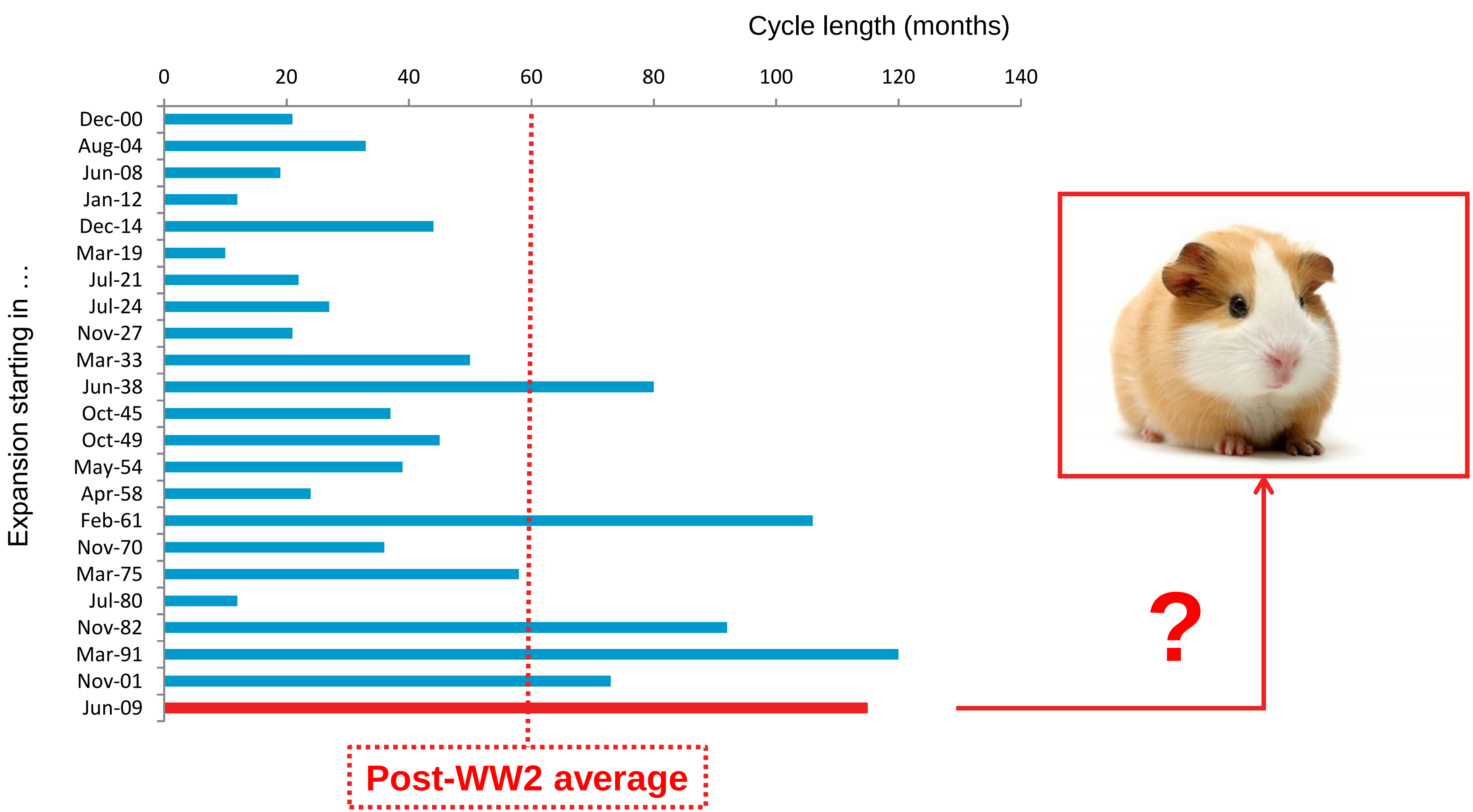
$80 trn



Source: IMF

When will the cycle end?

US expansions since 1900



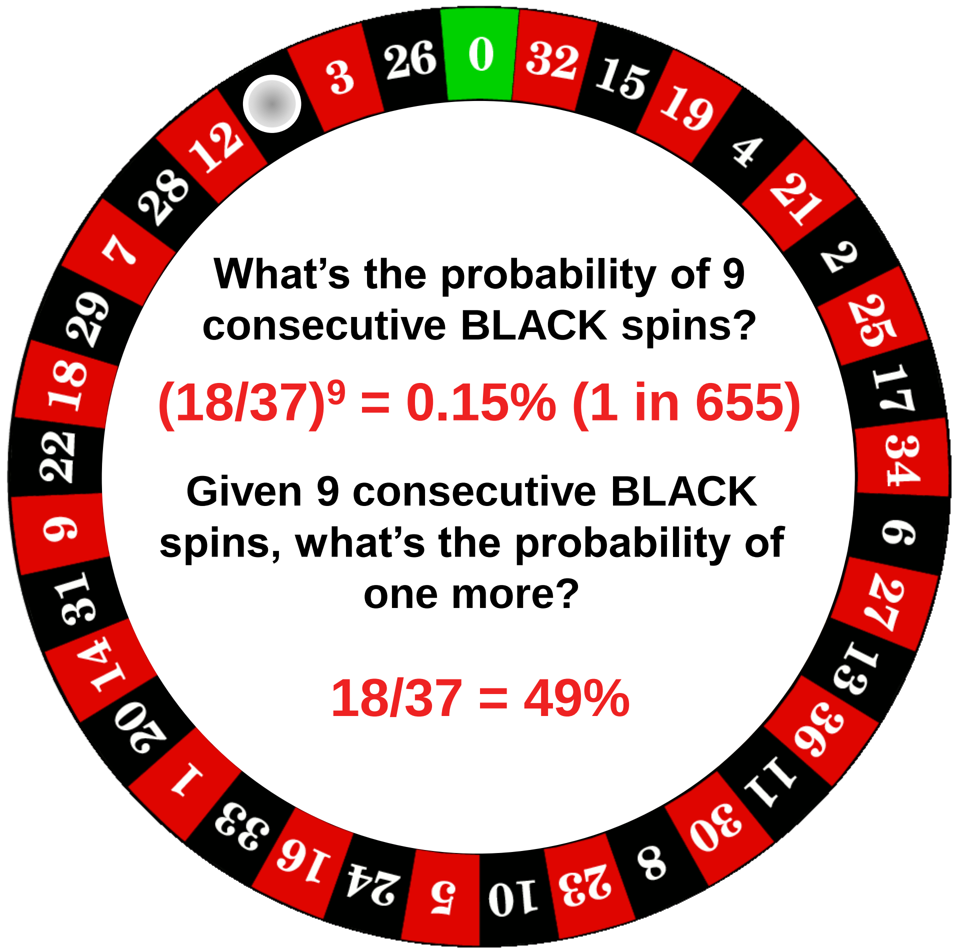
Source: NBER

The gambler's fallacy

10 years is not a ceiling

25% of post-war DM expansions have lasted more than a decade

Australia is currently in the midst of a 26 year economic expansion



What's the probability of 9 consecutive BLACK spins?

$(18/37)^9$ = 0.15% (1 in 655)

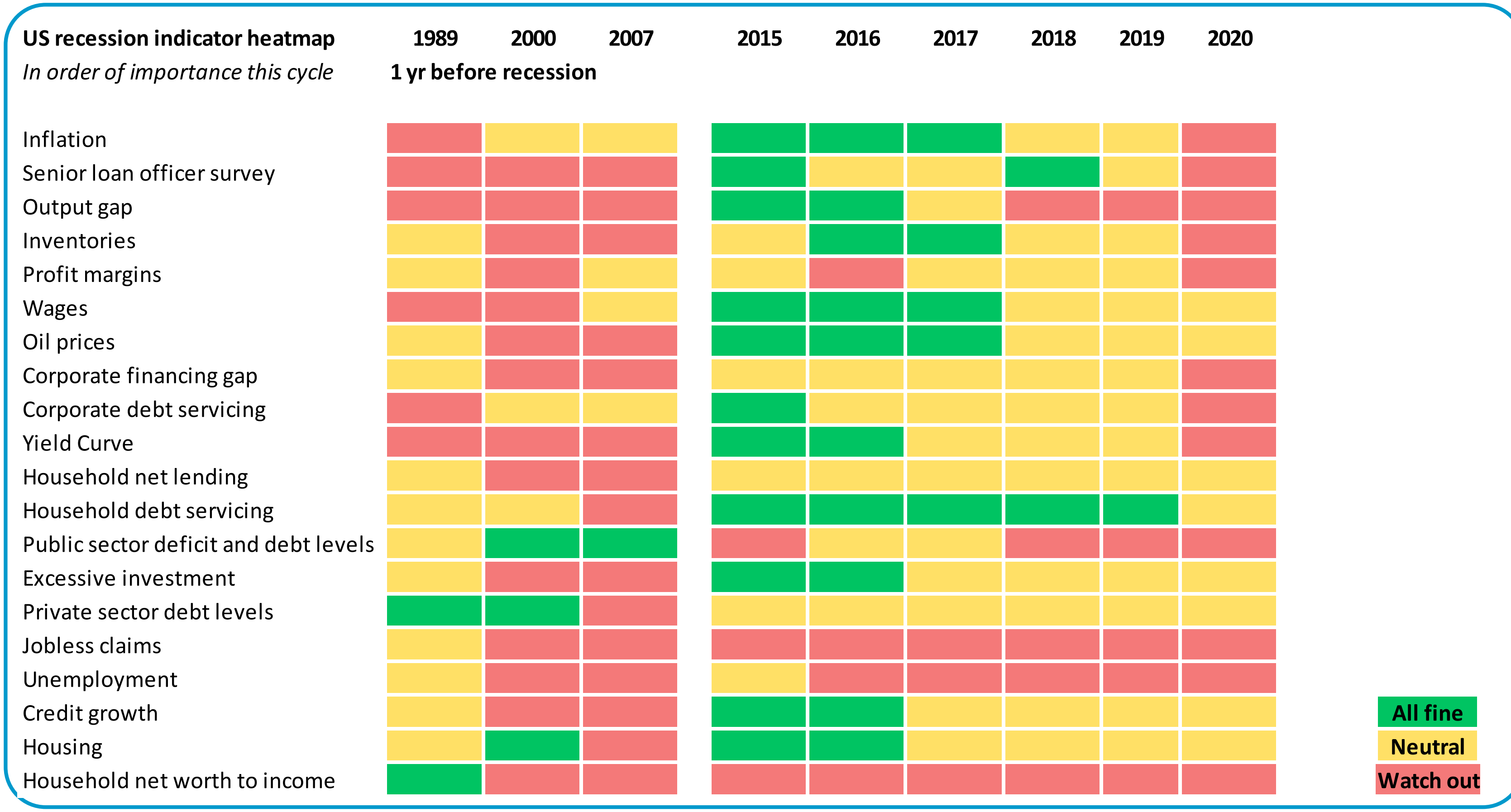
Given 9 consecutive BLACK spins, what's the probability of one more?

18/37 = 49%

Source: LGIM

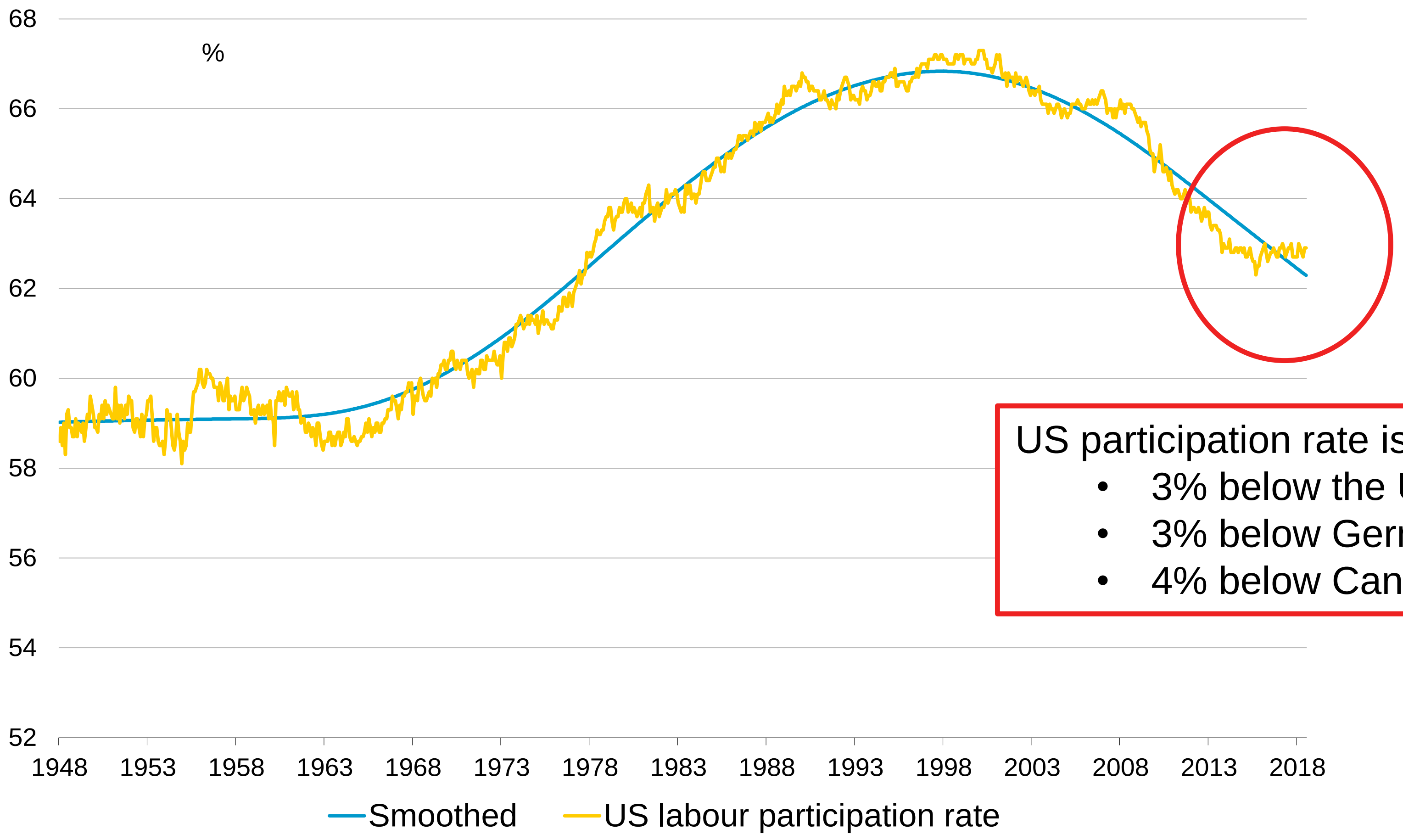
Legal & General INVESTMENT MANAGEMENT

How close are we to the end of the cycle?



Source: LGIM, Bloomberg, NBER as at November 2018.

Key factor: how much slack left in the US?



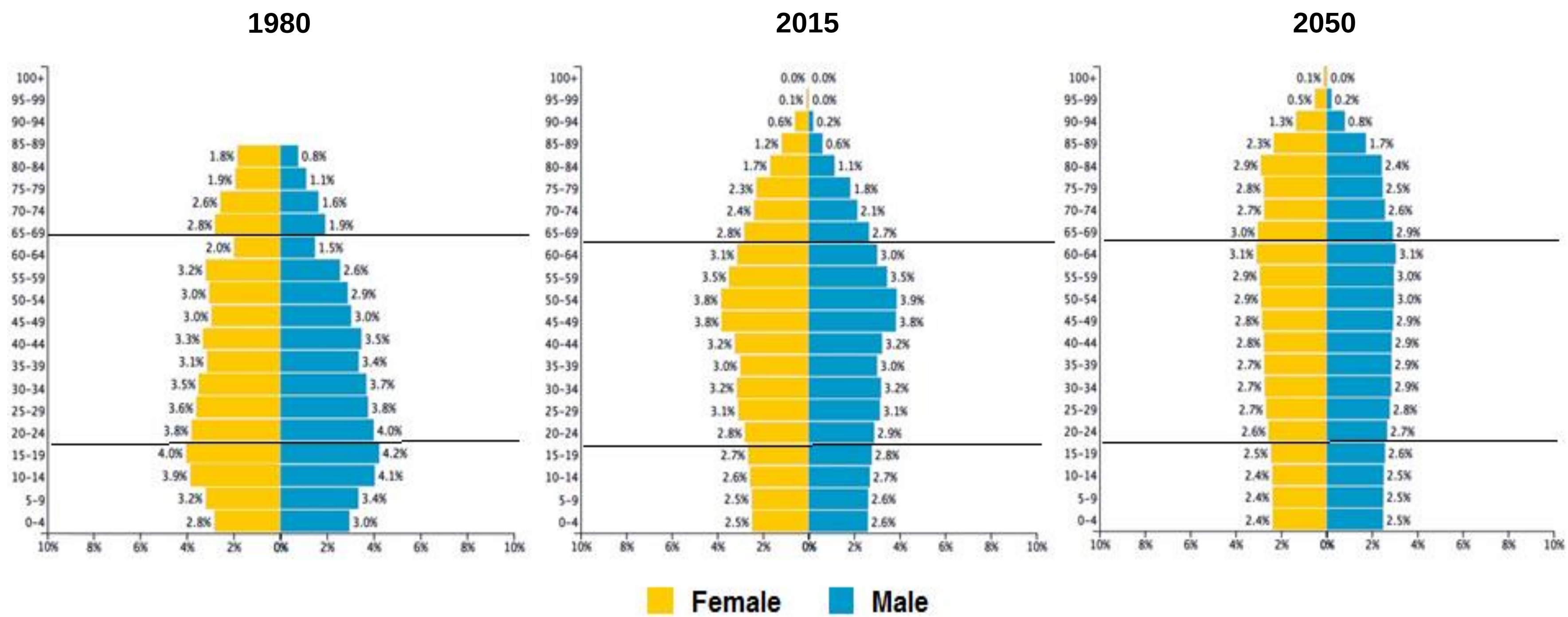
US participation rate is:

- 3% below the UK
- 3% below Germany
- 4% below Canada

Source: Macrobond, OECD

Demographics – Population Pyramid Scheme
Running out of workers!

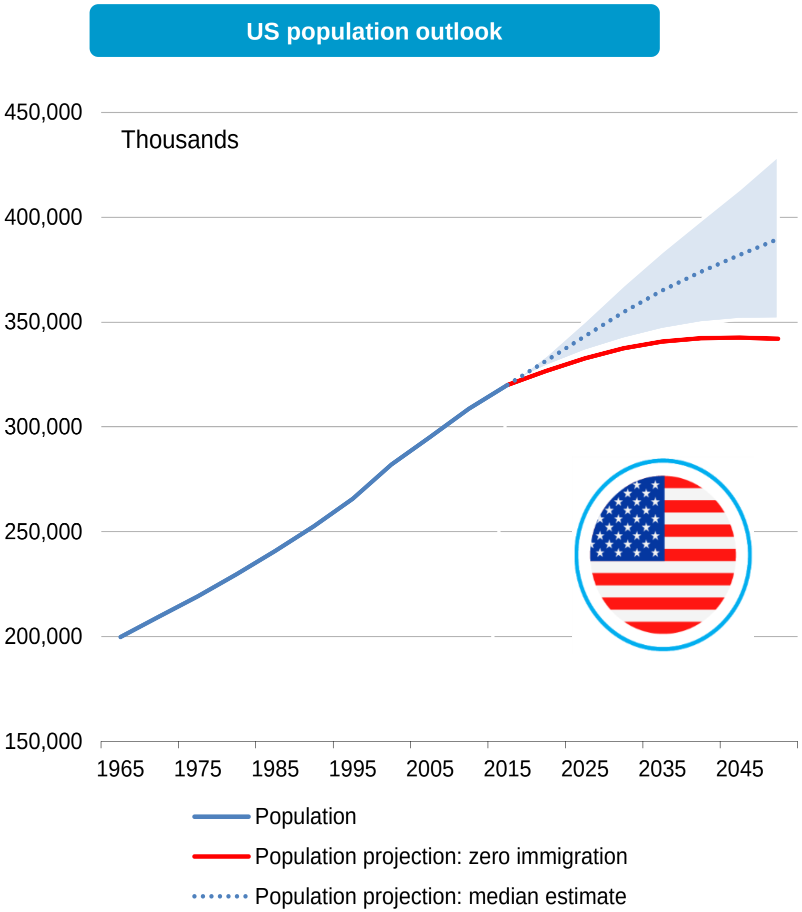
Western Europe Population Pyramids

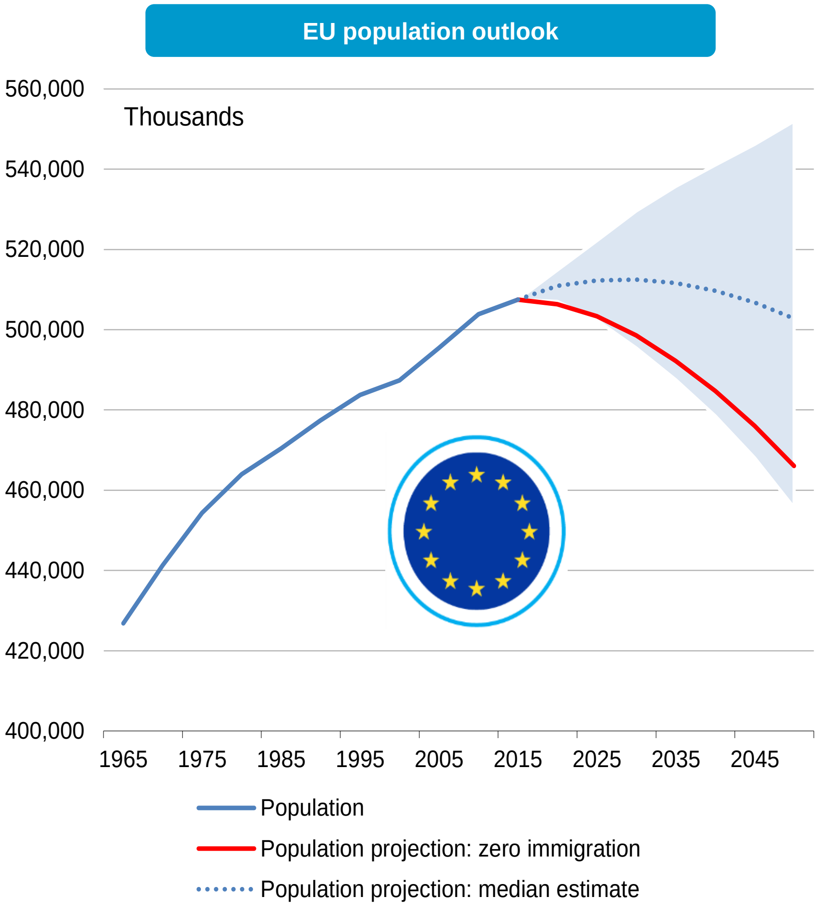


Source: UN WPP 2015

Legal & General
INVESTMENT MANAGEMENT

Who needs high immigration?

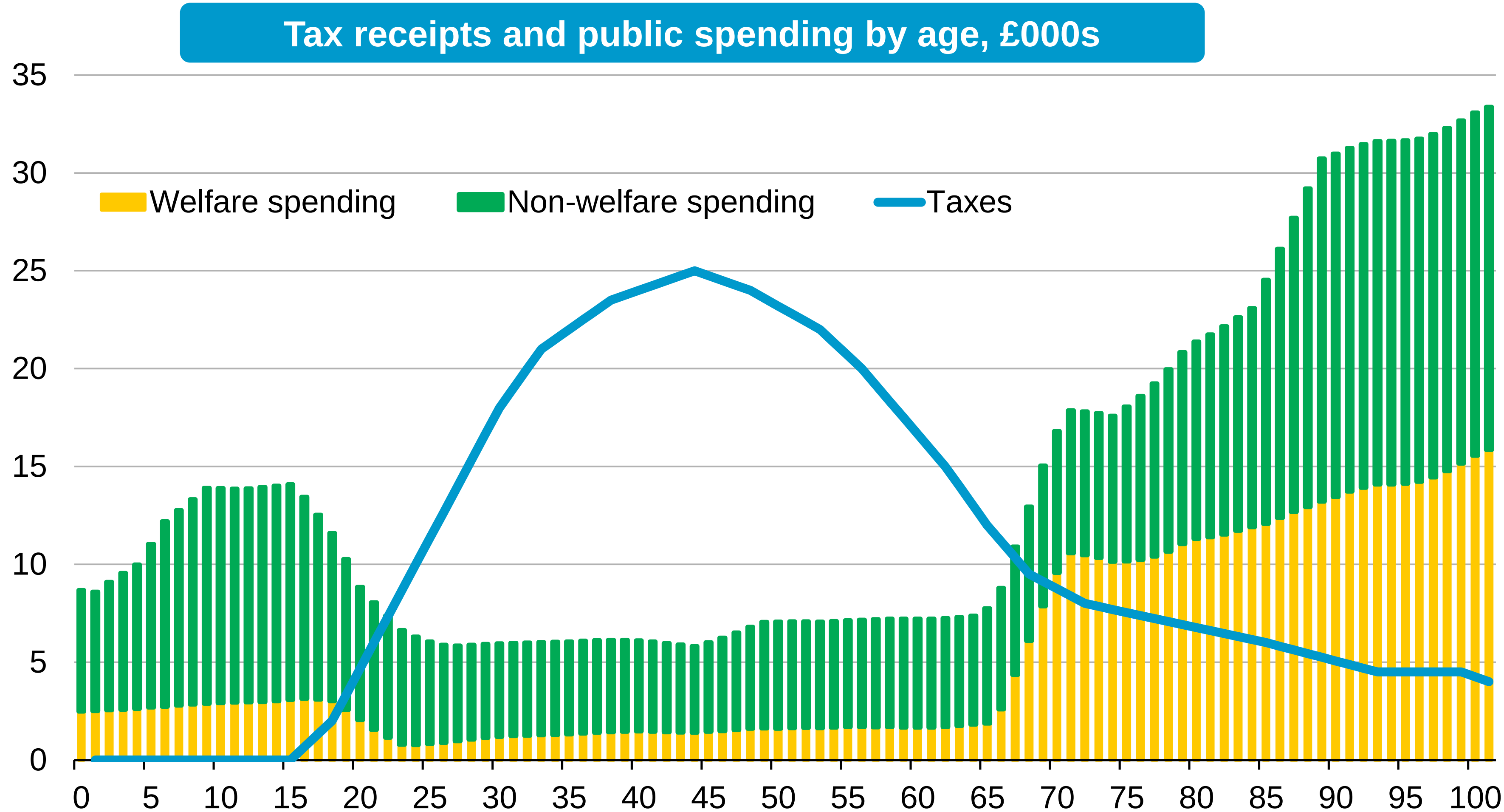




Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, DVD Edition.

Tax and spend

Middle aged taxpayers fund children and pensioners

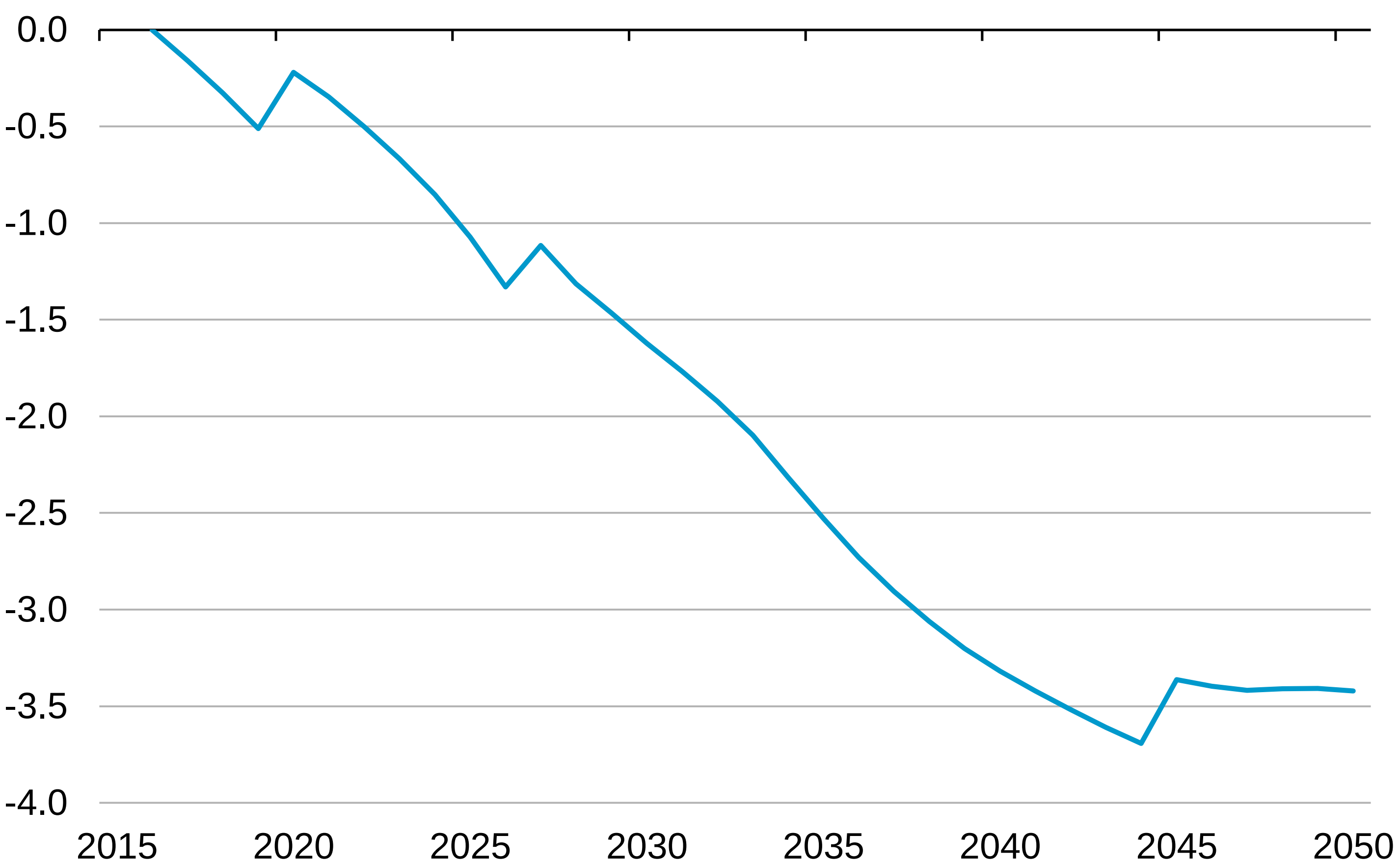


Source: LGIM, Macrobond, OBR

Public finances under pressure

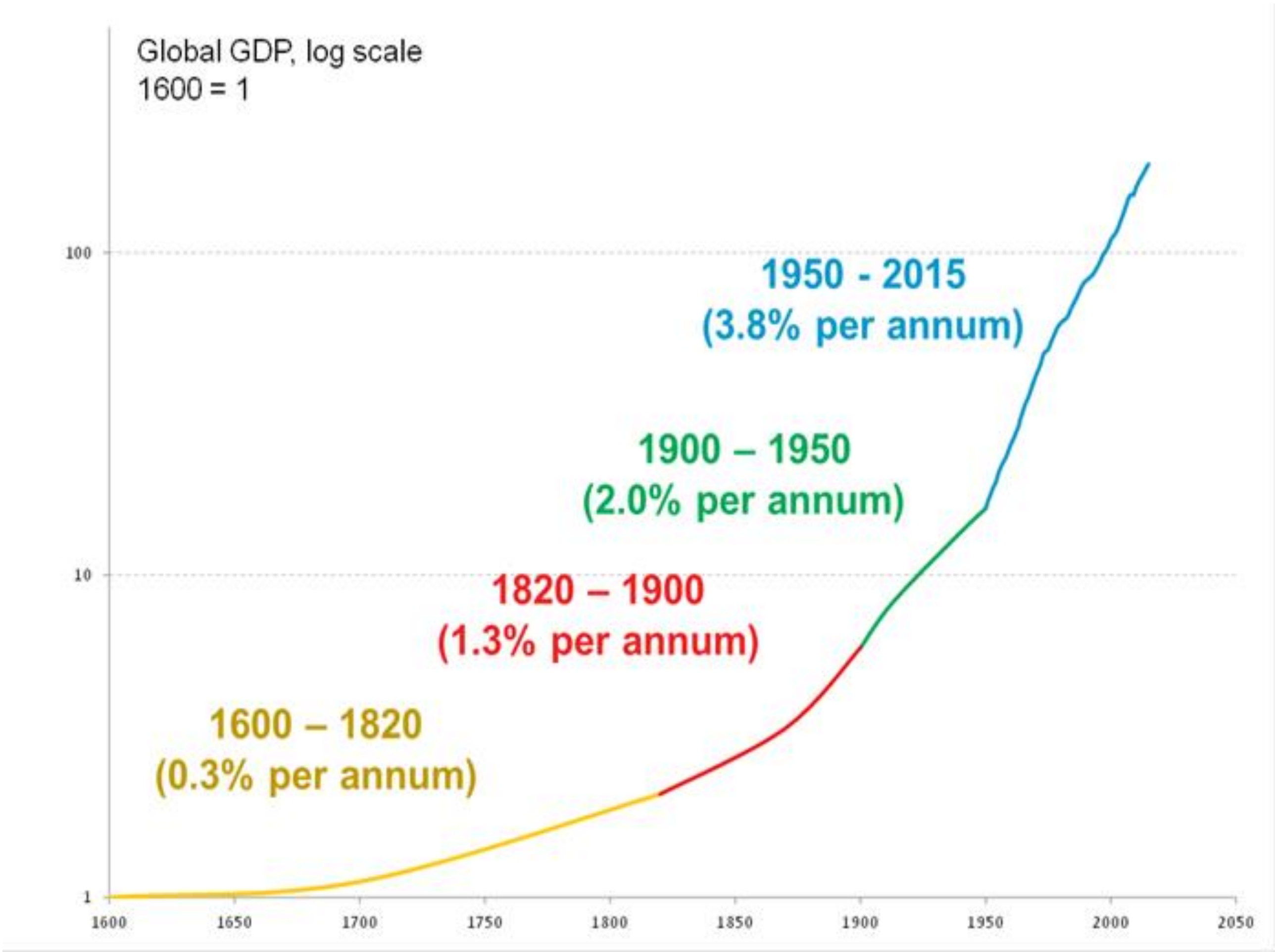
Lower taxes and higher health/pension costs to boost deficit

Cumulative impact on public finances (% of GDP) from ageing



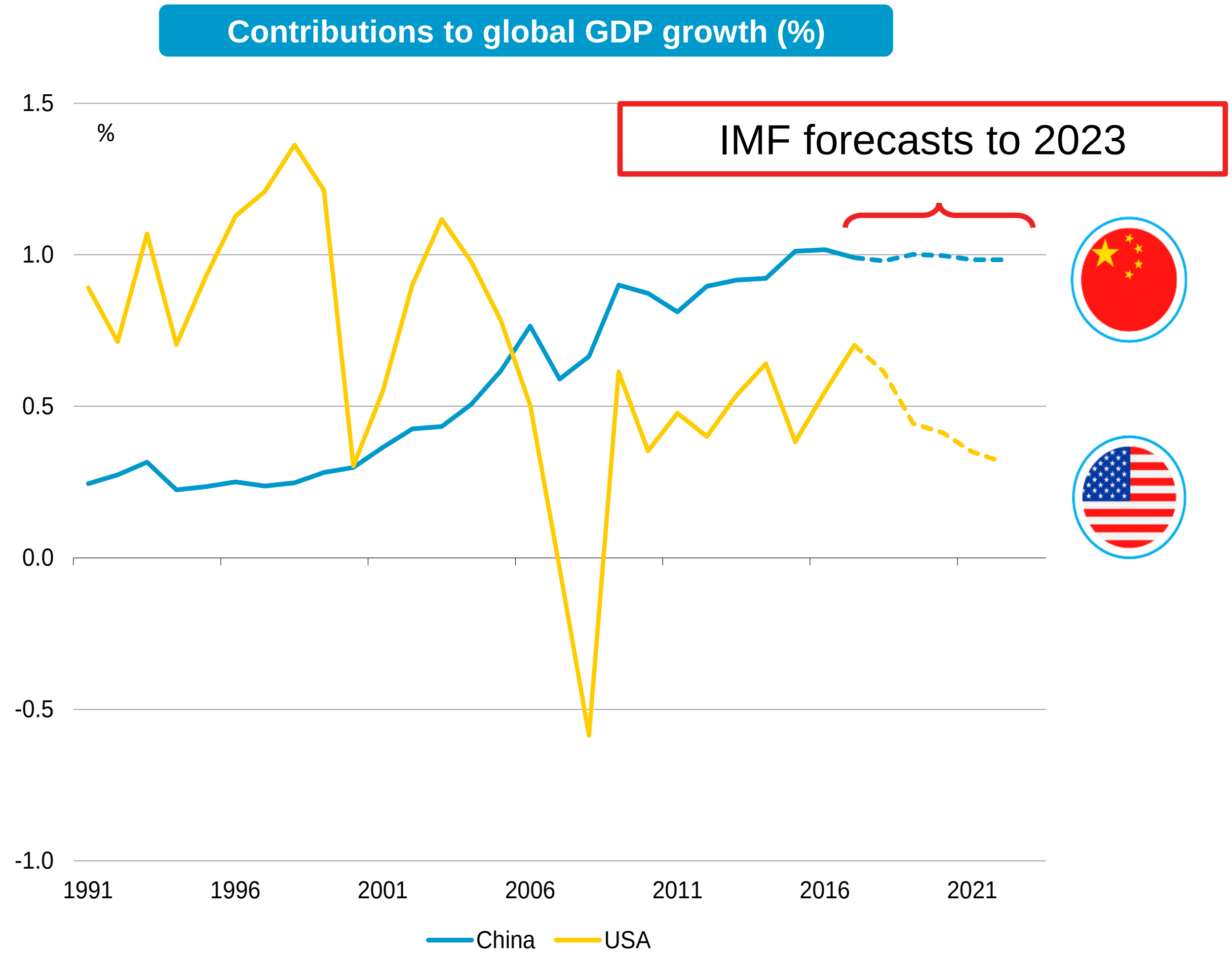
Source: OBR, LGIM estimates.
As at 31 August 2007.

Global growth… we've never had it so good?



Source: IMF, Maddisson Project Database, LGIM

In the last three decades, globalisation has been shorthand for the rise of China



China: still has a lot of catching up to do

2018

≈

1990

≈

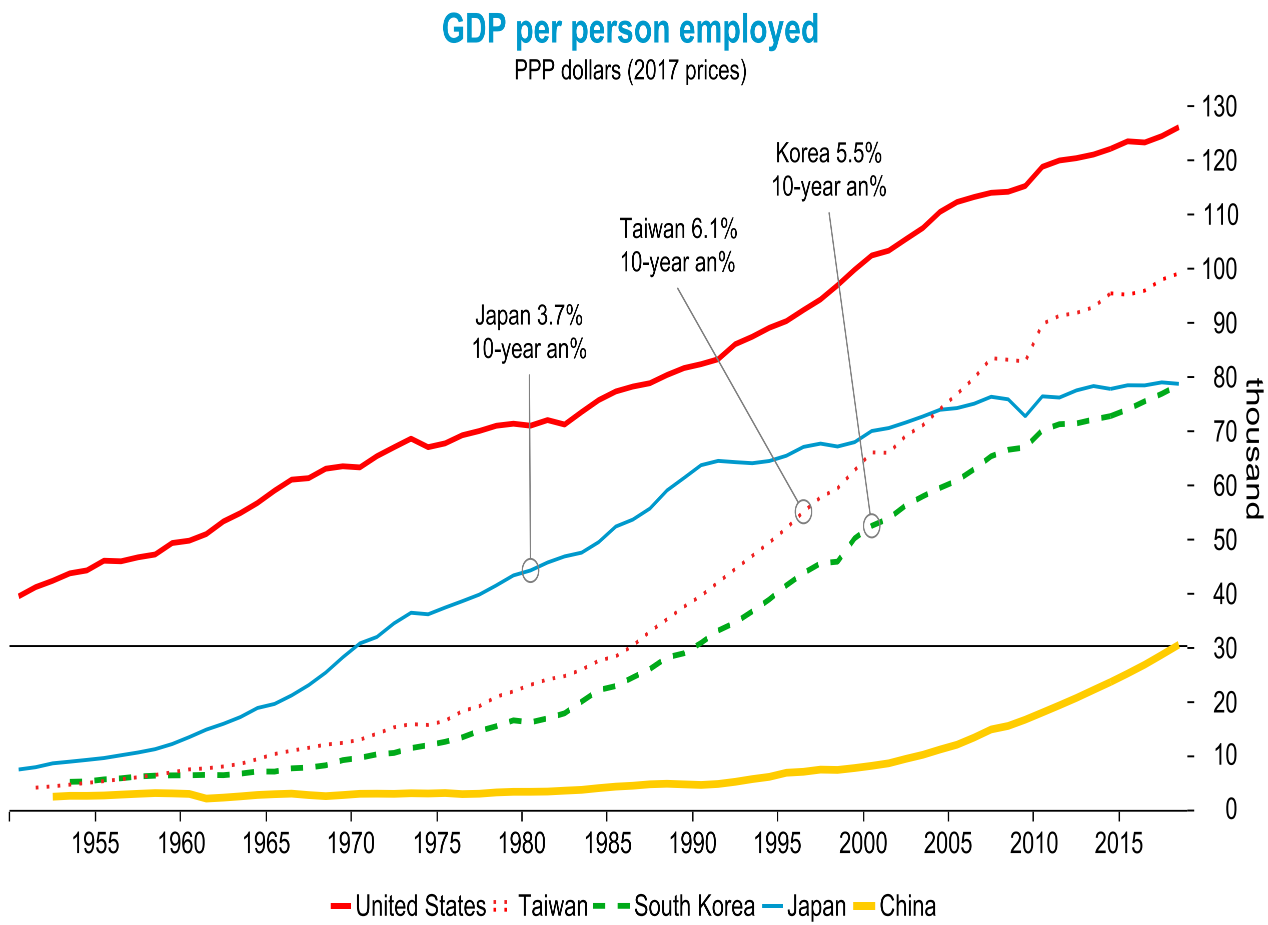
1987

≈

1970

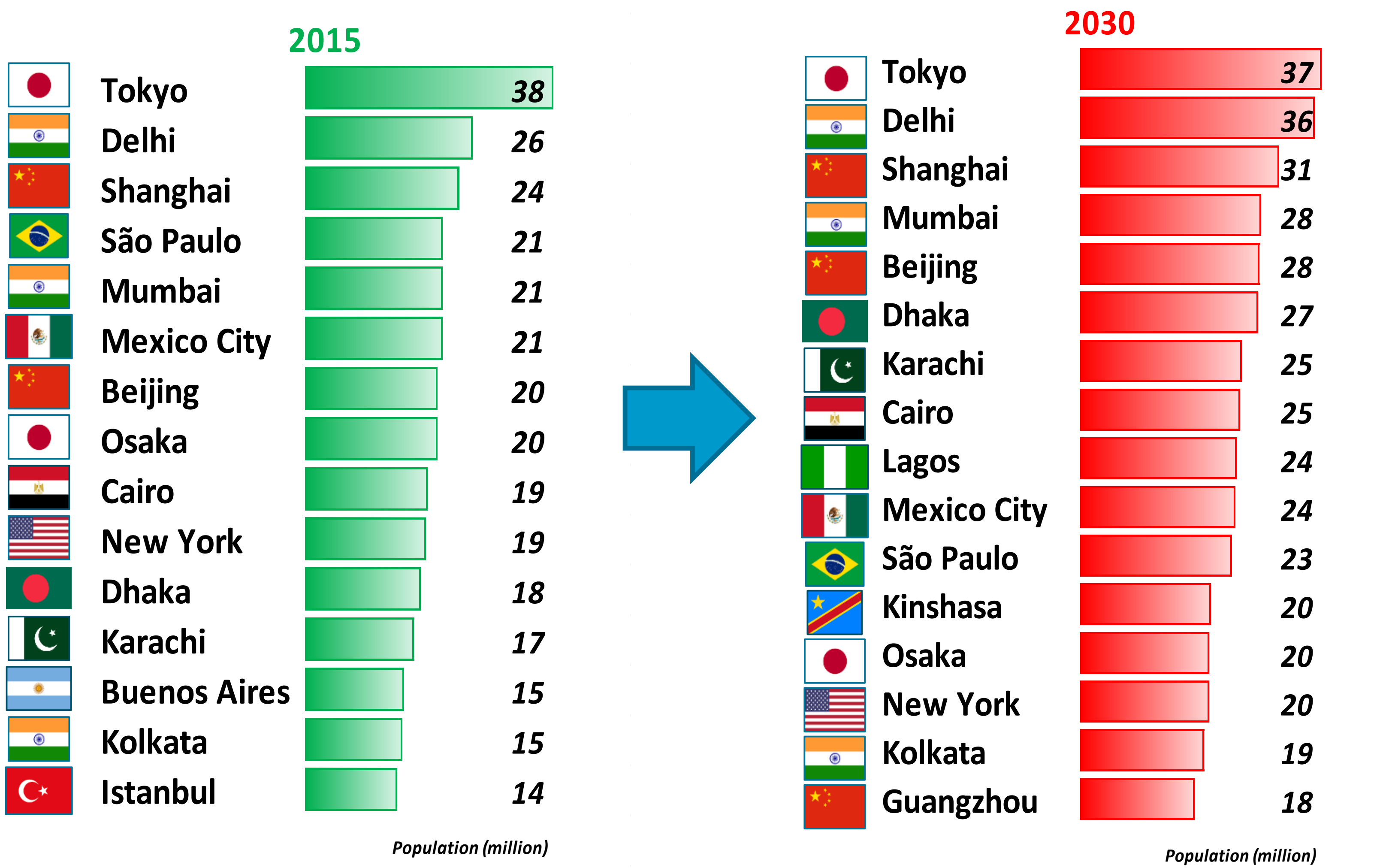
≈

1940



Legal & General
INVESTMENT MANAGEMENT

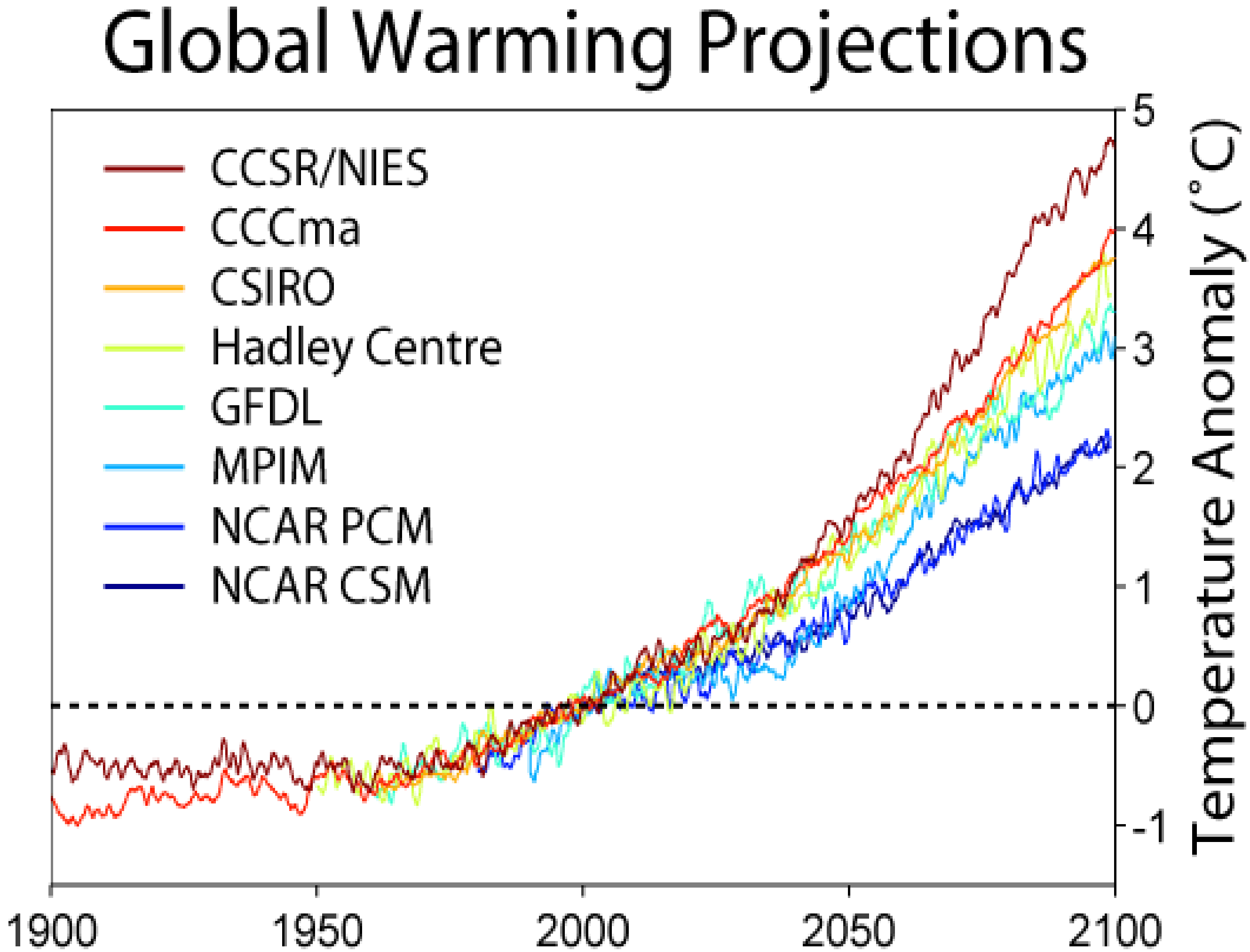
Globalisation = urbanisation



Source: UN Urbanisation Prospects, 2014

Global warming…

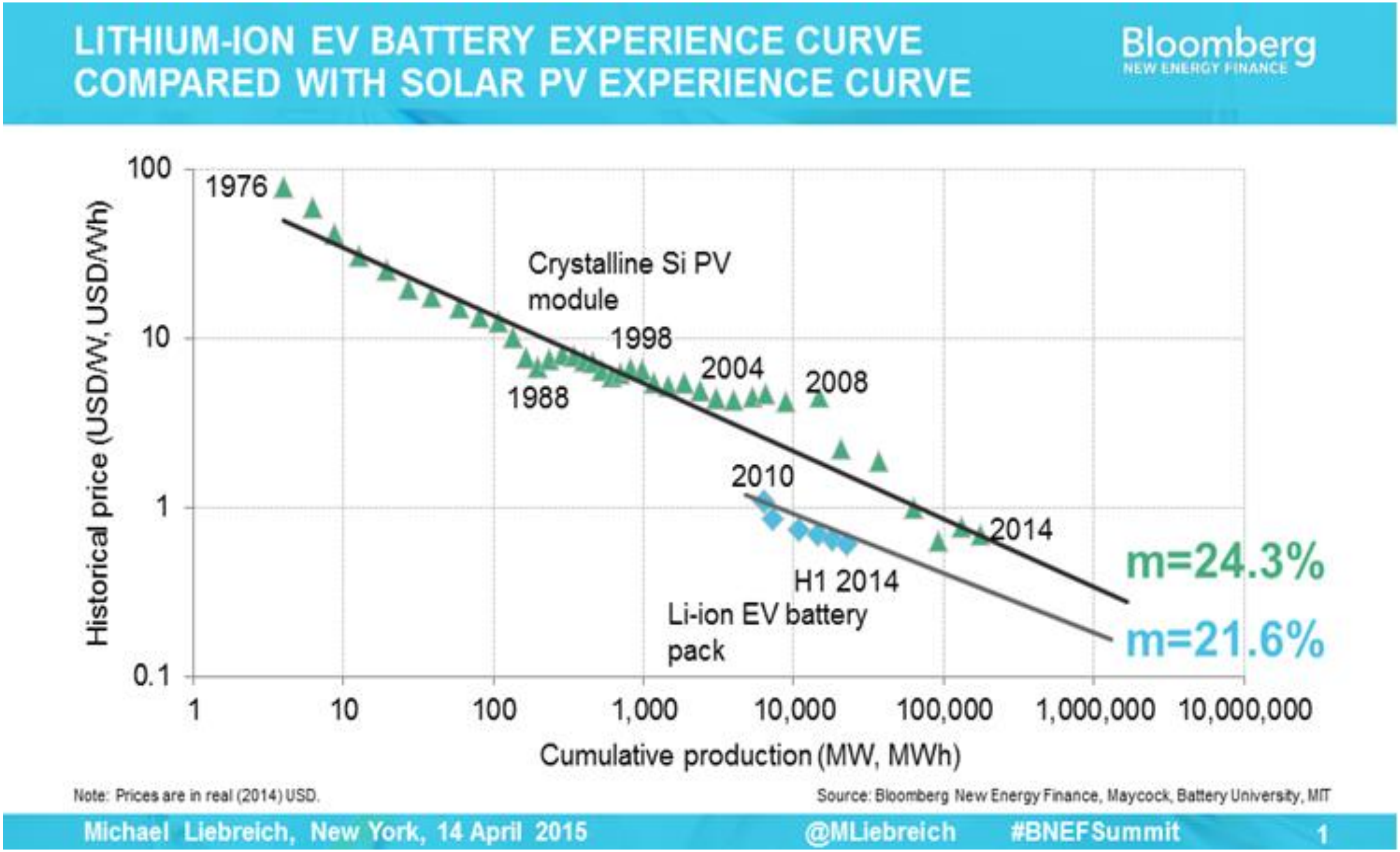
Massive changes needed to limit global temperature rise



Source: https://commons.wikimedia.org/wiki/File:Global_Warming_Predictions.png

Disruption from falling solar/battery prices

Trend decline in prices due to technological improvement

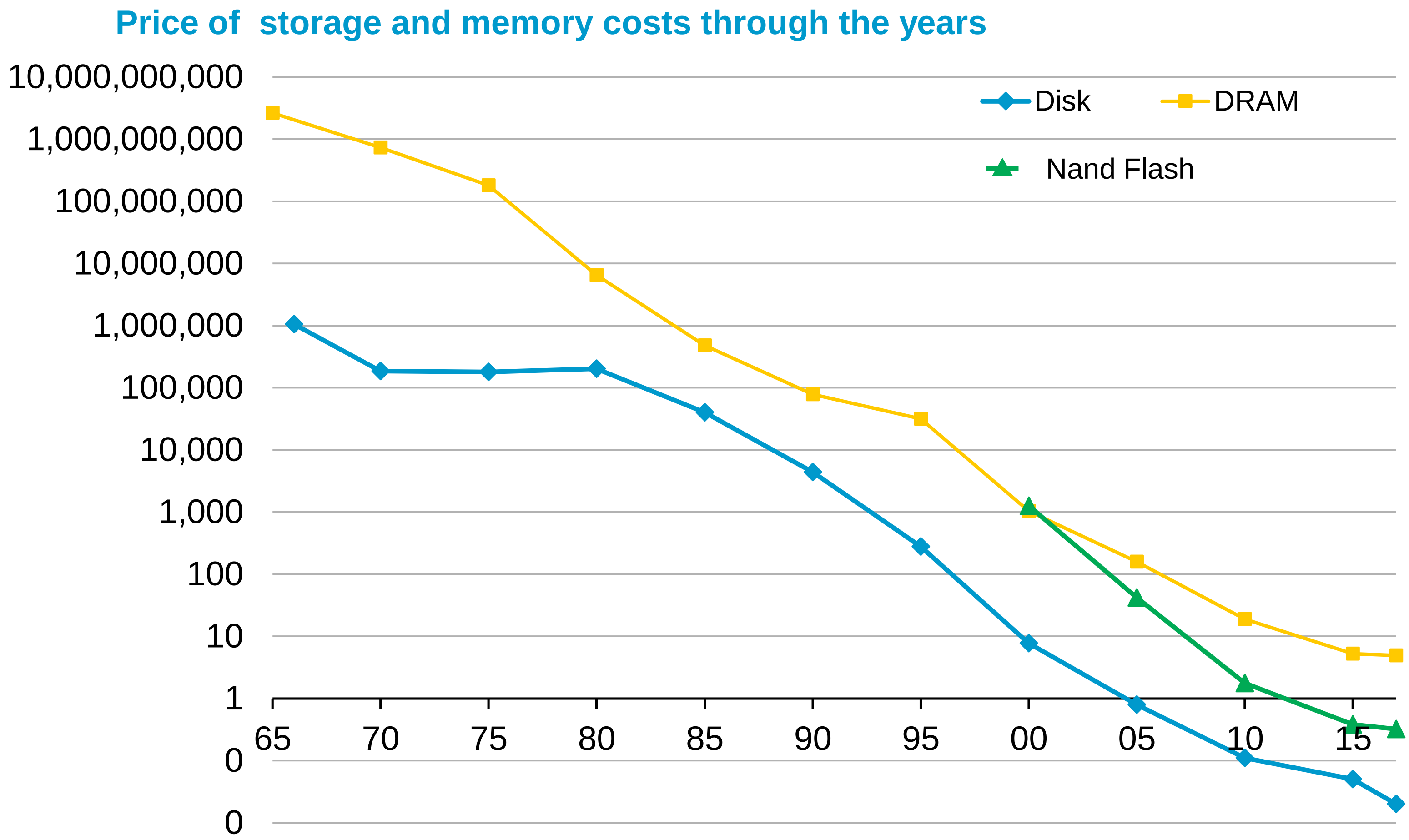


Source: Bloomberg New Energy Finance

Disruption from falling data storage prices

Will the robots destroy all the jobs?

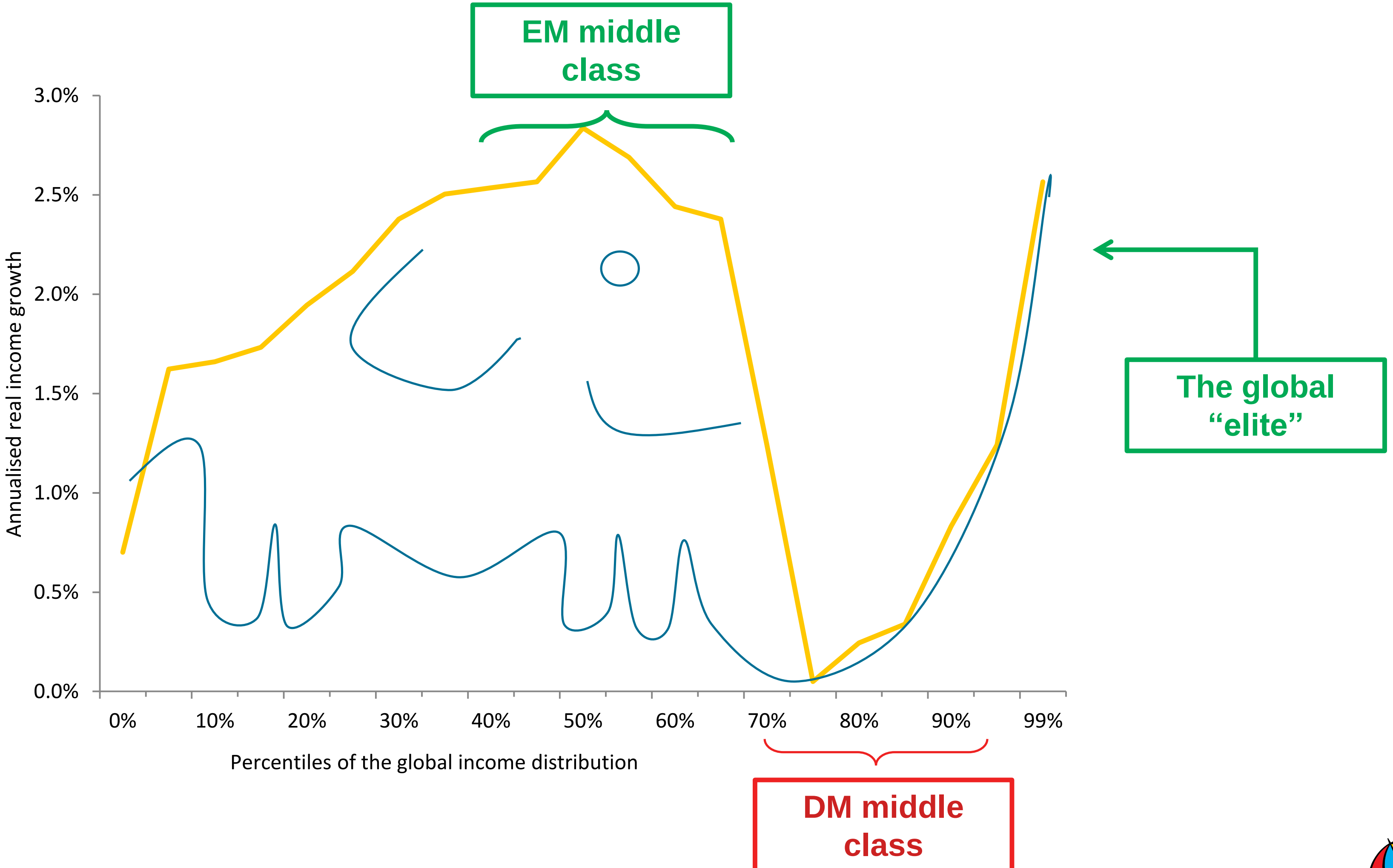
Nand Flash = SD card, DRAM = computer memory



Source: https://www.computerworld.com/article/3182207/data-storage/cw50-data-storage-goes-from-1m-to-2-cents-per-gigabyte.html

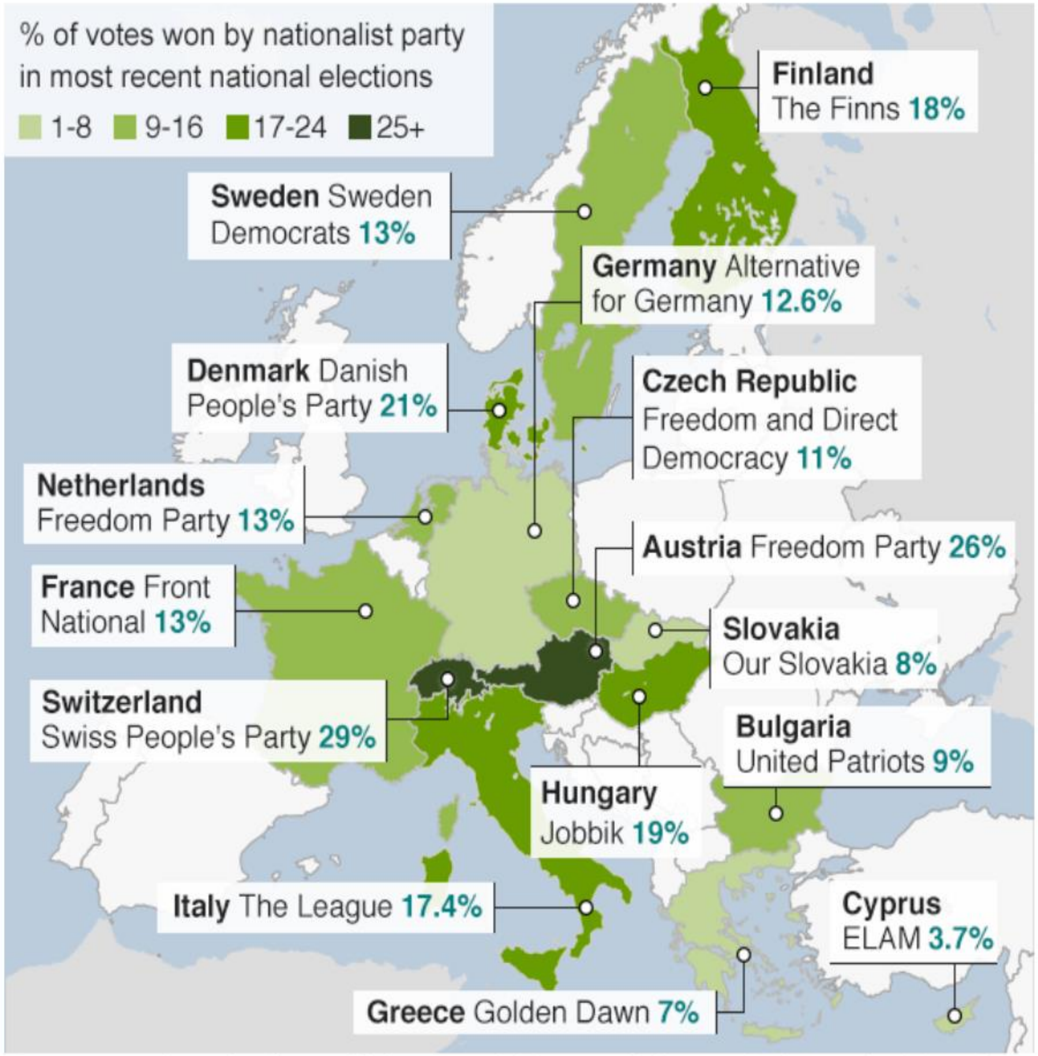
Global inequality has fallen due to rise of China

But developed market middle class has suffered



Source: "Global Income Distribution: From the fall of the Berlin Wall to the Great Recession" Lakner and Milanovic, World Bank Economic Review, September 2015

Rise of nationalism in Europe



In many countries nationalists got higher scores in European Parliament elections and opinion polls

Last updated: June 2018

BBC

Source: BBC

Legal & General INVESTMENT MANAGEMENT

Political risks across OECD a product of populism

In summary …

- **Brexit** is baffling
- Bank of England **independence** cannot be taken for granted
- **Expansions** don't die of old age
- Is the US running out of **workers**?
- Demographic decline particularly troubling in Western **Europe**
- Rise of **China** has supported global growth but brings two main challenges:
  - (1) Resource constraints
  - (2) Populism
- Technology is the answer to (1), but (2) is a much harder **threat** to tackle

Legal & General
INVESTMENT MANAGEMENT

Legal & General Investment Management

LGIM Disclaimer and important legal notice

The information contained in this document (the 'Information') has been prepared by Legal & General Investment Management Limited, or by Legal and General Assurance (Pensions Management) Limited and/or their affiliates ('Legal & General', 'we' or 'us'). Such Information is the property and/or confidential information of Legal & General and may not be disclosed by you to any other person without the prior written consent of Legal & General.

No party shall have any right of action against Legal & General in relation to the accuracy or completeness of the Information, or any other written or oral information made available in connection with this publication. Any investment advice that we provide to you is based solely on the limited initial information which you have provided to us. No part of this or any other document or presentation provided by us shall be deemed to constitute 'proper advice' for the purposes of the Pensions Act 1995 (as amended). Any limited initial advice given relating to professional services will be further discussed and negotiated in order to agree formal investment guidelines which will form part of written contractual terms between the parties.

Past performance is no guarantee of future results. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

The Information has been produced for use by a professional investor and their advisors only. It should not be distributed without our permission.
The risks associated with each fund or investment strategy are set out in this publication, the relevant prospectus or investment management agreement (as applicable) and these should be read and understood before making any investment decisions. A copy of the relevant documentation can be obtained from your Client Relationship Manager.

Confidentiality and Limitations:
Unless otherwise agreed by Legal & General in writing, the Information in this document (a) is for information purposes only and we are not soliciting any action based on it, and (b) is not a recommendation to buy or sell securities or pursue a particular investment strategy; and (c) is not investment, legal, regulatory or tax advice. Any trading or investment decisions taken by you should be based on your own analysis and judgment (and/or that of your professional advisors) and not in reliance on us or the Information. To the fullest extent permitted by law, we exclude all representations, warranties, conditions, undertakings and all other terms of any kind, implied by statute or common law, with respect to the Information including (without limitation) any representations as to the quality, suitability, accuracy or completeness of the Information.

Any projections, estimates or forecasts included in the Information (a) shall not constitute a guarantee of future events, (b) may not consider or reflect all possible future events or conditions relevant to you (for example, market disruption events); and (c) may be based on assumptions or simplifications that may not be relevant to you.

The Information is provided 'as is' and 'as available'. To the fullest extent permitted by law, Legal & General accepts no liability to you or any other recipient of the Information for any loss, damage or cost arising from, or in connection with, any use or reliance on the Information. Without limiting the generality of the foregoing, Legal & General does not accept any liability for any indirect, special or consequential loss howsoever caused and on any theory or liability, whether in contract or tort (including negligence) or otherwise, even if Legal & General has been advised of the possibility of such loss.

Third Party Data:
Where this document contains third party data ('Third Party Data'), we cannot guarantee the accuracy, completeness or reliability of such Third Party Data and accept no responsibility or liability whatsoever in respect of such Third Party Data.

Publication, Amendments and Updates:
We are under no obligation to update or amend the Information or correct any errors in the Information following the date it was delivered to you. Legal & General reserves the right to update this document and/or the Information at any time and without notice.

Although the Information contained in this document is believed to be correct as at the time of printing or publication, no assurance can be given to you that this document is complete or accurate in the light of information that may become available after its publication. The Information may not take into account any relevant events, facts or conditions that have occurred after the publication or printing of this document.

Telephone Recording
As required under applicable laws Legal & General will record all telephone and electronic communications and conversations with you that result or may result in the undertaking of transactions in financial instruments on your behalf. Such records will be kept for a period of five years (or up to seven years upon request from the Financial Conduct Authority (or such successor from time to time)) and will be provided to you upon request.

Legal & General Investment Management Limited. Registered in England and Wales No. 02091894. Registered Office: One Coleman Street, London, EC2R 5AA. Authorised and regulated by the Financial Conduct Authority, No. 119272.

Legal and General Assurance (Pensions Management) Limited. Registered in England and Wales No. 01006112. Registered Office: One Coleman Street, London, EC2R 5AA. Authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, No. 202202.

The LGIM Workplace Savings division on behalf of both Legal and General Assurance Limited. Registered in England and Wales No. 00166055. Authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. As well as Legal & General (Portfolio Management Services) Limited. Registered in England and Wales No. 02457525. Authorised and regulated by the Financial Conduct Authority, No. 146786. Registered Offices: One Coleman Street, London, EC2R 5AA.

Legal & General
INVESTMENT MANAGEMENT