Global Macro Trends: Today & Tomorrow

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Global Macro Trends: Today & Tomorrow

Globalisation, Technology, Demographics, Populism
Notes from a Small Island

GDP (2017)

- $3 trn
- $17 trn
- $80 trn

Source: IMF
The impact of four waves

GLOBALISATION
TECHNOLOGY
DEMOGRAPHICS
POPULISM
Global growth... we’ve never had it so good?

Source: IMF, Maddison Project Database, LGIM
Driven by specialisation and trade

Globalization over 5 centuries (1500-2011)
Shown is the sum of world exports and imports as a share of world GDP (%)
The individual series are labeled with the source of the data

Source: https://ourworldindata.org/wp-content/uploads/2013/05/ourworldindata_world-trade-over-5-centuries.png
Globalisation and urbanisation

<table>
<thead>
<tr>
<th>City</th>
<th>2015 Population (million)</th>
<th>2030 Population (million)</th>
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<tr>
<td>Tokyo</td>
<td>38</td>
<td>37</td>
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<td>Delhi</td>
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<td>Buenos Aires</td>
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<td>Kolkata</td>
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<tr>
<td>Istanbul</td>
<td>14</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: UN Urbanisation Prospects, 2014
The cost advantage in emerging markets is hard to ignore

Source: IMF, LGIM
Catch-up of emerging markets

The future’s bright … the future’s emerging

GDP at market exchange rates, Constant 2016 prices, Trillion US$

Source: PWC, The World in 2050
Energy… a scarce resource or a technology?
Global warming...
Massive changes needed to limit global temperature rise

Source: https://commons.wikimedia.org/wiki/File:Global_Warming_Predictions.png
Energy mix revolution…
Has been done before…coal, wood, animals

Source: Ayres and Warr (2007)
Solar and battery prices
Trend decline in prices due to technological improvement

Source: Bloomberg New Energy Finance
Battery technology
Inverse relationship between density and price

Li-Ion Pricing and Energy Density, 1991-2005
Adapted from Buchman (2005)

Source: http://batteryuniversity.com/learn/archive/battery_statistics
Other technology prices falling too

Collapse in data storage -> big data -> AI -> autonomous driving

An IBM 14-in HDD from the early 1980s next to today's highest capacity 3.5-in HDD. The 14-in HDD holds 200MB; the 3.5-in HDD from Western Digital holds 10TB of data or more than 50,000 times the amount of data.

By Grendelkhan [CC BY-SA 4.0 (https://creativecommons.org/licenses/by-sa/4.0)], from Wikimedia Commons
Disruption from falling data storage prices

Will the robots destroy all the jobs?

( Nand Flash = SD card, DRAM = computer memory )

Disruption is happening quicker?
Smartphone 4 years, computer 16 years, phone 43 years

Source: https://ourworldindata.org/technology-adoption
Don’t underestimate the potential for technological change

“The telephone has too many shortcomings to be seriously considered a means of communication”

William Orton, Western Union President, 1876

“There is a world market for maybe five computers”

Thomas Watson, IBM Chairman, 1943

“There’s no chance that the iPhone is going to get any significant market share”

Steve Ballmer, Microsoft CEO, 2007
Demographics – Population Pyramid Scheme
Running out of workers!

Western Europe Population Pyramids

Source: UN WPP 2015
• In 1908, life expectancy was BELOW pension age
• In 1940s, the gap was 7 years
• Today, the gap is 17 years
More retirees than school leavers!

Net effect = shrinking domestic born workforce

Net change in domestic-born workforce (nb this excludes retiring immigrants!)

Source: ONS
UK story the same globally…

Global labour force slowing

Global labour force growth
(adjusted for age and gender productivity)

Source: OECD, UN, Macrobond, LGiM estimates
Tax and spend
Middle-aged taxpayers fund children and pensioners

Welfare spending
Non-welfare spending
Taxes

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.
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
Inflation impact of populist shift clearer than growth impact

“An ideology that pits a virtuous and homogeneous people against a set of elites and dangerous ‘others’ who are together depicted as depriving (or attempting to deprive) the sovereign people of their rights, values, prosperity, identity, and voice”

Albertazzi & Duncan (2008), Twenty-First Century Populism
Trade war?
US often raised tariffs… but 1930s was first time we saw retaliation

Sources: Imlah, Economic Elements
Trade war?
Let’s keep it in context

- 10% tariff on all Chinese imports is still only an average tariff of 1.7%
- CPI impact of tariffs is small but noticeable…
- Tariffs so far amount to ¼% of GDP

Source: IMF, BEA, LGIM
Who needs high immigration?

35% of Americans described immigration as having a “very or fairly positive” impact on their country.

16% of Europeans* described immigration as having a “very or fairly positive” impact on their country.

Source: “Global Views on Immigration and the Refugee Crisis” Ipsos, Sep 2017. European data are an unweighted average of Hungary, Italy, Belgium, France, Poland, Germany, Sweden, Spain and the United Kingdom.
Rise of nationalism in Europe

% of votes won by nationalist party in most recent national elections

- Sweden: Democrats 13%
- Germany: Alternative for Germany 12.6%
- Denmark: Danish People’s Party 21%
- Netherlands: Freedom Party 13%
- France: Front National 13%
- Switzerland: Swiss People’s Party 29%
- Hungary: Jobbik 19%
- Italy: The League 17.4%
- Cyprus: ELAM 3.7%
- Finland: The Finns 18%
- Slovakia: Our Slovakia 8%
- Bulgaria: United Patriots 9%
- Greece: Golden Dawn 7%

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

Last updated: June 2018

Source: BBC
So what?

Source: LGIM
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