Vanguard

Vanguard Research:

Megatrends

The deglobalization myth(s)

About the Megatrends series

Megatrends have accompanied humankind throughout history. From the Neolithic Revolution to the Information Age, innovation has been the catalyst for profound socioeconomic, cultural, and political transformation. The term "Megatrends" was popularized by author John Naisbitt, who was interested in the transformative forces that have a major impact on both businesses and societies, and thus the potential to change all areas of our personal and professional lives.

Vanguard's "Megatrends" is a research effort that investigates fundamental shifts in the global economic landscape that are likely to affect the financial services industry and broader society. A megatrend may bring market growth or destroy it, increase competition or add barriers to entry, and create threats or uncover opportunities. Exploring the long-term nature of massive shifts in technology, demographics, and globalization can help us better understand how such forces may shape future markets, individuals, and the investing landscape in the years ahead.

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Megatrend

The deglobalization myth(s):

Why slowing trade growth shouldn't concern investors

- While economists and policymakers have historically emphasized globalization's benefits, the consensus is fracturing. This attitude shift has raised fears that a period of "deglobalization" is imminent, threatening economic growth and, potentially, investment returns.
- We reach a different conclusion. The growth rate in global trade is likely to slow, as it has since the global financial crisis, but is unlikely to turn negative. We see a future of "slowbalization."
- The economic effects of slowbalization will vary, based on a country's trade profile. Economies with a high dependence on trade, such as Brazil, China, and Australia, are likely to be hit hardest, while the U.S. and Europe likely will largely be unaffected. Slowbalization may also slow the economic convergence of developing and developed countries, although it could potentially shrink inequality within countries.
- The investment effects will be more modest. We find that globalization has made only a limited contribution to multinationals' earnings growth over the past decade, and corporate profit margins are unlikely to be significantly impaired by slowbalization.

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International trade and economic growth

Globalization has been a defining economic theme of the modern era, having grown over decades through a combination of public policy changes and technological innovation.

In this report, we focus on one aspect of globalization: the trade of goods and services. We focus on this even though other major aspects of globalization—such as international capital flows,[1] knowledge sharing,[2] and geopolitics[3]—have significant economic, societal, and environmental consequences. In spite of academic and political debate about globalization (Rodrik, 1997), the rapid expansion of international trade is widely acknowledged to be a crucial, though not singular, factor in the decline in poverty and in global economic convergence (Ben-David and Kimhi, 2004). It is generally accepted as a catalyst for growth, particularly in developing countries (Irwin, 2019).

Between 1990 and 2008, global trade as a share of GDP rose from 39% to 61%. Globalization fueled the development of robust trading relationships and propelled economic growth in emerging-market countries. Real GDP per capita more than doubled[4] in these economies, while developed economies grew by 44%, albeit from a higher starting point.

But global trade volumes declined by 9% in 2020, according to the World Trade Organization (2020), and many industrialized countries started turning inward after the 2008–2009 global financial crisis (GFC) (Antràs, 2020). This has triggered concerns for the future of globalization and trade and their far-ranging implications.

Using our understanding of the historical drivers of trade globalization, we dissect the causes of the recent post-GFC trade slowdown and report our expectations for how globalization will evolve over the next decade. Our forecast of slowing growth in global trade has implications for global growth, though it poses a lesser risk to corporate earnings and consequent equity returns.[5] Rather, we continue to emphasize that the price paid for earnings, or valuations, provides a much clearer signal of future asset returns (DiCiurcio et al., 2020).

Drivers of trade globalization

Research has identified many factors in the evolution of globalization (**Figure 1**). Using a cross-country panel regression of 13 major economies since the early 1990s, we regress trade growth on each of the factors listed in Figure 1 to estimate their contribution and quantify how much has changed in the latest slowdown.

Specifically, for the demand measure, we used the Organisation for Economic Co-operation and Development's (OECD) Input-Output Tables to compute an import-adjusted demand (IAD) measure similar to the one used in Bussière et al. (2013).

Changes in global supply chains were proxied using a measure of imports of intermediate goods as a proportion of GDP, while patent growth and the KOF Swiss Economic Institute's trade globalization index were used to reflect technological progress and trade liberalization, respectively.

All independent variables were lagged by one year to avoid reverse causality issues. As **Figure 2** illustrates, these factors together explain approximately 50% of historical fluctuations in trade activity.

1 Kumhof, Rungcharoenkitkul, and Sokol (2020).

2 More recently, this global knowledge sharing led to record-fast coronavirus vaccine development. See Davis et al. (2020).

3 International Monetary Fund Staff (2002).

4 1995–2019 in purchasing power parity terms.

5 See Davis, Aliaga-Díaz, and Thomas (2012). Growth surprises correlate with asset returns, but expected growth is incorporated into asset prices such that an investor is unlikely to gain a return advantage simply based on differences in expected growth rates across countries or regions.

Figure 1. Potential factors influencing the path of globalization

Factor	Rationale
Demand 	Using a Ricardian model of trade, Eaton et al. (2010) conclude that the demand composition shock is by far the most important driver of the global trade movements, while trade frictions play a more limited role. Similarly, in an examination of the relationship between trade flows and macroeconomic dynamics, Bussière et al. (2013) find that the fall in aggregate demand (particularly the most important sensitive component of expenditure-investment) explained more than half of the post-global financial crisis average fall in imports in the G7 countries.
Supply chains 	According to the European Central Bank (2016), the vertical fragmentation of production during the 1990s and early 2000s boosted the income-trade elasticity by almost 0.5. More recently, however, the contribution has declined to 0.3, given shrinking value chains.
Technological progress 	Lund and Bughin (2019) highlight how the history of trade reflects the ongoing march of technological innovation. Specifically, they find that advances in technology, such as the steam engine and the internet, have enabled globalization by bringing down transport and communication costs.
Trade policies 	The International Monetary Fund (2016) finds that the greater incidence of trade barriers is associated with lower import volume growth, while expanding the set of trading partners with which a country is in a free-trade agreement is associated with higher growth of import volumes. Specifically, it finds that every 10 percentage point increase in trade barriers is associated with a 0.31 percentage point decrease in import growth, while a 10 percentage point increase in free-trade agreement coverages is associated with a 1 percentage point increase in import growth.

Figure 2. Trade movements are explained by a combination of cyclical and structural factors

Annual growth in global trade volumes

Note: Our import-adjusted demand (IAD) measure is a weighted average of traditional aggregate demand components (investment, private consumption, government spending, and exports) using as weights the import contents of demand computed from the OECD Input-Output Tables.

Source: Vanguard calculations, using data from the World Bank, the OECD, and the KOF Swiss Economic Institute.

An impact accounting of these drivers over the last decade in **Figure 3** shows that the contribution of each factor to trade movements is not equal. In particular, while demand remains the main driver of global trade over time, around half of the slowdown in trade post-global financial crisis cannot be explained by growth alone. This suggests that a pickup in cyclical demand over the coming years, made likely by the reopening of economies and implementation of stimulus packages, will not be sufficient to reverse the trade slowdown given other structural forces pertaining to global value chains and trade policies.

The structural expansion in supply chains, for instance, which boosted gross trade in the 1990s and early 2000s, was already slowing before the financial crisis and has consolidated even more since then as countries have begun reshoring operations (Delis, Driffield, and Temouri, 2019). The COVID-19 pandemic will only serve to accelerate this trend as policymakers and business leaders question whether global supply chains have been stretched too far and become too complex (see box at right).

Finally, just as freer trade contributed to globalization in the mid- and late 20th century, a turn toward protectionism over the last decade in the face of rising inequality within developed economies will likely stall trade growth in years to come. While the current U.S. administration could slow the increase in protectionism, its policies are unlikely to fully reverse this structural trend. The number of trade barrier measures in the U.S. has more than tripled[6] since the 1990s, regardless of who held the White House.

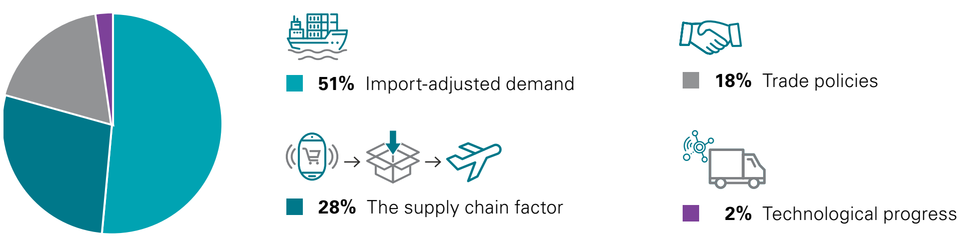
Fewer but more valuable nodes: A closer look at global value chains

The slowing in global trade growth since the GFC (Timmer et al., 2016) could be interpreted as an unavoidable trend, as countries began reshoring production after a wave of indiscriminate offshoring. However, a closer look at global value chains[7] (GVC), which are involved in 50% of all global trade, reveals a slightly different story. GVCs differ based on a country's stage of economic development. Goods production takes place in stages, with each stop of an intermediate good adding value to the good before it is ready for consumption.

Given the complexity and interconnectedness of GVCs, accurately measuring them can be a challenge. We chose to measure GVCs in the form of backward and forward linkages. Backward linkages are measured by the share of foreign value added in a country's gross exports, while forward linkages are the domestic value added in a country's import of intermediate goods.

Looking at the data on backward and forward linkages across countries, we find that across major trading economies, the domestic value added to intermediate goods has increased while foreign value added to gross exports has fallen. In other words, each country is producing more value add domestically while limiting the imported value add in products. At the same time, however, the value of net final goods exported across all countries has continued to rise steadily. This indicates that GVCs have become shorter with fewer production stops but have been adding more value at each stop than previously. This means that, in aggregate, globalization may still expand, but certain countries or regions may play a smaller role in its expansion.

Figure 3. Contribution to the decline in trade post-GFC



Source: Vanguard calculations, using data from the World Bank, the OECD, and the KOF Swiss Economic Institute. Because of rounding, figures may not add up to 100%.

6 Vanguard calculations, based on data from the World Bank.

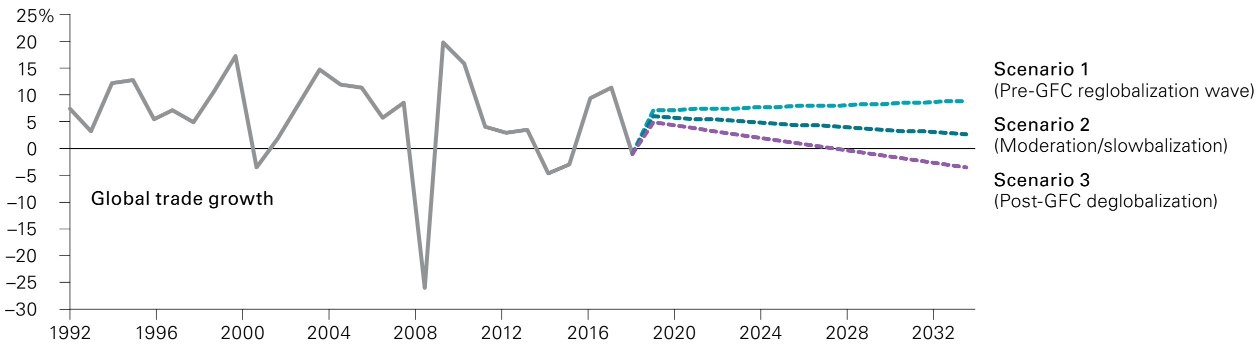
7 "Global value chain" refers to all resources and activities involved in the production and distribution of goods and services across geographies.

Slowbalization is the new globalization

With several structural changes playing an important role in the trade slowdown, it is unlikely to reverse in the foreseeable future. We do not anticipate a return to the rapid growth in the years before the GFC. However, an outright deglobalization scenario also appears to be too pessimistic at this stage, especially given the recognized benefits of trade and the challenges posed by further widespread domestic reshoring. The most likely scenario is one in which trade continues along, albeit at a structurally slower pace, alongside a recalibration and moderate shortening of supply chains.

In **Figure 4**, we estimate the future change in trade volume globally for three scenarios. We conclude that the most likely outcome is a slowbalization scenario in which trade grows at a pace between that of the pre-GFC globalization wave and that of the post-GFC trade reversal. While this trajectory may have negative implications for productivity because of rising uncertainty and less efficient resource allocation, it nonetheless alleviates fears of a more significant supply shock from an outright trade slowdown similar in scope to that witnessed post-GFC.

Figure 4. A slowbalization scenario is the most likely outcome



Source: Vanguard calculations, using data from the World Bank, the OECD, and the KOF Swiss Economic Institute.

Similiar but different: The varied impacts of slowbalization

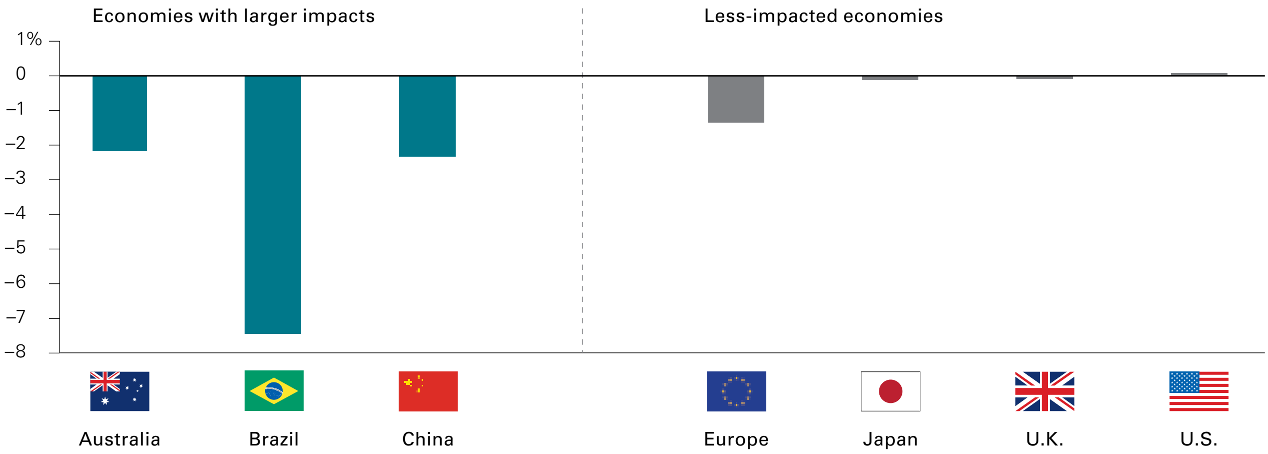
In the previous section, we argue that globalization, as measured by import volumes, will likely slow in the near term. Our Global Vector Autoregressive Model is a rigorous, consistent way of measuring spillover effects from slowing trade volumes on domestic economic variables such as GDP and inflation. By shocking global trade volumes[8] by –0.2%, a one standard deviation move (**Figure 5**), we are able to estimate the impact on GDP growth in G10 countries.

A decline in global trade affects growth throughout the world, in part because of the importance of trade to each economy. We shock global trade by one standard deviation and look at the impact on GDP growth in a few large economies eight quarters after the shock. Brazil, for instance, trades heavily with China and is a primary commodity exporter to the rest of the world. Consequently, Brazil's economy suffers disproportionately from a decline in trade volumes. The U.S. and U.K. depend less on international trade for GDP growth and would therefore suffer less from a shock to global trade volumes.

Because these growth expectations and spillover effects are accounted for in asset prices, we don't expect slowing global trade growth to have a meaningful impact on asset returns.

Figure 5. A decline in global trade volumes has the largest impact on Brazil, China, and Australia

Cumulative impact to GDP growth from one standard deviation decline in global trade volumes; cumulative eight quarters after the shock to trade



Source: Vanguard calculations, based on data from Thomson Reuters.

8 Measured by imports as proportion of global GDP.

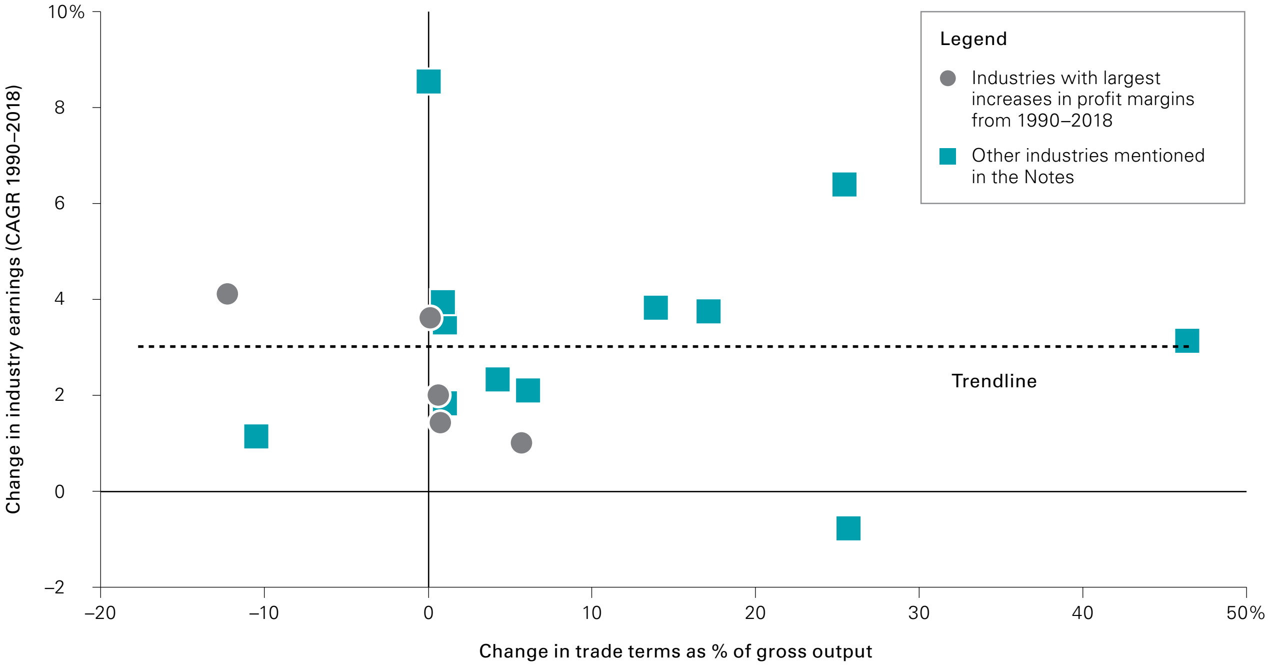
Equity investors need not fear slowbalization

Beyond its impact on growth rates, slowbalization has raised concerns among equity investors for other reasons. One of the most widely cited benefits of global trade is its effect on corporate earnings, thanks to lower production costs and greater returns to scale (Escaith, 2017, and Antweiler and Trefler, 2002). In fact, the recent globalization wave has coincided with a six-fold increase in Standard & Poor's 500 earnings per share and a more than doubling of profit margins, from 4.6% in 1990 to 10.2% in 2018. This growth in earnings and profit margin has contributed to almost 90% of the index's price return since 1990.[9]

While investors may fear our slowbalization scenario will result in a return to 1990 profit margins and lower corporate earnings, we contest the view that globalization has been the central factor in the expansion of these return drivers.

Comparing U.S. industries' earnings growth with change in trade dependence, as measured by imported inputs and exports a percentage of industry output, **Figure 6** demonstrates an inconclusive or weak relationship. If industry earnings were driven principally by globalization, either through cheaper inputs that raise profit margins or higher export demand that grows revenues, we would expect the dotted line to slope up and to the right (higher earnings growth for higher trade-dependent industries). These findings suggest that other factors explain the growth of corporate earnings. Furthermore, when we examine which industries saw the greatest increase in *profit margins* since 1990, these industries saw only modest trade dependency changes (gray dots in Figure 6).

Figure 6. Increased global trade has not necessarily resulted in higher industry earnings



Notes: Change in trade is measured as the change in imported inputs and exports by industry. Industries included in the analysis are food, beverages, and tobacco; textiles; industrial chemicals; drugs and medicines; nonelectrical machinery; office and computing machinery; electrical equipment; radio, TV, and communication equipment; motor vehicles; aircraft; electricity, gas, and water; construction; wholesale and retail trade; restaurants and hotels; transport and storage; communication; finance and insurance; and real estate and business services. Gray dots signify the industries with the largest increases in profit margins over the time period. These industries are: pharmaceuticals; finance and insurance; office and computing machinery; real estate and business services; and food and beverage.

Source: Vanguard calculations, based on data from the OECD and Bloomberg. The change in corporate earnings is measured using three-year averages for 1990–1993 and 2015–2018. Change in trade from 1990–2015 uses latest available data.

9 The average annual S&P 500 price return from 1990 to 2018 was 7.4%. Three factors make up this return: valuation expansion/contraction (dollar paid per dollar of earnings), earnings growth from revenue growth, and earnings growth from ratio of earnings to revenue (profit margins). Contributions from these factors were 0.8%, 3.7%, and 2.9%, respectively.

When we decompose S&P 500 profit margin growth (**Figure 7**), we calculate that—after corporate tax changes, declining interest expense, and new firms entering the index—we're left with just 0.3-percentage-point contribution from original index constituents increasing their profit margins during the previous three decades. The new index additions that make up this majority of margin growth are primarily asset-light, intellectual property-rich and industry leaders[10] whose revenue and input costs are likely less affected by global trade developments (McKinsey, 2019); this also is shown by the types of industries in gray dots in Figure 6.

Increasing technology regulation, improved labor bargaining leverage, and/or higher corporate tax rates pose greater downside risks to these firms' margins than does a slowing in global trade growth. Ultimately, for equity investors, this supports our conclusion that while corporate earnings will struggle to grow at the pace of recent decades, an outright decline in earnings is unlikely in our slowbalization scenario.

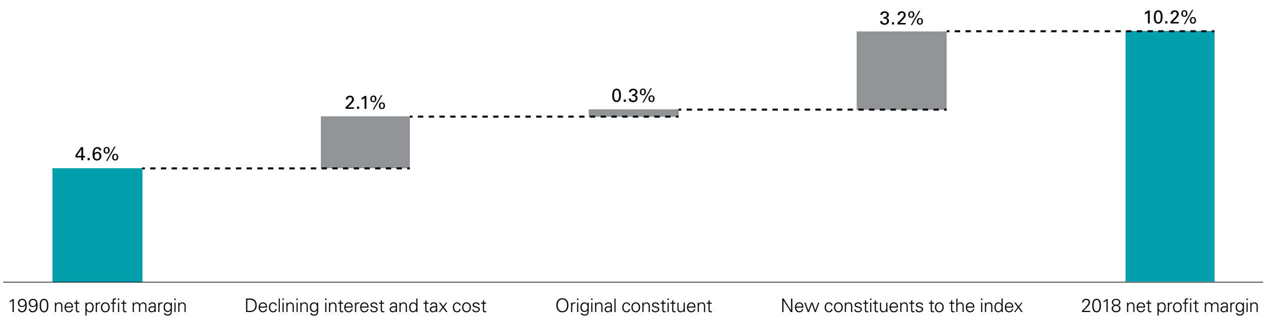
Slowbalization summary

Starting in the late 1980s, global trade skyrocketed as technological innovation, the rise of the global middle class, and public trade policy greatly reduced trade barriers. While this dynamic contributed to history's single largest decline in poverty,[11] it may also have intensified intra-country inequality and threatened living standards for much of the developed-world middle class.

Since the global financial crisis, trade policy in many countries has pivoted toward protectionism and firms have started reshoring operations. We expect this trend to persist as COVID-19 has shed light on supply chain risks. Even adding to these policy and global value chain risks the likelihood of a fall in the trend growth of import-adjusted demand, we do not expect an outright fall in globalization, but rather a slowing in the pace of its expansion, or "slowbalization." The economic effects of this slowbalization scenario are most prominent in countries such as Brazil, China, and Australia, while the U.S. and Europe are likely to be less affected.

That said, for investors who may fear that a slowing in globalization threatens corporate earnings, and therefore equity prices more broadly, we conclude that the rise in revenue growth and profit margins since 1990 has had less to do with globalization and more with declining interest rates, lower corporate taxes, and the prevalence of superstar companies.

Figure 7. Higher profit margins are likely here to stay



Notes: The 1990–2018 change in net profit margin minus the change in earnings before interest and taxes margin is the tax and interest expense difference. Original constituent margin growth represents the change in profit margins from firms that were in the index in 1990 and 2018.

Source: Vanguard calculations, based on data from Thomson Reuters Datastream, Bloomberg, and FactSet.

10 These "superstar" firms are those that have large market share in their industry and that often are able to charge higher-than-average margins with high revenue per employee. Facebook, Visa, Microsoft, Broadcom, MasterCard, Alphabet, Amgen, and Adobe combined represent more than half of the new constituent 3.2-percentage-point margin contribution.

11 According to the World Bank, the percentage of the world's population living in extreme poverty fell from 36% in 1990 to 10% in 2015 (effectively 1.2 billion fewer people living in extreme poverty).

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