

We may be underestimating the gains from globalisation



Recent research has shown that international trade can lead to [job losses](#) in some sectors and areas within a country and gains in [others](#), and it can also affect the countrywide level of wage [inequality](#) across workers. These side effects of globalisation have fuelled [populist responses](#) in Europe and the United States, with political leaders promising to stop global market forces and re-empower the nation-state. If the gains from trade are small, is it worth facing the distributional consequences of globalisation and the political backlash associated with them?

Assessing the size and identifying the sources of gains from trade is a long-standing challenge for economists. Theoretical and quantitative studies have mostly focused on static economies where changes in international market integration have only one-time effects on the levels of income and consumption but do not affect the long-run dynamics of these key economic variables.

Since innovation and technological change are key drivers of income growth in the long run, in a [recent research](#) we have explored the sources and assessed the size of the gains from trade in a model economy where growth spurs from technological progress. Our findings suggest that accounting for firms' innovation responses doubles the gains from trade obtained in static quantitative models.

In a version of the model calibrated to the US economy we show that moving from autarky to the current US trade level yields a 50 per cent permanent increase in consumption, half of which is due to innovation-driven productivity growth. This result suggests that *dynamic gains* are of first order importance in evaluating the impact of policies aimed at liberalizing or curtailing international trade.

Building a quantitative model for policy analysis requires a theory sufficiently grounded on a (large enough) set of relevant empirical facts. We focus on the following facts, each corresponding to a particular channel of gains from trade:

First, there is large empirical evidence documenting the competition effects of trade. Increasing foreign competition is often found to reduce firm prices thereby shrinking their profit margins. Lower prices benefit consumer by increasing their purchasing power—this is the so-called [pro-competitive effect](#) of trade.

Second, the reduction in profits forces some of the less profitable and less productive firms out of the market, thereby reallocating market shares toward the most productive firms. This [selection effect](#) generates an additional channel of gains from trade, as more productive firms charge lower prices. Finally, foreign competitive pressure induces firms to invest in innovation to improve their productivity. This [innovation effect](#) leads to dynamic gains from trade, as higher productivity growth produces not to just one-off price reductions but a sequence of reductions across time, increasingly benefiting present and future consumers.

We construct a model embedding all three key channels through which trade can potentially increase average income and consumption. Frontier quantitative trade models consider the first two channels in static economies where the effects of a policy change take place at once through reallocations of market shares across firms and sectors but each firm's productivity is not affected. The selection and competition effects of trade reallocate resources toward the most productive firms, thereby increasing the average *level* of productivity and reducing prices.

In our dynamic economy, trade-induced reallocations increase the size of the most productive firms and raise their incentives to innovate, pushing up the *growth rate* of productivity. Hence, the model is able to separately measure the *static gains* from trade-induced reallocations of market shares and the *dynamic gains* produced by the interaction of these reallocation and innovation-driven productivity growth.

In our main quantitative experiment, we explore a hypothetical scenario in which the US economy completely shuts down trade with foreign countries. This counterfactual scenario brings the economy from its current import level, 8.6 per cent import-GDP ratio, to autarky. We find that this protectionist shift allows American firms to charge higher markups on the domestic market, leading to a 30 per cent increase in the average profit rate (markup).

The reduction in foreign competitive pressure makes survival easier for less productive US firms in their own market, thereby reducing the average level of productivity. Weaker competition and selection reduce firms' incentives to innovate leading to lower long-run growth: the aggregate growth rate of the economy drops from 1.25 to 0.8 per cent. Due to the combination of these forces the average long-run consumption per-capita drops by 50 per cent, a dramatic loss. About half of this consumption loss is accounted for by the effect of protectionism on firms' incentives to innovate, the key source of growth in modern economies. A trade liberalization scenario yields similar results but with gains in the place of losses.

The key message of this research is that policy evaluation with static trade models is likely to largely underestimate the gains or losses from globalisation. This result is relevant for the current debate on the economic effects Brexit. One of the [key assessments](#) of the trade consequences of Brexit found that the worse case scenario of no deal with the EU would imply an increase in trade barriers generating a loss equal to 2.7 per cent of GDP per year, corresponding to £1,700 per family per year. This hypothetical scenario of no deal and reversal to trading under WTO rules is evaluated using a static model. We speculate that this is a conservative estimate, as considering dynamic effects would likely increase the size of the loss substantially. Once adapted to the specific exercise, our model could provide a framework for a more comprehensive assessment of the long-run impact of Brexit and other large-scale trade reforms.



Notes:

- This blog post is based on the authors' paper [Trade, Firm Selection and Innovation: The Competition Channel](#), *The Economic Journal*, 2018.
- The post gives the views of its author, not the position of LSE Business Review or the London School of Economics.
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