

Trade, Technology and Trust

By Bert Hofman

The Osaka meeting between US President Donald Trump and Chinese President Xi Jinping was seen by many as one of the last opportunities to prevent the trade war from escalating to possibly a new cold war. The good news is that the two parties are talking again; the 25% tariffs on an additional US\$300 billion are on hold for now and Huawei is still allowed to buy technology from the United States. President Trump even went so far as to declare China a potential strategic partner, which contrasts with the designation of a “strategic competitor” by US National Security Review and US National Defence Strategy, or the more aggressive power that Vice President Pence had called China in his speech at the Hudson Institute last October. A few days after Osaka, China’s National Development and Commission announced a further shortening of the “Negative List” of sectors reserved for Chinese enterprises (from 48 to 40) and Premier Li Keqiang pledged a faster timetable for the opening of the financial sector for majority foreign ownership at the Summer Davos in Dalian.

Despite renewed talks, the US-China trade tensions have already caused economic damage. The tariffs imposed by the United States, the retaliation by China and the uncertainty on the direction of American trade policy affect economies and investment decisions around the globe. Indeed, policy uncertainty has spiked and investments are suffering. Earlier this year, the World Bank estimated that the impact of uncertainty related to the trade dispute would outweigh the effect of the tariffs themselves, and their latest assessment of the world economy (see [here](#)) seems to confirm this—though offsetting macroeconomic loosening on both sides of the Pacific is for now concealing underlying weakness.

Even for countries that may benefit from the diversion of trade from China, such as Vietnam and Mexico—countries with a similar export palette to that of China—the overall effect of an outright trade war would turn negative, at least in the medium term.¹ In fact, all countries would suffer from a trade war, first and foremost China and the United States. In the short term, Vietnam seems to be a winner—its exports to the United States are up by 40 per cent this year compared to that of last year and FDI is booming. Some of the export increase may be relabelled Chinese exports, though. Moreover, its very success may make the country the next target of US trade measures.

Given that there is little economic motivation for the trade war, the view that this is about strategic competition between the established and emerging power has gained firm grounds on both sides of the Pacific. Using trade policy as an instrument in that competition would aim to delinking the Chinese economy from that of the United States. The United States muddled the waters by applying the national security argument to trade with not only China, but also its allies, namely, Japan, Korea

¹ Caroline Freund, Michael Ferrantino, Maryla Maliszewska and Michele Ruta (2018), Impacts on Global Trade and Income of Current Trade Disputes, World Bank MTI Practice Notes, Number 2 (July). <http://documents.worldbank.org/curated/en/685941532023153019/pdf/128644-REVISED-MTI-Practice-Note-2-11-12.pdf>, accessed 15 July 2019.

and the European Union. Whether this is WTO compatible remains to be seen: the WTO builds on the GATT agreement, which includes Article 21 on National Security (see [here](#) the original clause and a discussion on its interpretation). Whether a country has the right to invoke the clause at will is currently hotly debated and subject to complaints at the WTO from China and the EU.

As others have noted, delinking from China is likely to be far more consequential and disruptive for the world economy than the de facto delinking that existed during the cold war with the Soviet Union. In fact, the first and second worlds were hardly linked at all from the start of the cold war, and trade exchange remained modest even at the peak of détente. China has since its entry to the WTO, taken on a central place in global and regional supply chains. Unwinding the links in these global and regional value chains will be expensive for not just China, but also the rest of the world. McKinsey, in its latest report on China, assesses the degree of integration of China in the world in a variety of aspects, which indirectly illustrates the losses that would occur in case of delinking.²

More powerful than tariffs is a new weapon that the United States has deployed in the trade war: the “entities” list. The appearance of Huawei on this list early May, (followed by lesser known companies, Higon, HMC, Sugon and the Wuxi Jiangnan Institute of Computing Technology last month) has turned the trade war into a tech war. The list bans American companies (and foreign companies that do business in the United States) from delivering sensitive technologies to the companies listed. In Huawei’s case, it most prominently concerns Qualcomm chips and the Android operating system, technologies critical for its core products in telecoms. The US government has actively been lobbying with other governments to exclude Huawei from competition for their 5G networks, equally for reasons of security.

The Xi-Trump summit in Osaka may have temporarily stopped the ban on sales to Huawei, though companies that want to supply to Huawei will apparently need to apply for exemptions. Irrespective, from now on it will be hard for China’s companies such as Huawei to rely on US companies to supply critical technologies to them. Indeed, even a relatively small probability of being excluded from critical supply is enough to tip the balance, since exclusion can mean the death of a company, as evidenced by the tailspin that ZTE was in after similar measures were applied when it was found to be in breach of a settlement agreement with US authorities.

In addition to technology exports, the US government seems to also want to discourage scientific cooperation in sensitive areas. The country has tightened its CFIUS process for foreign investment approval, which was seen as a move to further discourage Chinese investments in sensitive areas, especially high tech. The United States is also reviewing its admission policies for Chinese students in US universities. All seems to point in the direction of a trade war that is morphing into a tech war—motivated by national security or otherwise. This would provide strong incentives for China to develop its own technologies. So more rather than less Made in China 2025 is the rational response.

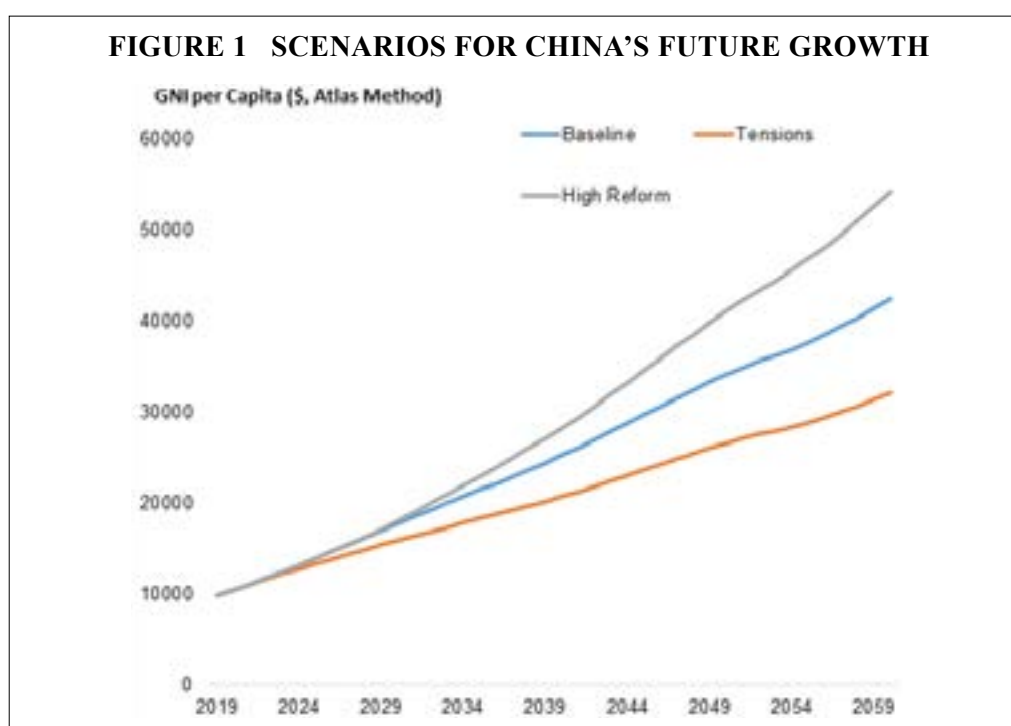
What does this mean for China and for the world? China is rapidly becoming an innovator, not just a producer. The country now spends more than two per cent of its GDP on R&D, which matches that of an average OECD country, and is the second largest in the world in terms of money spent after the United States. The country’s growing capabilities are also evident in the rapidly growing number of graduates and PhDs in technical disciplines. The number of Chinese publications in technical disciplines and patents issued domestically and internationally, and the quality of both are also signs of growing innovation capacity. China’s innovative capabilities have become evident across a number of industries, most visibly so in e-commerce, Fintech and telecoms. Some would also argue that the country is also ahead in AI, in quantum computing and in electronic vehicles. And of course in 5G.

Arguably, with China excluded, the world will lose out on future technical progress, not least because part of China’s growing scientific and technical capacity will have to be diverted to re-creating essential technologies it is excluded from. Further, in a tech war scenario, China is also likely to keep more of the new technologies it discovers to itself. What this means for the world is that the technological frontier will move slower with China excluded than with China included.

² McKinsey Global Institute (2019), China and the World inside the Dynamics of a Changing Relationship. <https://www.mckinsey.com/~media/mckinsey/featured%20insights/china/china%20and%20the%20world%20inside%20the%20dynamics%20of%20a%20changing%20relationship/mgi-china-and-the-world-full-report-june-2019-vf.ashx>, accessed 15 July 2019.

By how much is hard to say. Assuming that a country's contribution to the world's technical progress is proportional to its R&D spending, the world would lose out on some 20 per cent of growth and more in future if China continues to increase its share of R&D spending in GDP and GDP is increasing as well. Some of the best estimates put technical progress contribution to global growth at 1.7 per cent, which would mean that in a tech war the world would miss out on some 0.35 per cent growth per year. Global growth would be lower still because of the slowdown in China's growth, which would reduce global demand.

China's growth will be lower. Despite rapid growth in the past, China's annual per capita income is still only US\$9,000, less than one fifth that of the United States. Catching up therefore remains an important factor and a tech war is likely to slow it down. In addition, it is plausible that, in a more adversarial external environment, China may revert to a more state-driven, less reformist development model, which in the long run lowers its potential GDP (see [this paper](#) for an approach to this question). With lower world productivity growth, slower catch up and a less efficient growth path, China's GDP growth would be considerably lower than in the baseline projection, let alone the "high reform" scenario (see Figure 1). Simulations suggest that in a Trade Tensions scenario, annual growth in GDP will be lower by about one percentage point compared to the baseline. In contrast, in a "high reform" scenario, growth in GDP would be about one percentage point higher. These calculations are only indicative, but they imply that much is at stake for China and for the world.



Note: The projections reflect the methodology as can be found in Hubbard, Paul and Sharma Dhruv (2016), "Understanding and Applying Long Term GDP Projections", EABER Working Papers 25601. The Base Case scenario assumes China's current institutional strength, frontier labour productivity increase of 1.7 per cent per year and historic catch-up speed; the High Reform scenario assumes institutional strength equal to the top-10 performers in the WEF Competitiveness Index. The Tensions scenario assumes a slowdown in catch-up speed, slower growth in frontier labour productivity growth and institutional parameters for China matching the level from before the country's WTO entry. See Hofman, Bert and Elitza Mileva, forthcoming.

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