



Economic conflict between America and China: A truce declared, the talks begin

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EXECUTIVE SUMMARY

China and the United States are in talks over their so-called trade war, the biggest threat to economic globalisation in decades. While the focus of the dispute has centred on tariffs, the underlying economic issues involved in the talks are both simpler and more complex, less dangerous and more dangerous to the rest of the world, than widely thought.

The Trump administration portrays the trade deficit between China and the US as unfair, yet US exports to China since it joined the World Trade Organization (WTO) in 2001 have grown very much faster than China's exports to the United States. US manufacturing output, said to be devastated by imports from China, has increased strongly over the past decade. The US seeks better investment access to China, but American business investment in China is much smaller than its investment elsewhere (including in Australia) or indeed investment in China by other countries. And while the US has often warned of China's coming economic dominance, China's GDP today is only two-thirds that of the US — and by the time it reaches America's economic size, it may well also have slipped down to, or even below, America's growth rate. Meanwhile, other than in trade in goods, China remains much less integrated in the global economy than America.

Yet if some of the economic tension between the US and China is imaginary, much is not. China is increasingly able to compete in high-technology manufacturing, one of America's strengths. America's complaints about "forced technology transfers" and cyber theft of commercial information trade are well made and must be addressed. So, too, a global agreement on industry subsidies would facilitate trade and investment worldwide. In the current negotiations, China may well agree to move on intellectual property protections, investment access, and curbing commercial espionage. It may agree to a wider negotiation on industry subsidies. It has already agreed to buy more US products. The elements of a deal are there. But China will never accept handicaps on its technological advance, or adopt American views about the economic role of the state or the Chinese Communist Party.

The data presented in this paper also suggest that an American decision to economically 'decouple' from China would be at least as damaging for the US as for China, and perhaps much more so.

Well handled, the talks between China and the US can mitigate the tectonic grinding of this great power collision. Poorly handled, there is a considerable risk of dividing the global economy in ways uncongenial to most of the rest of the world — and especially to Europe, Japan, Korea, Southeast Asia, and Australia.

This paper sorts through some of the main economic issues involved in the negotiations to identify those which despite their public prominence no longer really matter, those in which agreement is possible, and those where agreement is unlikely.

A GLOBAL CRISIS

Long uneasy, the relationship between China and the United States is now antagonistic. Not so long ago, the US saw China not only as a competitor for global influence, but also as a nation with which the US could have a mutually beneficial economic relationship. China is a “strategic competitor”, President George W Bush declared in 2001, but the economy “is a place we can partner”.¹ A wealthy America, strong in high-technology manufacturing and farm products formed a symbiotic relationship with China as a low labour cost assembler and manufacturer of cheap consumer goods. Each profited from the other.

Almost two decades later, China’s economy has radically changed in size and shape, and the US attitude to an economic partnership with China has also changed. In mid-2018 the White House declared that “China’s economic aggression now threatens not only the US economy but also the global economy as a whole”.²

The most startling manifestation of the discord between China and America is the trade war between them. Over the course of 2018, each imposed penalty tariffs on what now amounts to half of their trade with each other.³ Following agreement at the G20 Leaders’ Summit in Buenos Aires in late 2018, Chinese and US officials have resumed trade talks, interrupted several times over the past two years. Both sides now appear to want to restrain the escalation of the dispute and perhaps reach some understandings. The direction of the global economy over the next few decades may well depend on their success or failure.

Since the US initiated the dispute, the basic questions for the talks are how much China is prepared to give the US, and what the US would accept as a sufficient offering. In May 2018, the US presented China with an eight-section list of demands, including purchasing more US exports, ceasing subsidies to high-technology industries, stronger protection of intellectual property, removal of investment restrictions, and tariff reductions.⁴ China further divided the eight sections into 142 items. One-third of the US demands are immediately negotiable, China has reportedly told the US, one-third are negotiable over a period, and the remainder are not negotiable. Sweetened by China’s offer to buy more goods from the US, the agenda for the forthcoming talks is essentially the US list of demands, plus control of cyber intrusions and cyber theft.

Thus far the approaches of China and the US to the trade negotiations have been alarmingly at odds. While in mid-2018 China offered to buy more exports from the US, the US demanded that China “essentially

scrap the industrial policy that turned it into an economic powerhouse”.⁵ Resolution of the dispute, the US has asserted, must include at a minimum “deep changes in the Chinese economy, including reduction of subsidies and other industrial policies favoring domestic firms”.⁶

Complicating the resolution of the economic dispute is an emerging view within the American national security community and its foreign affiliates that the US should disentangle or ‘decouple’ itself economically from its increasingly powerful adversary, China.

The response to China’s economic rise, some American analysts declare, must be to reassert American supremacy. “Washington needs a new grand strategy toward China that centres on balancing the rise of Chinese power rather than continuing to assist its ascendancy”, two influential American scholars declared in 2015.⁷ In this interpretation, the economic relationship between China and America has been assisting China’s ascendancy, and must now be reviewed through a national security lens.

To the extent that these national security considerations prevail, no negotiation is necessary because no agreement is necessary and none possible. If it decides to economically decouple from China, America can do so unilaterally. The fact that negotiations are taking place at all means that for the moment at least this hard-core strategic argument has not prevailed in the Trump administration, although it will certainly influence any proposed settlement.

This negotiation is the first major resetting of the economic relationship between America and China since the big changes in China’s economy became apparent over the past decade. These changes have relieved some tensions with the US and other advanced economies, and at the same time created new ones.

For most of the past 40 years China and the United States enjoyed a fruitful relationship, one of considerable benefit to them and to the rest of the world. Each today is the other’s largest trade partner, each has substantial investments in the other, and each is now far bigger than any other national economy except the other. Together they account for more than a third of global output and demand and over a quarter of the world’s workforce.

In the past decade, the two great economies have become more alike rather than more complementary. China’s economy is now big enough to rival America’s. It is also capable of competing in the advanced industries in which the US still holds a lead, including integrated circuits and artificial intelligence. China’s businesses are increasingly investing in businesses abroad, becoming global corporations on the American and European model. At the same time it has become a vast consumer market. China’s home market is now bigger than any other national economy other than America’s. Global corporations which do not

participate in China's market are disadvantaged against their competitors which do.

For the rest of the world, this clash of economic titans is a potentially momentous change in their economic environment, one to which they will have to adjust but cannot control. Germany, Japan, Korea and Australia, for example, are all major trading partners of China, and security allies of the United States. A third of Australia's exports are to China. It has a formal security pact with the United States.

If the negotiations fail, America and China may indeed begin to disentangle from each other, encouraging the creation of separate economic communities within the global economy. Some of this is already apparent in the increased integration of the East Asian regional economy around China and the North American regional economy around the United States.

Until recently the economic relationship has been ballast to the strategic relationship between the major rising power and the major existing power. If that ballast is diminished that strategic relationship may become less stable.

Today's dispute is fundamentally over changes in China's economy over the past decade or so, and its declared ambitions to become a technological leader in the coming decades. Intermingled with this concern, however, is a group of implausible political and economic narratives and rhetorical postures, which pose imaginary problems and complicate resolution of the real issues.

One such narrative, surprisingly pervasive and particularly within the Trump administration, is that China's economic rise has been at the expense of the United States and other advanced economies. In this account, China's rise as a global economic power was illegitimate. Its economic success is in large part due to 'mercantilist' or 'uneconomic' means.⁸ As a June 2018 report from the White House claimed, "much" of China's economic success is attributable to "aggressive acts, policies, and practices that fall outside of global norms and rules".⁹ America should not have permitted China to enter the WTO on terms that permitted China to flood the US market with cheap manufactures and vastly increased America's trade deficit. An ungrateful China now seeks to overshadow its sponsor and change in its favour the American-led 'liberal world order' on which China's success has been built.

To the extent these beliefs are held within the Trump administration, the trade negotiations will be coloured by them. But are they true?

HAS CHINA TAKEN ADVANTAGE OF AMERICA IN TRADE?

THOSE BIG TRADE DEFICITS

It is certainly true that America's trade deficit with China has greatly expanded over the years since China's entry to the WTO in 2001. The US goods trade deficit with China increased more than fourfold between 2001 and 2017.¹⁰

However, it is not true that this deterioration is due to China's membership of the WTO, or that exports to the US account for China's economic success.

On US Census Bureau numbers, in the ten years prior to China joining the WTO, its goods exports to the US increased at more than twice the rate of US goods exports to China.¹¹ When China joined the WTO, however, the comparative growth rates changed.

From 2001 to 2017, the period over which the Trump administration believes China took advantage of American goodwill, China's goods exports to the US increased nearly fivefold, while US goods exports to China increased nearly sevenfold. Both the US and China have done well from bilateral trade since China joined the WTO — but the US has done far better.

In services exports the US success was even more dramatic. From 2001 to 2017 US services exports to China grew at more than two and half times the rate of increase of China's service exports to the US. In the decade to 2017, US services exports to China increased seven times faster than China services exports to the US.¹²

Yet if American exports to China have increased much faster than China's to America, why has the American trade deficit with China increased? The answer is that the deficit increases along with the vastly increased value of trade, but not as much. While the dollar value of the bilateral goods trade deficit has increased fourfold, bilateral goods trade has increased sixfold. When China joined the WTO, US exports to China were only one-fifth of China's exports to the US.¹³ By 2017 US exports to China were more than a third of China's exports to the US.¹⁴

As the Organization for Economic Cooperation and Development (OECD) has observed, a big share of China's exports to the US are assembled in China from components made elsewhere. When trade between the US and China is recalculated taking this into account, the bilateral trade deficit falls sharply.¹⁵

Nor is it true that China's economic success has depended on the US. The growth of China's exports to the US has been rapid, but it has long been outpaced by the growth of China's exports elsewhere, and the growth of its economy. While China's current US dollars goods exports

to the US increased fivefold from 2001 to 2017, its total goods exports increased nineteen fold and China's current US dollar GDP increased more than eightfold.¹⁶

Over the same period, China's exports to the US accounted for a small and diminishing share of its GDP growth. Today, and taking the import component into account, exports to the US account for markedly less than 4 per cent of China's GDP — a significant contribution, but not as big as widely thought. Australia's exports to China, by comparison, make twice the percentage contribution to Australia's GDP as China's exports to the US make to China's GDP.

The bilateral trade deficit is rhetorically important to President Trump. Given the success of American exports to China, it is surely not the underlying issue in the tension between the US and China. And while China in the current negotiations will be prepared to do quite a lot to conciliate the US on the trade deficit, it is also aware that its dependence on the US is not as great as the Trump administration imagines.

HAVE IMPORTS FROM CHINA DEVASTATED US MANUFACTURING?

An important part of the rhetoric of the Trump administration is that China's exports to the US have devastated US manufacturing.¹⁷

There is something in this story, but much less than the rhetoric depicts. As a share of real US GDP, manufacturing has been fairly stable since the late 1940s.¹⁸

Between China's WTO accession in 2001 and the beginning of the US housing and financial market downturn in 2007, a period when US imports from China were rapidly rising, US real manufacturing output actually rose by 16 per cent.¹⁹

Over that period, US manufacturing shed jobs as robots replaced workers and labour-intensive manufacturing was abandoned in favour of technology and capital-intensive manufacturing. There is little doubt the growth of imports from China contributed to some of this decline in manufacturing employment.²⁰

Today, China's impact on US manufacturing is a legacy issue. After contracting during the global financial crisis, US manufacturing once again expanded. From 2009 to 2018 real manufacturing output grew by one-fifth.²¹ Manufacturing employment has also increased. After a decade of decline, US manufacturing employment increased by one-tenth from mid-2010 to mid-2018.

Given the rapid increase in both US manufacturing output and jobs over the past ten years, it is hard to see China's exports of manufactures to the US becoming a serious issue at the negotiating table.

HAS CHINA KEPT ITS EXCHANGE RATE LOW?

The story of the US trade deficit with China is often part of a larger complaint about the US current account deficit and China's current account surplus. Even *The Economist* declared as recently as June 2018 that, "as China grew richer, it purchased American bonds to keep its currency low and its exports competitive. That allowed America to consume beyond its means year after year. This circular flow of money saw America's current-account deficit grow in pace with China's surplus."²² American innocents have been hoodwinked by a crafty China, or so the narrative goes.

It is hard to make the arithmetic work for these propositions. Between the end of 2001 and the end of 2017 China's holdings of US Treasury securities increased by \$1106 billion.²³ It is a big number, but not nearly as big as the cumulative US–China goods trade deficit of \$4299 billion over the same period, or the cumulative US current account deficit of \$8616 billion.²⁴ China's cumulative purchases of US Treasury debt since its accession to the WTO are equivalent to a little more than a quarter of the cumulative bilateral goods trade deficit, and just over one-eighth of America's cumulative world current account deficit.

One reason the arithmetic does not work is that for most of the past 20 years China's economy has been much smaller than that of the US. Even in 2017 the US current account deficit was nearly three times the size of China's current account surplus, at current exchange rates.²⁵ The US trade deficit has always been at least twice the size of its bilateral trade deficit with China.²⁶

Whether China's managed exchange rate was or is in some sense unduly low or unduly high is difficult to determine. Economic theory has long since moved away from the idea that the right value of a currency is reached when exports equal imports, or when the current account balance is zero. Running a current account surplus, as China does, is evidence that domestic saving is higher than domestic investment. Countries running current account surpluses necessarily accumulate financial and real assets in other countries. But the existence of a current account surplus is not of itself evidence that the exchange rate is too low, any more than running a current account deficit is evidence that the exchange rate is too high.

In principle, what matters in international trade is movements in the real effective exchange rate (REER) — an exchange rate index weighted by a nation's trade pattern and adjusted for the country's rate of inflation compared to its trade partners.²⁷ Using the International Monetary Fund (IMF) real effective exchange rate series²⁸ and comparing 2001 to 2017, China's REER has appreciated 26 per cent. Comparing the same two periods the US dollar REER has depreciated 6 per cent.²⁹

As we have seen, China's exchange rate against the US dollar has permitted US exports to China to increase much faster than China's exports to the US. It is also true that China's trade surplus has sharply narrowed. In recent periods when China ran down reserves and permitted higher Chinese direct investment abroad, renminbi tended to fall rather than rise. China's trade surplus in 2017 (in US dollars) had fallen back to the same level it had reached a decade earlier because over much of the past ten years the rate of growth of imports into China exceeded the rate of growth of exports.

None of these facts are consistent with a view that renminbi is undervalued. In the IMF's judgement, China's exchange rate is appropriate.³⁰ Successive US administrations, including the Trump administration, have declined to find that China is manipulating its exchange rate for trade advantage.

Twenty years ago, when renminbi was cheaper than today, there may have been something in the story. Like the bilateral trade story and the US manufacturing story, however, it is now a legacy issue — still influential, but no longer true. It is unlikely to be in serious contention between the US and China negotiators.

THOSE CURRENT ACCOUNT IMBALANCES

The Economist's complaint that the US current account deficit is growing "in pace" with China's current account surplus is also now a legacy issue. A decade ago China ran very big foreign trade and current account surpluses, while America ran big trade and current account deficits. By 2017 China's current account surplus was down to 1.3 per cent of its GDP, a little more than one-eighth of its size a decade earlier. As a share of GDP, it was less than one-sixth of Germany's current account surplus. In 2017 the US deficit had fallen to 2.4 per cent, which as a share of GDP was not much more than half the UK current account deficit.³¹

Over the whole global economy, national current account surpluses and deficits must equal zero. In that sense China's surplus might be said to make a contribution to matching the US deficit. However, since a current account deficit is equal to the excess of domestic investment over domestic saving, China could also be said to be permitting the US to invest more or save less, or both.³² For that matter, China might be said to have financed part of America's direct investment abroad (including in China).³³

Today, the current account 'imbalances' between China and America have very nearly disappeared. By the first quarter of 2018, China was running a current account *deficit*. While this is probably temporary, it is a reminder that China's surpluses are now small enough to sometimes vanish entirely.³⁴

DOES CHINA TAKE MORE THAN IT GIVES ON TRADE?

A wider US criticism of China is that in trade and investment it is a taker but not a giver. This notion influences American attitudes towards China, including those attitudes informing the current trade negotiation.

The *Wall Street Journal* recently recited a common advanced economy complaint that the “backlash against globalization long predates Mr Trump, originating with China’s entry into the World Trade Organization in 2001. Western companies used China as a base from which to export to the rest of the world, but China didn’t reciprocate: It used a cheap currency and a web of domestic barriers to discourage imports.”³⁵ The charge that China is responsible for the “backlash against globalization” is both serious and widely shared.

Contrary to this claim, however, China is a very big importer indeed. From 2001 to 2016 American imports in US dollars doubled. Over the same period, China’s imports measured in US dollars increased eightfold. As a share of GDP, China’s imports exceeded US imports as far back as 1984 and continued to increase. By 2004 imports were twice as big as a share of GDP in China as in the US.³⁶ The import share in China is still well above the US.³⁷

The export story has also changed. At the peak in 2006 China exported more than a third of its output. By 2017 that share was down to one-fifth — well above the share of exports in the GDP of Japan or the US, but below the share in Australia and less than half the share in Germany.³⁸

To a considerable extent, China’s imports are semi-finished goods from neighbouring countries such as Japan, Korea, and Taiwan, or even the US, which are assembled in China and then exported. To the extent that is true, it also means the exports nominally attributed to China are in part made elsewhere. If they were not exports from China, they would be exports (although a little more expensive) from Japan, Korea, and Taiwan.³⁹

Because China’s imports are very big and in part related to its exports, the net contribution of exports to China’s GDP growth (after deducting imports) is not as considerable as the export share suggests. Its exports exceed imports by only 1.7 per cent of GDP.

One way of looking at a country’s actual contribution to its exports is to show the value added within the country to exports, compared to the total value of its exports. On OECD numbers the share of domestic value added in US exports in 2014 was 84.7 per cent⁴⁰. Reflecting its place in a supply chain, China’s was 70.7 per cent. Although in total worth a little less than China’s exports, America’s exports were actually worth more to America than China’s to China — about 10 per cent more.

China is more open to imports than the *Wall Street Journal* suggests.⁴¹ On one standard measure, China’s import tariffs average 4.3 per cent —

not very much higher than the US at 2.8 per cent or Australia at 2.7 per cent, and much lower than the average tariff in other large emerging economies such as Brazil (10.2 per cent) or India (7.65 per cent).⁴² Before entering the WTO in 2001 and implementing its accession commitments, China's rate using this measure was 14.1 per cent — more than three times the current level.⁴³

China has room to cut tariffs, if it chooses. Yet one curious aspect of the current US–China discord is that the US has not in a serious or detailed way complained of its access to China's market for its exports, as it had earlier complained of access to Japan. In a May 2018 proposal the US asked China to buy \$200 billion more in imports from the US, but did not cite either market impediments or particular products.⁴⁴ Nor was a highly critical January 2018 USTR report on China's WTO compliance specific on import tariffs, other than on a few farm products.⁴⁵

China's earlier offer to import more from the US as part of a deal to end the current trade conflict has apparently now been accepted⁴⁶ — but as a preliminary to a negotiation, not as the purpose of it. Tariff levels on US exports to China are evidently a subordinate issue in US–China trade negotiations. In the current negotiations China can with little difficulty offer tariff concessions on products of particular interest to the US, and well may.

THE US IS RIGHT ABOUT IMPEDIMENTS TO INVESTMENT IN CHINA, BUT...

The Trump administration is on much surer ground in complaining that while America is open to foreign direct investment, China is much less so. The Obama administration made the same complaint, and engaged China in negotiations. China welcomes foreign direct investment only where it wishes, and how it wishes. In the OECD's Foreign Direct Investment Regulatory Restrictiveness Index, a score of 1 is the least open and a score of 0 is most open. In 2017 China's score was a relatively high 0.316 — above India on 0.212, although below Indonesia on 0.317. The best one can say of China on this index is that it is a lot less restrictive than it once was. In 1997 its score was 0.627, and as late as 2003 it was 0.567.⁴⁷

At 24 per cent, the stock of FDI in China compared to GDP is well below the 40 per cent for the US, although China has been far more open to foreign investment than its neighbours Japan (4 per cent of GDP) or Korea (12 per cent). At 26 per cent of GDP, Germany's stock of FDI is comparable to China's.⁴⁸

There is no doubt China employs a greater range of restrictions against foreign direct investment than the US. While an impediment, these restrictions do not explain a striking fact about the extent of Chinese and US direct investment in each other's economy: neither China nor

America invests in the other in proportion to the others' weight in the world economy, or their own.

In 2017 the stock of US direct investment in China according to the USTR was \$107.6 billion, not quite three times the stock of China's direct investment in the US at \$39.5 billion.⁴⁹ Yet US direct investment in China was barely 4 per cent of the total stock of foreign direct investment in China, on OECD numbers.⁵⁰ Compared to the importance of the US in the world economy, or to total foreign direct investment in China, it is tiny. Facing the same barriers, other countries invest very much more in China than does the US.

China's investment in the US is similarly tiny. As a share of the 2017 stock of foreign direct investment in the US, Chinese entities accounted for an almost indiscernible 0.5 per cent.⁵¹

No doubt the US will continue to press for fewer restrictions on investment in China. Seeing the wisdom of engaging the fortunes of US business in China's economy, China will quite likely continue to slowly remove investment restrictions. Over the past year or two China has eased restrictions in automobiles and finance, two sectors of interest to the US. In these negotiations it might well offer more.

SHOULD THE US WORRY THAT CHINA WILL OVERTAKE IT?

CHINA'S GDP IS LESS THAN TWO-THIRDS OF AMERICA'S ON CURRENT EXCHANGE RATES

Some of the discord between China and America is fuelled by an underlying American anxiety about remaining the top dog.⁵² In *The Hundred-Year Marathon: China's Secret Strategy to Replace America as the Global Superpower*, Trump adviser Michael Pillsbury depicts the threat of China's inexorable economic and strategic dominance. In August 2018, President Trump said that when he arrived in office the United States was "heading in a certain direction that was going to allow China to be bigger than us in a very short period of time. That's not going to happen anymore."⁵³

On purchasing power parity measures, the size of China's economy already exceeds that of America.⁵⁴ While purchasing power parity is an important guide to comparative standard of living in a country, current exchange rates are pertinent to a country's capacity to invest elsewhere, to buy foreign assets or sell its own, to the valuation of companies and stock markets, to the price of its imports and exports, to all financial transactions. In these respects, comparing at current exchange rates gives a better sense of comparative economic weight.

On current exchange rates, China's economic size is still well below America's — and likely to remain so for decades to come. US output in 2017 was worth \$19.4 trillion, and China's \$12.2 trillion.⁵⁵ China's output today is still less than two-thirds of America's.

On plausible growth rates and an unchanged market exchange rate, the US will remain the bigger economy for many years to come. If China's real output expands on average by the IMF's medium-term projection of 5 per cent and the US by the Congressional Budget Office medium-term projection of 1.8 per cent, for example, China would not catch up to the US in economic size for another couple of decades.⁵⁶

By the time China does catch up, its rate of growth may well have slipped down to or even below America's. This outcome is contemplated in OECD long-term projections.⁵⁷

China's growth will slow because its demographic decline is baked in. China's workforce peaked in 2015 and is now falling.⁵⁸ By 2060, on UN projections, China's workforce will be one-third smaller than it was in 2015.⁵⁹

To continue to outpace the US, China needs to beat US labour productivity (output per hour worked) growth sufficiently to offset China's shrinking workforce.⁶⁰ Whether it can do that is not at all certain. Japan, Korea, and Singapore all saw very rapid growth as they caught up with the advanced economies, but have now fallen to a little below or a little above the rate of growth of the US.⁶¹ The more advanced China's economy becomes, the closer it approaches the average level of productivity in key global industries, the slower the productivity gains it is likely to make and the more telling the decline in its workforce.⁶²

While China has grown very rapidly, the big gains in productivity from workers moving from subsistence agriculture to city factories are probably exhausted.⁶³ Still, there are many productivity gains China has yet to make: in urbanising; in workforce training; in spreading the levels of technology now used by only the leading producers to all producers; in adding capital per worker; and in technological progress to reach the global productivity frontier for all its industries.

Even so, the growth of output per hour worked in China has already sharply declined. It rose as much as 10 per cent a year at its peak last decade, slipped to 7 per cent in the four years to 2017, and is now running under 7 per cent.⁶⁴ It is projected to slip to around 5 per cent in the next decade or two. It has quite a way to go but eventually China's productivity growth will decline to that of today's advanced economies.⁶⁵

It is largely because of these considerations that the IMF, the OECD and the World Bank all project that China's output growth rate will decline to around 5 per cent a year over the next decade or so. Further out, the

OECD appears to project China's real GDP growth declining to an annual rate of under 2 per cent.⁶⁶

CHINA MATCHES US EXPORTS, BUT IS OTHERWISE MUCH LESS ENGAGED IN THE GLOBAL ECONOMY

Although its total exports of goods and services are only a little higher than America's, China has a much higher trade share of GDP.⁶⁷ On other measures, however, China has much progress to make to match or even contest America's global economic presence.

China's integration into global finance, for example, has only recently begun. Renminbi is still managed, and cross-border capital flows are still closely controlled.

Some analysts worry that China aims to one day displace the US dollar with renminbi as the predominant global currency.⁶⁸ If so, it has a long way to go. In the three years to 2016, renminbi nearly doubled its share of foreign exchange turnover, but was still only 4 per cent.⁶⁹ The euro was in nearly a third of transactions, and the US dollar nearly nine-tenths.⁷⁰ The Australian dollar accounted for not much less than twice the Chinese yuan total turnover share; the Japanese yen for five times China's share.⁷¹

China possesses around three trillion dollars of US bonds and other US financial assets.⁷² A more telling measure of an economy's global reach is the size of direct investments abroad. In recent years, Chinese direct investment abroad has vastly increased. Even so, China's offshore business investment is small compared to America's. In 2017 America's stock of foreign direct investment abroad was five times China's stock of direct investment abroad.⁷³ Canada, Japan, and France had roughly the same stock of offshore investment in 2017 as China; Germany and the United Kingdom considerably more. China is unlikely to catch up to the US in the foreseeable future. It may well fall further behind. In 2017 China entities acquired \$102 billion in additional foreign direct investments; the US more than three times that total at \$379 billion.⁷⁴

AMERICA IS NOT DECLINING

While China is certainly a rising power, it does not follow that the US is a declining power. Compared to other large advanced economies, the US is doing well. Even with the reversal of the 2008 financial crisis, the US has grown much faster than Japan or Germany, France or the United Kingdom over the past decade. It has displayed a remarkable ability to generate new products, new demands, new sources of profit, and employment. In contrast to China's labour force, the US workforce is projected to grow quite firmly in coming decades. From 2015 to 2040 the US workforce will increase 7 per cent.⁷⁵

Within a decade or two, both China and the US will be substantially bigger economies than they are now, with markedly higher output per worker and income per head. They will still be, as they are now, the world's two biggest national economies. Over that time it is likely that Brazil, Indonesia, Nigeria, and India will grow much faster than either China or America.⁷⁶ In a decade or so, both of today's titans may well be complaining about the threat to the global economic order presented by what to them would seem the unsatisfactory conduct of India, Nigeria, Brazil, and Indonesia. Both will be troubled by the theft of intellectual property by other countries, both will press for lower tariff barriers in the newly rising competitors, and both will seek greater protection for direct investments by their nationals in other economies. In defending the rules, China and America will often be allies.

One thing unlikely to change much over the next few decades is military power. Since America spends three times more on its military than China, and about the same as the next eleven nations (including China) combined, the US will remain a far stronger military power than China, or any other nation.⁷⁷

CHINA'S ECONOMY IS CHANGING IN WAYS THAT REDUCE OLD TENSIONS BUT CREATE NEW ONES

Many of America's complaints about China's economy, we have seen, are legacy issues. Meanwhile China has been confronted with the problems of a declining labour force and declining productivity growth. In response it is changing the way its economy works — and in doing so creating new tensions with America. These tensions are the real subject of US–China trade talks.

Not so long ago China's economy was driven by vast increases in investment, industrial output, and manufactured exports. No longer. Hectored by the IMF and the World Bank, and with its own economic bureaucrats well aware that this configuration could not continue indefinitely, China changed course to encourage household consumption and the growth of services. In doing so it has changed its relationships with the rest of the world.

The rapidity and extent of the change is evident in, for example, the World Bank's May 2018 *China Economic Update*.⁷⁸ It projects that two-thirds of GDP growth in the years 2018, 2019 and 2020 will be from increased consumption, only one-third from investment, and (by 2020) zero from net exports (that is, from exports minus imports).⁷⁹ This projection is entirely plausible because the pattern of growth the World Bank expects for these three years is the pattern of its growth for the preceding three years.

By 2017 services output accounted for a little more than half of China's GDP.⁸⁰ Within a few years services output in China will be twice as big

as manufacturing output, but even today China could be more accurately described as a services economy than as a manufacturing economy.

China's transition to an economy driven by household consumption and by services, with a more or less balanced external account and with exports roughly equal to imports, has already happened.

These changes in demand and output patterns are reflected in changing employment patterns. A majority of China's workers now produce services, with services employment jumping to 56 per cent of the total workforce in 2017.⁸¹

Much of the foreign criticism of China's economic arrangements is about state-owned enterprises. However, these government-owned businesses are of declining importance. At the beginning of China's economic reforms 40 years ago, state-owned firms accounted for four-fifths of China's industrial output. By 2011 state-owned firms accounted for a quarter of industrial output.⁸² As calculated by economist Nicholas Lardy, by 2011 two-thirds of jobs in the urban workforce were in the private sector.⁸³

The contribution of state-owned enterprises to China's exports in particular has steeply declined. In the mid-1990s, state-owned enterprises accounted for two-thirds of China's exports, foreign businesses for a little under a third, and private Chinese businesses for only a fiftieth. By 2017 the share of exports attributable to state-owned enterprises was down to a tenth. The rest came from private enterprise, split nearly equally between foreign and Chinese-owned businesses.⁸⁴

While China is still the world's biggest exporter of manufactures and still a major destination for foreign investment, it is now also a big consumer market, and a big investor in other economies. It is the second-biggest consumer market in the world, and each year the addition to its consumption of goods and services is bigger than in any other country in the world — including the United States. Now the world's biggest market for cars, it is well placed to move quickly to the development and production of electric vehicles. It is the world's largest market for smart phones. China accounts for 51 per cent of Micron's global semiconductor sales, 40 per cent of Samsung's, and 33 per cent of SK Hynix's.⁸⁵ With mobile phones and financial transactions software, China has leapt ahead of the US (and all other countries) in online consumer transactions.

The US is a major participant in this market. American corporations based in China had sales of \$464 billion in 2016, the latest data available.⁸⁶ More than two-thirds of these affiliates were majority owned in the US. The affiliates employed 2.1 million people in China. US exports to those affiliates in 2016 totalled \$13.2 billion, imports from the affiliates \$10 billion. These numbers suggest that US affiliates in China buy more from the US than they sell to the US, and make 98 per cent of

their sales in markets *other* than the US — presumably, mostly in China. This disproportion bears on the utility of the US ‘decoupling’ from China. According to the data, most of the research and development spend is located in the US. Apple, Intel, Qualcomm, Boeing, Micron, Broadcom, Cisco, Texas Instruments, and Procter and Gamble are just a few of more than 60 US corporations with multibillion dollar sales in China.⁸⁷

Global businesses, American included, that do not sell in China’s market are at a competitive disadvantage to their rivals that do. Freedom to operate in China’s market, and the price of that access, are accordingly pertinent issues for America. Chinese businesses certainly want to be in the US market. But it is also true that US businesses want to be in the China market. If the US goal is to compete with China, to retain a lead in economic size and new technologies, decoupling the US from the China market is not the way to go. American negotiators from the Office of the USTR and from Treasury are no doubt well aware of these facts. So are their Chinese counterparts.

CHINA’S AMBITIONS IN ADVANCED TECHNOLOGY MANUFACTURING TROUBLE ITS COMPETITORS

CHINA 2025

Increasingly, the tensions between America and China are over a particular aspect of China’s economic transition: its ambitions for manufacturing.

Manufacturing is a declining share of China’s output, but it remains the world’s biggest manufacturing economy. Beginning as an exporter of clothing and textiles 40 years ago, China moved on audio-visual equipment, computers, transport equipment, and machinery around the time it joined the WTO in 2001. Although predominantly a low labour cost assembler of components made elsewhere, in more recent years a higher share of components has been made in China and the products have become more advanced.⁸⁸

China’s output of manufactured goods in current US dollars is easily greater than the US and Japan combined.⁸⁹ Even now manufacturing still accounts for not much less than a third of China’s economic output. More than nine-tenths of its goods exports are manufactures.⁹⁰

Yet as the Chinese leadership has long recognised, its success as a manufacturer is threatened. As wages in China rise, labour-intensive manufacturing such as textiles and assembly moves to other countries. Already, manufacturing wages in China are higher than those in South America, Chile excepted, and rising towards levels in Eastern Europe.⁹¹ In the six years to 2016 manufacturing output doubled in Vietnam and Bangladesh, replicating earlier manufacturing output booms in Malaysia, Indonesia, the Philippines, and Thailand.⁹² As China succeeds in raising

wages and income, more labour-intensive manufacturing will move elsewhere.

At the same time, manufacturers in Germany, Japan, the US, and Korea have responded to China's advantage in low labour costs by relentless technological innovation, especially in deploying software, programmed robots, and artificial intelligence.

Recognising the threat of losing cheap labour production while being unable to compete in advanced technology, China's leadership adopted a medium- to long-term economic plan in 2005 to catch up and perhaps surpass advanced manufacturing economies in a number of key industries. *Made in China 2025* is a more recent iteration of that plan.⁹³ The industries covered include information technology, automated machine tools & robotics, aerospace, high-tech shipping, rail transport, electric vehicles, new materials, and medical products. In many of these areas China is already well advanced.

TENSION OVER HIGH-TECHNOLOGY MANUFACTURING, INTELLECTUAL PROPERTY, AND SUBSIDIES

As the *New York Times* reported in early 2018, a contest over which country plays "a leading role in high-tech industries" is at the heart of the trade dispute between China and the United States.⁹⁴

China is already a major producer of high-technology manufactures. On US numbers, the US accounts for 29 per cent of the world's exports of high-technology manufactures, China 27 per cent.⁹⁵ Although comparable in quantity, they are not in technical sophistication. Older products such as TVs and computers make up a larger share of China's advanced technology exports, and many of the components are made elsewhere.

Conflict over China's ambitions to become a dominant exporter of advanced technology manufactures takes two forms. Both are part of the trade negotiations between China and the US. One is over the acquisition by China of advanced technology owned by developed economy corporations. Another is over the use of subsidies by Chinese government authorities to encourage high-technology manufacturing.

The most closely argued and well documented of the complaints the Trump administration has made about China's economic practices and policies is the March 2018 report by the United States Trade Representative (USTR) on China and intellectual property. It details China's policies to encourage indigenous advanced technology by invention, adoption and "re-innovation". It describes China's plans to establish high-technology manufacturing in China, rather than assembling high-technology products from materials created elsewhere. It concludes that many of China's practices warrant action under US trade law provisions directed against unfair policies and practices

abroad. It particularly objects to “forced technology transfer” or pressure on US businesses to share technology with Chinese joint venture partners if they wish to sell into the China market.⁹⁶

Claiming substantial damage from what it says is China’s unrecompensed acquisition of intellectual property, the Trump administration imposed tariffs on China of a value equivalent to the claimed loss. China responded with equivalent tariffs, the US with more tariffs, and so it has continued.

There is little doubt Chinese individuals and businesses have stolen some commercial secrets from corporations, and little doubt that in some areas it is China’s policy to encourage the transfer of technologies into joint ventures with Chinese businesses as the price of facilitating entry to China’s market. The Chinese authorities claim there is no such requirement for transferring technology, but there is clearly a fine line between requiring a technology transfer as a condition of establishment in China, and favouring in various ways those businesses that accept such a structure.⁹⁷

However, there is also no doubt that China’s performance in respect of intellectual property has improved — and that it has an increasing interest in intellectual property protections, not least because Chinese businesses will own increasing amounts of it.

For example, China paid \$29 billion in fees for foreign intellectual property in 2017, double the amount China paid in 2011. The fees were less than those paid by the US but more than any other country for the use of the intellectual property within its national borders.⁹⁸ And while the 2018 USTR report was all about China, regular reports from the same office on intellectual property are also highly critical of India, Indonesia, and a number of other countries.⁹⁹

The current trade negotiations may well see China make a serious offer on intellectual property. In particular, it is likely that China, with so much at stake, will move on ‘forced transfers’ of intellectual property.

In these negotiations, China will likely prove amenable to American demands that encourage US economic interest in China. A pertinent though unspoken premise of the USTR intellectual property report is that US businesses want to participate in the China market. The US complaint about “forced technology transfer” would otherwise make no sense — US businesses could simply avoid producing in China. Similarly, the report argues that in refusing to permit US cloud computing services in China, US providers are at a competitive disadvantage because their clients demand worldwide cloud access. These points suggest that the actual agenda, at least of the Office of the USTR, is not decoupling from China but continuing economic integration with it — although on better terms.

IS CHINA BREAKING WTO RULES ON INDUSTRY POLICY, SUBSIDIES AND INTELLECTUAL PROPERTY?

The US does not like the way China runs its economy. Competing advanced economies do not care for the ambitions of *Made in China 2025* or of some of the means by which China acquires technology. Nor do they like the scale of incentives an economy of China's size is able to offer high-tech industries. It is quite another thing, however, to document a claim that China contravenes its obligations under WTO agreements, or any other international agreements to which China is a party.¹⁰⁰ As US WTO Ambassador Dennis Shea said in a July 2018 statement, "the most significant Chinese policies and practices are not directly disciplined by WTO rules or the additional commitments that China made" in joining the WTO.¹⁰¹

The European Union says much the same. In a July 2018 paper outlining proposals to "modernise" the WTO, the European Union notes that existing WTO rules do not preclude many of the industrial subsidies or forced technology transfers to which it objects.¹⁰² That, of course, is why the European Union wants to change the WTO rules.¹⁰³

However, if there are to be new rules they cannot be just for China. In seeking big changes to China's industry policy, for example, the US, Europe, and Japan must deal with the fact that programs akin to *Made in China 2025* are commonplace. As a recent German report shows, *Made in China 2025* is modelled on Germany's Industry 4.0 plan, and the US Industrial Internet program.¹⁰⁴ China will no doubt be making this point in the negotiations with the US.

Subsidies and domestic preferences are also commonplace. The European Union planned to spend 58.82 billion euros supporting farmers in 2018, over a third of the entire European Union budget.¹⁰⁵ The US federal government has had a 'Buy America' requirement since 1933. It gives a 12 per cent price advantage to American goods and services in civilian contracting, and a 50 per cent advantage in military contracts.¹⁰⁶ In January 2017 the Trump administration extended 'Buy America' to all new pipelines, and now proposes to extend it to infrastructure projects.¹⁰⁷

China is said to offer subsidies worth \$7.7 billion to encourage the manufacture of electric vehicles.¹⁰⁸ That subsidy may or may not contravene WTO rules, depending on how it is applied. The US also subsidises electric vehicles, and much more. In 2017 US weapons exports were worth \$40 billion, almost all the product of businesses that depend on US government purchases and subsidies.¹⁰⁹ The Trump administration arranged a three billion dollar "incentives package" for Taiwanese electronics firm Foxconn to locate a liquid-crystal-display factory in Wisconsin, the home state of House Speaker Paul Ryan.¹¹⁰ Ryan along with and Trump's son-in-law Jared Kushner helped

negotiate the package. This was a big deal, but by no means unprecedented or particularly unusual.

Then there are the hundreds of US federal state and local programs to assist industry with subsidies, tax concessions, favourable terms or grants for land, sales contracts, and training assistance, all building on hundreds of years of similar 'pork barrelling' programs, for which their legislative sponsors ardently claim credit. The US spends \$20 billion a year on farm subsidies alone.¹¹¹ The army of industry lobbyists in Washington is there for a reason.

Even in the December 2017 US National Security Strategy, the Trump administration proposes to "prioritize emerging technologies critical to economic growth and security" including data science, encryption, autonomous technologies, gene editing, new materials, nanotechnology, advanced computing technologies, and artificial intelligence.¹¹² This is the usual government rhetoric — and it sounds remarkably like *Made in China 2025*.¹¹³

They may or not work but industry policies are not at all unusual, and not forbidden under international agreement.

The current WTO agreements do ban some subsidies, but only those that are specific to an industry or product, that discriminate between domestic and foreign firms, and which can be shown to have a material impact on trade competitors.

The US has long taken action against subsidies of this kind and continues to do so. Created 23 years ago, the Subsidies Enforcement Office (SEO) of the International Trade Administration in the US Commerce Department initiates investigations into foreign companies it believes may be using subsidies of the kind banned by the WTO. In the 11 months to November, the Commerce Department imposed countervailing duties against or notified inquiries into nine Chinese products, including certain steel flanges, tool chests, rubber bands, and aluminium foil.¹¹⁴ (Advanced technology products these are not.)

The US is well aware of the difficulties of distinguishing the subsidies it objects to from the ones it does not (and may itself have). In July 2018 Geneva Ambassador Shea said that "the United States does not object to the Chinese government's desire to guide and support domestic industries through the issuance of five-year plans and other similar efforts. Other WTO members also seek to help their industries develop."¹¹⁵

He did object to "massive, market-distorting subsidies and other forms of state support ... which too often leads to severe excess capacity ... and actively seeks to ... harm foreign competition". As he then added, the WTO "does not offer all of the tools necessary" to deal with the kind of subsidies to which the US objects.

Defining the objectionable subsidies and reaching agreement among WTO members on disciplines to minimise them is a big job, which Europe, Japan, and Canada are now discussing. China is a strong supporter of the WTO and has indicated a willingness to reform it — even against the opposition of the recalcitrants, South Africa and India. As a great world trader it is clearly in China's interest to have widely accepted and enforceable rules on trade. In seeking to join the Government Procurement Agreement under WTO auspices it has indicated at least in principle a willingness to participate in 'plurilateral' trade agreements, an alternative to agreements covering all WTO members.¹¹⁶ Largely due to the obduracy of India and South Africa, extended multilateral WTO agreements are now impossible. Such a plurilateral agreement more broadly disciplining subsidies could be a way forward for the global trading system.

The US will likely find it very much harder to deal with subsidies in a bilateral negotiation with China since the relevant subsidies and incentives are not specific to a trade partner, and are applied in many countries — including the US.

DO CHINA'S ECONOMIC POLICIES OFFEND THE 'LIBERAL WORLD ORDER'?

Perhaps because of the difficulty of proving violations of actual commitments by China, US officials accuse China of a more nebulous failure to conform to American expectations, or to obey the rules of a 'liberal world order'.¹¹⁷ As the White House asserted in 2018, much of China's economic growth is attributable to "aggressive acts, policies, and practices that fall outside of global norms and rules".¹¹⁸

In July 2018, Ambassador Shea criticised what he characterised as China's "state-led, mercantilist approach to trade and investment". A "reckoning", he said, could no longer be "put off". Shea claimed that when China joined the WTO, members expected China would "permanently dismantle existing state-led, mercantilist policies and practices that were incompatible with an international trading system expressly based on open, market-oriented policies and rooted in the principles of non-discrimination, market access, reciprocity, fairness and transparency". These expectations he said, echoing Trump administration declarations, "have not been realized".¹¹⁹

This was the theme of the Trump administration's report to Congress on China's implementation of its WTO commitments, and of many preceding reports.¹²⁰ According to the report, China was expected to become a more open and market-driven economy. It was supposed to develop towards a democracy. The Chinese Communist Party (CCP) was supposed to cede power and authority. On the contrary, the CCP has remained in control, China has not become a democracy, and the state still plays a large role in the economy. Having benefited in its rise

from an American created and led 'liberal international order', China now wants to change it in ways that favour China.¹²¹

The argument here depends not on what China actually committed to do, but what some Americans say they expected China to do. Yet this 'liberal order' is hard to pin down. Along with the United Kingdom, the US was indeed the chief power in creating the IMF, the World Bank, and the General Agreement on Tariffs and Trade (GATT) during and after World War II. Even at its foundation the liberal order included widely divergent economic frameworks.¹²² The order was not limited to market economy democracies, or to democracies. Nor did it prescribe the form of ownership of business. For example, the British Labour government elected at the end of the war against Germany helped create the international economic order. At the same time it was nationalising private businesses and creating a nationalised universal health service. Rebuilding from the ruins of war, the German and Japanese governments extensively intervened in their economies, establishing businesses and planning industries, and continued to do so for decades. Even today, the state of Lower Saxony holds 11.8 per cent of the shares of Volkswagen, the world's largest car maker by sales, and exercises one-fifth of the voting rights.¹²³ Two of America's largest finance businesses, Freddie Mac and Fannie Mae, which together hold a securities portfolio of over \$5 trillion, are both effectively government owned.

There was and is no international agreement which mandates the form of ownership of businesses, or the degree of state intervention in business. At various times the European Union and its members, as well as Japan, Korea, Taiwan, and Southeast Asia all pursued extensive government planning and assistance. China's opening to the world, its growth and development, was consciously modelled on those examples.

Major elements of that post-war order vanished decades ago anyway, long before China became an economic power. The fixed exchange-rate system that the IMF administered disappeared half a century ago. It has been a quarter of a century since what is now the WTO concluded a global trade negotiation. Monetary and fiscal policies, which for big nations have a global impact, were once constrained by fixed exchange rates but these days are rarely coordinated by central banks or governments. There are some WTO rules on foreign investment but no comprehensive global agreement.

CAN THE US HINDER CHINA'S TECHNOLOGY PROGRESS?

There is no doubt that a powerful motive in the Trump administration's policy towards China is to protect the dominant position of its high-technology industries.¹²⁴ In discussing the US integrated circuit industry, for example, the March 2018 USTR report warmly endorses its central

role in American technology leadership and the need to protect its strength. In a separate stream, the US has for over a decade sought to thwart the growth of China's telecoms equipment maker, Huawei.¹²⁵

Some of the policy measures to protect American technology dominance are designed to stop technology transfers hitherto regarded as legitimate commercial transactions. These include, for example, purchasing interests in US and European businesses with useful technologies, refusing to import the products of high-technology industries, and threatening to stop the export of key components used in high-technology businesses in China.¹²⁶

But can the US materially slow China's technological progress, assuming for a moment that it wishes to do so?

There is no doubt the US is the world's technology leader. In a timely study on global technology transfers published in 2018, the IMF depicts the US as spending more on research and development than any of its nearest rivals, France, Germany, the United Kingdom, Korea, Japan, and China.¹²⁷ However, research and development spending in China has been rising so quickly it now well exceeds that of Japan, Europe, and Korea and is already three-quarters of total US spending on research and development.¹²⁸ In aggregate research and development stock, a broader measure, China is now only second to the US.

According to the International Federation of Robotics, the US stock of industrial robots is higher than China's. In 2016, however, Chinese businesses bought nearly three times as many robots as US businesses, an acceleration of what was already a rapid rate. China now buys about a third of the annual global production of robots. More importantly, in assessing China's technological dependence on the US, it also produces around a third of the annual global output of robots.¹²⁹ At this rate it cannot be very many years before China has more industrial robots than the US.

We also know that the number of Chinese graduates in the sciences, engineering, and information technology (IT) is soaring, both at Chinese universities and those overseas (including, for now at least, the US). The top ranked US universities are still well ahead in the quality of doctoral work but according to the World Economic Forum, China, these days, graduates eight times as many STEM graduates as the US.¹³⁰

We know that China is already either pre-eminent or at the first rank in solar industries, fast trains, and a number of other industries that require very advanced scientific and engineering skills. It is over half a century since it mastered nuclear bomb making and nuclear power production, now old technologies but once on the scientific frontier. Chinese entities control more satellites than any other country, except the US.¹³¹ China now has 487 electric-car makers.¹³² To the consternation of its US competitors, China's Huawei is said to be a year or two in front in the

development of key aspects of the 5G mobile spectrum.¹³³ If Huawei is already well ahead, it is clearly not relying on technology transfers from advanced economies.

China wants US technologies, much as Korea did in the 1980s and early 1990s, and Japan before it. (Both economies, it is worth noting, are now technology leaders in their own right.) But while China wants some US technologies, it does not want them all, and some technologies it does want it cannot get (other than through espionage). China has determined for political and national security reasons to build its own internet and social media. It actively refuses many US technologies in the industry and has built its own internet and social media platforms, which is quite a large chunk of modern US technology. Another very large chunk is military or dual-use technology. The US certainly has a lot of technology in that area China would like to have, but the US has not and will not permit its transfer. Apart from these military or quasi-military prohibitions, the Commerce Department maintains a list of several thousand technology products for which permission to export to China may be required.

China is now an industrial innovator, as well as a rapid adopter. In the 2018 Global Innovation Index (GII), the World Intellectual Property Organization describes China's rise by five country positions to 17th compared to the 2017 results as "spectacular".¹³⁴ It reports that China "is among the largest world contributors in terms of many innovation inputs and outputs, including R&D spending, number of researchers, scientific and technological publications, and patent applications".¹³⁵ In the GI rankings, China earns top positions in a number of important areas, including patents and utility models, high-tech exports, but also trademarks, industrial designs, and creative goods exports. It notes that China is "second in the world (after the United States of America) in number of innovative clusters". In the quality of scientific publications and the quality of its universities, "China performs above the high-income group average, and, in the latter indicator, above the score of top-ranked Japan".¹³⁶

The US may be able to prevent the transfer of some recent technologies developed by US businesses, and the effect may be to slow down China's progress in some industries. But while US obstacles to China foreign direct investment in the US and the acquisition of US technologies may hinder China, they will not stop its development towards the level of technological command now attained by Korea and Japan. They are unlikely to do more than oblige China to spend more of its own resources on technological development.

For Australia, for the rest of the world, such an objective begs the question of why it is in anyone's interest to slow China's technological development. Certainly it would be useful to oblige China to adhere to fair rules on the transfer of intellectual property. Yet for those economies

that benefit from China's rapid growth — which is most of the world's economies, including the US — it makes no sense to deliberately seek to hinder its development. The US will find allies for proposals to discipline China's intellectual property practices. For a wider campaign to hinder China's technological development, it would likely find itself alone.

China's response to American concern over technology transfer is already evident. It cannot rely on an assured supply of American chips, or advanced robots or advanced equipment for manufacturing. It must buy them elsewhere, make its own, or give up on its ambition to reach the technological frontier in global manufacturing. It will certainly accelerate its efforts to develop its own technologies. Far from discouraging China along the path set out in *Made in China 2025*, the actions and stance of the Trump administration will encourage and confirm it.

DECOUPLING THE AMERICAN ECONOMY FROM CHINA

The US has long banned sales of advanced weapons to China, and dual-use technology where it would add to China's military capability. Security allies of the US impose the same bans. The US also imposes controls on the export to China of several thousand US-made high-technology products. Although in most cases the export is permitted, the Commerce Department has the authority to refuse. Through the Committee on Foreign Investment in the United States (CFIUS) the US can and does forbid Chinese investment in US businesses that possess technology or expertise with actual or potential military uses. The contemporary military can use a very broad range of technologies, so CFIUS has a wide remit.

Elements of the Trump administration want to go lot further.¹³⁷ There

is talk in Washington of a grander project of 'decoupling' the US economy from China's. As the *Financial Times* reported of a US National Defence University conference, "there is a growing group of thoughtful people who believe that American national security interests will require a forcible untangling of the investment and supply chain links between the US and China".¹³⁸ The objective presumably would be to stall China's economic growth, and particularly its development of advanced technology products. The US could do this by sustaining or increasing tariffs on China's imports, banning investment in the US by Chinese businesses, and by forbidding US businesses from investing in China. To have any chance of successfully slowing China, the US would have to ask Europe, Japan, Korea, and other US allies including Australia to adopt the same rules. The chances of agreement are surely not good. Speaking in Singapore in November 2018, former US Treasury Secretary Henry Paulson pointed out that even US security allies in East Asia are unlikely to join a US attempt to economically isolate China.¹³⁹

To the extent it successfully decoupled, however, the US would not only need to turn to more expensive sources for imports. It would also be precluding American businesses from selling into a market which for many years to come will for numerous products be worth more than America's home market — or any other. As we have seen, it is already the case that sales from US affiliates in China are extremely large. General Motors sells more cars in China than in the United States. Now the world's biggest market for cars, China is likely to remain so for decades to come. It is the world's largest market for smart phones.

In the end, a serious attempt to slow China's economic growth or arrest its technological development would have to be regarded by China as a hostile act. As former Australian foreign minister Alex Downer noted in 2018, "if you call China your enemy, it will be your enemy".¹⁴⁰

SO, WHAT WILL A DEAL LOOK LIKE?

Although the Trump administration's methods are novel, the economic dispute between the US and China has a long history. US complaints about China's treatment of intellectual property go back decades, as do complaints about dumping, trade distorting subsidies, and the bilateral trade deficit. Nor are the American complaints unique to China. Asked in 1990 how he felt about what the interviewer called "Japan's economic pre-eminence", property developer Donald Trump said: "The Japanese cajole us, they bow to us, they tell us how great we are and then they pick our pockets. We are losing hundreds of billions of dollars a year while they laugh at our stupidity."¹⁴¹ Eight years ago Robert Lighthizer, then a Republican trade lawyer and former deputy to US trade representative Bill Brock in the Reagan administration, laid out a plan for the US to confront China on trade, investment, and what Lighthizer described as China's "mercantilist" economic policies.¹⁴²

He argued that America should assess the cost to the US of what he claimed to be economic malpractice, and respond to China with trade penalties of equivalent size. The US could then negotiate reforms in China, backed up as it would then be by massive trade penalties. As Special Trade Representative for President Trump, this is exactly what Lighthizer has done. The first set of major tariffs imposed on China were said to be equivalent to the cost to US corporations of intellectual property transferred unwillingly to China.

For all the rhetoric it is difficult to believe US policymakers are really willing to prolong such a vast and damaging economic dispute merely to enhance the already rapid growth of US exports to China, or to protect basic manufacturing that has already adjusted to China imports, or reshape the pattern of global current account balances that have already reshaped themselves. As has been shown, these are legacy issues — something the more discerning of US policymakers acknowledge. It is also hard to imagine that US policymakers really do believe that China's

economy will soon be much bigger than America's on a metric that captures economic weight. Beyond a few national security hawks, there cannot be many serious or plausible American policymakers who think China's economic growth can and must be thwarted. Except on the fringes, it is difficult to believe serious policymakers think it is possible or even desirable to attempt to destroy the CCP's economic policy apparatus in China, or effect regime change. There is no doubt the US is seeking big changes in policies and practices, but making demands so adversarial that they force China to seek allies elsewhere are not in US long-term interests.

What we are witnessing instead is a commercial dispute over technology leadership in coming decades. This dispute is not covered by WTO understandings or commitments, the 'rules based order', and cannot now be mediated through the WTO. It is not covered by the articles of an imaginary 'liberal economic order'.

Part of the American national security community thinks China's rising power needs to be arrested, that a large part of this power is derived from China's economic success, and that China's economic success is derived from its participation — with American blessing — in the global economy. Recognising the threat, the national security community argues that the US and its allies should 'disentangle' from supply chains through China's economy. This is part of a larger notion of freezing China out of the global economy. To the extent these views prevail, the negotiations between China and the US cannot succeed.

There are competing views within the Trump administration and it is not clear what the US would now regard as a reasonable settlement of its dispute with China. It presumably wants what it has sought in earlier administrations — an investment agreement that allows US businesses in China more access to a wider China market with fewer conditions, an end to what the US describes as "forced transfer" of intellectual property as part of the price on participating in China's market, more sanctions against the appropriation of intellectual property, reduced "overcapacity" in China's steel and aluminium industries, new undertakings on cyber intrusions and cyber theft of commercial information, undertakings to buy more US exports, and so forth.

All of these are issues that have been negotiated between the US and China over the past two decades, and not without success. China has become more respectful of intellectual property rights, it has opened up more industries to foreign investment, it has cut subsidies to state-owned enterprises, and it has lowered tariff barriers in line with its WTO commitments.¹⁴³

Together with WTO reform pursued by Europe and Japan, the restart of US–China negotiations along now familiar lines offers the chance of continued gradual improvement in the understandings that permit global trade and investment to flourish.

The mix of national security and economic objectives, as well as the personality of President Trump, make this an unusually unpredictable negotiation. National security people think of China's economic success as the key to its overall strength, and to some it follows that China's economic rise should be hindered and constrained. They think of other countries as allies and enemies, of win-lose outcomes. Economists, by contrast, often think of other countries as being both competitors and markets and are inclined to look for win-win outcomes. Although the Office of the USTR and Treasury now seem to be in control of the US side of the negotiation, there is much in this mingling of different styles of thinking within the Trump administration that can go awry.

According to former Trump White House staffer Steve Bannon, "Australia is at the forefront of the geopolitical contest of our time".¹⁴⁴ It has a security alliance with the United States, and a deep economic relationship with China.

From the collision between China and America, Australia has nothing to gain and much to lose. If that collision also results in weaker global trade rules, in the collapse of what remains of the WTO, Australia's losses will be magnified.

"Australia doesn't have to choose and we won't choose", Prime Minister Scott Morrison said firmly on 15 November 2018, speaking to reporters during an APEC Summit. "We will continue to work constructively with both partners, based on the core of what those relationships are ... We don't choose between the issues. We don't choose between the partners. We get on with the relationships."¹⁴⁵

Yet in refusing to choose sides in the trade dispute, in maintaining free trade agreements with both countries, in pursuing a security relationship with one of the contestants and an economic relationship with the other, Australia sets a very prominent example that will attract the critical attention of both China and the US if their economic relationship deteriorates.

Unlike conflicts that have preceded it, this struggle is not for territory, for security, for cultural or religious or ethnic supremacy, or even for the triumph of contending ideologies. Neither of the two great competitors threatens the national survival of the other. Neither can exercise an economic veto over the other. This struggle is fundamentally about competition to sell goods and services to households, including in China. It is not the first but it is certainly the most consequential struggle over the world's consumers. Wisely managed, it is tractable. Unwisely, it threatens global prosperity.

NOTES

¹ Kirsty Alfredson, “Bush Backs China’s WTO Entry Despite Standoff”, CNN, 6 April 2001, <http://edition.cnn.com/2001/WORLD/asiapcf/east/04/05/china.WTO/>.

² White House Office of Trade and Manufacturing Policy, “How China’s Economic Aggression Threatens the Technologies and Intellectual Property of the United States and the World”, Report, June 2018, 1, <https://www.whitehouse.gov/wp-content/uploads/2018/06/FINAL-China-Technology-Report-6.18.18-PDF.pdf>.

³ For a timeline of the US–China trade war, see Chad Bown and Melina Kolb, “Trump’s Trade War Timeline: An Up-to-Date Guide”, PIIE *Trade and Investment Policy Watch*, 1 December 2018, <https://piie.com/blogs/trade-investment-policy-watch/trump-trade-war-china-date-guide>.

⁴ Enda Curran and Keith Zhai, “Here’s What the US, China Demanded of Each Other on Trade”, Bloomberg, 4 May 2018, <https://www.bloomberg.com/news/articles/2018-05-04/here-s-what-u-s-demanded-of-china-at-the-start-of-trade-talks>.

⁵ Bob Davis and Lingling Wei, “Trump Advisers Urge Raising Additional China Tariffs to 25%”, *The Wall Street Journal*, 31 July 2018, <https://www.wsj.com/articles/u-s-talks-with-china-over-trade-dispute-show-little-progress-1533066018>.

⁶ Bob Davis and Lingling Wei, “Chances Fade for US–China Trade Deal”, *The Wall Street Journal*, 7 September 2018, <https://www.wsj.com/articles/chances-fade-for-u-s-china-trade-deal-1536312600>.

⁷ Robert Blackwill and Ashley Tellis, “Revising US Grand Strategy Toward China”, Council on Foreign Relations Special Report No 72, March 2015, 4, https://cfrd8-files.cfr.org/sites/default/files/pdf/2015/04/China_CSR72.pdf.

⁸ In the seventeenth and eighteenth centuries, mercantilism was a state policy of acquiring stocks of gold from trade. It is now used to describe a policy of maximising exports and minimising imports.

⁹ White House Office of Trade and Manufacturing Policy, “How China’s Economic Aggression Threatens the Technologies and Intellectual Property of the United States and the World”, 1.

¹⁰ US Census Bureau, “Trade in Goods with China”, <https://www.census.gov/foreign-trade/balance/c5700.html>.

¹¹ China’s goods exports to the US increased 439 per cent from 1991 to 2001, the year China joined the WTO. US goods exports to China over the same period increased 205 per cent: *Ibid*.

¹² Office of the United States Trade Representative (USTR), “The People’s Republic of China: US–China Trade Facts”, <https://ustr.gov/countries-regions/china-mongolia-taiwan/peoples-republic-china>.

¹³ The arithmetic is very straightforward. If we begin with 1 and 5, we have a gap of 4. If we then treble the 1 and double the 5, we have a gap of 7. Nonetheless, 3 is a higher share of 10 than 1 is of 5.

¹⁴ The USTR calculates that by 2017 China’s good exports to the US were up by 394 per cent compared to 2001. US goods exports to China had over the same

period increased 577 per cent. Office of the United States Trade Representative, “The People’s Republic of China: US–China Trade Facts”, <https://ustr.gov/countries-regions/china-mongolia-taiwan/peoples-republic-china>.

¹⁵ OECD, “Trade in Value Added: China”, October 2015, <http://www.oecd.org/sti/ind/measuring-trade-in-value-added.htm>. In 2011 the trade deficit was one-third less when measured in domestic value added terms compared to gross export terms.

¹⁶ World Bank, “Goods Exports (BoP, Current US\$)”, <https://data.worldbank.org/indicator/BX.GSR.MRCH.CD?view=chart>; World Bank, “GDP (Current US\$)”, <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>

¹⁷ Robert Lighthizer, “Testimony Before the US–China Economic and Security Review Commission: Evaluating China’s Role in the World Trade Organization Over the Past Decade”, Washington, 9 June 2010, 7, <https://www.uscc.gov/sites/default/files/6.9.10Lighthizer.pdf>.

¹⁸ YiLi Chien and Paul Morris, “Is US Manufacturing Really Declining?”, Federal Reserve Bank of St Louis *On the Economy Blog*, 11 April 2017, <https://www.stlouisfed.org/on-the-economy/2017/april/us-manufacturing-really-declining>.

¹⁹ FRED (Federal Reserve Bank of St Louis Economic Data), “Manufacturing Sector: Real Output”, <https://fred.stlouisfed.org/series/OUTMS>.

²⁰ Economist David Autor and his colleagues estimate that imports of cheap labour products accounted for one-quarter of the decline in US manufacturing employment. Imports from China were just under half of the total increase in these imports, so China imports would have accounted in their central case for something like 12.5 per cent of the decline in manufacturing employment. The rest of the job losses were due to new technologies and productivity increases, or imports from other sources. Autor, Dorn and Hanson, “The China Syndrome: Local Labor Market Effects of Import Competition in the United States”, *American Economic Review* 103, No 6 (2013), 2121–2168.

²¹ FRED, “Manufacturing Sector: Real Output”, <https://fred.stlouisfed.org/series/OUTMS>.

²² The Economist, “Global Stability at Stake as US–China Trade War Risk Grows”, *The Australian*, 25 June 2018, <https://www.theaustralian.com.au/business/opinion/global-stability-at-stake-as-uschina-trade-war-risk-grows/news-story/8684d9079a8e1e2a4d62805e8affde1e>.

²³ In June 2018 China’s holdings of US securities was not much greater than Canada’s, quite close to the holdings of the United Kingdom, and well below the holdings of Japan (or the Cayman Islands). No doubt China entities are holding US securities in some other jurisdictions, but not enough to affect the argument.

²⁴ Inclusive of those years. Current account numbers from FRED; US–China trade deficit in goods from US Census Bureau, “Trade in Goods with China”, <https://www.census.gov/foreign-trade/balance/c5700.html>; China holdings of US Treasury securities from US Department of the Treasury, “Major Foreign Holders of Treasury Securities”, <https://www.treasury.gov/resource-center/data-chart-center/tic/Pages/index.aspx>.

²⁵ By contrast, in 2017 Germany's current account surplus was not quite two-thirds of the US current account surplus. World Bank, "Current Account Balance (BoP, Current US\$)", <https://data.worldbank.org/indicator/BN.CAB.XOKA.CD?view=chart>

²⁶ US Census Bureau, "US International Trade Data — Balance by Partner Country: China", <https://www.census.gov/foreign-trade/data/index.html>.

²⁷ If inflation is higher in one country than another, then at an unchanged nominal rate the high inflation country currency is appreciating against the other because one unit of its currency will buy in that country less than before.

²⁸ IMF, "International Financial Statistics: Real Effective Exchange Rate Based on the CPI", <http://data.imf.org/?sk=4C514D48-B6BA-49ED-8AB9-52B0C1A0179B&slid=1539887168442>.

²⁹ World Bank, "Real Effective Exchange Rate Index (2010 = 100)", <https://data.worldbank.org/indicator/PX.REX.REER?locations=CN-US>.

³⁰ Tom Mitchell and Shawn Donnan, "China Currency Is 'No Longer Undervalued', Says IMF in Washington", *Financial Times*, 27 May 2015, <https://www.ft.com/content/11e96e1e-03a7-11e5-b55e-00144feabdc0>.

³¹ World Bank, "Current Account Balance (% of GDP)", <https://data.worldbank.org/indicator/BN.CAB.XOKA.GD.ZS?locations=CN-US>.

³² In national income accounting the gap between domestic saving and domestic investment must equal the current account balance, which in turn must equal the capital and financial account balance

³³ In 2001 the value of US direct investment abroad on a historical cost basis was \$1.5 trillion. By 2017 it was \$6 trillion, an increase of \$4.5 trillion.

³⁴ OECD, "Current Account Balance", <https://data.oecd.org/trade/current-account-balance.htm>.

³⁵ Greg Ip, "That Noise You Hear Is the Sound of Globalization Going Into Reverse", *The Wall Street Journal*, 28 June 2018, <https://www.wsj.com/articles/as-trade-barriers-go-up-global-supply-chains-unravel-1530100987>.

³⁶ World Integrated Trade Solution (WITS), "Product Imports by China from United States", <https://wits.worldbank.org/CountryProfile/en/Country/CHN/Year/1992/TradeFlow/Import/Partner/USA/Product/all-groups>.

³⁷ The value of US imports still exceeds the value of China's imports, both measured in current US dollars, but the gap has narrowed over the years.

³⁸ WITS, "Product Imports by China from United States".

³⁹ The typical value added to a product by the assembly operation in China is often a tiny part of the retail price of a product. For example, the assembly cost of an iPhone 7 is just 2.2 per cent of the total material costs: World Intellectual Property Organization (WIPO), "Smartphones: What's Inside the Box?", in *World Intellectual Property Report 2017: Intangible Capital in Global Value Chains* (Geneva: WIPO, 2017), 99, https://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2017.pdf.

⁴⁰ OECD, "Trade in Value Added: China", October 2015, <http://www.oecd.org/sti/ind/measuring-trade-in-value-added.htm>

⁴¹ It is true that the foreign content (measured as foreign value added) of China's domestic consumption is relatively small. In 2011 it was only 10.5 per cent, less

than half the share in Germany or the United Kingdom. However, Japan and America had only marginally higher shares than China. Even the share in Australia was not much more. OECD–WTO, “Trade in Value Added: China”, October 2015, 7, https://www.oecd.org/sti/ind/tiva/CN_2015_China.pdf.

⁴² World Bank data comparing “Tariff Rate, Most Favored Nation, Weighted Mean, All Products (%)”, <https://data.worldbank.org/indicator/TM.TAX.MRCH.WM.FN.ZS?locations=CN-BR-IN-AU-US>.

⁴³ Using data from the US Council of Economic Advisers, the simple average of China’s MFN applied rate (as distinct from its bound rate, which it cannot under the agreements exceed) in 2016 was 9.9 per cent. This was nearly three times the US rate and nearly four times the Australian rate. But it was well below the rate for South Korea, India, Argentina, and Brazil. Much of the difference arises from tariffs on agricultural imports, which account for a relatively small amount of global trade but a high proportion of total protection. Looking at manufacturing alone, China’s simple average rate is 12.1 per cent, nearly double South Korea’s rate and five times the US rate. It is above the rate in India and Indonesia but below the rate in Brazil and Argentina. See US Council of Economic Advisers, *Economic Report of the President: February 2018* (Washington: US Government Publishing Office, 2018), 240, <https://www.govinfo.gov/content/pkg/ERP-2018/pdf/ERP-2018.pdf>.

⁴⁴ See US Government, “Balancing the Trade Relationship between the United States of America and the People’s Republic of China”, draft framework published in Gabriel Wildau and Shawn Donnan, “US Demands China Cut Trade Deficit by \$200bn”, *Financial Times*, 5 May 2018, <https://www.ft.com/content/d0eb3e4a-4f77-11e8-a7a9-37318e776bab>.

⁴⁵ United States Trade Representative, “2017 Report to Congress On China’s WTO Compliance”, <https://ustr.gov/sites/default/files/files/Press/Reports/China%202017%20WTO%20Report.pdf>.

⁴⁶ Ana Swanson, “China Offers to Buy Nearly \$70 Billion of American Goods if US Halts Tariffs”, *The New York Times*, 5 June 2018, <https://www.nytimes.com/2018/06/05/us/politics/china-trump-trade-tariffs.html>.

⁴⁷ OECD, “FDI Restrictiveness”, <https://data.oecd.org/fdi/fdi-restrictiveness.htm>.

⁴⁸ OECD, “FDI Stocks”, <https://data.oecd.org/fdi/fdi-stocks.htm>.

⁴⁹ Office of the United States Trade Representative (USTR), “The People’s Republic of China: US–China Trade Facts”, <https://ustr.gov/countries-regions/china-mongolia-taiwan/peoples-republic-china>.

⁵⁰ OECD, “FDI Stocks”, <https://data.oecd.org/fdi/fdi-stocks.htm#indicator-chart>.

⁵¹ The stock of US FDI in China was 1 per cent of its total stock of FDI; the stock of China’s FDI in the US was just 2 per cent of its total stock of FDI. Even adding in Hong Kong, separately reported in the US data, American direct investment in China plus Hong Kong was only four fifths of US direct investment in Australia. See US Department of Commerce, Bureau of Economic Analysis, “Foreign Direct Investment by Industry and Country”, <https://www.bea.gov/data/intl-trade-investment/foreign-direct-investment-by-country-and-industry>.

⁵² It is the ‘Thucydides Trap’, some analysts declare, invoking the Greek historian’s claim that Sparta went to war against Athens because it thought it would in time be strong enough to go to war against Sparta.

⁵³ Toluse Olorunnipa, “Trump Says China No Longer on Quick Path to Be Bigger than US”, Bloomberg, 22 August 2018.

⁵⁴ Purchasing power parity estimates what an equivalent basket of goods and services costs in each country to calculate a purchasing power parity exchange rate. In its 2017 Foreign Policy White Paper the Australian Government used purchasing power parity measures to show China’s economic output already matches that of America and would very nearly be twice as big as America’s just 12 years from now: Australian Government, *2017 Foreign Policy White Paper* (Canberra: Australian Government, 2017), 26, <https://www.fpwhitepaper.gov.au/>.

⁵⁵ World Bank, “GDP (Current US\$)”, <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.

⁵⁶ For Congressional Budget Office projections, see <https://www.cbo.gov/about/products/budget-economic-data#4>.

⁵⁷ OECD, “The Long View: Scenarios for the World Economy to 2060”, <http://www.oecd.org/eco/growth/scenarios-for-the-world-economy-to-2060.htm>. Even so, because China’s growth will remain faster than America’s for some time to come, every year China will add more to world GDP measured in current exchange rates than the US.

⁵⁸ World Bank, “Labor Force, Total”, <https://data.worldbank.org/indicator/SL.TLF.TOTL.IN?locations=CN>.

⁵⁹ Workforce is defined as the proportion of the population in the age bracket 15 to 65. From UN Population Division, 2017 revision of its population data: <http://www.un.org/en/development/desa/population/>.

⁶⁰ A big increase in the exchange value of the yuan against the US dollar would increase China’s size compared to the US measured in current exchange rates, but it would be a one-time adjustment to the comparative size at the nominal exchange rate rather than a change to the real growth rate of GDP.

⁶¹ World Bank, “GDP Growth (Annual %)”, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2017&locations=US-KR-JP-SG-CN&start=1961>.

⁶² Japan’s case is instructive. By 1995 Japan’s GDP was three-quarters of US GDP, measured in US dollars. For the previous decade administration officials had testified to alarmed Congressional committees about the threat presented by Japan — and especially by what Reagan administration officials claimed were its unfair trade and investment rules. Japan’s growth in US dollars thereafter slowed as productivity growth slowed and its workforce shrank. Today its GDP in US dollars is much the same as it was then, nearly a quarter of a century ago, and its US dollar GDP is a quarter of America’s. See World Bank, “GDP (Current US\$)”, <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=US-JP>.

⁶³ Barry Naughton, *The Chinese Economy: Transitions and Growth* (Cambridge MA: MIT Press, 2007), <https://valeriaribeiroufabc.files.wordpress.com/2017/07/barry-naughton-the-chinese-economy-transitions-and-growth.pdf>.

⁶⁴ CEIC, “China Labor Productivity”, <https://www.ceicdata.com/en/china/labor-productivity>.

⁶⁵ China has reached the ‘Lewis turning point’ of economic development. See Barry Naughton, “Restructuring and Reform: China 2016”, in Iris Day and John Simon eds, *Structural Change in China: Implications for Australia and the World*

(Sydney: Reserve Bank of Australia, 2016), 56, <https://www.rba.gov.au/publications/confs/2016/pdf/rba-conference-volume-2016-naughton.pdf>.

⁶⁶ World Bank and the Development Research Center of the State Council, the People's Republic of China, *China 2030: Building a Modern, Harmonious, and Creative Society* (Washington DC: World Bank, 2013), 8, <https://www.worldbank.org/content/dam/Worldbank/document/China-2030-complete.pdf>; IMF, "China's Economic Outlook in Six Charts", 26 July 2018, <https://www.imf.org/en/News/Articles/2018/07/25/na072618-chinas-economic-outlook-in-six-charts>; OECD, "Looking to 2060: Long-term Global Growth Prospects", OECD Economic Policy Papers, No 3, November 2012, <https://www.oecd.org/eco/outlook/2060%20policy%20paper%20FINAL.pdf>.

⁶⁷ World Bank, "Exports of Goods and Services (Current US\$)", https://data.worldbank.org/indicator/NE.EXP.GNFS.CD?locations=CN-US&year_high_desc=true. See also World Bank, "Trade (% of GDP)", <https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS?locations=CN-US>. For 2017, China had a 38 per cent trade share of GDP, while for the United States it was 27 per cent.

⁶⁸ As one participant at a Canadian intelligence conference on China suggested: "Beijing Creates its Own Global Financial Architecture as a Tool for Strategic Rivalry", in *Rethinking Security: China and the Age of Strategic Rivalry* (Canada Security Intelligence Service, 2018), 121, <https://www.canada.ca/content/dam/csis-scrs/documents/publications/CSIS-Academic-Outreach-China-report-May-2018-en.pdf>.

⁶⁹ Bank of International Settlements (BIS), "Triennial Central Bank Survey: Foreign Exchange Turnover in April 2016", September 2016, 4, <https://www.bis.org/publ/rpfx16fx.pdf>.

⁷⁰ In this BIS Survey, the total percentages add to 200 rather than 100 because every transaction is a pair. *ibid*

⁷¹ From the numbers it appears that the US dollar was anyway on the other side of most yuan transactions, since the US dollar/Chinese yuan share of transactions was much the same as the yuan share.

⁷² IMF, "International Reserves and Foreign Currency Liquidity — China, PR: Mainland", <http://data.imf.org/regular.aspx?key=61280813>.

⁷³ China's outward stock in 2017 was \$1.472 trillion, America's \$7.8 trillion: OECD, "FDI Positions, Main Aggregates", <https://stats.oecd.org/Index.aspx?QueryId=64238>.

⁷⁴ World Bank, "Foreign Direct Investment, Net Inflows (BoP, Current US\$)", <https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=US-CN>.

⁷⁵ UN Population Division, <http://www.un.org/en/development/desa/population/>.

⁷⁶ IMF, "IMF Data Mapper — Real GDP Growth", https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD/.

⁷⁷ Lowy Institute, *Asia Power Index*, Compare Countries: United States and China, <https://power.lowyinstitute.org/countries?compare=242,46>; ArmedForces.eu, "Military Power of China and USA", http://armedforces.eu/compare/country_China_vs_USA.

⁷⁸ World Bank, “China Economic Update, May 2018”, Report No 126710-CN, <https://www.worldbank.org/en/country/china/publication/china-economic-update-may-2018>.

⁷⁹ Ibid, 11.

⁸⁰ World Bank, “Services, Value Added (% of GDP)”, <https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS?locations=CN>. Although it remains very important, manufacturing over the same period declined from 32 per cent of GDP in 2011 to 29 per cent in 2017: World Bank, “Manufacturing, Value Added (% of GDP)”, <https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=CN>. GDP is not quite the sum of value add in each sector, but near enough.

⁸¹ World Bank, “Employment in Services (% of Total Employment) (Modeled ILO Estimate)”, <https://data.worldbank.org/indicator/SL.SRV.EMPL.ZS>.

⁸² On the wide definition used by China economist Nicholas Lardy: see Nicholas Lardy, “The Changing Role of the Private Sector in China”, in Iris Day and John Simon eds, *Structural Change in China: Implications for Australia and the World* (Sydney: Reserve Bank of Australia, 2016), 37–38, <https://www.rba.gov.au/publications/conf/2016/pdf/rba-conference-volume-2016-lardy.pdf>.

⁸³ These are familiar numbers but it is useful to remind ourselves of how far China has come, and in what direction. Lardy defines state firms as those owned by the state or controlled by the state, including all government entities.

⁸⁴ Foreign-invested enterprises accounted for a little over four-tenths of China’s exports, and private Chinese businesses for just under half. Kunwang Li and Wei Jiang, “China’s Foreign Trade: Reform, Performance and Contribution to Economic Growth”, in Ross Garnaut, Ligang Song and Cai Fang eds, *China’s 40 Years of Reform and Development 1978–2018* (Canberra: ANU Press, 2018), 586, <https://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf>.

⁸⁵ According to SK Securities, reported in Bryan Harris, Song Jung-a and Emily Feng, “China Alleges ‘Massive’ Evidence of Chipmaker Violations”, *Financial Times*, 19 November 2018, <https://www.ft.com/content/d626833a-ebb5-11e8-89c8-d36339d835c0>.

⁸⁶ US Department of Commerce, Bureau of Economic Analysis, “Activities of US Multinational Enterprises: 2016”, BEA 18-41, 24 August 2018, <https://www.bea.gov/news/2018/activities-us-multinational-enterprises-2016>.

⁸⁷ Philip van Doorn, “Apple, Nike and 18 other US Companies have \$158 Billion at Stake in China Trade War”, MarketWatch, 4 April 2018, <https://www.marketwatch.com/story/trade-war-watch-these-are-the-us-companies-with-the-most-at-stake-in-china-2018-03-29>.

⁸⁸ Prema-chandra Athukorala, “China’s Evolving Role in Global Production Networks: Implications for Trump’s Trade War”, in *China’s New Sources of Economic Growth: Human Capital, Innovation and Technological Change*, Volume 2, Ligang Song, Ross Garnaut, Cai Fang and Lauren Johnston eds (Canberra, ANU Press, 2017), 363–388, <http://press-files.anu.edu.au/downloads/press/n2554/pdf/ch16.pdf>.

⁸⁹ World Bank, “Manufacturing, Value Added (Current US\$)”, 2015, <https://data.worldbank.org/indicator/NV.IND.MANF.CD>.

⁹⁰ World Bank, “Manufactures Exports (% of Merchandise Exports), 2016, <https://data.worldbank.org/indicator/TX.VAL.MANF.ZS.UN?locations=CN>.

⁹¹ Steve Johnson, “Chinese Wages Now Higher than Brazil, Argentina and Mexico”, *Financial Times*, 27 February 2017.

⁹² World Bank, “Manufacturing, Value Added (Current US\$)”, <https://data.worldbank.org/indicator/NV.IND.MANF.CD?end=2016&locations=VN-BD&start=2010>.

⁹³ See Office of the United States Trade Representative, *Findings of the Investigation into China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation Under Section 301 of the Trade Act of 1974 (Section 301 Report)*, 22 March 2018, 10–14, <https://ustr.gov/sites/default/files/Section%20301%20FINAL.PDF>.

⁹⁴ Keith Bradsher, “US and China Play Chicken on Trade, and Neither Swerves”, *The New York Times*, 6 April 2018, <https://www.nytimes.com/2018/04/06/business/us-china-trade-endgame.html>.

⁹⁵ Office of the USTR, Section 301 Report, 6.

⁹⁶ *Ibid.*

⁹⁷ See World Trade Organisation, “Trade Policy Review — Report by the Secretariat: China”, WT/TPR/S/375, 6 June 2018, 39, https://www.wto.org/english/tratop_e/tpr_e/s375_e.pdf: “The authorities indicate that the Government has never made, through existing Chinese laws, regulations and policies, technology transfer a precondition for inward FDI, or issued any laws, regulations, or policies obligating investors to transfer their technologies.”

⁹⁸ Nicholas Lardy, “China: Forced Technology Transfer and Theft?”, *China Economic Watch*, 20 April 2018, <https://piie.com/blogs/china-economic-watch/china-forced-technology-transfer-and-theft>. Ireland and Netherlands pay more than China, but they are there as tax havens for owners of intellectual property. See also “China Fulfills IP Protection Commitment, Says Report”, *China Daily*, 5 July 2018.

⁹⁹ In May 2014 Former US Defense Secretary and CIA Director Robert Gates said that “There are probably a dozen or 15 countries that steal our technology” and “the next capable, next to the Chinese, are the French. And they’ve been doing it a long time.” Gates continued: “For years French intelligence services have been breaking into the hotel rooms of American businessmen and surreptitiously downloading their laptops, if they felt those laptops had technological information or competitive information that would be useful for French companies. France has been a mercantilist country — the government and business have operated hand-in-hand since the time of Louis XIV.” Robert Gates, “Russian and Chinese Assertiveness Poses New Foreign Policy Challenges”, interview with Fareed Zakaria on US foreign policy at the Council on Foreign Relations, 21 May 2014, <https://www.cfr.org/event/russian-and-chinese-assertiveness-poses-new-foreign-policy-challenges-0>.

¹⁰⁰ The most detailed of the Trump administration’s complaints about China’s economic conduct, the USTR report on its policies towards intellectual property, makes it abundantly clear that the US regards China’s conduct as unfair. It does not convincingly show that the Chinese policies and practices it identifies offend WTO agreements to which China is a party. Indeed, it argues that China avoids formal regulations that contravene WTO commitments.

¹⁰¹ Dennis Shea, “US Statement at the Trade Policy Review of the People’s Republic of China”, US Mission Geneva, 11 July 2018, <https://geneva.usmission.gov/2018/07/11/u-s-statement-at-the-trade-policy-review-of-the-peoples-republic-of-china/>.

¹⁰² Council of the European Union, Paper from the European Commission to the Trade Policy Committee (Deputies), “WTO – EU’s Proposals on WTO Modernisation”, WK 8329/2018 INIT, Brussels, 5 July 2018. Limited distribution but available at <https://www.ghy.com/images/uploads/default/EU.Proposal.on.WTO.Modernization.pdf>.

¹⁰³ An extensive and frequently quoted Made in China 2025 study by a German think tank, Meric, affirmed that China should adhere to the “principles and rules of open markets and fair competition” but evidently found very little that actually contravened WTO undertakings. It instead asks the European Union and the US to “monitor and investigate” further. Jost Wübbeke et al, “Made in China 2025: The Making of a High-tech Superpower and Consequences for Industrial Countries”, Mercator Institute for China Studies, Paper on China No 2, December 2016, 7, 9, https://www.merics.org/sites/default/files/2018-07/MPOC_No.2_MadeinChina2025_web.pdf.

¹⁰⁴ Ibid.

¹⁰⁵ European Commission, “The Common Agricultural Policy at a Glance”, https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance_en.

¹⁰⁶ Kate Manuel, “The Buy American Act — Preferences for ‘Domestic’ Supplies: In Brief”, Congressional Research Service Report, R43140, 26 April 2016, 2, <https://fas.org/sgp/crs/misc/R43140.pdf>.

¹⁰⁷ Kayla Tausche, “Trump is Preparing to Expand ‘Buy America’ Rules to Include Government Infrastructure Projects”, CNBC, 15 August 2018, <https://www.cnbc.com/2018/08/15/trump-to-expand-buy-american-rules-to-infrastructure-projects.html>.

¹⁰⁸ See Jack Perkowski, “What China’s Shifting Subsidies Could Mean for its Electric Vehicle Industry”, Forbes, 13 July 2018, <https://www.forbes.com/sites/jackperkowski/2018/07/13/china-shifts-subsidies-for-electric-vehicles/#2b3b23bd5703>.

¹⁰⁹ David Brennan, “America Arming the World: US Sells More Weapons in 6 Months than all of 2017”, Newsweek, 20 July 2018, <https://www.newsweek.com/america-arming-world-us-sells-more-weapons-6-months-all-2017-1034926>.

¹¹⁰ Joshua Rothman, “Should we Subsidize Manufacturing?”, *The New Yorker*, 14 August 2017, <https://www.newyorker.com/news/news-desk/should-we-subsidize-manufacturing>.

¹¹¹ Chris Edwards, “Agricultural Subsidies”, Downsizing the Federal Government (Blog), 16 April 2018, <https://www.downsizinggovernment.org/agriculture/subsidies>.

¹¹² The White House, *National Security Strategy of the United States of America*, December 2017, 20, <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

¹¹³ Around the Persian Gulf and elsewhere, McKinsey and other consultants typically urge governments to target selected industries for encouragement with free or cheap land, energy and cheap imported labour. The Saudi Vision 2030 program is just such a plan, with targeted industries, employment and output goals, incentives, KPIs and timelines: Kingdom of Saudi Arabia, *Vision 2030*, <http://vision2030.gov.sa/en>.

¹¹⁴ See the Subsidies Enforcement Office of the International Trade Administration, and the companion list of Commerce Department press releases covering enforcement actions: https://eset.trade.gov/esel/groups/public/documents/web_resources/esel_home.hcsp.

¹¹⁵ Shea, “US Statement at the Trade Policy Review of the People’s Republic of China”.

¹¹⁶ Bryce Baschuk, “China Pushing Bid to Join WTO Procurement Pact, Xi Says”, Bloomberg, 10 April 2018, <https://www.bna.com/china-pushing-bid-n57982090983/>.

¹¹⁷ See, for example, Naná de Graaff and Bastiaan van Apeldoorn, “US–China Relations and the Liberal World Order: Contending Elites, Colliding Visions?”, *International Affairs* 94, Issue 1 (2018), 113–131, https://www.chathamhouse.org/sites/default/files/images/ia/INTA94_1_7_232_deGraaff_vanApeldoorn.pdf.

¹¹⁸ White House Office of Trade and Manufacturing Policy, “How China’s Economic Aggression Threatens the Technologies and Intellectual Property of the United States and the World”, June 2018, 1, <https://www.whitehouse.gov/wp-content/uploads/2018/06/FINAL-China-Technology-Report-6.18.18-PDF.pdf>.

¹¹⁹ Shea, “US Statement at the Trade Policy Review of the People’s Republic of China”.

¹²⁰ See United States Trade Representative, “2017 Report to Congress On China’s WTO Compliance”, <https://ustr.gov/sites/default/files/files/Press/Reports/China%202017%20WTO%20Report.pdf>.

¹²¹ Deputy assistant secretary for East Asia in the Obama administration, Kurt Campbell, recently expounded this view. In a 2018 piece in *Foreign Affairs* with Ely Ratner they write that the “liberal international order has failed to lure or bind China as powerfully as expected. China has instead pursued its own course, belying a range of American expectations in the process.” Kurt Campbell and Ely Ratner, “The China Reckoning: How Beijing Defied American Expectations”, *Foreign Affairs*, Vol 97, No 2, 61. Campbell’s central claim is that China has taken advantage of a ‘liberal rules-based order’ created and maintained by the US, which it now wishes to replace by a new order more aligned to China’s interests.

¹²² Intriguingly, the term ‘rules-based international order’ has become unpopular in the Trump administration, which sees it as a European invention designed to constrain US policy choices. At the G7 Leaders’ Summit in Canada in June 2018, the US insisted on the phrase being removed from the joint communiqué: Edward Luce, “Donald Trump and the 1930s Playbook: Liberal Democracy Comes Unstuck”, *Financial Times*, 23 June 2018, <https://www.ft.com/content/75319cee-761d-11e8-b326-75a27d27ea5f>.

¹²³ “Lower Saxony’s New Government Says Will Keep Volkswagen Stake”, Reuters, 23 November 2017, <https://www.reuters.com/article/us-volkswagen-lower-saxony/lower-saxonys-new-government-says-will-keep-volkswagen-stake-idUSKBN1DM1Y9>.

¹²⁴ In 2015, the latest year for which data is available, the World Bank estimates China spent 2.1 per cent of GDP on research and development, and the US 2.8 per cent. Since both these economies are very big, the amounts are very big. Even so, as a share of GDP Korea was far ahead with 4.2 per cent, and Japan with 3.3 per cent. As a share of GDP, Australia’s R&D spending pretty much matched China’s: World Bank, “Research and Development Expenditure (% of GDP)”, <https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS>.

¹²⁵ Stu Woo, “Huawei Offensive Is Acceleration of Yearslong Endeavor”, *The Wall Street Journal*, 8 December 2018, <https://www.wsj.com/articles/huawei-offensive-is-acceleration-of-yearslong-endeavor-1544274003>.

¹²⁶ Taisei Hoyama and Masayuki Yuda, “US Set to Curb Chinese Investment and Tech Exports to China”, *Nikkei Asian Review*, 25 June 2018, <https://asia.nikkei.com/Economy/Trade-War/US-set-to-curb-Chinese-investment-and-tech-exports-to-China>.

¹²⁷ IMF, “Is Productivity Growth Shared in a Globalized Economy?”, in *World Economic Outlook: Cyclical Upswing, Structural Change* (Washington, DC: IMF, April 2018), Chapter 4, <https://www.imf.org/en/Publications/WEO/Issues/2018/03/20/world-economic-outlook-april-2018>.

¹²⁸ Ibid, Figure 4.3 “Patenting and Research and Development at the Frontier”, 177.

¹²⁹ International Federation of Robotics, “Executive Summary: World Robotics 2018 Industrial Robots”, October 2018, https://ifr.org/downloads/press2018/Executive_Summary_WR_2018_Industrial_Robots.pdf.

¹³⁰ Niall McCarthy, “The Countries with the Most STEM Graduates [Infographic]”, *Forbes*, 2 February 2017, https://www.forbes.com/sites/niallmccarthy/2017/02/02/the-countries-with-the-most-stem-graduates-infographic/?utm_source=GOOGLE_PLUS_PAGE&utm_medium=social&utm_content=796694847&utm_campaign=sprinklrForbesMainGPlus#1127fb6e268a.

¹³¹ China has 250 satellites, the US 859. See <https://www.ucsusa.org/nuclear-weapons/space-weapons/satellite-database#.XBnQ2C1L1QI>.

¹³² Trefor Moss, “China Has 487 Electric-Car Makers, and Local Governments Are Clamoring for More”, *The Wall Street Journal*, 19 July 2018, <https://www.wsj.com/articles/china-has-487-electric-car-makers-and-local-governments-are-clamoring-for-more-1531992601>.

¹³³ Sarah Wray and James Rogerson, “Huawei Confirms 5G Phone Launch — with Foldable Screen”, *5G.co.uk*, 24 September 2018, <https://5g.co.uk/news/huawei-5g-phone-foldable-screen/4508/>.

¹³⁴ Cornell University, INSEAD, and World Intellectual Property Organisation (WIPO), *The Global Innovation Index 2018: Energizing the World with Innovation* (Ithaca, Fontainebleau and Geneva: Cornell University, INSEAD and WIPO, 2018), Chapter 1, 17, <https://www.globalinnovationindex.org/gii-2018-report#>.

¹³⁵ WIPO, “Global Innovation Index 2018: China”, 1, http://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2018-profile9.pdf.

¹³⁶ Ibid.

¹³⁷ See Richard McGregor, “Donald Trump Begins a Conscious Uncoupling from China”, *Australian Financial Review*, 16 October 2018, <https://www.afr.com/news/economy/donald-trump-begins-a-conscious-uncoupling-from-china-20181011-h16jf4>.

¹³⁸ Rana Foroohar, “Globalised Business Is a US Security Issue”, *Financial Times*, 16 July 2018, <https://www.ft.com/content/e98ea238-86a5-11e8-96dd-fa565ec55929>.

¹³⁹ “Remarks by Henry M Paulson, Jr, on the United States and China at a Crossroads”, Paulson Institute, Singapore, 7 November 2018, <http://www.paulsoninstitute.org/news/2018/11/06/statement-by-henry-m-paulson-jr-on-the-united-states-and-china-at-a-crossroads/>.

¹⁴⁰ “Alexander Downer: Five Lessons for Living with Beijing”, *Australian Financial Review*, 8 July 2018, <https://www.afr.com/news/economy/alexander-downer-five-lessons-for-living-with-beijing-20180708-h12ebx>.

¹⁴¹ Quoted in Glen Fukushima, “Golf and Gold”, *The New York Review of Books*, 8 March 2018.

¹⁴² Lighthizer, “Testimony Before the US–China Economic and Security Review Commission: Evaluating China’s Role in the World Trade Organization Over the Past Decade”.

¹⁴³ As ANU’s Peter Drysdale argues, there has “arguably been no country for which WTO accession has involved deeper economic, institutional, legal and political change and reform than China”. And as he points out, the 2017 Office of the US Trade Representative (USTR) report on WTO compliance “acknowledged China’s compliance with its WTO commitments on trading rights, its timely abolition of quotas and the designated trading system and its progress on tariff cuts”. So, too, US reports on intellectual property have over the years acknowledged China’s progress in establishing special courts, prosecuting cases of theft and responding to US demands. Peter Drysdale and Samuel Hardwick, “China and the Global Trading System: Then and Now”, in Ross Garnaut, Ligang Song and Cai Fang eds, *China’s 40 Years of Reform and Development 1978–2018* (Canberra: ANU Press, 2018), 545–574, <https://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf>.

¹⁴⁴ Bannon goes so far as to say that “what’s playing out in Australia is more important than what’s happening in the US and other places”: Peter Hartcher, “Australia on the Front Line of Clash with China, Says Steve Bannon”, *The Sydney Morning Herald*, 9 July 2018, <https://www.smh.com.au/world/asia/australia-on-the-front-line-of-clash-with-china-says-steve-bannon-20180709-p4zqfi.html>.

¹⁴⁵ Scott Morrison, “Doorstop, Singapore”, transcript of a post-APEC Summit press conference, Singapore, 15 November 2018, <https://www.pm.gov.au/media/doorstop-singapore>.

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