



HOW MANY EGGS, IN HOW MANY BASKETS? AN UPDATE ON NZ-CHINA TRADE PATTERNS

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Executive summary

The New Zealand China Council (NZCC) has engaged Sense Partners to provide an independent assessment of New Zealand's trade relationship with China.

This report seeks to contribute facts and figures to the recurrent debate around whether New Zealand is too economically dependent on China, and if so, what might be done about it.

China has accounted for over 60% of New Zealand's goods export growth over the past decade, reflecting China's strong income growth, changing consumer preferences for primary products, reduced trade barriers arising from the bilateral Free Trade Agreement, and trust and institutional linkages built up over time.

There is no denying that for some export and import products, China accounts for a very large share of New Zealand's global trade. Should export demand decline or supply chain disruptions occur for these products, some firms will be exposed.

And the recent Australian experience demonstrates that political risks can present significant challenges for exporters to China, although political risks are not limited to China alone (as French cheesemakers or Scotch whisky producers exporting to the US will attest).

Yet it is hard to imagine New Zealand firms are not aware of the risks of concentrating too much effort in one market, be that China or any other. They are best placed to determine whether the rewards of trading with China outweigh the concentration risks, including political risks.

In considering whether New Zealand is too dependent on China, there are many unanswered questions.

- What is the 'correct' level of trade with China? Who decides?
- What are the economic and political risks associated with exporting to other markets? Will diversification always be net beneficial?
- Are there other large, fast-growing markets out there that really want what New Zealand produces? Why aren't we selling to them already?
- Are those markets willing to reduce their tariffs and non-tariff barriers to provide greater opportunities for Kiwi exporters?

The government has an important role in providing future diversification options for New Zealand exporters, by continuing to negotiate improved access in other large potential markets such as the EU, UK, US and India. But this will not be easy or fast, despite our negotiators' best efforts.

New Zealand businesses need to be clear-eyed about engaging with China. Selling a portfolio of products that is highly concentrated in a single market is obviously risky. There will be bumps along the commercial road, some of which will be out of their control.

But there will be considerable opportunities too for those who invest in long-term relationships and demonstrate their value to Chinese buyers.



Key findings

China has accounted for over 60% of New Zealand's goods export growth in the past decade

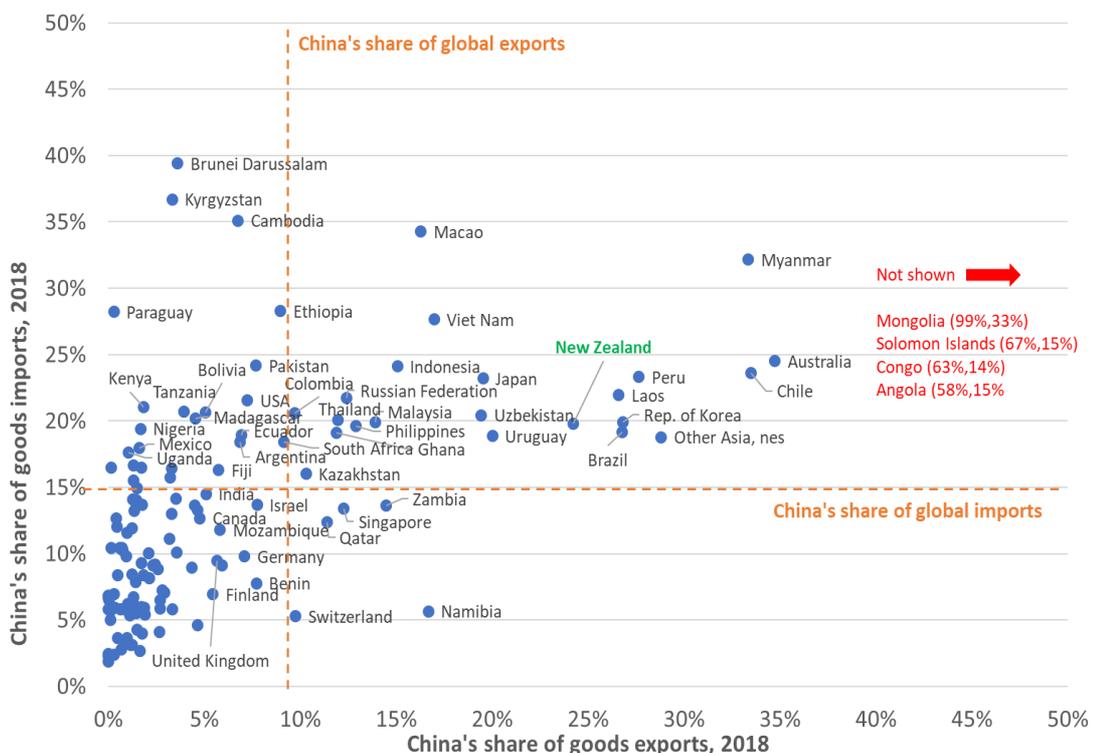
- China has accounted for \$12.9 billion (62.5%) of New Zealand's goods export growth of \$20.7 billion over the past 10 years.
- Exports to other traditional markets such as the US and Japan have also grown, albeit at a much slower rate, and exports to Australia and the UK have fallen slightly over this period.
- This export growth to China has been driven by rapid income growth and urbanisation in China, along with changing dietary preferences.
- The New Zealand-China Free Trade Agreement (FTA), and the rules-based structure it has delivered for firms and institutions, has also played a part.
- China has also accounted for 23.1% of New Zealand's total services export growth since 2010, with a strong contribution in education services (46.2% of education exports) and personal travel services (i.e. tourism) (30.7%).

New Zealand and Chinese economies are highly complementary

- The two economies are complementary, with New Zealand having a strong Revealed Comparative Advantage (RCA) in primary products and China in manufactured goods.
- These RCAs have increased over time: New Zealand increasingly tends to produce what China is not particularly good at producing, and vice versa.

New Zealand's overall exposure to China is relatively high; we are not alone

FIGURE 1 GOODS IMPORT AND EXPORT EXPOSURE TO CHINA: ALL COUNTRIES



SOURCE: UN COMTRADE



- New Zealand's 2018 goods export (24.2%) and import exposure (19.8%) to China are relatively high.
- APEC members Hong Kong (55.2%), Australia (34.7%), Chile (33.5%), Peru (27.6%) and Korea (26.8%) all had a higher share of their goods exports directed to China in 2018.

China's importance for New Zealand exporters has increased rapidly

- China's share of New Zealand's goods exports increased from 11.1% in 2010 to 24.2% in 2018.
- The only developed country to have become more export dependent (in terms of *change* in export dependency) on China than New Zealand since 2010 is Uruguay.
- Our import share from China has not changed as much – from 16.0% in 2010 to 19.8% in 2018.

Exports have diversified slightly in recent years

- New Zealand's exports to China diversified rapidly over the early-1990s to mid-2000s period.
- In the early 1990s, New Zealand exported only a handful of HS4 products valued at more than \$10 million, with wool accounting for 45% to 60% of New Zealand's total goods exports. By the mid-2000s, this had risen to around 25.
- New Zealand's exports to China then became sharply more concentrated from 2008 to 2013. Around 50% of the growth in New Zealand's exports to China over this period was in one HS4 product line: HS0402, milk powder.
- This milk powder export growth was partly due to the bilateral FTA improving market access, but also due to very strong Chinese import demand following domestic food safety breaches (melamine).
- Since 2013, our exports to China have become slightly more diversified, largely due to:
 - rapid growth (over \$40 million increase) in a range of products over the past 5 years, including various types of logs, frozen beef, frozen lamb, infant formula, woodpulp, cream, gold kiwifruit, unsalted butter, rock lobsters, frozen squid, grated cheese, UHT milk, dairy-based food preparations, cheddar cheese, honey, tripe and Pacific Queen apples¹ (see Appendix E for the 50 largest growth products).
 - a sharp drop in exports of milk powder (following the false alarm over botulism-contaminated milk powder), a \$150 million fall in wool exports and a \$96 million drop in sheep and lamb raw skins.
- In 2019, New Zealand exported 1,904 HS10 products to China, compared to 1,681 in 2010, 589 in 2000 and 115 in 1990.
- New Zealand's goods exports to the UK are more concentrated than its exports to China.

¹ Exports of ice cream (\$3.6 million in 2014 to \$29.8 million in 2019) and skin care products (\$4.2 million to \$23.2 million) have also grown rapidly.



Chinese demand accounts for a large share of total New Zealand exports for many products

- Half of the total value of our bilateral goods exports comprises products where China accounts for at least 50% of our global exports (i.e. where China has a more than 50% export share).
- 23% of our goods exports to China by value are in products where China accounts for over 80% of New Zealand's global exports.
- In 2019, China was the sole export market for 52 products, with a combined value of \$135.7 million (0.81% of New Zealand goods exports of \$16.7 billion).
- China accounts for 80% of New Zealand's \$3.4 billion exports of logs.
- China accounts for 95% of New Zealand's \$346 million exports of rock lobsters, as was starkly highlighted during the early stages of the Covid-19 pandemic.
- China accounts for high export shares of several dairy products, including unsweetened and sweetened milk and cream and infant formula.²
- Some meat products are also highly dependent on China including frozen beef, sheep and goat meat, and offal, in which China accounts for at least 40% of exports.

China is a key source of many imported goods

- Around 2/3 of our bilateral imports by value are in products where China has a greater than 50% share of New Zealand's imports from the world.
- 22% by value of our Chinese imports are in product lines in which China accounts for at least 80% of New Zealand's imports from the world.
- China is the sole supplier of imports for 367 products, collectively valued at \$109.2 million. (Australia is the sole source of imports valued at \$149.9 million).
- Most of these 367 products are transport, metal, rubber, and construction products, along with oddities like badminton feather shuttlecocks. Medical supplies do not feature prominently.

Is this China concentration a problem?

- It is easy to say that New Zealand is too reliant on China. This report shows that for some exports and imports, New Zealand is indeed highly exposed to China.
- There is no denying concentration carries risks. An unforeseen slowdown in Chinese demand or production – as occurred with Covid-19 – will leave some firms exposed to revenue declines or supply chain challenges.
- But asserting that New Zealand is “too” economically reliant on China implies it is possible to define somehow the “correct” size of the trading relationship.
- Put another way: how much should New Zealand be trading with a huge, fast-growing market that wants what we produce and export, offers tariff preferences over other large markets, and specialises in producing items we want to import?
- There is no obvious right or wrong answer to the question of how much New Zealand should export to or import from China, or any other market for that matter, either at the

² See box story on Fonterra's approach to the Chinese market for more context.



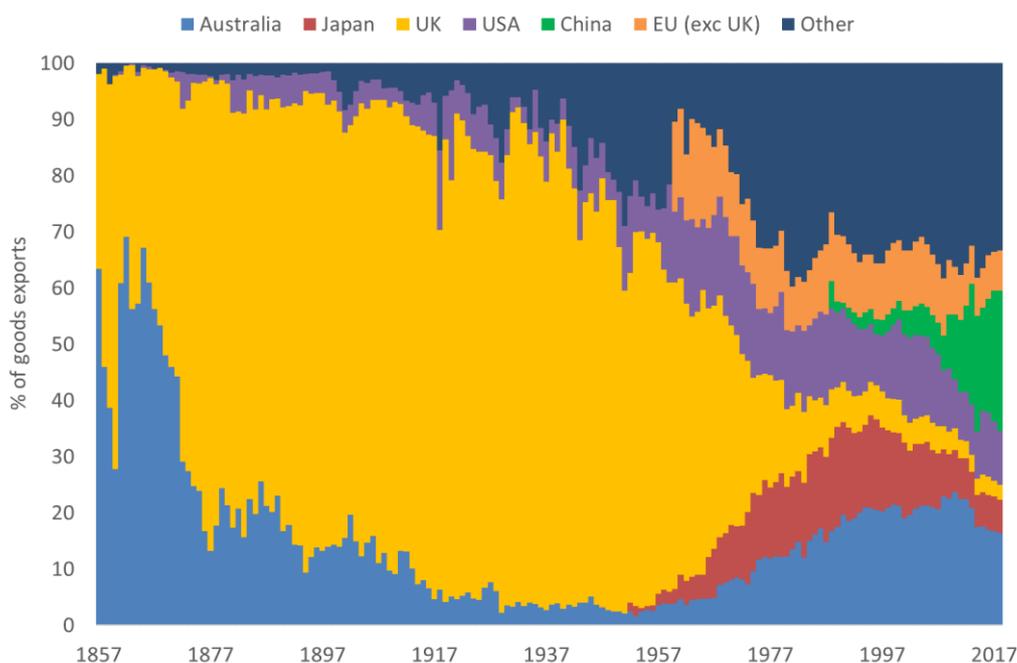
aggregate level or product level; just as there is no obvious right or wrong answer to how much risk we should bear.

- The aggregate trade data disguise the decisions of thousands of New Zealand businesses. They are responding to their commercial incentives and presumably trading with China because the benefits of doing so exceed the costs.
- It seems unlikely that New Zealand firms are unaware of the risks of focusing heavily (or solely) on the Chinese market.
- And if they weren't aware before Covid-19, they will be now.
- The lack of alternative markets that are fast-growing, large and willing to provide ready access for New Zealand's key exports also explains New Zealand's focus on China.

New Zealand's export concentration with China is different to that with the UK in the mid-20th century

- As Figure 2 shows, our current export concentration in China is much lower than when New Zealand was the UK's 'market garden' from the 1860s to the 1970s. The UK accounted for between 70% and 90% of New Zealand's goods exports between the 1870s and the 1940s.
- The diversification of New Zealand's export partners had been taking place for some time before the UK joined the EEC in 1973. This was in part due to the relatively slow growth of the UK economy. Clearly this is not the case with China today.
- There are differences in industry exposure too. As NZIER (2020) notes, in 1973 the UK was taking 90% of New Zealand's butter, 80% of our cheese and 80% of our lamb. Trade was concentrated in a few products, as opposed to the spread of products we now sell to China.

FIGURE 2 MARKET SHARES OF NEW ZEALAND'S GOODS EXPORTS, 1857-2018



SOURCE: NZIER 1850 WEBSITE, STATS NEW ZEALAND

NOTE: CHINA INCLUDED IN 'OTHER' BEFORE 1988.



Kiwi firms need to take the rough with the smooth

- If exporters are eager to profit from trade with China rather than other export markets, then they must also accept the accompanying market concentration risks, including geopolitical ones.
- They will prosper in China's good times and suffer in bad times; and shouldn't look to government to cover the risk of the latter.
- Firms could of course spread their risks by exporting to a wider range of markets. But this would presumably come with (on average) higher costs, due to the fixed costs of market entry.
- Whether a business is prepared to give up some profitability to mitigate concentration risks is up to them, depending on their tolerance for risk.

Government can help by giving firms more options over time

- Government's role in supporting exports and imports is most appropriately about removing barriers to trade, improving certainty, and helping firms overcome information problems.
- This gives firms more options in terms of finding commercially beneficial buyers and sellers, and potentially spreading risks across more markets.
- The government's current trade policy and offshore representation focus is designed to do just this. There will always be arguments that it is not doing enough or doing it fast enough.
- But New Zealand is generally not in a strong position to demand market access concessions from larger economies. We cannot simply pick and choose who will open their markets to us, or when.
- If government succeeds in reducing trade barriers and improving certainty in markets like the EU, UK, US and India, it will provide Kiwi businesses with a wider range of large, hopefully fast-growing markets to potentially trade with.
- This could lead to what Laurenceson and Zhou³ call a "China-and-" set of opportunities for our exporters.
- Some of these trade negotiations (e.g. EU, UK) are on ambitious schedules, but additional agricultural market access will be challenging to secure and likely to be slowly phased in over time for the most sensitive products. Other FTA targets (e.g. India, US) could be many years away, despite our best endeavours.
- So, it is unrealistic to think China's importance to New Zealand exporters – and the accompanying rewards and concentration risks – will decrease in a hurry.

³ Laurenceson, J. and M. Zhou. 2020. 'COVID-19 and the Australia-China relationship's zombie economic idea'. Australia-China Relations Institute, University of Technology Sydney.



Contents

| | |
|---|----|
| Executive summary | i |
| Key findings | ii |
| 1. Purpose and scope | 1 |
| 2. China's role in NZ's export growth | 2 |
| 2.1. China's contribution to export growth since 2010 | 2 |
| 2.2. Drivers of New Zealand's exports to China | 2 |
| 2.3. The outlook for key markets | 6 |
| Box story: Fonterra: Dairy isn't a product, it's a portfolio | 7 |
| 3. Export exposure | 8 |
| 3.1. Export exposure at the country level | 8 |
| 3.2. NZ's exports to China by market share bands | 10 |
| 3.3. APEC economies' major export markets | 11 |
| 4. Industry export exposure to China | 13 |
| 4.1. Industry exposure for goods | 13 |
| 4.2. Industry exposure for services | 15 |
| 4.3. NZ's exports by number of markets | 18 |
| 5. Import exposure | 20 |
| 5.1. Import exposure at the country level | 20 |
| 5.2. NZ's imports from China by market share bands | 22 |
| 5.3. NZ's imports by number of suppliers | 22 |
| 5.4. APEC economies' major import sources | 24 |
| 6. Bringing it all together | 25 |
| 7. Diversification of exports | 27 |
| 7.1. Export diversification across markets | 27 |
| 7.2. Export diversification across products | 29 |
| 8. Revealed comparative advantage | 31 |
| 8.1. Complementary economies | 31 |
| 8.2. Changes in comparative advantage over time | 32 |
| 9. Discussion: what – if anything – should we do? | 35 |
| Appendix A Industries in Figure 13 and Figure 14 | 38 |
| Appendix B Products for which China is New Zealand's sole export market | 42 |
| Appendix C Products for which China is New Zealand's sole import supplier | 44 |
| Appendix D RCA data | 46 |
| Appendix E Exports to China showing strong growth since 2014 | 52 |



1. Purpose and scope

The New Zealand China Council (NZCC) has engaged Sense Partners to provide an independent assessment of New Zealand's trade relationship with China.

This analysis seeks to contribute facts and figures to the recurrent debate around whether New Zealand is too economically dependent on China, and if so, what might be done about it.

Our report focuses on just one aspect of the wider bilateral relationship – trade in goods and services. We recognise that New Zealand's interactions with China span a much wider range of economic, political and security dimensions, but those aspects are much harder to analyse empirically, so we leave them to foreign policy experts to dissect.

We hope this report contributes to a more informed discussion around New Zealand's trade ties with China and prompts further research into this important topic.



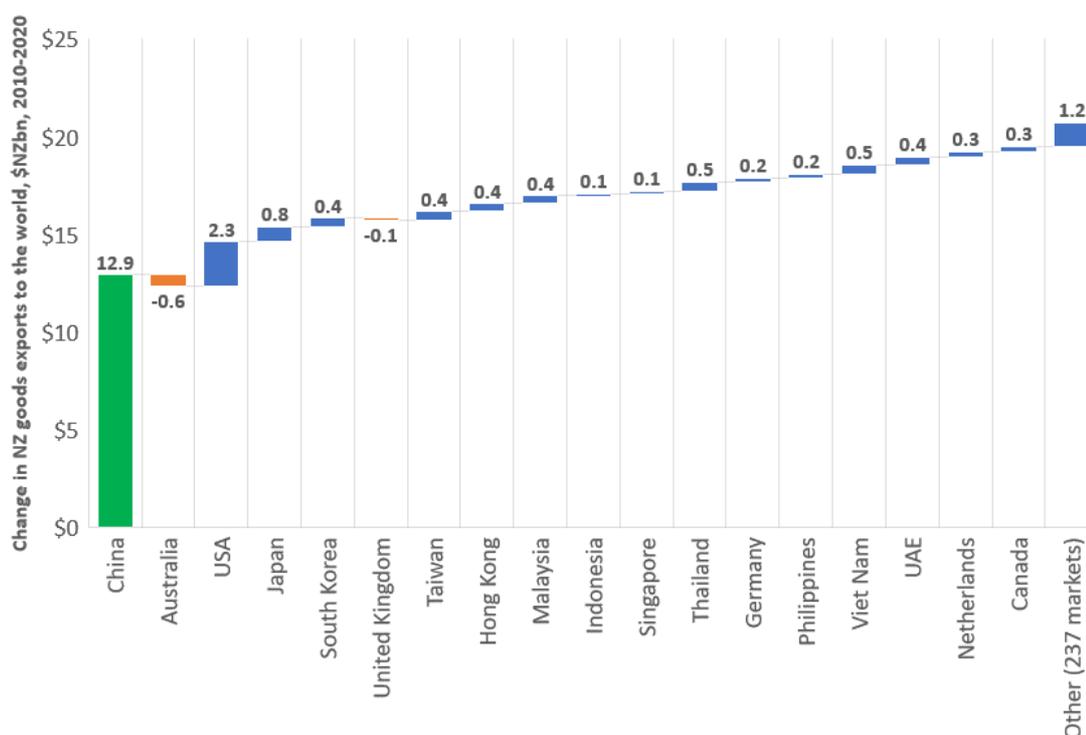
2. China's role in NZ's export growth

2.1. China's contribution to export growth since 2010

China has accounted for \$12.9 billion of New Zealand's total goods export growth of \$20.7 billion over the past decade to March 2020, or 62.5%.

Exports to other traditional markets such as the US and Japan have also grown over this period, albeit at a much slower rate, and exports to Australia and the UK have fallen slightly.

FIGURE 3 CONTRIBUTION TO NEW ZEALAND'S GOODS EXPORT GROWTH SINCE 2010



SOURCE: STATS NEW ZEALAND

Over the past five years, China's contribution has been 70.2%, or \$8.2 billion out of the additional export value of \$11.7 billion.

2.2. Drivers of New Zealand's exports to China

Several structural drivers sit beneath the role of China in New Zealand's export growth.

First, China's income per capita has grown very rapidly since at least 1990 (Figure 4 and Figure 5). This growth has been from a very low base, and China's per-capita GDP (US\$9,349 in 2018) remains less than one quarter of the developed economy average (US\$43,769). But as the Chinese population has grown richer and its economy opened up to a wider range of imported products, its tastes have changed.

Second, China's population has also urbanised rapidly since the 1980s (Figure 6). This has led to improved access to imported products, especially foodstuffs, relative to those available to the rural population.



FIGURE 4 CHINA'S REAL INCOME PER CAPITA GROWTH VS. THE WORLD

Index, 1970 = 100

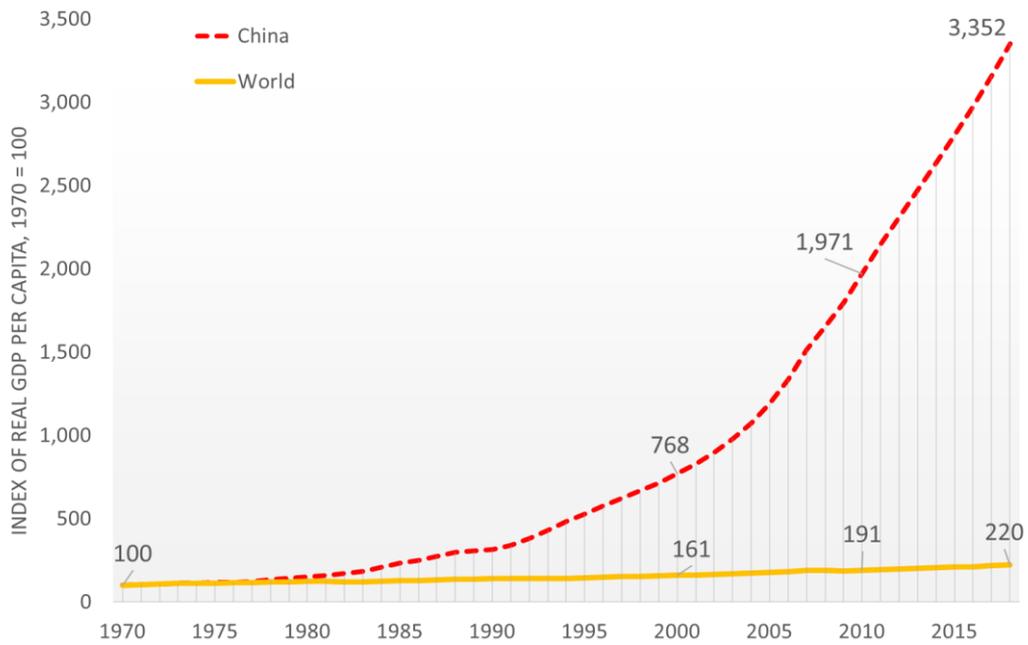
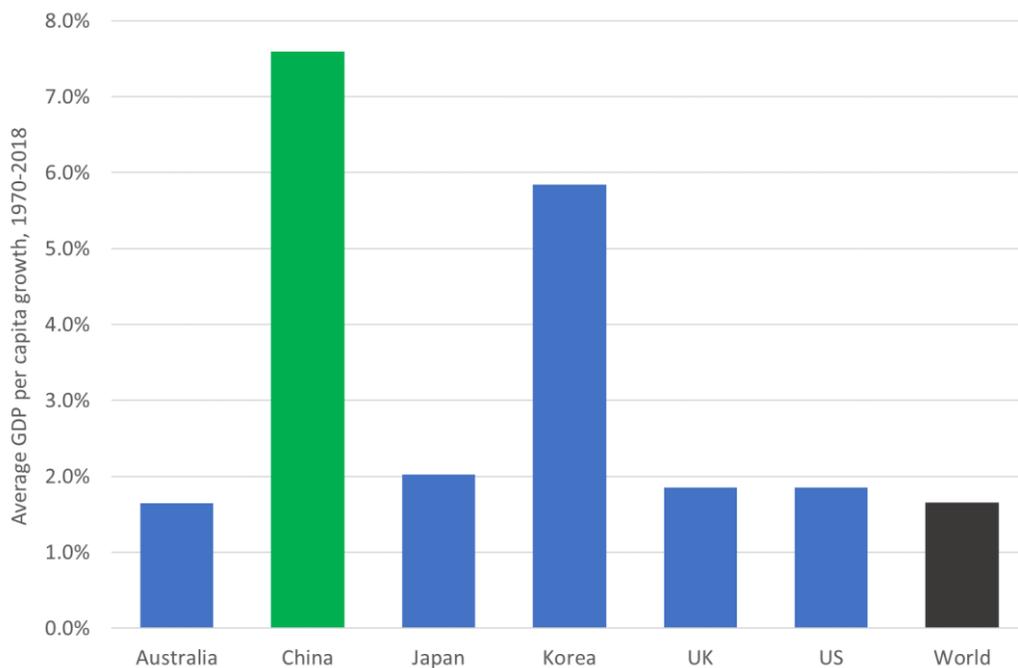


FIGURE 5 REAL INCOME PER CAPITA GROWTH: CHINA VS. OTHER KEY EXPORT MARKETS

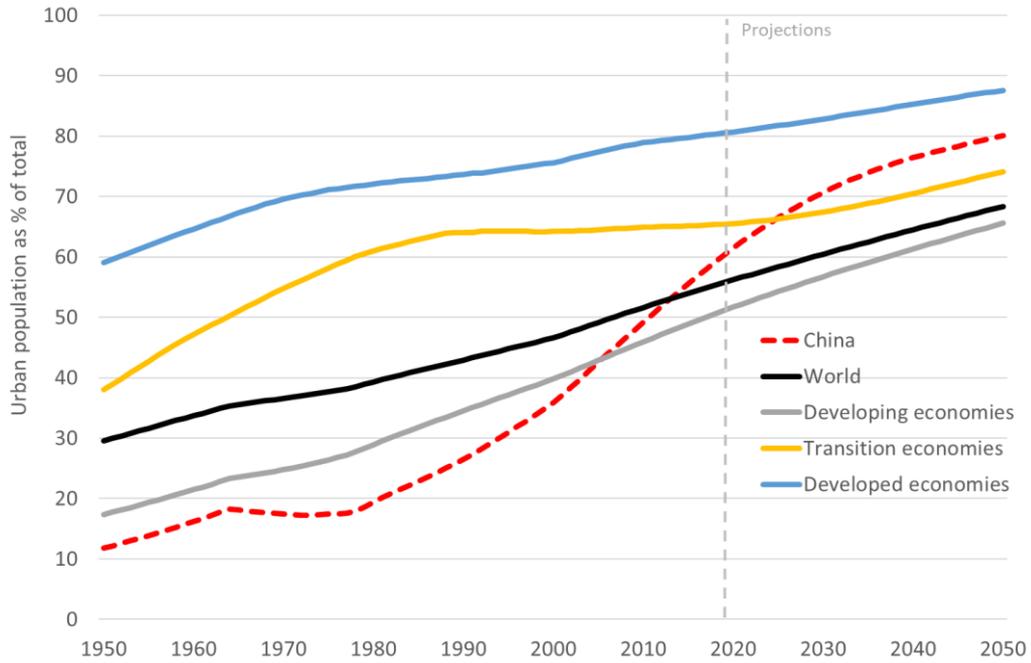
Compound average growth rate, 1970-2018



SOURCE: UNCTAD



FIGURE 6 URBANISATION TRENDS OVER TIME

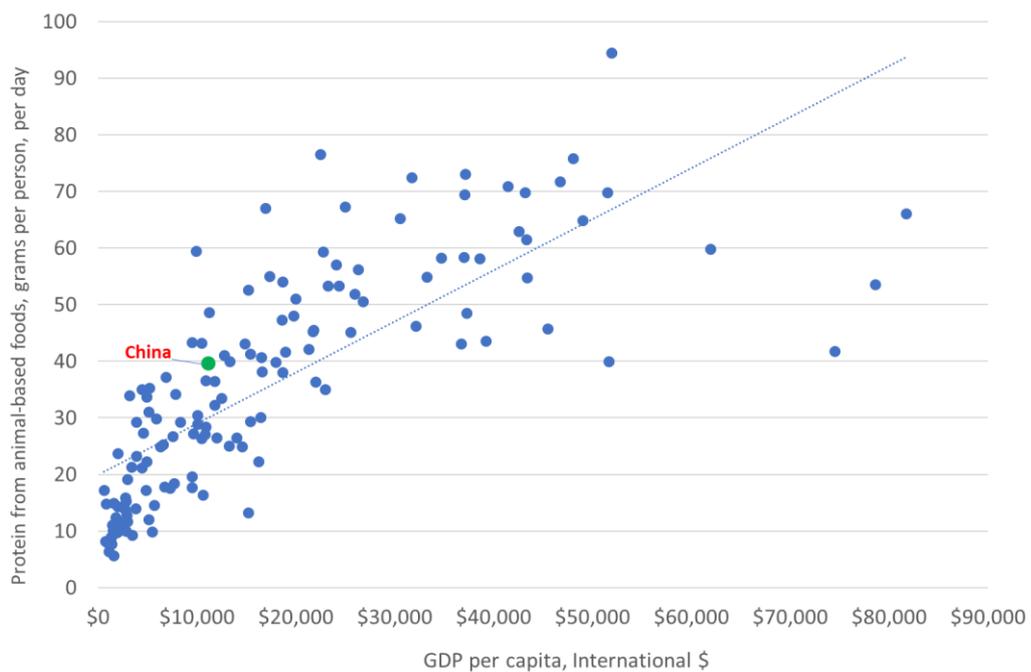


SOURCE: UNCTAD

Third, the Chinese demand for proteins – and especially animal-based proteins – has risen as income levels rise.

Figure 7 shows how income and protein demand are positively related, and Figure 8 shows how China’s protein needs have multiplied 2.5 times over the past 60 years.

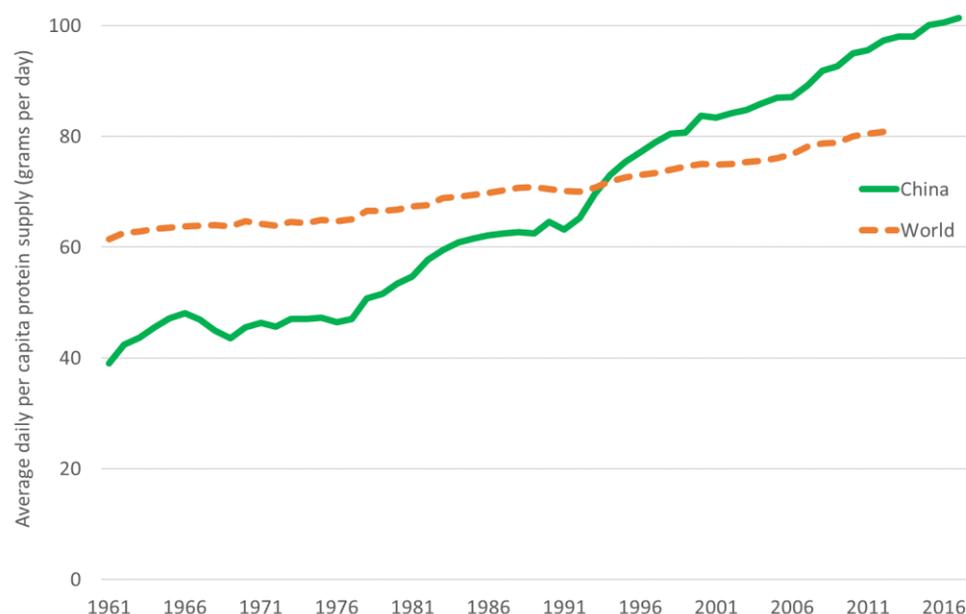
FIGURE 7 PROTEIN FROM ANIMAL-BASED FOODS VS. GDP PER CAPITA



SOURCE: [HTTPS://OURWORLDINDATA.ORG/](https://ourworldindata.org/)



FIGURE 8 DAILY PER-CAPITA PROTEIN SUPPLY IN CHINA VS. WORLD



SOURCE: [HTTPS://OURWORLDINDATA.ORG/](https://ourworldindata.org/)

Fourth, bilateral foreign and trade policy settings and the policy choices of other countries have supported strong growth in New Zealand's exports to China.

The New Zealand-China Free Trade Agreement was implemented in 2008, which improved New Zealand's market access and lifted New Zealand's profile within China. The FTA also served to deepen the links between the countries' institutions, which is important for developing trust.

The conclusion of the FTA in 2008 was the last of the "four firsts", as they were frequently described at the time. New Zealand was the first developed country to:

1. support China's WTO accession;
2. recognise China as a market economy;
3. commence FTA negotiations with China;
4. conclude FTA negotiations with China.

At around the time as the FTA was implemented, other agricultural producers were constrained in their ability to meet surging Chinese demand for animal proteins, due to the lingering effects of the GFC and rising feed prices driven in part by biofuels subsidy programmes in the US and EU.

China's accession to the World Trade Organisation in 2001 also contributed to improved productivity, as reforms allowed firms to enter and exit markets more freely.⁴

These structural drivers, along with the complementary nature of the two economies (see section 8.1 later), provide a solid backdrop for the trade growth experienced over the past two decades.

⁴ Brandt L, J Van Biesebroeck and Y Zhang. 2012. "Creative accounting or creative destruction? Firm-level productivity growth in Chinese manufacturing," *Journal of Development Economics*, 97, 339–351.



2.3. The outlook for key markets

Covid-19 will have a significant negative impact on the global economy for at least the next few years. The scale of these impacts is challenging to determine, not least due to the risks of second and third waves of infection further affecting consumer spending and business investment and employment intentions.

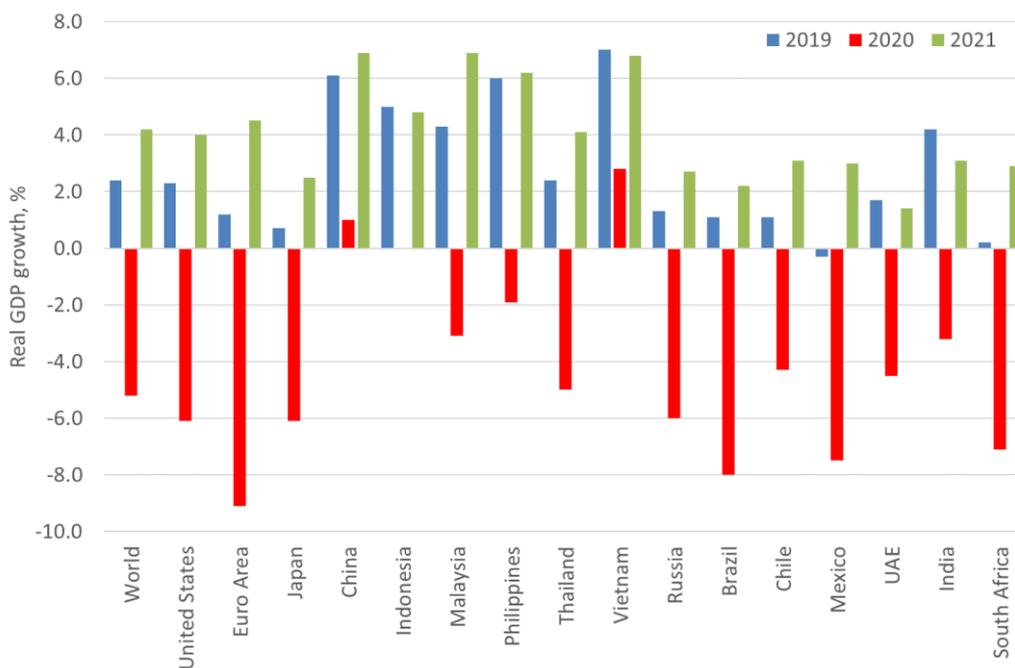
Current projections from international organisations such as the OECD and World Bank show sharp declines in economic activity in 2020, with a partial bounce-back in 2021.

Figure 9 shows the World Bank's projections, suggesting global GDP growth will fall by 5.2% in 2020, with 4.2% growth in 2021. No country escapes the global recession, although China's and Viet Nam's GDP growth remains positive (just) in 2020.

As such it is not obvious that there will be a significant shift in New Zealand's export destinations in the short term based on the economic outlook across markets. Indeed, since China fares less badly than other markets, it could play an important role in supporting New Zealand's exports as the global economy recovers.

While New Zealand's exports – especially in the primary sector – have held up well to date, the magnitude of the global recession will almost inevitably lead to lower export volumes and/or prices.

FIGURE 9 WORLD BANK GDP GROWTH PROJECTIONS



SOURCE: WORLD BANK GLOBAL ECONOMIC PROSPECTS, JUNE 2020

Looking past the next few years, we would expect structural drivers of growth to start dominating the outlook for New Zealand's exports. Unless Covid disproportionately affects China in the medium term, it is hard to see its importance for New Zealand's export demand waning considerably.



Box story: Fonterra: Dairy isn't a product, it's a portfolio

Fonterra's recent experience in China with the Covid-19 outbreak has demonstrated the value of the company selling a diversified portfolio of dairy products.

With restaurants closed, its \$1 billion foodservices line (e.g. mozzarella, whipping cream cheese), which services over 300 cities, unsurprisingly slowed. Yet its ingredients business (e.g. yoghurt, infant food, milk powders), barely suffered, as most contracts are settled well in advance. And there were shifts in buying behaviour for its smaller consumer products sales channel, with a surge in sales of UHT milk, butter and frozen dairy goods as Chinese people stayed at home and had more opportunities to cook.

Initial indications are that Covid has prompted a surge of interest in health and wellness, food safety and quality. Fonterra is confident these trends will support further growth in its functional foods, nutraceuticals, and paediatric products.

So, while it is common to think of "dairy" as one product, the reality is Fonterra services several differentiated markets in China through several different sales channels. Overall, Fonterra accounts for 36% of China's imports of dairy products.

Fonterra has had a presence in China for over 40 years and now employs over 1,500 staff in-market. It sees itself as a part of China's dairy system rather than a remote supplier, with an R&D centre to be launched in August in Shanghai, strong institutional links and a strong emphasis on collaboration and innovation. It has partnerships with Chinese online channels such as Alibaba, TenCent and JD.com.

It hopes that these supply chain linkages and trusted institutional relationships will provide a degree of insurance against the risks of Chinese market fluctuations.

Fonterra also sells dairy products to over 100 markets globally, accounting for around 75% of its business, so there are alternatives should demand slow in China.

However, alternative large markets do not yet offer the same degree of market access and income growth as China. Many have their own domestic dairy sectors, so the gap between the demand for dairy products and domestic supply is smaller than in China.

SOURCE: INTERVIEW WITH FONTERRA STAFF



3. Export exposure

3.1. Export exposure at the country level

In 2018, China accounted for 24.2% of New Zealand's goods exports (Figure 10). This places New Zealand 13th of the 127 countries for which cross-country comparable data is available.

APEC members Australia (34.7%), Chile (33.5%), Peru (27.6%) and Korea (26.8%) all had a higher share than New Zealand of their goods exports directed to China in 2018.

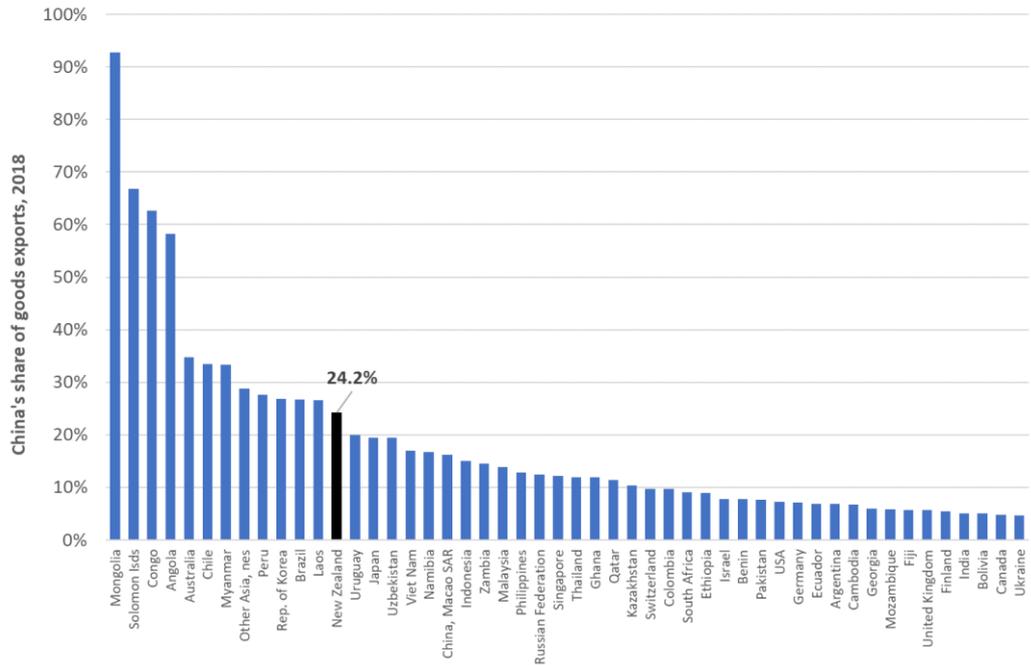
China's goods export share has increased to 28.5% for New Zealand in the year to March 2020. We do not yet have internationally comparable data to determine whether this would see New Zealand move left on Figure 10. It is possible that other countries' export exposure will also have risen.

Figure 11 overleaf shows the change, in percentage points, in China's share of goods exports between 2010 and 2018.

China's share of New Zealand's goods exports increased from 11.1% in 2010 to 24.2% in 2018. The only developed country to have had a greater increase than New Zealand in its share of goods exported to China from 2010-2018 was Uruguay, another country that predominantly exports agricultural products (e.g. beef, wood, wool, dairy).

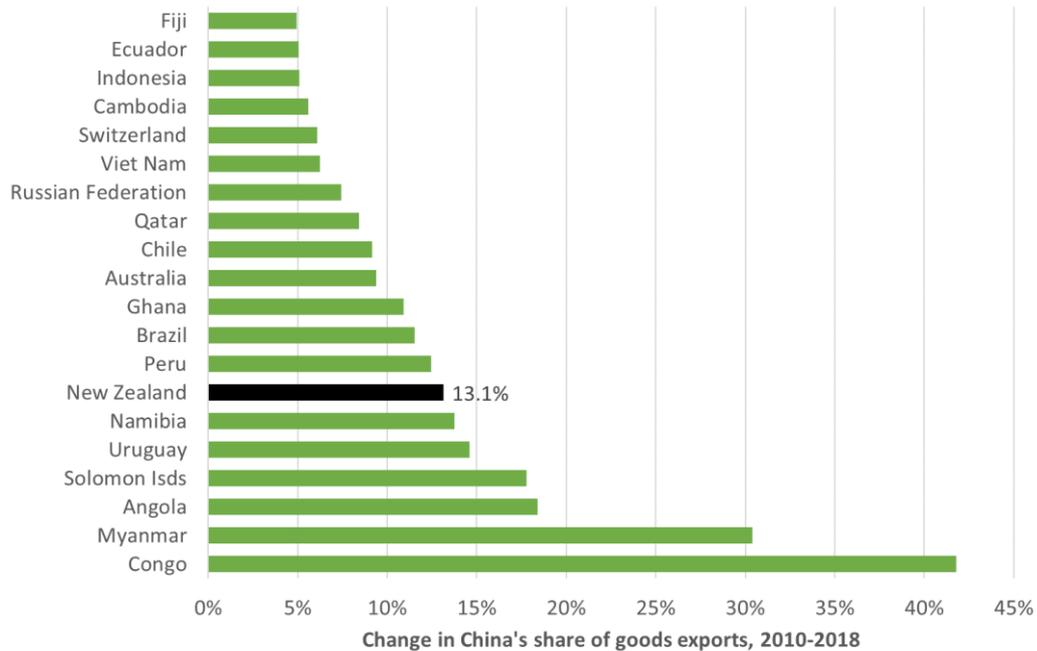


FIGURE 10 CHINA'S SHARE OF GOODS EXPORTS: 50 HIGHEST RANKED EXPORTERS BY SHARE



SOURCE: UN COMTRADE

FIGURE 11 CHANGE IN CHINA'S MARKET SHARE, 2010-2018: 20 LARGEST CHANGES



SOURCE: UN COMTRADE



3.2. NZ's exports to China by market share bands

Figure 12 below shows New Zealand's export dependence on China split across dependency deciles, aggregated over 9,566 export products.⁵

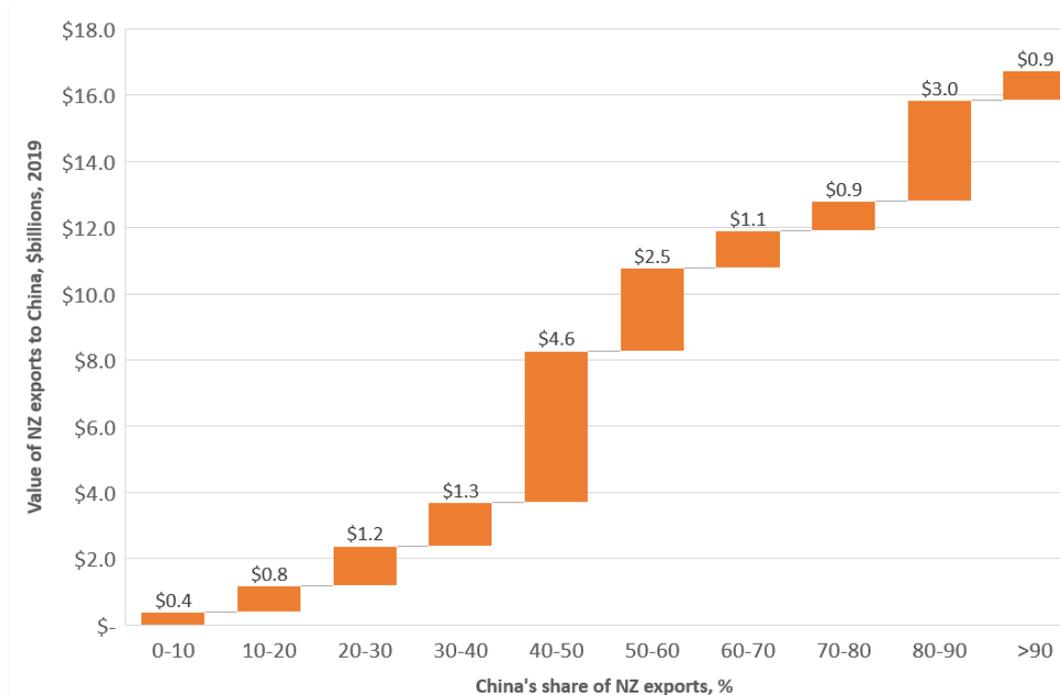
For example, \$0.4 billion of New Zealand's \$16.7 billion of goods exports in 2019 were in products where China accounts for between 0% and 10% of New Zealand's total exports of those products.

The chart shows New Zealand's exports to China are concentrated in products where China takes 40% to 60% of New Zealand's exports of those products.

Half of the value of our bilateral exports is in products where China accounts for 50% or more of New Zealand's total exports of those products; and 23% of our exports are in products where China accounts for over 80% of New Zealand's exports.

A more detailed analysis of industry exposure is in section 4.

FIGURE 12 NEW ZEALAND'S EXPORTS TO CHINA, BY DEPENDENCE, 2019



SOURCE: GLOBAL TRADE ATLAS

⁵ This is at the Harmonised 10-digit level of aggregation, the most detailed data available.



3.3. APEC economies' major export markets

Table 1 shows each APEC member's⁶ top three goods export destinations, ranked by the most dependent destination. It demonstrates New Zealand's reliance on China is not unusual; nor is it unusually high.

TABLE 1 APEC ECONOMIES' TOP 3 GOODS EXPORT MARKETS, 2018

| Economy | Largest export market | Share, % | 2 nd largest export market | Share, % | 3rd largest export market | Share, % |
|--------------------|-----------------------|--------------|---------------------------------------|--------------|---------------------------|-------------|
| Mexico | US | 76.5% | Canada | 3.1% | China | 1.6% |
| Canada | US | 75.0% | China | 4.7% | UK | 2.8% |
| Hong Kong | China | 55.2% | US | 8.1% | India | 3.2% |
| Australia | China | 34.7% | Japan | 16.4% | Korea | 7.0% |
| Brunei | Japan | 34.7% | Thailand | 10.5% | Korea | 9.4% |
| Chile | China | 33.5% | US | 13.8% | Japan | 9.3% |
| Peru | China | 27.6% | US | 16.7% | India | 5.2% |
| Korea | China | 26.8% | US | 12.1% | Vietnam | 8.0% |
| New Zealand | China | 24.2% | Australia | 15.9% | US | 9.6% |
| Japan | China | 19.5% | US | 19.1% | Korea | 7.1% |
| Vietnam | US | 19.3% | China | 16.5% | Japan | 7.8% |
| China | US | 19.2% | Hong Kong | 12.1% | Japan | 5.9% |
| US | Canada | 18.0% | Mexico | 15.9% | China | 7.2% |
| Philippines | US | 15.6% | Hong Kong | 14.2% | Japan | 14.0% |
| Indonesia | China | 15.1% | Japan | 10.8% | US | 10.3% |
| Malaysia | Singapore | 13.9% | China | 13.9% | US | 9.1% |
| Russia | China | 12.4% | Netherlands | 9.6% | Germany | 7.6% |
| Singapore | China | 12.2% | Hong Kong | 11.8% | Malaysia | 10.9% |
| Thailand | China | 12.0% | US | 11.1% | Japan | 9.9% |

SOURCE: WORLD BANK WITS

NOTES: EXCLUDES 'UNSPECIFIED COUNTRIES' AS EXPORT PARTNER; DATA FOR PNG AND TAIWAN NOT AVAILABLE; VIETNAM DATA IS FOR 2017

⁶ We use APEC economies as a reference group simply due to convenience. As always, identifying a natural set of economies against which to compare New Zealand's data is challenging.



Of course, it is easy to explain away some of the highest dependencies shown – of course Mexico and the Canada will rely heavily on the US, due to contiguity and NAFTA-driven supply chains. And Hong Kong will naturally have a very high reliance on China.

But that highlights an important point. Trade between countries is largely driven by economic size and distance, along with considerations of historical and cultural ties, and trade barriers. These drivers have been empirically confirmed time and time again.

So it should be no surprise that China is so important for many countries, including New Zealand, as an export destination. It is both very large and – for many APEC economies at least – relatively close geographically. It has also been growing more rapidly than just about any other economy.



4. Industry export exposure to China

4.1. Industry exposure⁷ for goods

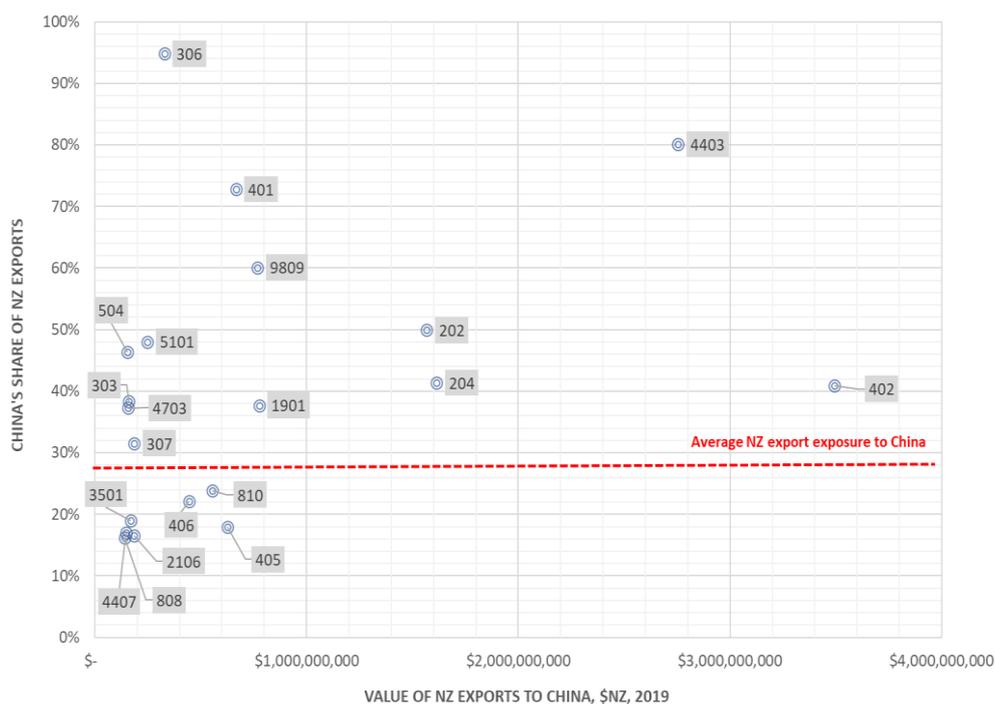
To provide greater detail on New Zealand's export exposure, we have looked at China's market share of New Zealand's goods export at the 4-digit level of the Harmonised System classification (HS4).⁸

We have split the analysis into two bands: HS4 exports to China of \$10 million to \$100 million; and exports greater than \$100 million. These are arbitrary thresholds, chosen to allow a clear graphical representation of the analysis, and to identify industries which are both large *and* exposed.⁹

Figure 13's vertical axis shows China's share of New Zealand's total exports for HS4 categories of over \$100 million of exports to China in calendar year 2019. The horizontal axis shows the value of New Zealand's exports to China in those categories. The red dashed line shows China's share of New Zealand's goods exports overall (28.5% in 2019).

The closer to the top right of the figure, the larger and more export-exposed the HS4 category.

FIGURE 13 INDUSTRY EXPORT EXPOSURE TO CHINA: >\$100M EXPORTS, 2019



SOURCE: GLOBAL TRADE ATLAS

⁷ The phrase "industry exposure" is shorthand for "the sum of the exposure of firms that export these products". Many firms, however, export several products to several markets – it is important to note that the product exported to China may be part of a portfolio of products sent to multiple destinations.

⁸ We selected this level of aggregation as it is detailed enough to provide insights into specific industries' exposure (1,138 product codes) but also manageable in terms of presenting the results. We have also looked at China's market share for the HS10 level of detail (11,150 products), but it is challenging to present those results in a meaningful way in a written report.

⁹ New Zealand recorded zero exports to China in 593 categories and less than \$10 million in a further 490 categories.

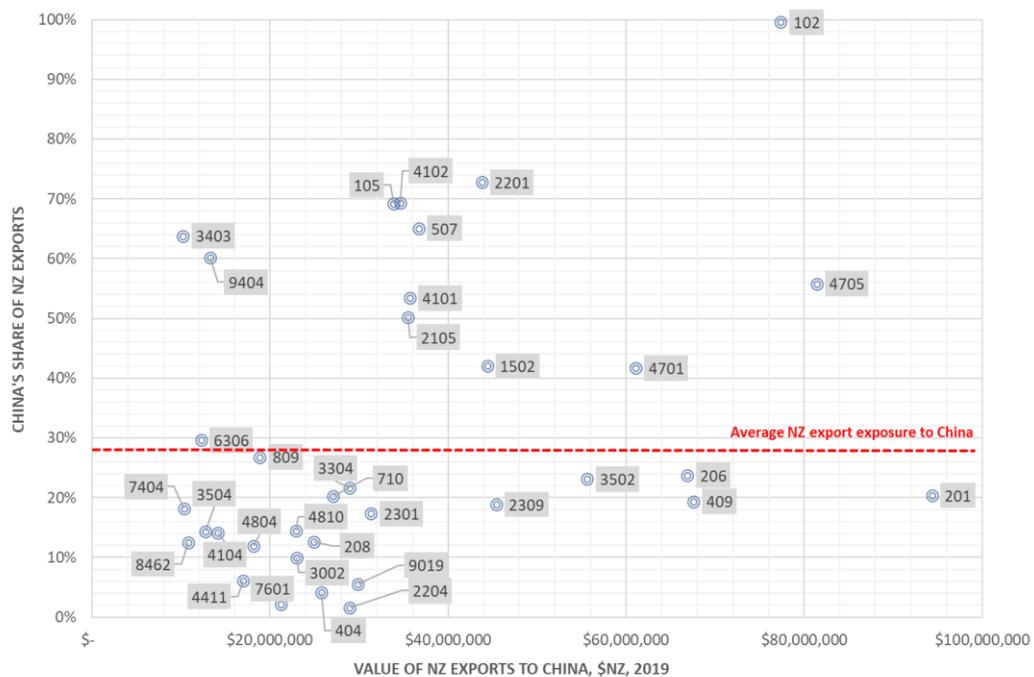


Standout results¹⁰ include:

- 95% of New Zealand’s \$346 million exports of rock lobsters (HS306¹¹) are destined for China, as was highlighted during the early stages of the Covid-19 pandemic.
- China accounts for 80% of New Zealand’s \$3.4 billion exports of logs (HS4403). Chemical woodpulp (4703) is also more-than-averagely exposed to China.
- Several dairy products appear here, including milk and cream (HS401 and 402) and infant milk formula (HS1901). Cheese and curd (HS406), butter (HS405), and casein (HS3501) are large export products, but not overly exposed to China.
- Meat products are also prominent, including frozen beef (HS202), sheep & goat meat (HS204), and offal (HS504).

Figure 14 presents the same chart, but for exports to China of between \$10 and \$100 million.

FIGURE 14 INDUSTRY EXPORT EXPOSURE TO CHINA: \$10M TO \$100M EXPORTS, 2019



SOURCE: GLOBAL TRADE ATLAS

Appendix A again provides the HS4 full descriptions. Of note are:

- ‘Bovine Animals, Live’ (HS102), in which New Zealand exported almost every single dollar of its 2019 \$77.3 million global exports to China alone.
- Mineral water (unsweetened) (HS2201), in which China accounts for almost ¾ of New Zealand’s total exports of \$60 million.
- Woodpulp from mechanical/chemical pulping (HS4705), in which China accounts for \$81 million of New Zealand’s total exports of \$146 million.

¹⁰ A table summarising the data in Figure 13 and Figure 14, including full HS4 descriptions, is in Appendix A.

¹¹ Note zeros are missing from the start of any 3-digit code in the charts, so 102 is in fact 0102.

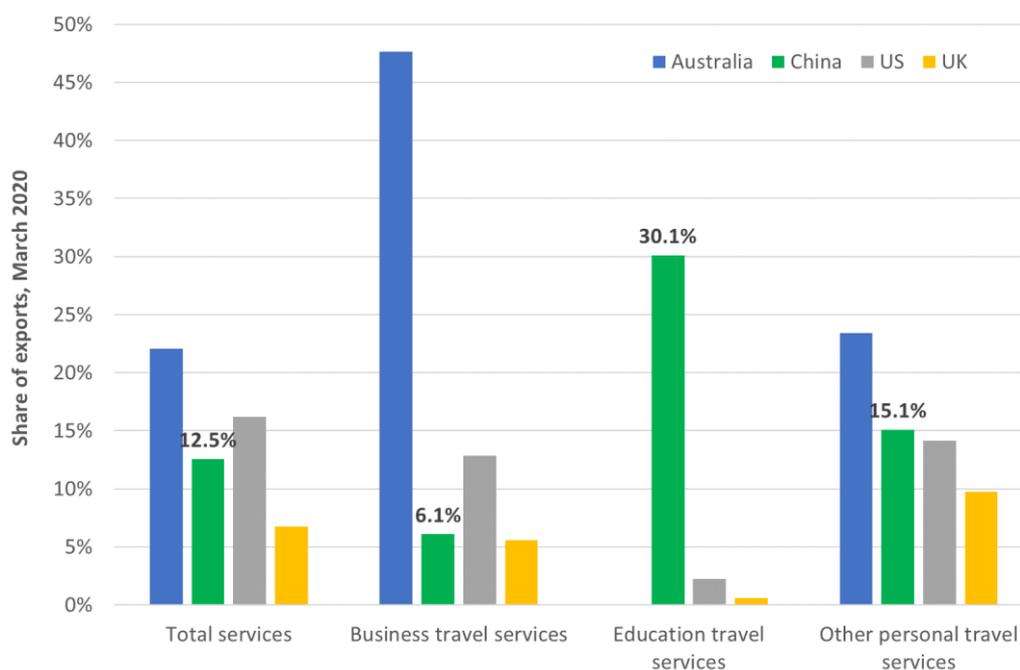


4.2. Industry exposure for services

New Zealand exported \$3.1 billion of services to China in the year to March 2020, on top of the \$16.7 billion of goods exports.

China accounts for 12.5% of New Zealand's services exports, and as Figure 15 shows has a particularly strong market share in education travel services (i.e. export education) and 'Other personal travel services' (i.e. tourism).

FIGURE 15 SERVICES EXPORT VALUE MARKET SHARES, YEAR TO MARCH 2020



SOURCE: STATS NZ

China has played an important part in the growth of the New Zealand services export sector over the past decade, accounting for:

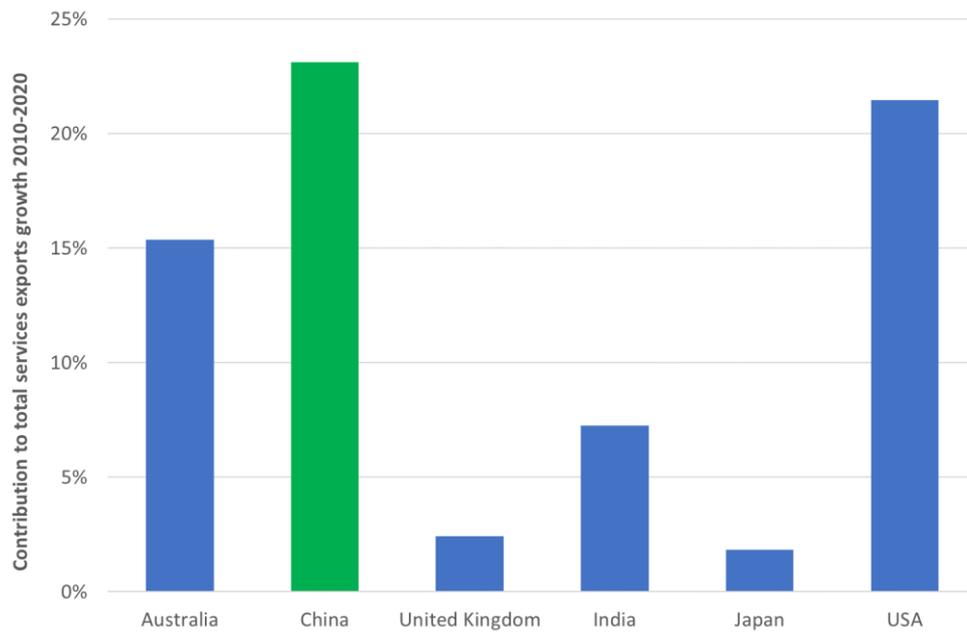
- 23.1% of total services export growth
- 46.2% of total education travel services export growth
- 30.7% of other personal travel export services growth.

(see figures overleaf).

New Zealand's exports of commercial services are limited: \$6 million for pension services, \$25 million for financial services, \$10 million for IT services and \$25 million for 'Other' business services.

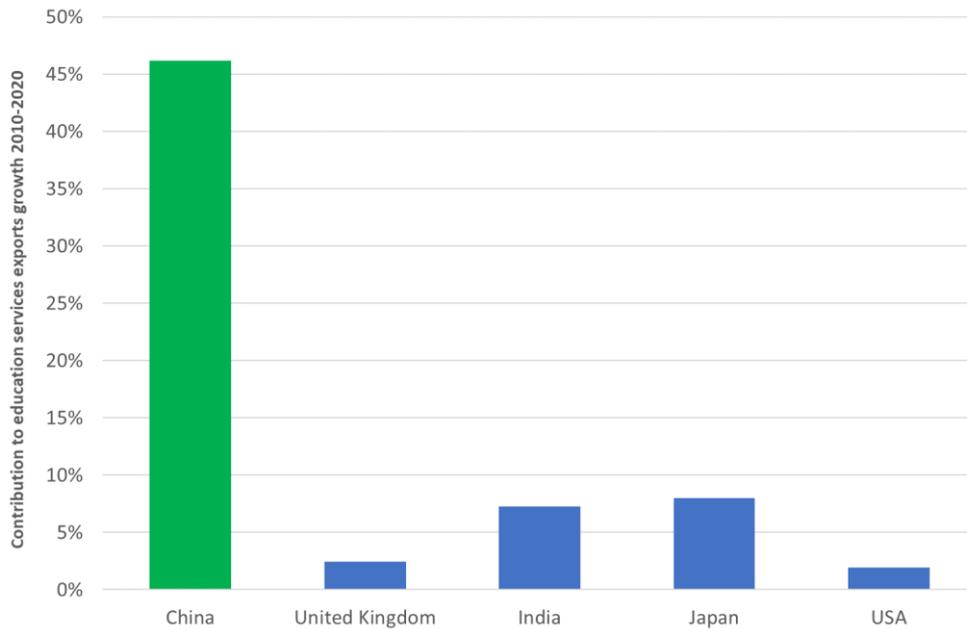


FIGURE 16 CONTRIBUTION OF CHINA TO TOTAL SERVICES EXPORT GROWTH, 2010-2020



SOURCE: STATS NEW ZEALAND

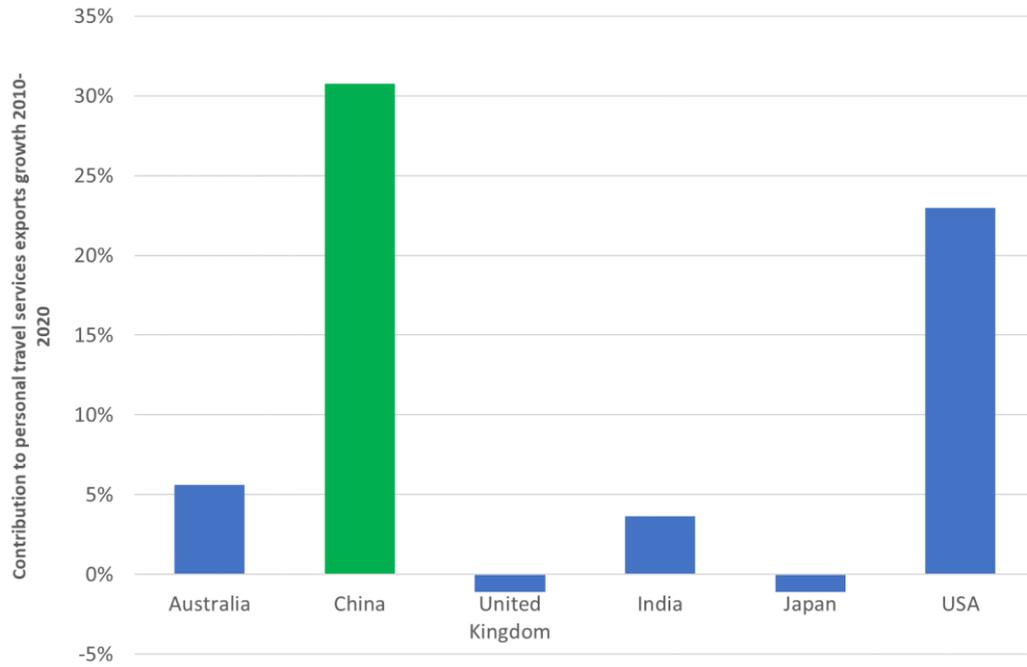
FIGURE 17 CONTRIBUTION OF CHINA TO EDUCATION SERVICES EXPORT GROWTH, 2010-2020



SOURCE: STATS NZ



FIGURE 18 CONTRIBUTION OF CHINA TO PERSONAL TRAVEL SERVICES (TOURISM) EXPORT GROWTH, 2010-2020



SOURCE: STATS NZ



4.3. NZ's exports by number of markets

Looking at New Zealand's export data at a highly detailed level (HS10; 9,556 products), we can get a more granular understanding of New Zealand's export exposure to China and other markets.

Figure 19 shows how many products (vertical axis) New Zealand exported to how many markets (horizontal axis) in calendar year 2019.

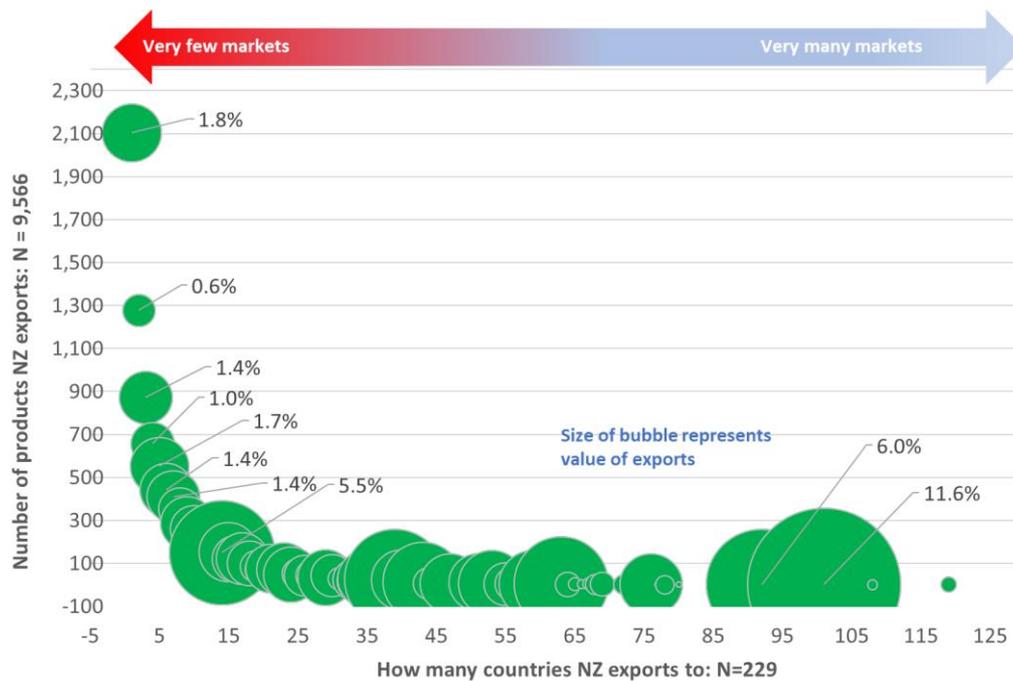
The bubbles represent the sum of export values for the number of export sources, with the labels showing the share of total goods exports.

The chart shows that \$1.05 billion (or 1.8%) of New Zealand's total goods exports are sent to just one market, spanning 2,104 products.

China accounts for 52 of these products, with a combined value of \$135.7 million (see Appendix B for detail on these products). These sole market exports are dominated by:

- Dairy breeding cattle (\$77.3 million)
- A specific type of log¹² (\$50.0 million).

FIGURE 19 HOW MANY EXPORT MARKETS DOES NEW ZEALAND SELL TO?



SOURCE: GLOBAL TRADE ATLAS

¹² Full product name: "Wood; Coniferous Species, Of Fir (Abies Spp.) And Spruce (Picea Spp.), In The Rough, Whether Or Not Stripped Of Bark Or Sapwood, Or Roughly Squared, Untreated, Of Which Any Cross-Sectional Dimension Is 15 Cm Or More; Saw Logs And Veneer Logs".



Box story: Kono: A kaleidoscope of opportunities

Kono is family-owned Māori food and beverage producer from the top of South Island, making and exporting wine, cider, beer, seafood, fruit, hops and natural fruit bars.

The name Kono comes from the basket of produce that Māori offer to guests in a tradition of honour and hospitality, and the company sells its basket of products to over 25 countries, including China.

Kono's key exports to China include mussels, wine and fruit bars, though is dominated by mussels at this point. The key to Kono's China strategy is being in for the long haul, accepting the complexity of doing business there and diversifying their mussel sales through different channels to different parts of the market.

It knows there will be ups and downs in commercial conditions in China and recognises that it can only "control the controllable". It has invested considerable sunk costs in China as "you can't negate the power of the market", according to Rachel Taulelei, Kono CEO.

It focuses on maintaining its authenticity and brand values of rangatiratanga (excellence in all we do), manaakitanga (we rise by lifting others), whanaungatanga (together we are more), kaitiakitanga (our duty, our heritage, our legacy), hihiritanga (doing things better, doing better things) and pono (we do as we say).

Indeed, Kono doesn't see itself trading "with China" as a whole; rather it forms relationships based on these values with key importers and distributors across a range of cities.

Ms Taulelei says that the business recognises the risks of being "all in on China", and spreads risks by having different key markets for its various products, such as the US, Australia and New Zealand for fruit bars; and the US, Netherlands and New Zealand for its wine. It also sells mussels to 15 other markets across Asia, Europe and Middle East and North America.

As part of its planning, Kono seeks to understand the risks across its market and product space and has prepared backup plans in case of challenges with any individual product or market. This scenario planning, plus having several sales options for all of its products, allows it to adjust to changing market conditions.

SOURCE: INTERVIEW WITH MS RACHEL TAULELEI, KONO CEO



5. Import exposure

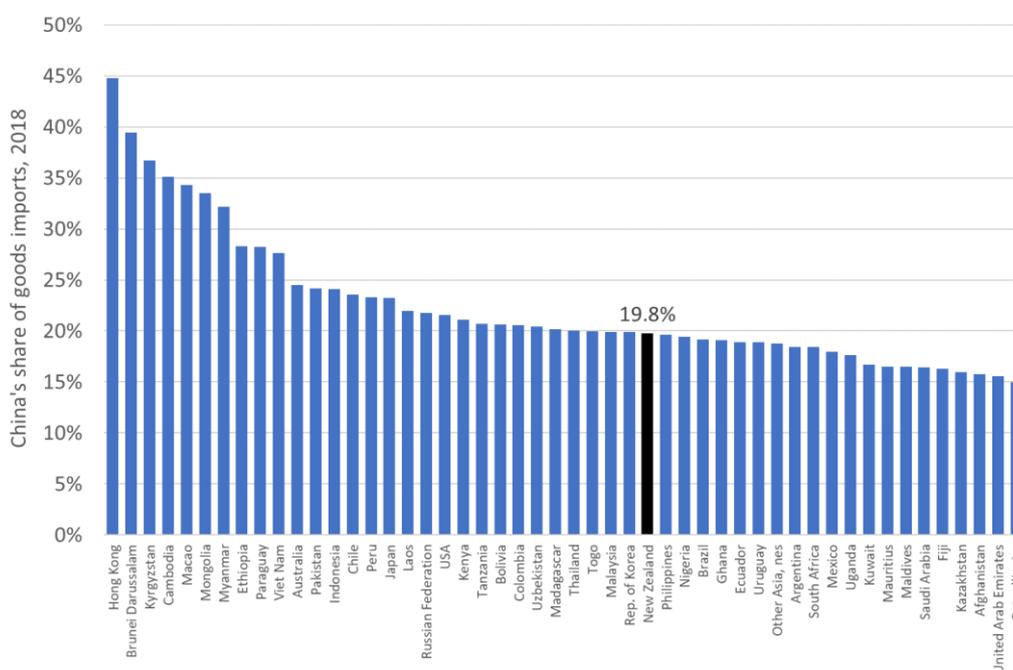
5.1. Import exposure at the country level

Figure 20 shows various economies' reliance on China for imported goods, again for 2018.

New Zealand imported around 20% by value of its goods from China.¹³ Across the 136 economies in the data set, China accounted for 14.8% of imports on average.

Developed economies with a greater dependence on China than New Zealand include Hong Kong (44.8%), Brunei (39.4%), Australia (24.5%), Chile (23.6%), Peru (23.3%), Japan (23.2%) and the US (21.6%)

FIGURE 20 CHINA'S SHARE OF GOODS IMPORTS: 50 HIGHEST RANKED IMPORTERS BY SHARE



SOURCE: UN COMTRADE

China's share of New Zealand's imports increased by 3.8 percentage points between 2010 and 2018, from 16.0% to 19.8%.

So, it is true to say New Zealand is becoming more reliant on China as a source of goods imports over time.

Over the same period, 50 other countries experienced a larger percentage point increase in their import dependence on China (see Table 2 overleaf).

¹³ In the years to March 2019 and 2020, China's import share remained at 19.8%.



TABLE 2 CHANGE IN IMPORT DEPENDENCY ON CHINA, 2010-2018

| | China's share of imports 2010 | China's share of imports 2018 | Change in share 2010-2018 |
|-----------------------|-------------------------------|-------------------------------|---------------------------|
| Brunei Darussalam | 7.8% | 39.4% | 31.6% |
| Kyrgyzstan | 20.7% | 36.7% | 16.0% |
| Maldives | 2.9% | 16.5% | 13.6% |
| Myanmar | 19.8% | 32.2% | 12.4% |
| Laos | 9.8% | 21.9% | 12.2% |
| Philippines | 8.5% | 19.6% | 11.2% |
| Ecuador | 7.8% | 18.9% | 11.1% |
| Cambodia | 24.2% | 35.1% | 10.9% |
| Fiji | 6.1% | 16.3% | 10.2% |
| Pakistan | 14.0% | 24.2% | 10.2% |
| Congo | 3.5% | 13.7% | 10.2% |
| Tanzania | 10.9% | 20.7% | 9.8% |
| Indonesia | 15.1% | 24.1% | 9.1% |
| Bolivia | 11.6% | 20.7% | 9.0% |
| Uganda | 8.9% | 17.6% | 8.7% |
| Kenya | 12.6% | 21.1% | 8.5% |
| United Arab Emirates | 7.3% | 15.5% | 8.3% |
| Zambia | 5.5% | 13.6% | 8.2% |
| Mozambique | 3.6% | 11.8% | 8.1% |
| Cote d'Ivoire | 7.0% | 15.0% | 8.0% |
| Madagascar | 12.2% | 20.2% | 8.0% |
| Malaysia | 12.6% | 19.9% | 7.4% |
| Colombia | 13.5% | 20.6% | 7.1% |
| Chile | 16.8% | 23.6% | 6.8% |
| Thailand | 13.3% | 20.0% | 6.8% |
| Costa Rica | 7.1% | 13.7% | 6.6% |
| Peru | 17.2% | 23.3% | 6.2% |
| Ghana | 13.2% | 19.1% | 6.0% |
| Uruguay | 13.0% | 18.9% | 5.8% |
| Samoa | 6.1% | 11.9% | 5.8% |
| Israel | 8.0% | 13.7% | 5.7% |
| Australia | 18.8% | 24.5% | 5.7% |
| Ukraine | 7.7% | 13.3% | 5.6% |
| Brazil | 14.1% | 19.2% | 5.1% |
| Argentina | 13.5% | 18.4% | 5.0% |
| Egypt | 9.2% | 14.1% | 4.9% |
| Russian Federation | 17.0% | 21.7% | 4.7% |
| Montenegro | 5.4% | 10.1% | 4.7% |
| South Africa | 13.8% | 18.4% | 4.6% |
| Saudi Arabia | 11.9% | 16.5% | 4.5% |
| Nicaragua | 8.7% | 13.2% | 4.5% |
| Palau | 1.2% | 5.7% | 4.5% |
| Other Asia, nes | 14.3% | 18.8% | 4.5% |
| Ethiopia | 23.8% | 28.3% | 4.5% |
| Angola | 10.1% | 14.5% | 4.5% |
| Togo | 15.8% | 20.0% | 4.2% |
| Kuwait | 12.5% | 16.7% | 4.2% |
| Eswatini | 2.2% | 6.2% | 4.0% |
| Viet Nam | 23.8% | 27.7% | 3.8% |
| Macao | 30.5% | 34.3% | 3.8% |
| New Zealand | 16.0% | 19.8% | 3.8% |
| Seychelles | 1.3% | 5.0% | 3.7% |
| El Salvador | 10.4% | 14.0% | 3.6% |
| Sao Tome and Principe | 2.2% | 5.8% | 3.6% |
| Qatar | 9.1% | 12.4% | 3.3% |
| Mauritius | 13.3% | 16.5% | 3.2% |
| Rep. of Korea | 16.8% | 19.9% | 3.1% |
| Belarus | 4.8% | 7.8% | 3.0% |
| Armenia | 10.6% | 13.6% | 3.0% |
| Burkina Faso | 9.7% | 12.6% | 3.0% |

SOURCE: UN COMTRADE



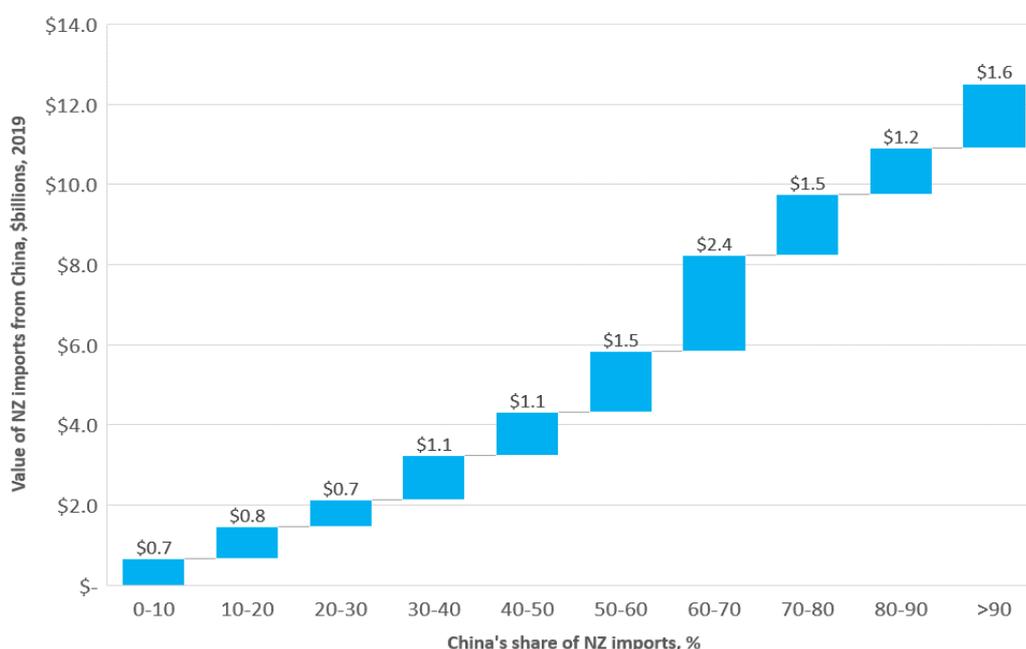
5.2. NZ's imports from China by market share bands

The 19.8% of imports that New Zealand sources from China, some \$12.5 billion in calendar year 2019, is spread across 11,150 product (HS10) categories.

Figure 21 shows the distribution of China's import share across these 11,150 products:

- Around 2/3 of our imports by value are in products where China has a greater than 50% share of New Zealand's imports.
- 22% by value of our Chinese imports are in product lines in which China accounts for at least 80% of New Zealand's total imports.

FIGURE 21 NEW ZEALAND'S IMPORTS FROM CHINA, BY DEPENDENCE, 2019



SOURCE: GLOBAL TRADE ATLAS

5.3. NZ's imports by number of suppliers

In general, New Zealand's exposure to imports from only a small number of sources is limited.

The top chart in Figure 22 shows how many products (vertical axis) New Zealand imported from how many import sources (horizontal axis). The bubbles represent the sum of import values for number of import sources, with the labels showing the share of total goods imports.

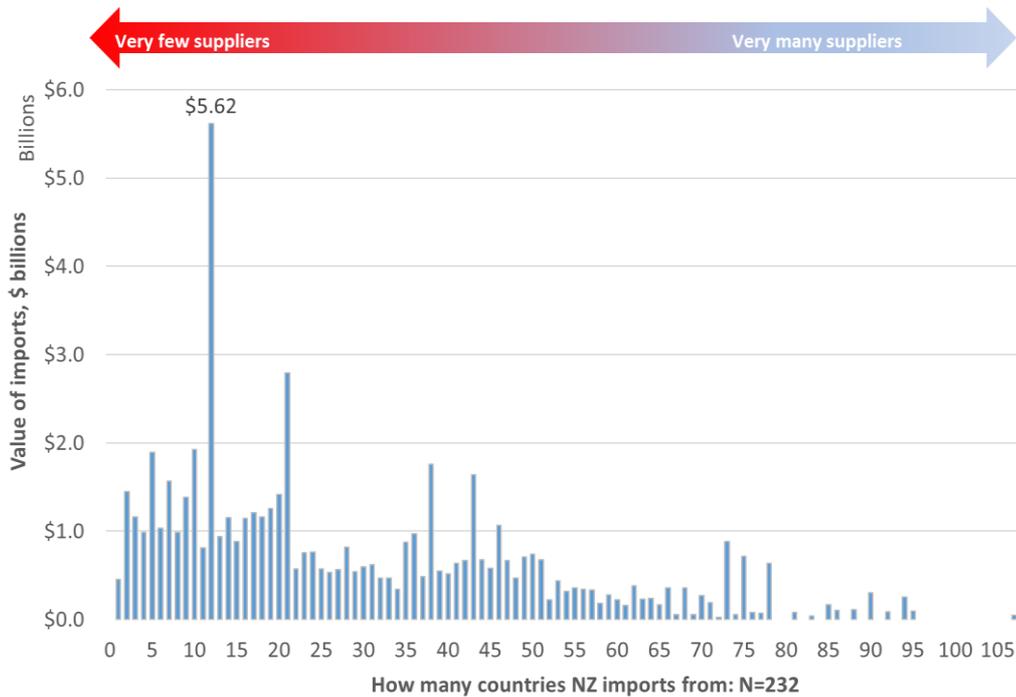
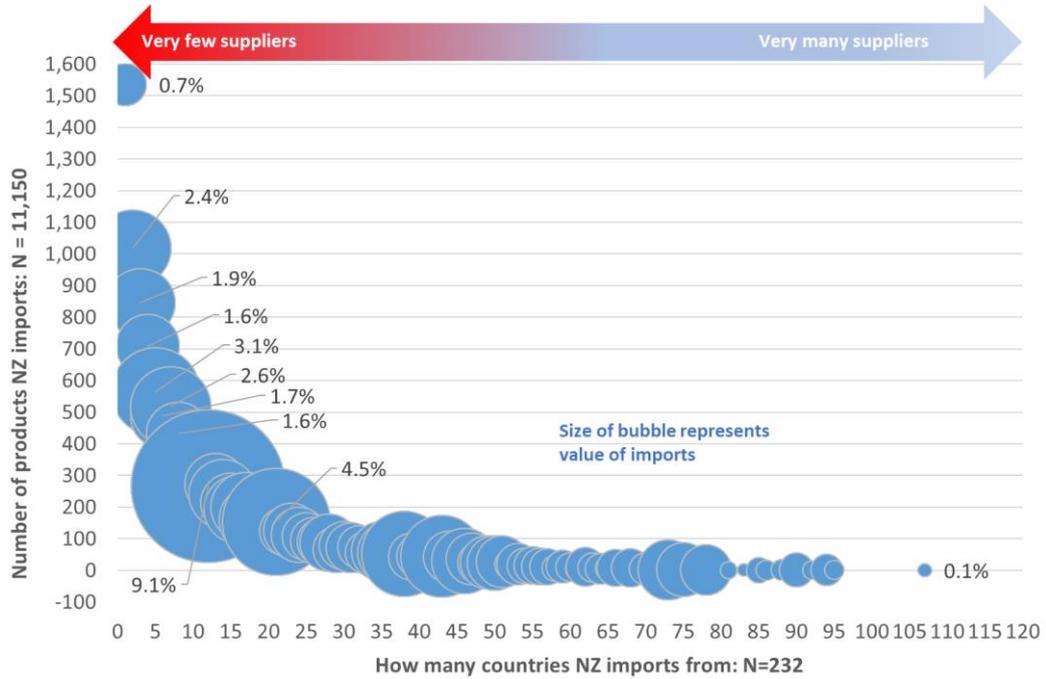
New Zealand imported 1,536 products from just one supplier in 2019, valued at \$451.1 million, and 1,108 from two suppliers, valued at \$1.45 billion.

China is the sole supplier of imports for 367 products, collectively valued at \$109.2 million. By comparison, products in which Australia is the sole source of imports are valued at \$149.9 million.

Table 7 in Appendix C records the 30 most significant (in terms of value) products which New Zealand imported solely from China in 2019. The vast majority are transport, metal, rubber and construction products, along with oddities like badminton feather shuttlecocks.



FIGURE 22 HOW MANY IMPORT SOURCES DOES NEW ZEALAND HAVE?



SOURCE: GLOBAL TRADE ATLAS

The bottom chart in Figure 22 shows the value of imports from each number of import sources. Twelve seems to be the magic number in terms of import markets, accounting for 9.1% of New Zealand's goods imports.

The product New Zealand imports from the most countries, 107 no less, and valued at \$50.4 million in 2019 is 'Rubber; vulcanised (other than hard rubber), gaskets, washers and other seals, of non-cellular rubber'.



5.4. APEC economies' major import sources

Table 3 lists APEC economies' three largest goods import sources, for 2018. It is ordered by the share of the most important import source.

All APEC economies, aside from the US-dominated Canada and Mexico, have China as their largest import source, with China's import share accounting for between 13.4% and 44.8%. New Zealand's reliance on China (19.8% of imports) is not particularly high, based on this comparator group.

TABLE 3 APEC ECONOMIES' TOP 3 IMPORT SOURCES, 2018

| Economy | Largest source of imports | Share, % | 2 nd largest source of imports | Share, % | 3 rd largest source of imports | Share, % |
|--------------------|---------------------------|--------------|---|--------------|---|--------------|
| Canada | US | 51.5% | China | 12.8% | Mexico | 6.2% |
| Mexico | US | 46.6% | China | 18.0% | Japan | 3.9% |
| Hong Kong | China | 44.8% | Singapore | 6.4% | Korea | 5.7% |
| Brunei | China | 39.4% | Singapore | 13.8% | Malaysia | 13.2% |
| Vietnam | China | 27.5% | Korea | 22.0% | Japan | 7.9% |
| Australia | China | 24.7% | US | 10.5% | Japan | 7.4% |
| Indonesia | China | 24.1% | Singapore | 11.4% | Japan | 9.5% |
| Chile | China | 23.6% | US | 18.9% | Brazil | 9.0% |
| Peru | China | 23.3% | US | 21.3% | Brazil | 5.6% |
| Japan | China | 23.2% | US | 11.2% | Australia | 6.1% |
| Russia | China | 21.7% | Germany | 10.6% | Belarus | 4.4% |
| US | China | 21.6% | Mexico | 13.4% | Canada | 12.5% |
| Thailand | China | 20.3% | Japan | 14.3% | US | 6.2% |
| Malaysia | China | 20.0% | Singapore | 11.7% | US | 7.4% |
| Korea | China | 19.9% | US | 11.0% | Japan | 10.2% |
| New Zealand | China | 19.8% | Australia | 11.5% | US | 10.2% |
| Philippines | China | 19.6% | Korea | 10.0% | Japan | 9.9% |
| Singapore | China | 13.4% | Malaysia | 11.5% | US | 11.4% |
| China | Korea | 10.3% | Japan | 9.1% | US | 7.8% |

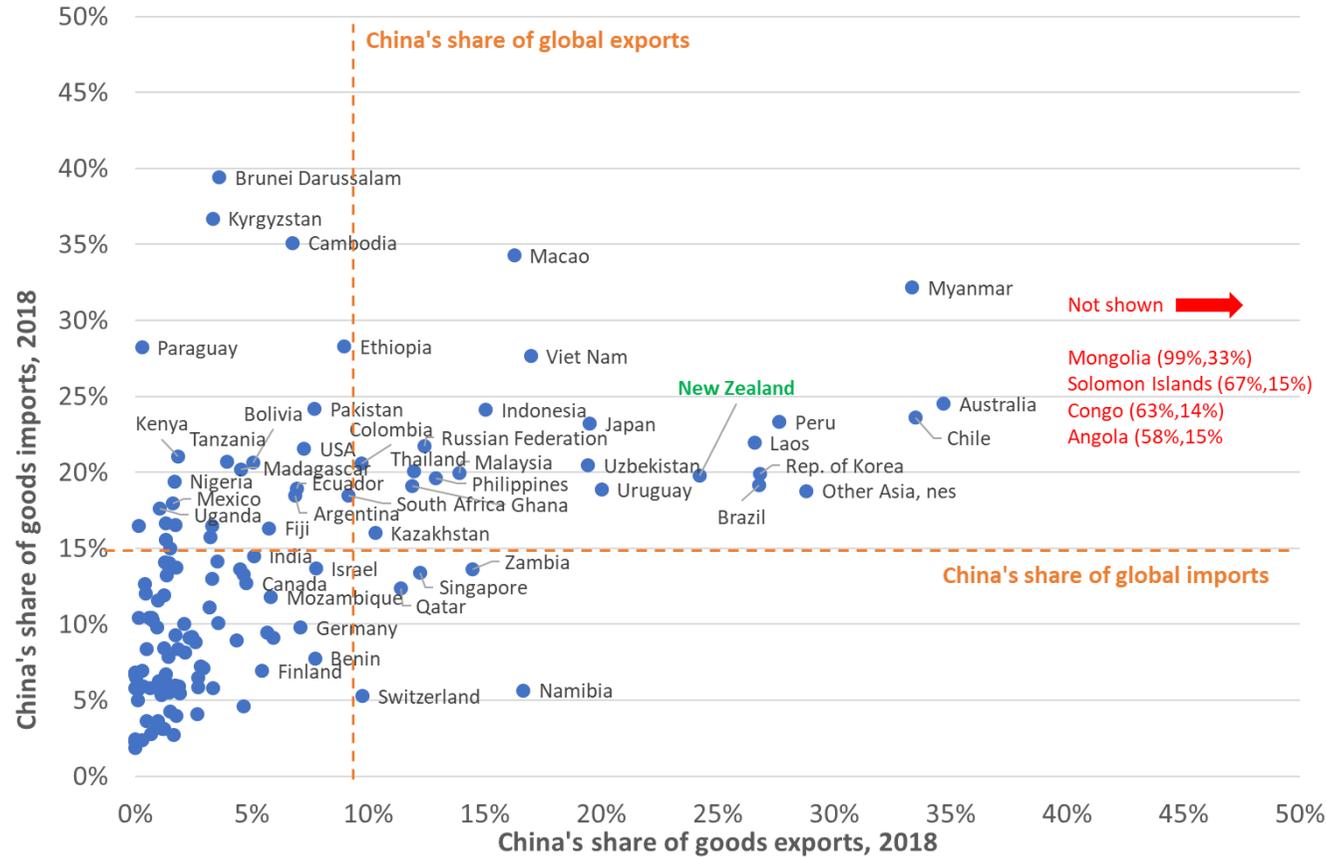
SOURCE: WORLD BANK WITS



6. Bringing it all together

Combining the country-level analysis in sections 3.1 and 5.1, we can create a scatter plot showing goods export and import exposure to China for 2018 for the each of the 136 economies for which data is available from COMTRADE.

FIGURE 23 IMPORT AND EXPORT EXPOSURE TO CHINA: ALL COUNTRIES



The further to the right, the more a country is reliant on China for its exports.

The closer to the top, the more reliant a country is reliant on China for its imports.

The dashed orange lines show the average export and import shares across all countries.

The key message here is that **while New Zealand is more than averagely exposed to China, we are far from alone in being reliant on China: 31 countries are in the upper right quadrant.**

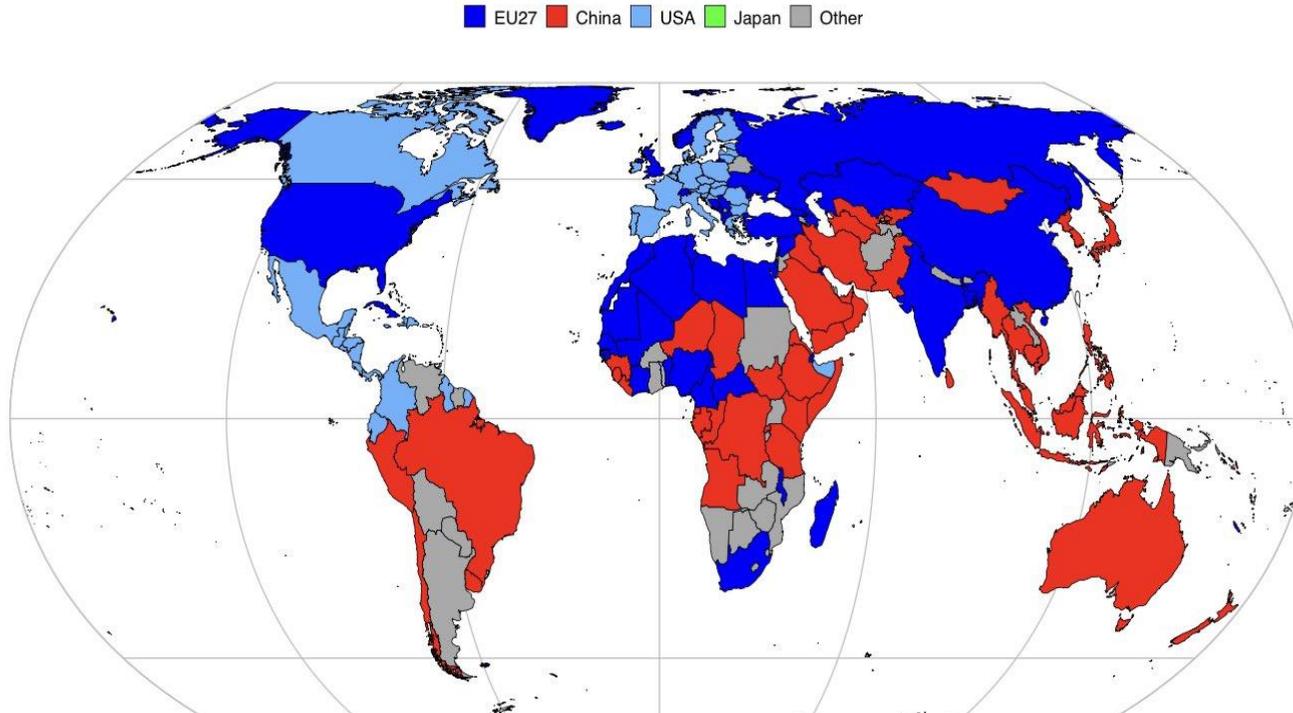
SOURCE: UN COMTRADE



The map below shows similar information. China is the main trading partner for those countries shaded red. The Lowy Institute estimates that of 190 economies, 128 trade more with China than they do with the US.¹⁴

FIGURE 24 MAP OF WORLD TRADE BY MAIN TRADING PARTNER, 2019

World Merchandise Trade per Country by Main Trading Partner in 2019



SOURCE: [ECIPE](#)

¹⁴ <https://www.lowyinstitute.org/the-interpretor/chart-week-global-trade-through-us-china-lens>



7. Diversification of exports

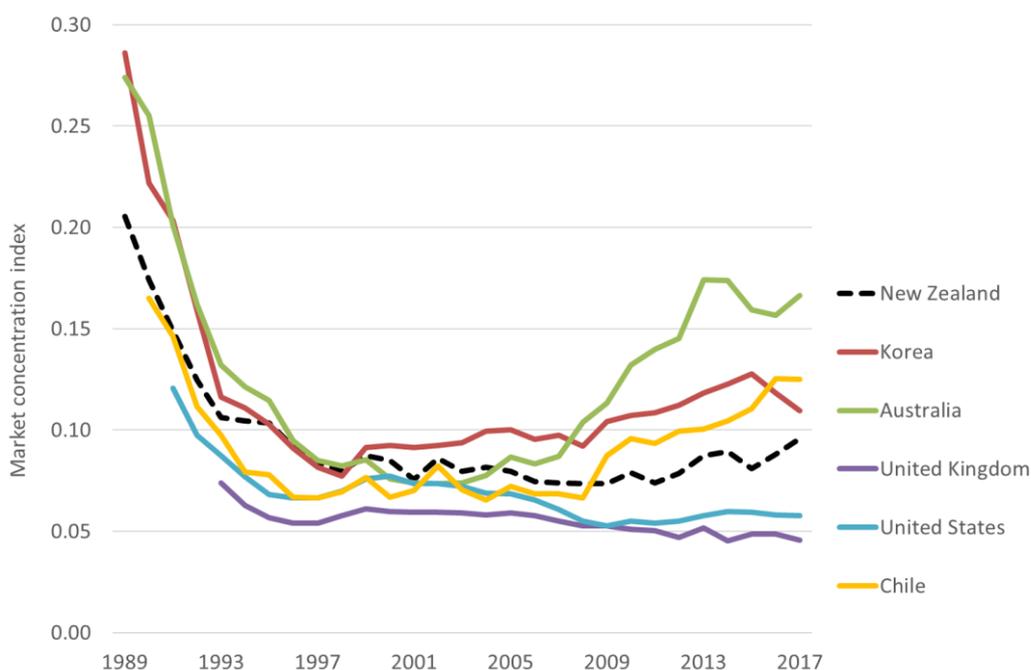
7.1. Export diversification across markets

Figure 25 shows how New Zealand's (and a selected few other countries') goods exports have diversified over time (1989-2017) in terms of the markets to which we export. The higher the market concentration index score, the fewer markets the country exports to.¹⁵

It shows New Zealand's export markets became much more diversified from the late 1980s to the early 2000s, as UK became gradually less important.

New Zealand's export markets have become more concentrated in the past decade, but this trend is a common one. Other developed countries such as Australia, Korea and Chile have experienced far greater increases in their market concentration, and China will be a large part of that story.

FIGURE 25 EXPORT MARKET CONCENTRATION INDEXES



SOURCE: WORLD BANK WITS

Parallels between New Zealand's dependence on the UK in the 20th century and its exposure to China are often made. But the picture is quite different.

China currently accounts for 28.5% of New Zealand's goods exports. The UK accounted for between 70% and 90% of New Zealand's goods exports between the 1870s and the 1940s. This dropped steadily to around 35% by 1970 and 27% by 1973.

¹⁵ The metric used here is the Herfindahl-Hirschman Market Concentration Index, which provides an indication of the dispersion of export markets. A value of zero shows a country is trading equally with its export partners; a number closer to one indicates very high export market shares for a small number of markets. See <http://wits.worldbank.org/WITS/docs/TradeOutcomes-UserManual.pdf> p.26 for more detail.

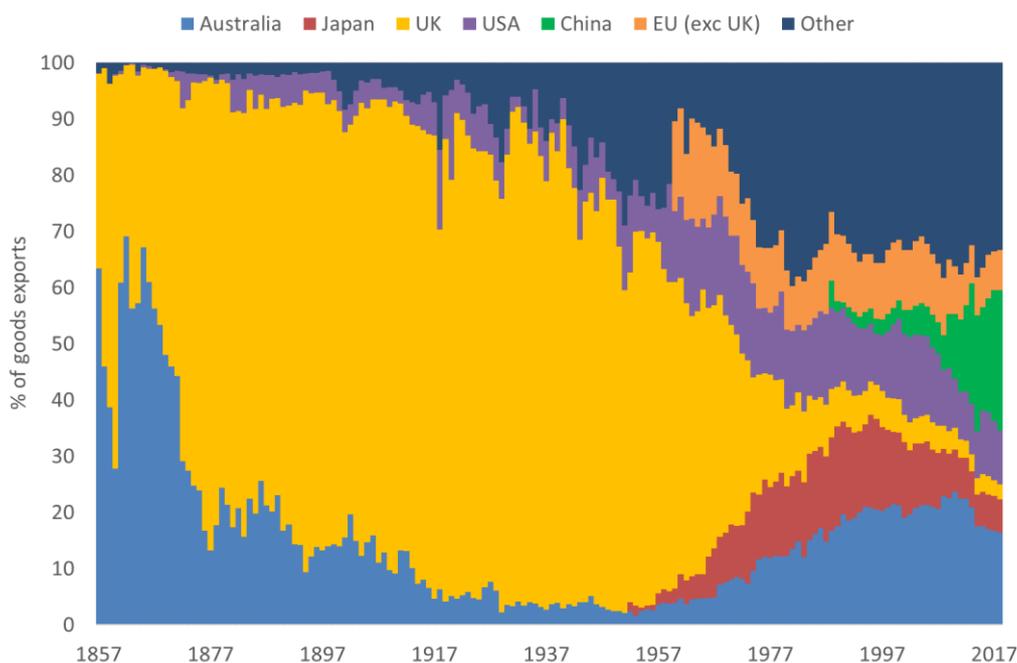


As Figure 26 shows, the diversification of New Zealand's export partners had been taking place for some time. The UK joining the EEC accelerated the trend.

There are differences in industry exposure too. As NZIER (2020) notes, in 1973 the UK was taking 90% of New Zealand's butter, 80% of our cheese and 80% of our lamb.¹⁶ Trade was concentrated in a few products, as opposed to the spread of products we now sell to China.

Another key difference is that by the 1960s, the UK economy was growing relatively slowly. Clearly this is not the case with China today.

FIGURE 26 MARKET SHARES OF NEW ZEALAND'S GOODS EXPORTS, 1857-2018



SOURCE: NZIER 1850 WEBSITE, STATS NEW ZEALAND

NOTE: CHINA INCLUDED IN 'OTHER' BEFORE 1988.

¹⁶ NZIER. 'Land-based industries help see New Zealand through tough COVID times'. NZIER Insight, 90-2020. https://nzier.org.nz/static/media/filer_public/e0/2f/e02f3f0c-a26f-4a0c-8acf-5737423ef337/nzier_insight_90_land-based_industries.pdf

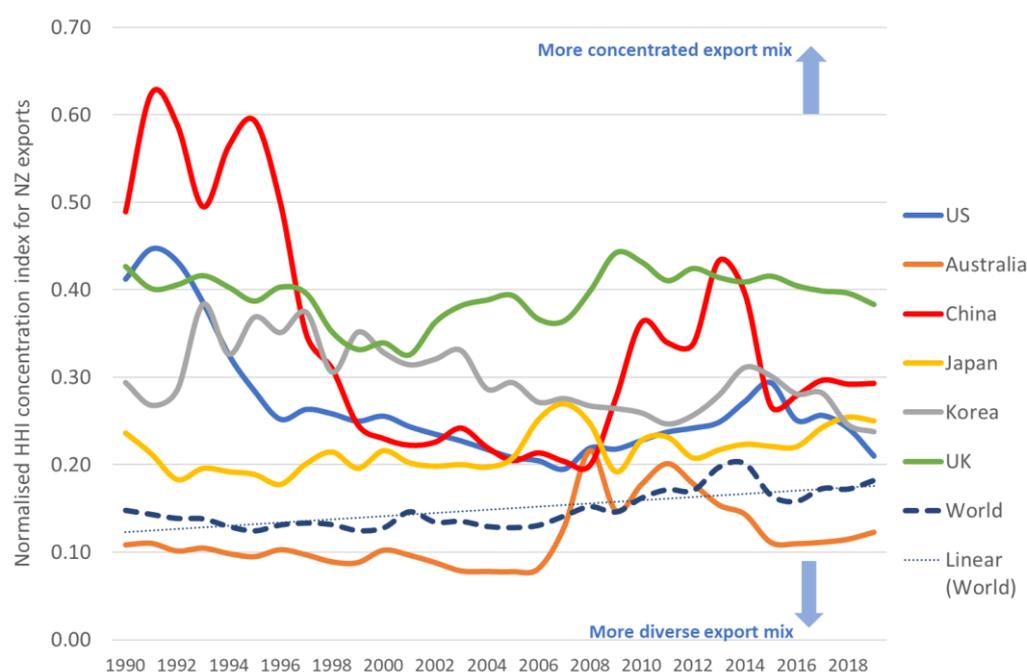


7.2. Export diversification across products

We can also look at changes over time in the diversity of New Zealand's goods exports across products and markets.

Figure 27 shows the product concentration index¹⁷ for New Zealand exports into key markets and the World. The higher the concentration index, the more New Zealand's exports are focused on just a few products into the market in question.

FIGURE 27 EXPORT PRODUCT CONCENTRATION INDEXES - KEY MARKETS



SOURCE: GLOBAL TRADE ATLAS

Key points from this chart are:

- New Zealand's overall goods export profile to the World has become more concentrated over the past 20 years.
- New Zealand's goods exports to the UK are more concentrated than its exports to China.
- New Zealand's export product concentration to China dropped sharply over the 1990 to mid-2000s period as trade thickened. In the early 1990s, New Zealand exported only a handful of HS4 products valued at over than \$10 million, with wool accounting for 45% to

¹⁷ The metric is the Herfindahl-Hirschman Product Concentration Index, which provides an indication of the dispersion of export products. A value of zero shows a country is spreading its exports equally across various products (i.e. fully diversified); a number closer to one indicates exports are focused on a few products. See <http://wits.worldbank.org/WITS/docs/TradeOutcomes-UserManual.pdf> p.24 for more detail. We used HS4 digit data (1,262 products).



60% of New Zealand's total goods exports. By the mid-2000s, this had risen to around 25.¹⁸

- New Zealand's exports to China became sharply more concentrated from 2008 to 2013. Around 50% of the growth in New Zealand's exports to China over this period was in one HS4 product line: HS0402, 'Milk and Cream, Concentrated Or Containing Added Sweetening' (milk powder). This was partly due to China outsourcing much of its dairy production following local consumer concerns over melamine, which incentivised New Zealand production. The FTA also provided additional market access from 2008 onwards.
- Since 2013, our exports to China have become slightly more diversified, largely due to:
 - a sharp drop in exports of HS0402 (following the false alarm over botulism-contaminated milk powder), a \$150 million fall in wool exports and a \$96 million drop in sheep and lamb raw skins.
 - rapid growth (over \$40 million increase) in a range of products over the past 5 years, including various types of logs, frozen beef, frozen lamb, infant formula, woodpulp, cream, gold kiwifruit, unsalted butter, rock lobsters, frozen squid, grated cheese, UHT milk, dairy-based food preparations, cheddar cheese, honey, tripe and Pacific Queen apples (see Appendix E for the 50 largest growth products).
- In 2019, New Zealand exported 1,904 HS10 products to China, compared to 1,681 in 2010, 589 in 2000 and 115 in 1990.

¹⁸ Rising prices will have played a part in this of course. But a similar pattern emerges when looking at the annual number of products with an export share of over 0.5% or 1%.



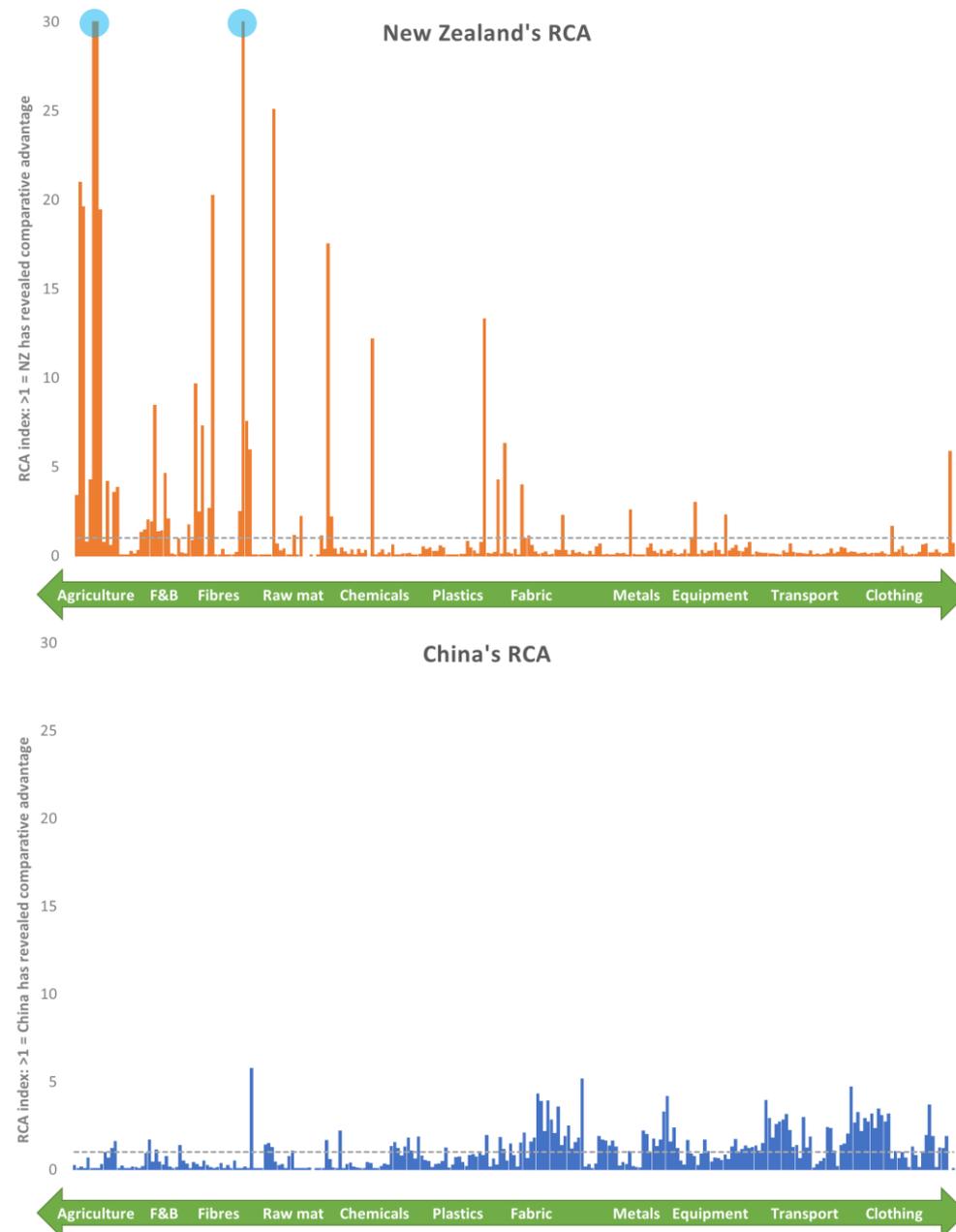
8. Revealed comparative advantage

New Zealand-China trade patterns can be largely explained by each country's comparative advantage.

A country has an RCA in the export of a product when its share of the country's exports is greater than the share of World exports of that product relative to total World exports (i.e. $RCA > 1$). The larger the RCA, the larger that country's comparative advantage in global trade.

8.1. Complementary economies

FIGURE 28 NEW ZEALAND AND CHINA'S REVEALED COMPARATIVE ADVANTAGES, 2018



SOURCE: UNCTAD



Figure 28 shows that New Zealand's RCAs are largely in primary products and their processed derivatives.¹⁹

China's RCAs, in contrast, are much more centred on industrial and manufactured goods.²⁰

Thus, it makes sense that New Zealand and China should exchange primary products (New Zealand) for manufactured goods (China).

8.2. Changes in comparative advantage over time

The charts overleaf show how each country's RCA has changed between 1995 and 2018. Each grey dot is a product²¹ in which China has an RCA greater than 1.

China's RCA has shifted heavily towards machinery and transport equipment, manufactured goods and articles and chemicals, as can be seen by the migration of grey dots to the left hand side of the 'donut' in Figure 29.

In 1995, China had an RCA in 14 'Food and live animals' and 'Beverage and tobacco' products. This fell to just 5 by 2018.

In contrast, New Zealand's RCA has become *increasingly* primary sector focused (Figure 30). This is evidenced by the shift to the right of the grey dots between the two years, away from manufactured goods and towards 'Food and live animals', 'Crude materials' and Tobacco and beverage' products.

In short, these charts indicate, in a visual fashion, that New Zealand tends to produce what China isn't particularly good at producing, and vice versa, and that this trend has strengthened over the past 25 years.

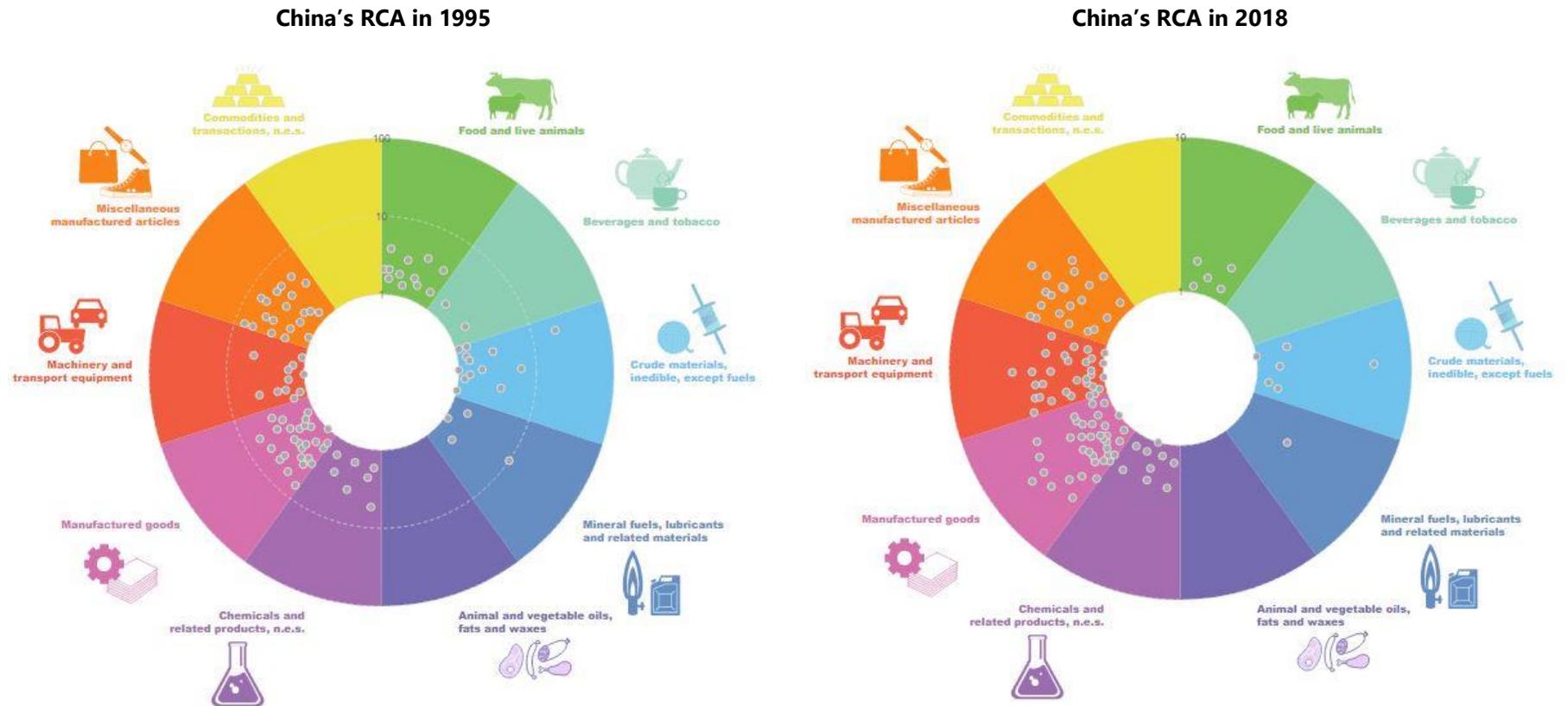
¹⁹ We have kept the scale the same on both charts to allow a simple comparison. The blue dots in New Zealand's chart denote a few products which have much higher RCAs.

²⁰ SITC Rev.3, 3-digit classification. The names of the 259 products and RCAs in the chart are presented in full in Appendix D.

²¹ SITC Rev.3, 3-digit classification.



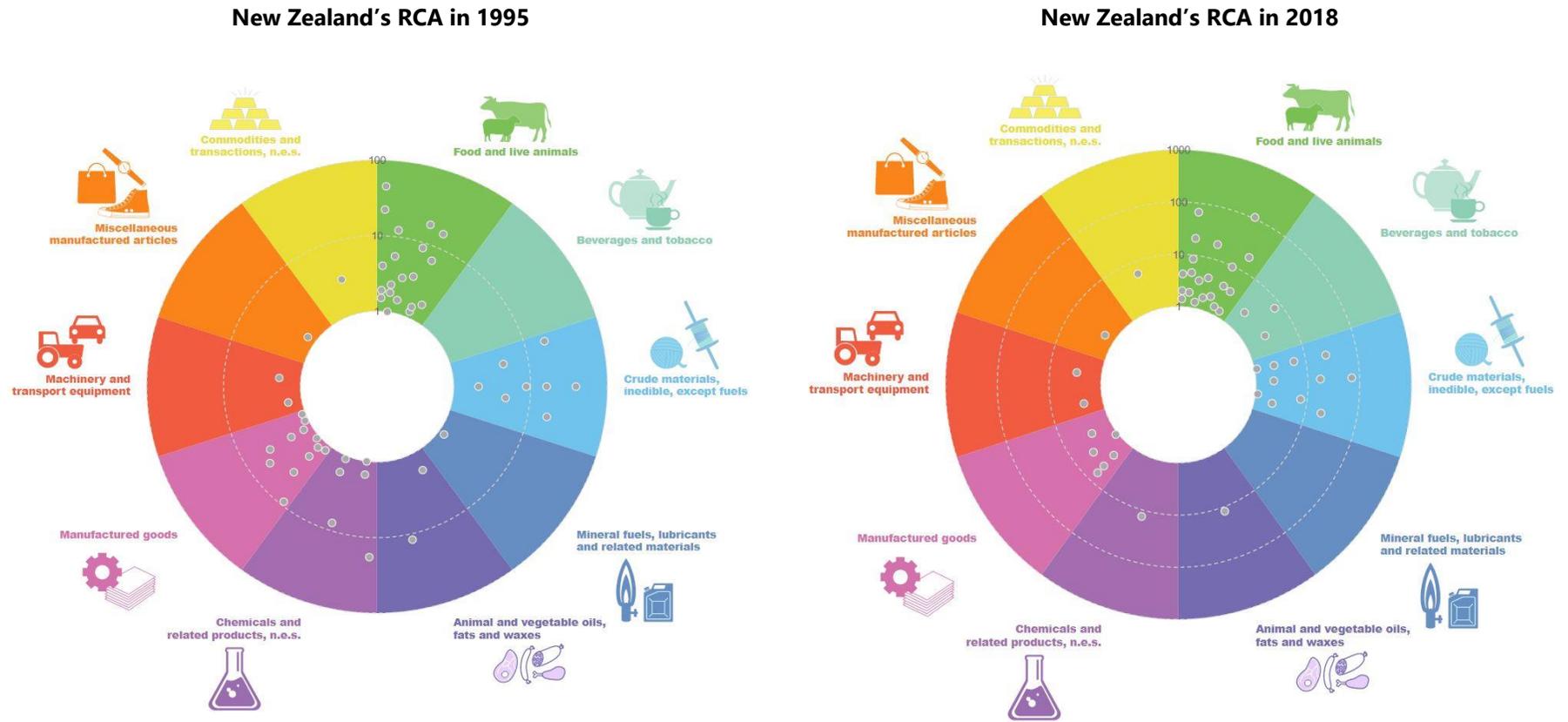
FIGURE 29 CHANGES IN CHINA'S REVEALED COMPARATIVE ADVANTAGE 1995 TO 2018



SOURCE: [UNCTAD](#)



FIGURE 30 CHANGES IN NEW ZEALAND'S REVEALED COMPARATIVE ADVANTAGE 1995 TO 2018



SOURCE: [UNCTAD](#)



9. Discussion: what - if anything - should we do?

A common refrain in recent years is that New Zealand should become less reliant on China. Having a lot of our export eggs in one basket, the argument goes, exposes the New Zealand economy to too much risk in case Chinese demand for our exports slows, or we fall foul of Chinese leaders when exercising our independent foreign policy.

The analysis reported above, especially in sections 4 and 5, certainly highlights New Zealand's dependence on China for certain exports and imports. The recent disruption to supply chains due to Covid-19 has also shown the risks of becoming overly reliant on one single market.

But countries don't trade with each other. Businesses and individuals trade with each other. And these **businesses are best placed to determine risk and reward**.

It seems unlikely that Kiwi firms exporting products such as rock lobster or using Chinese intermediate inputs are not aware of the risks of focusing solely on one market (and if they weren't before Covid-19, they will be now).

They will have chosen this strategy based on their own assessment of the costs and benefits of doing so.

If they are eager to secure the benefits of higher profitability in China than in other export markets (for example due to scale effects or preferential access reducing the sunk costs of market entry, then exporters must also accept the accompanying market concentration risks, including geopolitical ones. **They will prosper in China's good times and suffer in bad times**.

We also have to think about viable alternatives. Those espousing a reduction in reliance on China rarely outline who we should sell to instead, what the impacts might be on our export receipts, whether there are comparable risks, and how big those risks are. Trading less with China may just see concentration risk replaced with other market-specific risks. Is an exporter more diversified, from a risk perspective, if it splits sales to three different Chinese provinces with sales to France, Spain and Italy?

Firms could of course spread their risks by exporting to a wider range of markets. But this would presumably come with (on average) higher costs. Whether a business is prepared to give up some profitability in order to mitigate concentration risks is up to them, depending on their tolerance for risk.

Put it another way: if all export markets delivered the same returns, there's no doubt Kiwi firms would be happy to reduce their exposure to China and spread their demand (and geopolitical) risks. But unfortunately, this is not the case. New Zealand exporters, especially in the primary sector, continue to face significant trade barriers in alternative key markets such as the EU, US and India.

Ultimately, commercial export strategy is best left to businesses weighing up the best information they can process in the market.

Asserting that New Zealand is "too" economically reliant on China implies there is a "correct" level of exposure. It is not clear how this could ever be objectively determined, and even if it could, it would vary by firm, product and over time.



But neither should government rush to bail out firms who get burnt if market conditions work against them – firms need to take the rough with the smooth.

Government’s role in supporting exports is most appropriately about removing barriers to trade, improving certainty and helping firms overcome information problems.²²

Through negotiating improved market access for Kiwi exporters, government can help provide firms with a wider range of economically viable market alternatives. By reducing trade costs (tariffs, non-tariff measures, etc.), it effectively lowers the entry hurdle for businesses (especially small firms) and reduces uncertainty.²³

The government’s active FTA agenda seeks to do precisely this.

Over the past decade, FTAs have centred on the Asia-Pacific, reflecting in part the regionalisation of supply chains. But perennial targets India and the US aside, there are few markets in the Asia Pacific left to have a crack at (though ongoing FTA upgrades and issue-specific open plurilateral agreements will be important to ensure Kiwi exporters aren’t disadvantaged by others’ agreements or new trade barriers).

Accordingly, the government’s FTA agenda is looking farther afield, to the EU, UK, GCC, Pacific Alliance, etc.

These market-opening initiatives will give exporters more options to sell to more markets, but whether firms exercise these options is a commercial decision.

Providing market intelligence (e.g. through NZTE and MFAT offshore posts) is another way government already works to reduce trade costs and risks and perhaps more could be done in this area. Business associations can be helpful here too. If firms can access this material at low or no cost, they are more likely to take more informed decisions about where and what to sell.

Again, whether this leads to a diversification of export markets will depend on firms’ attitude towards risk and return.

We should not be so naïve to think that economics alone will determine the shape of New Zealand’s exports to China. As we have seen in recent months, China has exercised its economic influence to express its displeasure with other countries’ foreign policy positions.²⁴

²² As he so often does, Professor Gary Hawke expresses this idea very thoughtfully: “New Zealand’s history of dependence on specific export products and export markets sometimes evokes worries about a lack of diversification. But diversification insures against risks that are independent of one another, while Chinese demand is now so important that there are few markets which would not respond to any difficulties it experienced. New Zealand policy is appropriately focused on exploiting market demand wherever it exists. Accessibility, rather than diversification, is the appropriate policy objective. International economic diplomacy has had this focus for 30 years” (<https://www.eastasiaforum.org/2015/01/17/new-zealand-deals-smoothly-with-an-ageing-but-diversifying-economy/>).

²³ Dr David Skilling has recently provided insightful thoughts on what government could do to support the growth of larger exporters closer to the productivity frontier through internationally-orientated clusters. This approach is market-agnostic. See https://www.productivity.govt.nz/assets/Documents/frontier-firms/2580acf490/Frontier-firms_David-Skilling.pdf

²⁴ Examples include the imposition of 80% tariffs on Australian barley, directives to Chinese state-owned enterprises to avoid buying Australian coal, and a ban on imports of beef from four Australian abattoirs. China’s justifications for these actions are the dumping of product (barley), failing to meet Chinese health standards (beef) and a decline in global demand for steel (thermal coal). However, an alternative view is these measures



Does New Zealand face similar risks?

Yes, of course. Our politicians and diplomats will continue to walk the fine line between maintaining an independent foreign policy and not upsetting major political powers unnecessarily.

But balancing interests in itself is not a new phenomenon. And neither is it solely about China. Large countries have always used, and will always use, trade-impeding measures as part of their diplomatic arsenal.

New Zealand has always had to walk this line, and accept the risks and rewards associated with having an independent voice on the world stage as a small player, just as firms must accept the risks and rewards of having all their eggs in one basket.

relate to irritation over Australia's advocacy for an investigation into China's handling of the Covid pandemic and the treatment of Huawei as a national security risk.



Appendix A Industries in Figure 13 and Figure 14

TABLE 4 INDUSTRIES IN FIGURE 13

| HS4 code | HS4 description | Exports to China | Exports to the world | China % |
|----------|---|------------------|----------------------|---------|
| 306 | Crustaceans, Live Fresh Chilled Frozen Dried Etc; Smoked; In Shell, Cooked By Steam Or Boiling Water; Flours, Meals & Pellets For Human Consumption | \$327,958,022 | \$345,780,397 | 95% |
| 4403 | Wood In The Rough, Whether Or Not Stripped Of Bark Or Sapwood, Or Roughly Squared | \$2,755,909,054 | \$3,439,642,879 | 80% |
| 401 | Milk And Cream, Not Concentrated Nor Containing Added Sweetening | \$666,877,164 | \$915,751,431 | 73% |
| 9809 | Export Transactions Valued Not More Than \$20,001, Not Identified By Kind | \$768,523,528 | \$1,278,989,220 | 60% |
| 202 | Meat Of Bovine Animals, Frozen | \$1,567,025,821 | \$3,137,140,003 | 50% |
| 5101 | Wool, Not Carded Or Combed | \$249,310,546 | \$519,087,696 | 48% |
| 504 | Animal Guts, Bladders And Stomachs (Other Than Fish), Whole And Pieces Thereof, Fresh, Chilled, Frozen, Salted, In Brine, Dried Or Smoked | \$154,786,701 | \$333,629,545 | 46% |
| 204 | Meat Of Sheep Or Goats, Fresh, Chilled Or Frozen | \$1,613,829,707 | \$3,900,095,195 | 41% |
| 402 | Milk And Cream, Concentrated Or Containing Added Sweetening | \$3,492,391,053 | \$8,545,605,935 | 41% |
| 303 | Fish, Frozen, Excluding Fish Fillets And Other Fish Meat Without Bones; Fish Livers And Roes, Frozen | \$160,355,412 | \$418,156,137 | 38% |
| 1901 | Malt Extract; Food Preparations Of Flour, Meal Etc. Containing Under 40% Cocoa Neso; Food Preparations Of Milk Etc. Containing Under 50% Cocoa Neso | \$776,574,139 | \$2,058,852,208 | 38% |
| 4703 | Chemical Woodpulp, Soda Or Sulfate, Other Than Dissolving Grades | \$157,304,808 | \$421,766,507 | 37% |
| 307 | Molluscs, Live, Fresh, Chilled, Frozen, Dried, Salted Or In Brine; Smoked; Flours, Meals And Pellets, Fit For Human Consumption | \$186,358,644 | \$591,055,975 | 32% |
| 810 | Fruit Neso, Fresh | \$555,915,728 | \$2,325,709,324 | 24% |



HOW MANY EGGS, IN HOW MANY BASKETS? AN UPDATE ON NEW ZEALAND-CHINA TRADE PATTERNS

| | | | | |
|-------------|--|---------------|-----------------|-----|
| 406 | Cheese And Curd | \$445,326,291 | \$2,009,462,833 | 22% |
| 3501 | Casein, Caseinates And Other Casein Derivatives; Casein Glues | \$168,303,602 | \$888,902,222 | 19% |
| 405 | Butter And Other Fats And Oils Derived From Milk | \$628,199,914 | \$3,490,314,696 | 18% |
| 4407 | Wood Sawn Or Chipped Lengthwise, Sliced Or Peeled, More Than 6 Mm (.236 In.) Thick | \$147,288,874 | \$868,426,089 | 17% |
| 2106 | Food Preparations Nesoi | \$184,094,835 | \$1,115,180,693 | 17% |
| 808 | Apples, Pears And Quinces, Fresh | \$141,128,463 | \$870,256,110 | 16% |



TABLE 5 INDUSTRIES IN FIGURE 14

| HS4 code | HS4 description | Exports to China | Exports to the world | China % |
|----------|--|------------------|----------------------|---------|
| 102 | Bovine Animals, Live | \$77,344,558 | \$77,663,843 | 100% |
| 105 | Poultry, Live; Chickens, Ducks, Geese, Turkeys And Guineas | \$33,895,556 | \$48,979,415 | 69% |
| 201 | Meat Of Bovine Animals, Fresh Or Chilled | \$94,352,626 | \$462,863,041 | 20% |
| 206 | Edible Offal Of Bovine Animals, Swine, Sheep, Goats, Horses Etc., Fresh, Chilled Or Frozen | \$66,877,288 | \$281,516,358 | 24% |
| 208 | Meat And Edible Meat Offal Nesoi, Fresh, Chilled Or Frozen | \$24,919,612 | \$196,798,728 | 13% |
| 404 | Whey And Other Products Consisting Of Natural Milk Constituents, Whether Or Not Concentrated Or Sweetened, Nesoi | \$25,743,734 | \$628,342,303 | 4% |
| 409 | Honey, Natural | \$67,570,565 | \$348,853,474 | 19% |
| 507 | Ivory, Tortoise-Shell, Whalebone And Whalebone Hair, Horns, Hooves, Claws Etc., Unworked Or Simply Prepared, Not Cut To Shape | \$36,674,488 | \$56,366,224 | 65% |
| 710 | Vegetables (Uncooked Or Cooked By Steam Or Boiling Water), Frozen | \$27,079,578 | \$133,256,314 | 20% |
| 809 | Apricots, Cherries, Peaches (Including Nectarines), Plums (Including Prune Plums) And Sloes, Fresh | \$18,849,179 | \$70,320,369 | 27% |
| 1502 | Fats Of Bovine Animals, Sheep Or Goats, Other Than Those Of Heading 1503 | \$44,401,858 | \$105,554,664 | 42% |
| 2105 | Ice Cream And Other Edible Ice, Whether Or Not Containing Cocoa | \$35,483,550 | \$70,620,496 | 50% |
| 2201 | Waters, Including Natural Or Artificial Mineral Waters And Aerated Waters, Not Containing Added Sweetening Nor Flavored; Ice And Snow | \$43,766,689 | \$60,139,304 | 73% |
| 2204 | Wine Of Fresh Grapes, Including Fortified Wines; Grape Must (Having An Alcoholic Strength By Volume Exceeding 0.5% Vol.) Nesoi | \$28,930,806 | \$1,862,438,239 | 2% |
| 2301 | Flours, Meals And Pellets, Of Meat Or Meat Offal, Of Fish Or Of Crustaceans Etc., Unfit For Human Consumption; Greaves (Cracklings) | \$31,322,342 | \$180,869,588 | 17% |
| 2309 | Preparations Of A Kind Used In Animal Feeding | \$45,411,318 | \$240,644,891 | 19% |
| 3002 | Human And Animal Blood, Prepared; Antisera Other Blood Frctns Immunological Prod; Vaccines, Txns, Cultures Of Micro-Organisms (Exc Yeasts) & Like Prod | \$23,009,895 | \$232,427,362 | 10% |
| 3304 | Beauty Or Make-Up And Skin-Care Preparations (Other Than Medicaments), Including Sunscreens Etc.; Manicure Or Pedicure Preparations | \$28,901,991 | \$133,689,838 | 22% |
| 3403 | Lubricating Preparations; Antirust Etc. Preparations Based On Lubricants; Preparations For The Oil Or | \$10,192,727 | \$15,972,090 | 64% |



| | | | | |
|-------------|--|--------------|---------------|-----|
| 3502 | Albumins (Incl Cncentrts Two/More Whey Proteins, Cntng By Weight More Thn 80% Whey Proteins Calculated On Dry Mattr), Albuminates & Oth Albumin Deriv | \$55,602,368 | \$240,291,055 | 23% |
| 3504 | Peptones And Derivatives; Other Proteins And Derivatives, Nesoi; Hide Powder, Chromed Or Not | \$12,716,421 | \$88,682,280 | 14% |
| 4101 | Raw Hides And Skins Of Bovine Or Equine Animals (Fresh Or Preserved, But Not Tanned Or Further Prepared), Whether Or Not Dehaired Or Split | \$35,698,410 | \$66,857,245 | 53% |
| 4102 | Raw Skins Of Sheep Or Lambs, Other Than Astrakhan, Broadtail, Caracul Or Similar Skins (Fresh Or Preserved, But Not Tanned Or Further Prepared) | \$34,627,382 | \$49,906,905 | 69% |
| 4104 | Tanned Or Crust Hides/Skins Of Bovine (Inc. Buffalo) Or Equine Animals, Without Hair On Whether/Not Split, Nt Furt Preped, Nes | \$14,088,447 | \$99,915,983 | 14% |
| 4411 | Fiberboard Of Wood Or Other Ligneous Materials | \$16,999,446 | \$278,135,730 | 6% |
| 4701 | Mechanical Woodpulp | \$61,072,881 | \$146,491,745 | 42% |
| 4705 | Wood Pulp Obtained By A Combination Of Mechanical And Chemical Pulping Processes | \$81,407,631 | \$145,883,205 | 56% |
| 4804 | Kraft Paper And Paperboard, Uncoated, Nesoi, In Rolls Or Sheets | \$18,132,322 | \$151,730,602 | 12% |
| 4810 | Paper And Paperboard, Coated On One Or Both Sides With Kaolin (China Clay) Or Other Inorganic Substances (With No Other Coating), In Rolls Or Sheets | \$22,874,386 | \$158,738,840 | 14% |
| 6306 | Tarpaulins, Sails For Boats, Sailboards Or Landcraft, Awnings, Sunblinds, Tents And Camping Goods, Of Textile Materials | \$12,239,425 | \$41,283,139 | 30% |
| 7404 | Copper Waste And Scrap | \$10,364,790 | \$56,898,286 | 18% |
| 7601 | Aluminum, Unwrought | \$21,212,598 | \$988,790,309 | 2% |
| 8462 | Machine Tools For Working Metal By Forging Etc., By Bending, Folding, Shearing Etc.; Presses For Working Metal Or Metal Carbides Nesoi | \$10,841,828 | \$86,555,782 | 13% |
| 9019 | Mechano-Therapy, Massage, Psychological Aptitude-Testing Appliances And Apparatus; Ozone Etc. Therapy And Respiration Apparatus; Parts And Accessories | \$29,813,692 | \$535,145,127 | 6% |
| 9404 | Mattress Supports; Articles Of Bedding And Similar Furnishings With Springs Or Stuffed Or Internally Fitted With Material Or Of Rubber Or Plastics | \$13,243,594 | \$22,003,139 | 60% |



Appendix B Products for which China is New Zealand’s sole export market

TABLE 6 LARGEST 30 EXPORTED PRODUCTS IN WHICH CHINA IS THE SOLE EXPORT MARKET FOR NEW ZEALAND

| Export product | Value of NZ exports, 2019 |
|---|---------------------------|
| Cattle; Live, Pure-Bred Breeding Animals, Dairy | \$67,625,529 |
| Wood; Coniferous Species, Of Fir (Abies Spp.) And Spruce (Picea Spp.), In The Rough, Whether Or Not Stripped Of Bark Or Sapwood, Or Roughly Squared, Untreated, Of Which Any Cross-Sectional Dimension Is 15 Cm Or More; Saw Logs And Veneer Logs | \$49,989,677 |
| Cattle; Live, Other Than Pure-Bred, For Breeding, Dairy | \$9,719,029 |
| Meat; of sheep, hogget carcasses and half-carcasses, HX grade, frozen | \$1,399,629 |
| Wood; Coniferous Species, Of Fir (Abies Spp.) And Spruce (Picea Spp.), In The Rough, Whether Or Not Stripped Of Bark Or Sapwood, Or Roughly Squared, Untreated, Of Which Any Cross-Sectional Dimension Is Less Than 15 Cm; Saw Logs And Veneer Logs | \$1,268,938 |
| Wool; (other than shorn), greasy (including fleece-washed wool), (not carded or combed), slipe master | \$1,123,134 |
| Fish; Frozen, Southern Blue Whittings (Micromesistius Australis), Whole | \$599,128 |
| Crustaceans; Frozen, Norway Lobsters (Nephrops Norvegicus), In Shell Or Not, Smoked, Cooked Or Not Before Or During Smoking; In Shell, Cooked By Steaming Or By Boiling In Water | \$559,791 |
| Meat; of sheep, mutton carcasses and half-carcasses, MM grade, fresh or chilled | \$423,010 |
| Animal products; feathers and down, used for stuffing, not further worked than cleaned, disinfected or treated for preservation | \$347,659 |
| Vessels, ships and boats; air-cushion vessels, for the transport of persons | \$321,408 |
| Copper; Copper-Nickel Base Alloys (Cupro-Nickel) Or Copper-Nickel-Zinc Base Alloys (Nickel Silver), Unwrought, Billets, Blooms Ingots, Pellets And Pig | \$267,687 |
| Buildings; Prefabricated, Of Iron Or Steel, Floor Area Exceeding 115M2 But Not Exceeding 250M2 | \$251,749 |
| Fish; Frozen, Cod (Gadus Morhua, Gadus Ogac, Gadus Macrocephalus), Excluding Fillets, Livers, Roes, And Other Fish Meat Of Heading 0304, Whole | \$226,809 |
| Pharmaceutical goods; blood-grouping reagents | \$190,733 |
| "Fish; Frozen, Warehou, Blue, Excluding Fillets, Livers, Roes, And Other Fish Meat Of Heading 0304, Whole" | \$186,017 |
| Furskin Articles; N.E.C. In Heading No. 4303, Of Furskin Other Than Sheep Or Lambskin | \$168,146 |
| Wood; Coniferous Species, Of Pine (Pinus Spp.), In The Rough, Whether Or Not Stripped Of Bark Or Sapwood, Or Roughly Squared, Untreated, Of Which Any Cross- | \$138,169 |
| | \$125,808 |



| | |
|---|-----------|
| Fish; Frozen, Oreo Dory, Other Than Black, Whole | \$107,917 |
| "Fish; Frozen, Leatherjacket, Excluding Fillets, Livers, Roes, And Other Fish Meat Of Heading | \$99,197 |
| 0304, Headed And Gutted" | \$97,473 |
| Meat; of sheep, ram carcasses and half-carcasses, frozen | \$86,404 |
| Heterocyclic Compounds; Containing A Quinoline Or Isoquinoline Ring-System (Whether Or Not Hydrogenated) In The Structure, Not Further Fused, Other Than Levorphanol And Dextromethorphan (Inn) And Their Salts | \$78,205 |
| [unidentified] | \$66,386 |
| Beverages, fermented; fruit or vegetable wine, containing more than 23% vol., not for further manufacture | \$27,964 |
| Meat; of sheep, hogget carcasses and half-carcasses, HL grade, fresh or chilled | \$22,820 |
| Tanned Or Crust Hides And Skins; Bovine Leather, Without Hair On, Other Than Vegetable Pre-Tanned, Split But Not Sided, Wet Blue, Grain Split | \$22,682 |
| Iron or non-alloy steel; wire, (not plated or coated), whether or not polished, containing by weight 0.25% or more but less than 0.6% of carbon, sprin | \$20,384 |
| Footwear; (Other Than Sportswear), Outer Soles Of Rubber Or Plastics, Uppers Of Textile Materials, Exceeding Size 1 1/2 But Not Exceeding Adults' Size 4, (Not Thong Type), Women'S And Girls', Containing Woolskin | \$14,058 |



Appendix C Products for which China is New Zealand’s sole import supplier

TABLE 7 LARGEST 30 IMPORTED PRODUCTS IN WHICH CHINA IS THE SOLE SUPPLIER TO NEW ZEALAND

| Import product | Value of NZ imports, 2019 |
|---|---------------------------|
| Railway or tramway goods vans and wagons; n.e.s. in heading no. 8606, not self-propelled | \$61,352,811 |
| Vessels; n.e.s. in heading no. 8901, exceeding 50m in overall length, for the transport of goods, for the transport of both persons and goods, (exclud | \$18,953,253 |
| Iron Or Steel (Excluding Cast Iron); Line Pipe Of A Kind Used For Oil Or Gas Pipelines (Not Seamless), Welded (Not Longitudinally Welded), Unscrewed, Of Circular Cross-Sections, Nominal Internal Diameter 600Mm Or Less, External Diameter Exceeds 406.4Mm | \$3,870,542 |
| Fertilizers, Mineral Or Chemical; Phosphatic, Superphosphates, Containing By Weight 35% Or More Of Diphosphorus Pentaoxide (P2O5) | \$3,760,321 |
| Rubber; New Pneumatic Tyres Having Other Than A Herring-Bone Or Similar Tread, Of A Kind Used On Light Industrial Vehicles; Radial Ply, Other Than Steel Belted And With An Internal Rim Diameter Of 508 Mm Or More | \$1,234,566 |
| Iron Or Steel (Excluding Cast Iron); Line Pipe Of A Kind Used For Oil Or Gas Pipelines (Not Seamless), Longitudinally Submerged Arc Welded, Unscrewed, Circular Cross-Sections, Nominal Internal Diameter Exceeding 600Mm, External Diameter Exceeds 406.4Mm | \$1,136,659 |
| Iron Or Non-Alloy Steel; Wire, Plated Or Coated With Zinc, Containing By Weight 0.6% Or More Of Carbon, Fencing Wire, Less Than 1.6Mm In Diameter, Coils Exceeding 50Kg | \$1,001,974 |
| [undefined product 8418690047] | \$897,399 |
| Bricks; N.E.C. In Item No. 6902.1 Or 6902.2, (Excluding Those Of Siliceous Fossil Meals Or Similar Earths), Silicon Carbide | \$847,427 |
| Iron Or Non-Alloy Steel; Flat-Rolled, Width 600Mm Or More, Not Corrugated Or Worked; Coiled; Plated Or Coated (Not Electrolytically) With 50-80% Zinc By Weight, Alloyed With Aluminium, At Least 1.0Mm But Under 1.6Mm Thick; Not Further Clad/Plated/Coated | \$783,868 |
| Iron or steel; line pipe of a kind used for oil or gas pipelines, welded and unscrewed, of a nominal internal diameter exceeding 600mm, external diame | \$727,925 |
| Iron Or Non-Alloy Steel; Flat-Rolled, Width Not Over 500Mm, Not Worked But Coiled, Plated Or Coated (Not Electrolytically) With Over 80% Zinc By Weight, Alloyed With Aluminium, Under 0.4Mm Thick, (Not Further Clad, Plated Or Coated) | \$727,365 |
| Wood; Assembled Flooring Panels, Of Bamboo Or With At Least The Top Layer (Wear Layer) Of Bamboo, Other Than Multilayer, Other Than Mosaic Or Parquet Panels | \$649,820 |
| Iron Or Steel (Excluding Cast Iron); Steam Pipes (Not Seamless), Welded (Not Longitudinally Welded), Having Circular Cross-Sections, External Diameter Exceeds 406.4Mm | \$597,464 |
| Iron Or Non-Alloy Steel; Flat-Rolled, Painted, Varnished Or Coated With Plastics, Coiled, Width Exceeding 500Mm But Less Than 600Mm, (Not Worked), 1.6Mm Or Less Thick | \$481,475 |
| Containers; (Including Fluid Transporters) N.E.C. In Heading No. 8609, Specially Designed And Equipped For Carriage By One Or More Modes Of Transport, Refrigerated, Not Containing Hfcs | \$463,392 |



HOW MANY EGGS, IN HOW MANY BASKETS? AN UPDATE ON NEW ZEALAND-CHINA TRADE PATTERNS

| | |
|--|-----------|
| Iron Or Non-Alloy Steel; Flat-Rolled, Width Not Over 500Mm, Not Worked But Coiled, Plated Or Coated (Not Electrolytically) With Over 80% Zinc By Weight, Alloyed With Aluminium, At Least 1.0Mm But Under 1.6Mm Thick, (Not Further Clad, Plated Or Coated) | \$423,051 |
| Refrigerators; For Household Use, Compression Type, Containing Hfcs, 300 L And Over But Less Than 400 L Gross Internal Capacity, Containing 1,1,1,2-Tetrafluoroethane (Hfc-134A) | \$395,224 |
| Plywood And Similar Laminated Wood, N.E.C. In 4412, (No Outer Ply Of Non-Coniferous Wood), With At Least One Ply Of Tropical Wood, N.E.C. In 4412.99.39, (Not Containing A Layer Of Particle Board), Each Ply Thicker Than 6Mm, Overlaid, Including Veneered | \$351,023 |
| Vehicles; bodies (including cabs), for the vehicles of heading no. 8705 (of a g.v.w. not exceeding 3,500kg and vehicles exceeding 10,500kg) | \$336,611 |
| Bricks; N.E.C. In Item No. 6902.1 Or 6902.2, (Excluding Those Of Siliceous Fossil Meals Or Similar Earths), Containing By Weight Of Alumina, More Than 40% | \$334,280 |
| Sports articles; feather shuttlecocks | \$331,120 |
| Vehicles; N.E.C. In Heading No 8704, Assembled, Gvw Not Exceeding 3500Kg, For The Transport Of Goods, Vans, Not Refrigerated, New | \$311,543 |
| Wafer Board And Similar Board Of Wood N.E.C. In Item No. 4410.1, Whether Or Not Agglomerated With Resins Or Other Organic Binding Substances, Unworked Or Not Further Worked Than Sanded | \$308,013 |
| Fish; Smoked, Whether Or Not Cooked Before Or During Smoking, Hoki, Includes Fillets, But Excludes Edible Fish Offal | \$303,747 |
| Vehicles; With Only Compression-Ignition Internal Combustion Piston Engine (Diesel Or Semi-Diesel), Cylinder Capacity Not Over 1500Cc, N.E.C. In Heading No 8702 Or 8703 | \$281,630 |
| Rubber; New Pneumatic Tyres Having Other Than A Herring-Bone Or Similar Tread, Of A Kind Used On Light Commercial Vehicles; Other Than Of Bias Or Radial Ply, With An Internal Rim Diameter Less Than 508 Mm | \$280,935 |
| Furniture Including Freezing Equipment; For Storage And Display, N.E.C In Item No. 8418.1, 8418.3 Or 8418.4 (Chests, Cabinets, Display Counters, And The Like), Containing Hfcs But Not 1,1,1,2-Tetrafluoroethane (Hfc-134A) Or R-404A, Display Freezing Units | \$230,899 |
| Steel, Alloy; Flat-Rolled, Width 600Mm Or More, Of High Speed Steel, Galvanised, Not Further Worked Than Hot-Rolled, Not In Coils | \$229,427 |
| Molluscs; New Zealand Dredge Oysters (Ostrea Chilensis, Tiostrea Chilensis), Farmed, Frozen, Meat | \$211,110 |

SOURCE: GLOBAL TRADE ATLAS



Appendix D RCA data

TABLE 8 REVEALED COMPARATIVE ADVANTAGE DATA, 2018

| SITC 3-digit code | Product description | China RCA | NZ RCA |
|-------------------|--|-----------|--------|
| [001] | Live animals other than animals of division 03 | 0.2 | 3.4 |
| [011] | Meat of bovine animals, fresh, chilled or frozen | 0.0 | 21.0 |
| [012] | Other meat and edible meat offal | 0.1 | 19.6 |
| [016] | Meat, edible meat offal, salted, dried; flours, meals | 0.0 | 0.7 |
| [017] | Meat, edible meat offal, prepared, preserved, n.e.s. | 0.6 | 4.2 |
| [022] | Milk, cream and milk products (excluding butter, cheese) | 0.0 | 67.2 |
| [023] | Butter and other fats and oils derived from milk | 0.0 | 106.8 |
| [024] | Cheese and curd | 0.0 | 19.4 |
| [025] | Birds' eggs, and eggs' yolks; egg albumin | 0.3 | 0.7 |
| [034] | Fish, fresh (live or dead), chilled or frozen | 0.9 | 4.2 |
| [035] | Fish, dried, salted or in brine; smoked fish | 0.6 | 0.5 |
| [036] | Crustaceans, mollusks and aquatic invertebrates | 1.2 | 3.5 |
| [037] | Fish, aqua. invertebrates, prepared, preserved, n.e.s. | 1.6 | 3.8 |
| [041] | Wheat (including spelt) and meslin, unmilled | 0.0 | 0.0 |
| [042] | Rice | 0.2 | 0.0 |
| [043] | Barley, unmilled | 0.0 | 0.0 |
| [044] | Maize (not including sweet corn), unmilled | 0.0 | 0.2 |
| [045] | Cereals, unmilled (excluding wheat, rice, barley, maize) | 0.1 | 0.1 |
| [046] | Meal and flour of wheat and flour of meslin | 0.1 | 0.3 |
| [047] | Other cereal meals and flour | 0.0 | 1.3 |
| [048] | Cereal preparations, flour of fruits or vegetables | 0.1 | 1.4 |
| [054] | Vegetables | 0.9 | 2.0 |
| [056] | Vegetables, roots, tubers, prepared, preserved, n.e.s. | 1.7 | 1.9 |
| [057] | Fruits and nuts (excluding oil nuts), fresh or dried | 0.4 | 8.4 |
| [058] | Fruit, preserved, and fruit preparations (no juice) | 1.1 | 1.3 |
| [059] | Fruit and vegetable juices, unfermented, no spirit | 0.4 | 1.4 |
| [061] | Sugar, molasses and honey | 0.2 | 4.6 |
| [062] | Sugar confectionery | 0.7 | 2.0 |
| [071] | Coffee and coffee substitutes | 0.1 | 0.1 |
| [072] | Cocoa | 0.0 | 0.0 |
| [073] | Chocolate, food preparations with cocoa, n.e.s. | 0.1 | 0.9 |
| [074] | Tea and mate | 1.3 | 0.1 |
| [075] | Spices | 0.5 | 0.1 |
| [081] | Feeding stuff for animals (no unmilled cereals) | 0.3 | 1.7 |
| [091] | Margarine and shortening | 0.0 | 0.8 |
| [098] | Edible products and preparations, n.e.s. | 0.4 | 9.6 |
| [111] | Non-alcoholic beverages, n.e.s. | 0.3 | 2.4 |
| [112] | Alcoholic beverages | 0.1 | 7.3 |
| [121] | Tobacco, unmanufactured; tobacco refuse | 0.4 | 0.0 |
| [122] | Tobacco, manufactured | 0.2 | 2.6 |



| | | | |
|-------|--|-----|------|
| [211] | Hides and skins (except furskins), raw | 0.1 | 20.2 |
| [212] | Furskins, raw, other than hides & skins of group 211 | 0.0 | 0.0 |
| [222] | Oil seeds and oleaginous fruits (excluding flour) | 0.1 | 0.0 |
| [223] | Oil seeds & oleaginous fruits (incl. flour, n.e.s.) | 0.3 | 0.3 |
| [231] | Natural rubber & similar gums, in primary forms | 0.0 | 0.0 |
| [232] | Synthetic rubber | 0.2 | 0.0 |
| [244] | Cork, natural, raw & waste (incl. blocks, sheets) | 0.0 | 0.0 |
| [245] | Fuel wood (excluding wood waste) and wood charcoal | 0.4 | 0.2 |
| [246] | Wood in chips or particles and wood waste | 0.0 | 2.4 |
| [247] | Wood in the rough or roughly squared | 0.0 | 70.4 |
| [248] | Wood simply worked, and railway sleepers of wood | 0.1 | 7.5 |
| [251] | Pulp and waste paper | 0.0 | 5.9 |
| [261] | Silk | 5.7 | 0.0 |
| [263] | Cotton | 0.0 | 0.0 |
| [264] | Jute, other textile bast fibre, n.e.s., not spun; tow | 0.0 | 0.0 |
| [265] | Vegetable textile fibres, not spun; waste of them | 0.0 | 0.0 |
| [266] | Synthetic fibres suitable for spinning | 1.4 | 0.0 |
| [267] | Other man-made fibres suitable for spinning | 1.4 | 0.0 |
| [268] | Wool and other animal hair (incl. wool tops) | 1.2 | 25.1 |
| [269] | Worn clothing and other worn textile articles | 0.4 | 0.6 |
| [272] | Crude fertilizers (excluding those of division 56) | 0.2 | 0.2 |
| [273] | Stone, sand and gravel | 0.3 | 0.4 |
| [274] | Sulphur and unroasted iron pyrites | 0.0 | 0.0 |
| [277] | Natural abrasives, n.e.s. (incl. industri. diamonds) | 0.7 | 0.0 |
| [278] | Other crude minerals | 1.0 | 1.1 |
| [281] | Iron ore and concentrates | 0.0 | 0.0 |
| [282] | Ferrous waste, scrape; remelting ingots, iron, steel | 0.0 | 2.2 |
| [283] | Copper ores and concentrates; copper mattes, cemen | 0.0 | 0.0 |
| [284] | Nickel ores & concentrates; nickel mattes, etc. | 0.0 | .. |
| [285] | Aluminium ores and concentrates (incl. alumina) | 0.1 | 0.0 |
| [286] | Ores and concentrates of uranium or thorium | .. | .. |
| [287] | Ores and concentrates of base metals, n.e.s. | 0.0 | 0.0 |
| [288] | Non-ferrous base metal waste and scrap, n.e.s. | 0.0 | 1.1 |
| [289] | Ores & concentrates of precious metals; waste, scrap | 0.0 | 0.3 |
| [291] | Crude animal materials, n.e.s. | 1.6 | 17.5 |
| [292] | Crude vegetable materials, n.e.s. | 0.6 | 2.2 |
| [321] | Coal, whether or not pulverized, not agglomerated | 0.1 | 0.4 |
| [322] | Briquettes, lignites and peat | 0.0 | 0.0 |
| [325] | Coke & semi-cokes of coal, lign., peat; retort carbon | 2.2 | 0.4 |
| [333] | Petroleum oils, oils from bitumin. materials, crude | 0.0 | 0.2 |
| [334] | Petroleum oils or bituminous minerals > 70 % oil | 0.3 | 0.1 |
| [335] | Residual petroleum products, n.e.s., related mater. | 0.3 | 0.3 |
| [342] | Liquefied propane and butane | 0.1 | 0.0 |
| [343] | Natural gas, whether or not liquefied | 0.1 | 0.3 |
| [344] | Petroleum gases, other gaseous hydrocarbons, n.e.s. | 0.0 | 0.1 |
| [345] | Coal gas, water gas & similar gases (excludinghydrocar.) | 0.0 | 0.3 |



| | | | |
|-------|--|-----|------|
| [351] | Electric current | 0.4 | .. |
| [411] | Animals oils and fats | 0.3 | 12.2 |
| [421] | Fixed vegetable fats & oils, crude, refined, fractio. | 0.0 | 0.0 |
| [422] | Fixed vegetable fats & oils, crude, refined, fract. | 0.0 | 0.1 |
| [431] | Animal or veg. oils & fats, processed, n.e.s.; mixt. | 0.1 | 0.3 |
| [511] | Hydrocarbons, n.e.s., & halogenated, nitr. derivative | 0.3 | 0.0 |
| [512] | Alcohols, phenols, halogenat., sulfonat., nitrat. der. | 0.2 | 0.1 |
| [513] | Carboxylic acids, anhydrides, halides, per.; derivati. | 1.3 | 0.6 |
| [514] | Nitrogen-function compounds | 1.5 | 0.0 |
| [515] | Organo-inorganic, heterocycl. compounds, nucl. acids | 1.2 | 0.0 |
| [516] | Other organic chemicals | 0.7 | 0.1 |
| [522] | Inorganic chemical elements, oxides & halogen salts | 1.2 | 0.1 |
| [523] | Metallic salts & peroxyalts, of inorganic acids | 1.8 | 0.1 |
| [524] | Other inorganic chemicals | 1.0 | 0.0 |
| [525] | Radio-actives and associated materials | 0.6 | 0.0 |
| [531] | Synth. organic colouring matter & colouring lakes | 1.8 | 0.1 |
| [532] | Dyeing & tanning extracts, synth. tanning materials | 0.7 | 0.5 |
| [533] | Pigments, paints, varnishes and related materials | 0.5 | 0.3 |
| [541] | Medicinal and pharmaceutical products, excluding 542 | 0.4 | 0.4 |
| [542] | Medicaments (incl. veterinary medicaments) | 0.1 | 0.2 |
| [551] | Essential oils, perfume & flavour materials | 0.2 | 0.2 |
| [553] | Perfumery, cosmetics or toilet prepar. (excluding soaps) | 0.3 | 0.5 |
| [554] | Soaps, cleansing and polishing preparations | 0.4 | 0.4 |
| [562] | Fertilizers (other than those of group 272) | 1.2 | 0.0 |
| [571] | Polymers of ethylene, in primary forms | 0.1 | 0.0 |
| [572] | Polymers of styrene, in primary forms | 0.2 | 0.0 |
| [573] | Polymers of vinyl chloride or halogenated olefins | 0.7 | 0.0 |
| [574] | Polyethers, epoxide resins; polycarbonat., polyesters | 0.7 | 0.0 |
| [575] | Other plastics, in primary forms | 0.4 | 0.1 |
| [579] | Waste, parings and scrap, of plastics | 0.2 | 0.8 |
| [581] | Tubes, pipes and hoses of plastics | 0.8 | 0.4 |
| [582] | Plates, sheets, films, foil & strip, of plastics | 0.8 | 0.2 |
| [583] | Monofilaments, of plastics, cross-section > 1mm | 0.7 | 0.1 |
| [591] | Insectides & similar products, for retail sale | 1.0 | 0.7 |
| [592] | Starche, wheat gluten; albuminoidal substances; glues | 0.8 | 13.3 |
| [593] | Explosives and pyrotechnic products | 1.9 | 0.1 |
| [597] | Prepared addit. for miner. oils; lubricat., de-icing | 0.1 | 0.1 |
| [598] | Miscellaneous chemical products, n.e.s. | 0.6 | 0.1 |
| [611] | Leather | 0.2 | 4.2 |
| [612] | Manufactures of leather, n.e.s.; saddlery & harness | 1.8 | 0.1 |
| [613] | Furskins, tanned or dressed, excluding those of 8483 | 1.1 | 6.3 |
| [621] | Materials of rubber (pastes, plates, sheets, etc.) | 0.5 | 0.1 |
| [625] | Rubber tyres, tyre treads or flaps & inner tubes | 1.4 | 0.1 |
| [629] | Articles of rubber, n.e.s. | 0.8 | 0.3 |
| [633] | Cork manufactures | 0.1 | 0.0 |
| [634] | Veneers, plywood, and other wood, worked, n.e.s. | 1.5 | 3.9 |



| | | | |
|-------|---|-----|-----|
| [635] | Wood manufacture, n.e.s. | 2.1 | 0.9 |
| [641] | Paper and paperboard | 0.6 | 1.1 |
| [642] | Paper & paperboard, cut to shape or size, articles | 1.5 | 0.6 |
| [651] | Textile yarn | 1.8 | 0.2 |
| [652] | Cotton fabrics, woven | 4.3 | 0.0 |
| [653] | Fabrics, woven, of man-made fabrics | 3.8 | 0.1 |
| [654] | Other textile fabrics, woven | 2.1 | 0.2 |
| [655] | Knitted or crocheted fabrics, n.e.s. | 3.9 | 0.0 |
| [656] | Tulles, trimmings, lace, ribbons & other small wares | 2.8 | 0.0 |
| [657] | Special yarn, special textile fabrics & related | 2.0 | 0.3 |
| [658] | Made-up articles, of textile materials, n.e.s. | 3.5 | 0.3 |
| [659] | Floor coverings, etc. | 1.3 | 2.2 |
| [661] | Lime, cement, fabrica. constr. mat. (excluding glass, clay) | 1.9 | 0.3 |
| [662] | Clay construction, refracto. construction materials | 2.5 | 0.0 |
| [663] | Mineral manufactures, n.e.s. | 1.1 | 0.3 |
| [664] | Glass | 1.5 | 0.1 |
| [665] | Glassware | 1.8 | 0.2 |
| [666] | Pottery | 5.1 | 0.1 |
| [667] | Pearls, precious & semi-precious stones | 0.1 | 0.0 |
| [671] | Pig iron & spiegeleisen, sponge iron, powder & granu | 0.3 | 0.2 |
| [672] | Ingots, primary forms, of iron or steel; semi-finis. | 0.0 | 0.0 |
| [673] | Flat-rolled prod., iron, non-alloy steel, not coated | 0.3 | 0.5 |
| [674] | Flat-rolled prod., iron, non-alloy steel, coated, clad | 1.9 | 0.6 |
| [675] | Flat-rolled products of alloy steel | 1.7 | 0.0 |
| [676] | Iron & steel bars, rods, angles, shapes & sections | 1.6 | 0.1 |
| [677] | Rails & railway track construction mat., iron, steel | 1.3 | 0.0 |
| [678] | Wire of iron or steel | 1.6 | 0.0 |
| [679] | Tubes, pipes & hollow profiles, fittings, iron, steel | 1.3 | 0.1 |
| [681] | Silver, platinum, other metals of the platinum group | 0.2 | 0.1 |
| [682] | Copper | 0.4 | 0.1 |
| [683] | Nickel | 0.3 | 0.0 |
| [684] | Aluminium | 1.0 | 2.6 |
| [685] | Lead | 0.1 | 0.0 |
| [686] | Zinc | 0.1 | 0.0 |
| [687] | Tin | 0.0 | 0.0 |
| [689] | Miscellaneous no-ferrous base metals for metallur. | 2.2 | 0.0 |
| [691] | Structures & parts, n.e.s., of iron, steel, aluminium | 2.0 | 0.4 |
| [692] | Metal containers for storage or transport | 0.9 | 0.6 |
| [693] | Wire products (excluding electrical) and fencing grills | 1.7 | 0.2 |
| [694] | Nails, screws, nuts, bolts, rivets & the like, of metal | 1.3 | 0.1 |
| [695] | Tools for use in the hand or in machine | 1.7 | 0.3 |
| [696] | Cutlery | 3.3 | 0.1 |
| [697] | Household equipment of base metal, n.e.s. | 4.1 | 0.2 |
| [699] | Manufactures of base metal, n.e.s. | 1.5 | 0.3 |
| [711] | Vapour generating boilers, auxiliary plant; parts | 2.3 | 0.1 |
| [712] | Steam turbines & other vapour turbin., parts, n.e.s. | 1.2 | 0.0 |



| | | | |
|-------|--|-----|-----|
| [713] | Internal combustion piston engines, parts, n.e.s. | 0.5 | 0.1 |
| [714] | Engines & motors, non-electric; parts, n.e.s. | 0.2 | 0.3 |
| [716] | Rotating electric plant & parts thereof, n.e.s. | 1.6 | 0.1 |
| [718] | Other power generating machinery & parts, n.e.s. | 0.9 | 0.9 |
| [721] | Agricultural machinery (excluding tractors) & parts | 0.7 | 3.0 |
| [722] | Tractors (excluding those of 71414 & 74415) | 0.2 | 0.0 |
| [723] | Civil engineering & contractors' plant & equipment | 0.9 | 0.3 |
| [724] | Textile & leather machinery, & parts thereof, n.e.s. | 1.7 | 0.1 |
| [725] | Paper mill, pulp mill machinery; paper articles man. | 1.0 | 0.2 |
| [726] | Printing & bookbinding machinery, & parts thereof | 0.4 | 0.3 |
| [727] | Food-processing machines (excluding domestic) | 0.6 | 0.7 |
| [728] | Other machinery for particular industries, n.e.s. | 0.6 | 0.3 |
| [731] | Machine-tools working by removing material | 0.5 | 0.1 |
| [733] | Mach.-tools for working metal, excluding removing | 0.8 | 2.3 |
| [735] | Parts, n.e.s., & accessories for machines of 731, 733 | 0.6 | 0.3 |
| [737] | Metalworking machinery (excluding machine-tools) & | 1.3 | 0.4 |
| [741] | Heating & cooling equipment & parts thereof, n.e.s. | 1.7 | 0.5 |
| [742] | Pumps for liquids | 0.9 | 0.2 |
| [743] | Pumps (excluding liquid), gas compressors & fans; centr. | 1.1 | 0.2 |
| [744] | Mechanical handling equipment, & parts, n.e.s. | 1.3 | 0.4 |
| [745] | Other non-electr. machinery, tools & mechan. appar. | 1.2 | 0.7 |
| [746] | Ball or roller bearings | 1.2 | 0.0 |
| [747] | Appliances for pipes, boiler shells, tanks, vats, etc. | 1.3 | 0.2 |
| [748] | Transmis. shafts | 1.0 | 0.1 |
| [749] | Non-electric parts & accessor. of machinery, n.e.s. | 1.5 | 0.1 |
| [751] | Office machines | 3.9 | 0.1 |
| [752] | Automatic data processing machines, n.e.s. | 2.9 | 0.1 |
| [759] | Parts, accessories for machines of groups 751, 752 | 1.8 | 0.1 |
| [761] | Television receivers, whether or not combined | 2.5 | 0.0 |
| [762] | Radio-broadcast receivers, whether or not combined | 2.7 | 0.0 |
| [763] | Sound recorders or reproducers | 2.8 | 0.2 |
| [764] | Telecommunication equipment, n.e.s.; & parts, n.e.s. | 3.1 | 0.1 |
| [771] | Electric power machinery, and parts thereof | 2.2 | 0.6 |
| [772] | Apparatus for electrical circuits; board, panels | 1.2 | 0.2 |
| [773] | Equipment for distributing electricity, n.e.s. | 1.3 | 0.1 |
| [774] | Electro-diagnostic appa. for medical sciences, etc. | 0.6 | 0.1 |
| [775] | Household type equipment, electrical or not, n.e.s. | 2.9 | 0.1 |
| [776] | Cathode valves & tubes | 1.2 | 0.0 |
| [778] | Electrical machinery & apparatus, n.e.s. | 1.8 | 0.2 |
| [781] | Motor vehicles for the transport of persons | 0.1 | 0.0 |
| [782] | Motor vehic. for transport of goods, special purpo. | 0.3 | 0.1 |
| [783] | Road motor vehicles, n.e.s. | 0.4 | 0.0 |
| [784] | Parts & accessories of vehicles of 722, 781, 782, 783 | 0.6 | 0.1 |
| [785] | Motorcycles & cycles | 2.4 | 0.1 |
| [786] | Trailers & semi-trailers | 2.3 | 0.4 |
| [791] | Railway vehicles & associated equipment | 1.0 | 0.1 |



| | | | |
|-------|--|-----|-----|
| [792] | Aircraft & associated equipment; spacecraft, etc. | 0.2 | 0.2 |
| [793] | Ships, boats & floating structures | 1.3 | 0.5 |
| [811] | Prefabricated buildings | 1.4 | 0.4 |
| [812] | Sanitary, plumbing, heating fixtures, fittings, n.e.s. | 2.0 | 0.1 |
| [813] | Lighting fixtures & fittings, n.e.s. | 4.7 | 0.2 |
| [821] | Furniture & parts | 2.6 | 0.2 |
| [831] | Travel goods, handbags & similar containers | 3.2 | 0.1 |
| [841] | Men's clothing of textile fabrics, not knitted | 2.1 | 0.1 |
| [842] | Women's clothing, of textile fabrics | 2.9 | 0.1 |
| [843] | Men's or boy's clothing, of textile, knitted, croche. | 2.7 | 0.0 |
| [844] | Women's clothing, of textile, knitted or crocheted | 3.1 | 0.1 |
| [845] | Articles of apparel, of textile fabrics, n.e.s. | 2.3 | 0.1 |
| [846] | Clothing accessories, of textile fabrics | 3.4 | 0.1 |
| [848] | Articles of apparel, clothing access., excluding textile | 3.1 | 0.2 |
| [851] | Footwear | 2.7 | 0.1 |
| [871] | Optical instruments & apparatus, n.e.s. | 3.1 | 0.0 |
| [872] | Instruments & appliances, n.e.s., for medical, etc. | 0.6 | 1.6 |
| [873] | Meters & counters, n.e.s. | 1.0 | 0.1 |
| [874] | Measuring, analysing & controlling apparatus, n.e.s. | 0.6 | 0.3 |
| [881] | Photographic apparatus & equipment, n.e.s. | 0.9 | 0.5 |
| [882] | Cinematographic & photographic supplies | 0.6 | 0.1 |
| [883] | Cinematograph films, exposed & developed | 0.1 | 0.0 |
| [884] | Optical goods, n.e.s. | 1.3 | 0.1 |
| [885] | Watches & clocks | 0.8 | 0.1 |
| [891] | Arms & ammunition | 0.1 | 0.2 |
| [892] | Printed matter | 0.9 | 0.6 |
| [893] | Articles, n.e.s., of plastics | 1.9 | 0.6 |
| [894] | Baby carriages, toys, games & sporting goods | 3.6 | 0.1 |
| [895] | Office & stationery supplies, n.e.s. | 1.9 | 0.1 |
| [896] | Works of art, collectors' pieces & antiques | 0.1 | 0.3 |
| [897] | Jewellery & articles of precious materia., n.e.s. | 1.2 | 0.1 |
| [898] | Musical instruments, parts; records, tapes & similar | 1.2 | 0.1 |
| [899] | Miscellaneous manufactured articles, n.e.s. | 1.9 | 0.1 |
| [961] | Coin (other than gold coin), not being legal tender | .. | 5.8 |
| [971] | Gold, non-monetary (excluding gold ores and | 0.0 | 0.7 |

SOURCE: UNCTAD



Appendix E Exports to China showing strong growth since 2014

TABLE 9 PRODUCT LINES (HS10) SHOWING LARGEST EXPORT VALUE INCREASES TO CHINA SINCE 2014

| HS10 code | Short description * | Change in value exported to China 2014-2019 |
|------------|-------------------------------|---|
| 4403210010 | Pine logs (> 15cm) | \$2,404,471,841 |
| 0202300001 | Boneless frozen beef | \$727,287,038 |
| 0204420001 | Bone-in frozen lamb | \$657,903,193 |
| 1901100900 | Infant formula | \$583,809,899 |
| 9809000000 | Confidential items | \$485,914,495 |
| 0401500019 | Cream | \$407,139,408 |
| 0810500010 | Gold kiwifruit | \$387,497,208 |
| 0202300011 | Boneless frozen beef (bulls) | \$350,479,821 |
| 0306310010 | Live rock lobsters | \$290,438,271 |
| 0405100001 | Unsalted butter | \$205,337,297 |
| 0401200901 | UHT milk | \$191,366,499 |
| 4403220010 | Pine logs (< 15cm) | \$179,884,764 |
| 0307430013 | Frozen whole squid | \$135,978,395 |
| 2106909979 | Dairy-based food preps | \$118,610,249 |
| 0406200029 | Grated cheese | \$107,125,726 |
| 0202200041 | Bone-in frozen beef | \$105,471,150 |
| 4407111910 | Untreated pine timber | \$98,629,618 |
| 4703110000 | Unbleached chemical woodpulp | \$81,298,162 |
| 0204420009 | Bone-in frozen lamb | \$76,733,090 |
| 4403250010 | Logs other than pine (> 15cm) | \$74,539,335 |
| 0201300001 | Boneless fresh/chilled beef | \$66,765,548 |
| 0406100001 | Fresh cheese (not fermented) | \$63,456,400 |
| 0406900011 | Cheddar cheese (not grated) | \$55,784,110 |
| 0504000051 | Beef & veal tripe | \$55,706,046 |
| 0405900001 | Anhydrous milk fat | \$54,477,470 |
| 0202200051 | Bone-in frozen beef (bulls) | \$51,143,766 |
| 4403230010 | Fir & spruce logs (> 15cm) | \$49,989,677 |
| 1901900928 | Food preps | \$49,038,997 |
| 0409000021 | Honey | \$42,600,427 |
| 0808100032 | Pacific Queen apples | \$42,330,921 |
| 0406300000 | Processed cheese | \$41,998,510 |
| 3502200000 | Milk albumin | \$40,603,549 |
| 0808100042 | Royal Gala apples | \$37,791,002 |
| 0202200069 | Bone-in frozen beef (other) | \$35,085,066 |
| 2201100900 | Bottled water | \$34,234,004 |
| 0105110001 | Live chickens for breeding | \$33,895,556 |
| 0204410042 | Frozen mutton carcasses | \$33,748,239 |



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|-------------|---------------------------------------|--------------|
| 0303690031 | Frozen hoki (excl fillets) | \$32,566,561 |
| 0402290019 | WMP sweetened (>1.5% fat) | \$31,568,918 |
| 0204430001 | Boneless frozen lamb | \$31,170,097 |
| 2105005900 | Ice cream | \$29,836,154 |
| 0808100069 | Apples (other) | \$29,352,462 |
| 0504000059 | Sheep & lamb tripe | \$27,539,254 |
| 0307320015 | Frozen mussels (half-shell) | \$26,509,048 |
| 0206290029 | Frozen beef offal (other) | \$24,520,107 |
| 3501100011 | Casein, rennet | \$23,826,279 |
| 3304990019 | Skincare prods (not in aerosol) | \$23,192,757 |
| 4703210009 | Bleached chemical woodpulp | \$22,961,981 |
| 01502100010 | Tallow | \$22,876,746 |
| 0402290001 | WMP sweetened (>1.5% fat) for infants | \$21,824,438 |

SOURCE: GLOBAL TRADE ATLAS

NOTE: * THESE ARE THE AUTHOR'S ABBREVIATIONS OF VERY LONG AND DETAILED HS10 DESCRIPTIONS. THE FULL DESCRIPTIONS ARE AVAILABLE ON REQUEST.

