Economic effects of escalating tariffs

Executive summary

- There is a range of mechanisms through which tariffs impact tariff-imposing countries, tariff-targeted countries and the rest of the world (overleaf).
- An escalation in tariffs between the United States and China will negatively affect global growth.
- In the short run, tariffs are likely to disrupt global supply chains, and could reduce confidence, leading to a reduction in spending, particularly investment.
  - There is significant uncertainty around the magnitude of these effects.
- In the medium to long run, once supply chains have readjusted and confidence effects have receded, the tariffs are expected to have only a modest ongoing effect on global economic output.
  - However, any slowdown in global technological development, adoption or diffusion could have substantial compound effects in the long run.
- GDP growth in Australia will also be affected by lower global growth, particularly given the US and China are two of our largest trading partners.
  - A key mechanism through which lower global growth affects Australia is through lower commodity prices, which will reduce our national income.
  - Increased uncertainty and reduced confidence is also likely to affect economic activity in Australia.
  - However, there are a number of features of the Australian economy that help to mitigate the effect of negative shocks, including the flexible exchange rate, automatic stabilisers and our competitiveness as a producer of commodities.
- This broad analysis of the effects on the global economy and Australia is supported by insights gained from in-house and external economic modelling (Appendix B).

Key mechanisms

- Imposing tariffs can have both negative and positive effects on an economy. The net impact will depend on a number of factors including whether the country has any market power in world markets and whether targeted countries retaliate.
  - Tariffs increase the cost of imports for the tariff-imposing country. This applies to imports of final consumption goods or services, like cars, as well as imported inputs to production, like steel, which then increases the cost of goods or services made using those inputs.
    - In some cases, it may be possible to source imports from other countries at little to no additional cost. The increase in cost is highest when there is little to no availability of substitutes, either because tariffs are imposed on all imports of a given type or because production is dominated by the country on which tariffs are imposed.
  - Because they raise the cost of imports, import tariffs increase domestic demand for domestically produced goods and services that compete with those imports. However, these domestic industries are less efficient and more costly because they need a tariff to be competitive. In addition, the economy overall is less efficient, because more production occurs in these less-efficient industries. This reduces productivity.
  - But these costs can be offset by a terms of trade effect from increasing tariffs. For some large countries (including the US), the reduced demand for imports that occurs after a tariff increase can lead to an improvement in their terms of trade — that is, their import prices (before tariffs are applied) can fall relative to their exports because they are large enough to influence the world price. This increases national income and can offset the costs of higher tariffs. However, if the targeted countries retaliate, these terms of trade gains disappear and both countries unambiguously lose.
  - To the extent that tariffs slow global technological development, adoption or diffusion, this could have substantial compound effects on economic activity in the long-run.
- Tariffs also affect the country (or countries) that export the goods. Its products are made more expensive in the tariff-imposing country, and therefore face lower demand in that market. The overall effect will depend on what happens to global demand and supply for those products and how easily (and costly) it is for the affected country to redirect its exports to other non-tariff countries.
- Tariffs can affect countries that are not subject to direct tariff actions.
  - Slower growth in countries directly affected by tariffs (both the importing and exporting countries) will reduce demand for imports from the rest of the world.

- : East Asian economies are likely to be particularly affected by the recent tariffs on Chinese production as their supply chains are heavily integrated with those in China.

- On the other hand, as global supply chains adjust, countries can benefit from trade diversion — the reallocation of trade away from exporters affected by tariffs to those not affected.

  - : Some economies, like Vietnam, are likely to gain from tariffs on Chinese production, as some firms will shift production there.

- The short-run effects on other countries depend on the flexibility of their economies and the macroeconomic tools available to withstand an economic shock. Relevant considerations include exchange rate flexibility, the importance of automatic stabilisers and discretionary fiscal policy, and an independent central bank.

- Heightened uncertainty and financial market volatility is another channel through which trade tensions can affect economic growth globally. This will reduce spending, particularly investment, and have flow on effects to employment and productivity.

- While disruptions could potentially be significant in the short run, modelling suggests that, on its own, an escalation in US-China tariffs is not expected to substantially slow global growth in the medium to long term.

  - For the US and China, this direct economic effect will be modest when compared to average recent GDP growth — mostly because trade between the US and China makes up a relatively small part of either economy.

    - : Effects are likely to be concentrated in particular Chinese and US regions and industries, which could be politically sensitive. Additional non-tariff measures could cause additional disruptions.

  - For the rest of the world, the economic effect will be dampened as US-China trade is diverted and capital flows to other countries (See Appendix B: modelling results).

- Australia has close trade and financial links to China, which makes it vulnerable to a slowing in the Chinese economy (see Appendix A). However, there are a number of factors which would help to mitigate the effect on the Australian economy of a slowdown in the Chinese economy, or a significant slowing in global growth.

  - Australia is a relatively competitive producer of commodities like iron ore. This means that in the event of a significant reduction in global demand, other producers would be likely to leave the market first.

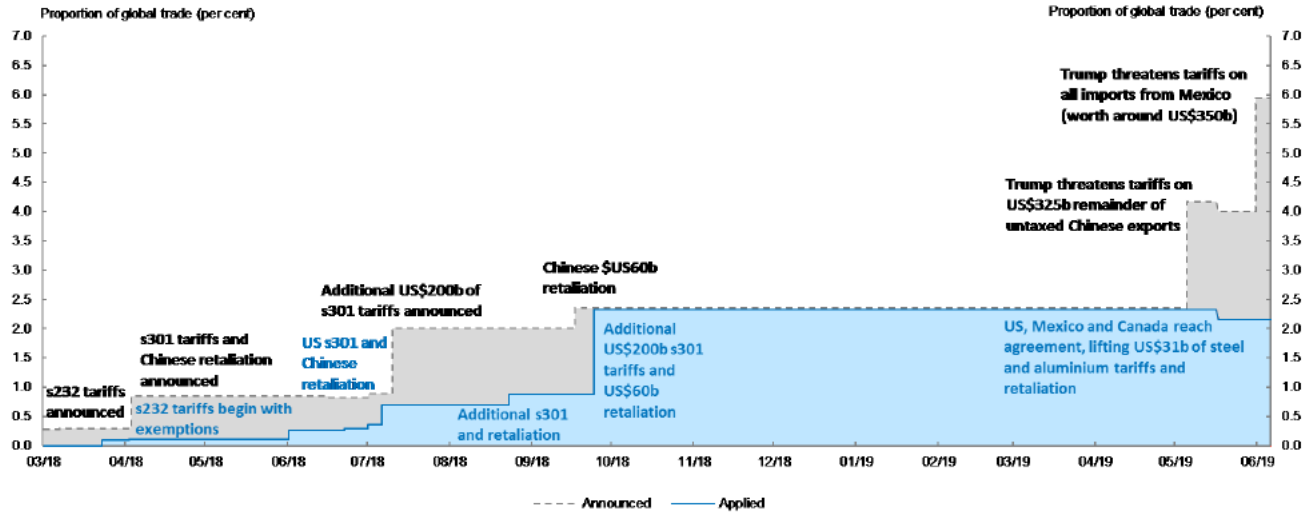
    - : A reduction in global demand for commodities is not the same as a reduction in demand for Australian-produced commodities (for example, by China). In this case, demand would switch towards other commodity producers.

- In markets where Australia is not a major global exporter, Australian exports are diversified by country and not substantially reliant on trade with China. Australia's ability to redirect exports and adjustment of global supply chains will help to mitigate any serious economic impact.
- The Australian economy has shown that it can adjust well to significant global shocks.
    - Features of our economy such as the flexible exchange rate and responsive fiscal policy (including through the automatic stabilisers) will support growth in the short term. A flexible labour market helps support growth in both the short and the long term.
- Modelling supports the conclusion that the Australian economy will not be significantly affected by a substantial increase in tariffs between the US and China in the long run.
    - However, like other economies, the Australian economy is unlikely to be insulated from a significant increase in global uncertainty or a substantial reduction in global growth.

Appendix A: Relevant data

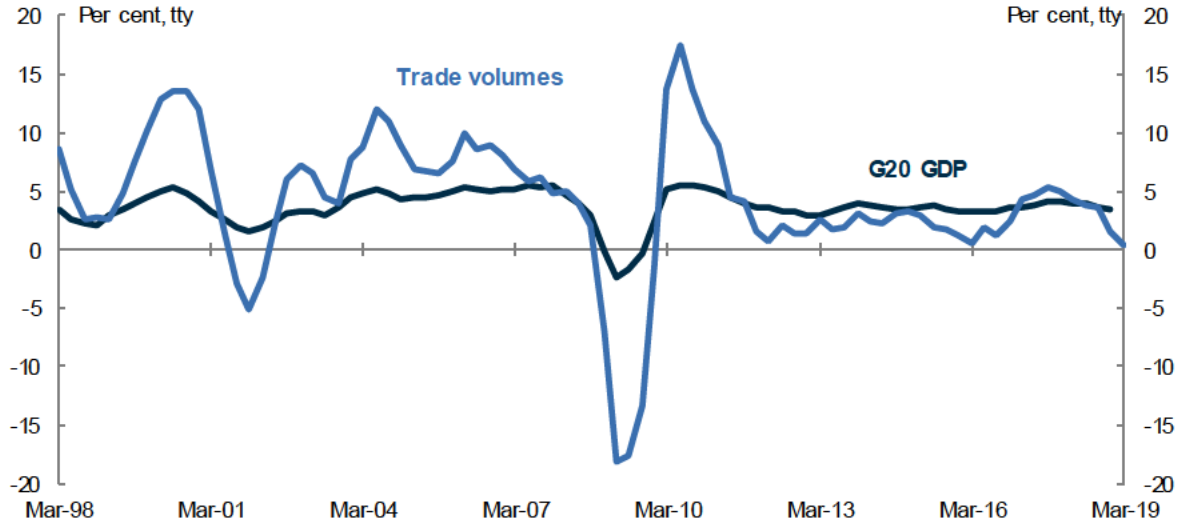
- Recent trade tensions between the US and China have to date had limited effect on the global economy because the current tariffs only apply to around 2 per cent of world trade (Charts 1 and 2).

Chart 1: US China trade war - announced and applied tariffs



- Global trade growth has slowed dramatically since October 2018 (Chart 2). While this partly reflects the direct impact of an increase in tariffs, uncertainty over future trade policy, or other factors such as a downturn in the global electronics cycle are also likely to be playing a role.

Chart 2: G20 GDP and global trade volume growth



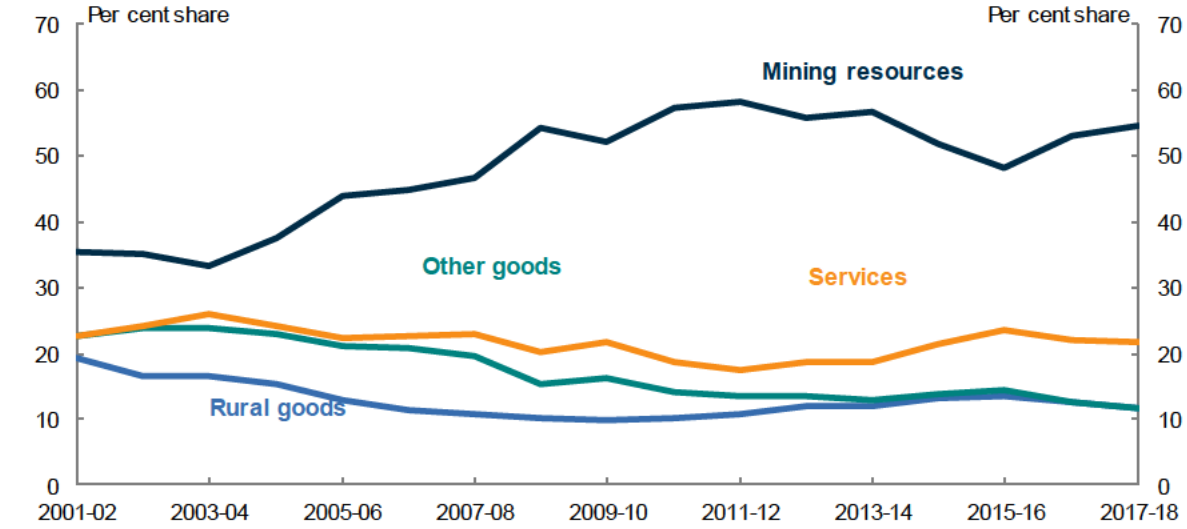
Source: Thomson Reuters Datastream; CPB Netherlands World Trade Monitor; Treasury.

- For plausible US-China tariff escalation scenarios, the overall long-run economic cost is not expected to be large compared to recent GDP growth. This reflects the modest size of US-China trade relative to their overall economies — exports to the US make up around 4.0 per cent of China's GDP, while exports to China make up 0.6 per cent of US GDP.

- Australia is particularly exposed to the Chinese economy and commodity prices, given mining resources account for more than half of Australia's exports (Chart 1).

– Almost one-third of Australia's exports go to China. An even larger share of Australia's commodity exports go there – including around 80 per cent of iron ore exports (Table 1).

Chart 3: Australian exports by category, shares



Source: ABS cat. no. 5368.0; Treasury.

Table 1: Major Australian exports to China and the world (2018)

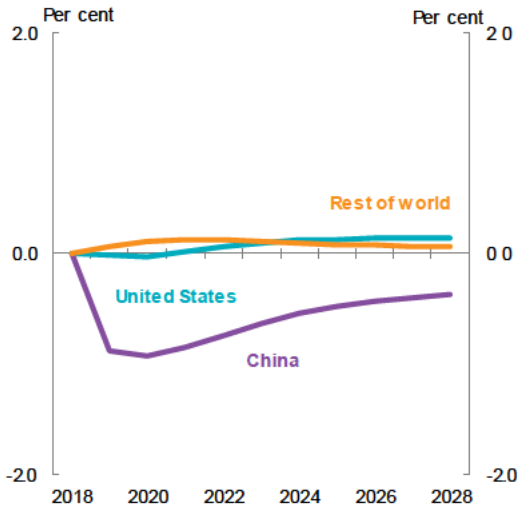
Australian exports to China (2018)	($b)	share of category (%)	Global Australian exports (2018)	($b)	share of total Aus exports (%)
Iron ores & concentrates	51.3	81.2	Coal	66.6	15.2
Coal	14.2	21.3	Iron ores & concentrates	63.2	14.5
Education related travel	11.7	33.2	Natural gas	43.3	9.9
Gold	5.8	30.3	Education related travel	35.2	8.1
Personal travel excluding educatior	4.1	18.5	Personal travel excluding education	22.2	5.1
Wool & other animal hair (incl tops	2.9	73.5	Gold	19.1	4.4
Copper ores & concentrates	2.7	44.4	Aluminium ores & conc (incl alumina	11.3	2.6
Edible products & preparations, nes	1.5	53.4	Other Business services	10.5	2.4
Other ores & concentrates	1.5	42.5	Beef, f.c.f.	8.7	2.0
Crude minerals, nes	1.5	79.5	Crude petroleum	8.1	1.9
Total exports*	**136.3**	**31.2**	**Total exports***	**437.0**	**100.0**

Source: DFAT, ABS cat. no. 5368.0 and 5368.0.55.004 and Treasury
Estimates are on a merchandise trade basis for goods and Balance of Payments for services. Share of category is Australian exports to China of a selected good as a proportion of total Australian exports of that good.
*Official total values have not yet been released by DFAT.

Appendix B: **Economic modelling**

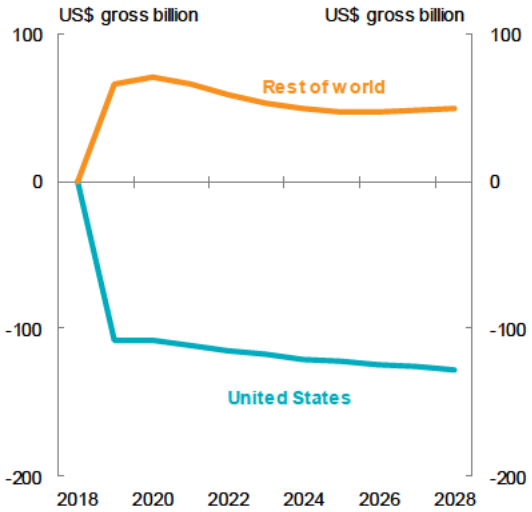
- This broad analysis of the effects on the global economy and Australia is supported by insights gained from in-house and external economic modelling.
  - For illustrative purposes we have modelled a significant tariff increase (by historical standards) on all US-China trade (relative to tariff rates a year ago) that is assumed to be permanent, to assist in understanding the competing effects and assessing orders of magnitude.
  - The modelling does not take into account confidence effects. Elevated uncertainty may reduce spending, particularly investment, which would have flow-on effects to economic activity more broadly.
- Modelling suggests that both US and Chinese GDP will fall in the medium term relative to a scenario with unchanged tariffs, but that the slowdown would be a fraction of expected growth.
  - There is a relatively larger fall in Chinese GNP, because it is more reliant on trade than the US (Chart 5). That said, US exports to China only account for 4.0 per cent of Chinese GDP, limiting the scope for large negative impacts in China.
  - The scenario suggests that China would export fewer manufactured goods to the US (as the US switches to more domestic production) and that China can only sell some of these goods to the rest of the world (including Australia) (Chart 6). The prices of Chinese exports fall relative to imports.
  - Higher costs for imported intermediate inputs increases the cost of production in China and reduces Chinese output and incomes.

Chart 5: Effect on real GNP
(relative to no change in tariffs)



Source: Treasury estimates

Chart 6: Manufactured exports from China
(by destination, relative to no change in tariffs)



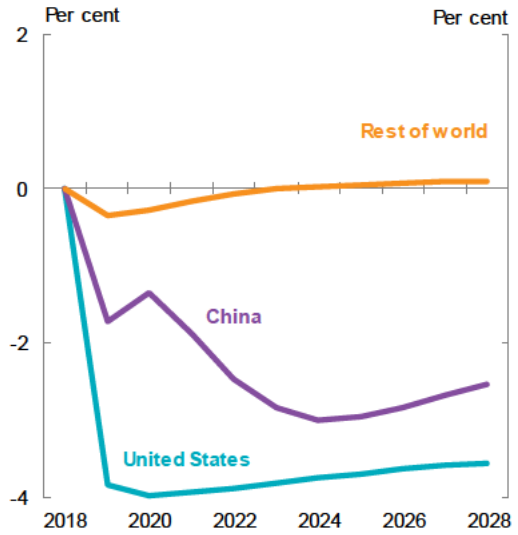
Source: Treasury estimates

  - Unilateral increases in tariffs by the US or China will result in a terms of trade effect, which can partially offset some of these costs. For large countries like the US or China,

the reduced demand for imports that occurs after a tariff increase can lead to an improvement in their terms of trade — that is, their import prices (before tariffs are applied) fall relative to their exports because they are large enough to influence the world price. This increases national income and partially offsets the costs of higher tariffs. However, when accounting for bilateral retaliation, both countries engaged in the trade war unambiguously lose.

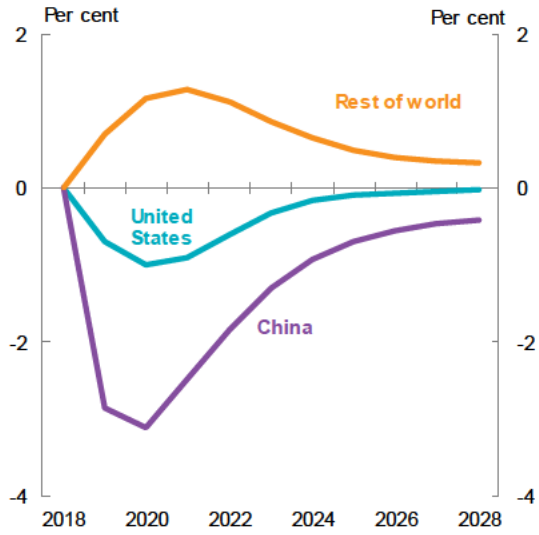
- Modelling suggests that the medium-term impact for Australia of US-China tariff increases, of themselves, will be minimal.
  - **Small reduction in Australian exports after trade diversion.** The reduction in Chinese output leads to a reduction in demand for Australian exports, but some trade is diverted to the rest of the world (particularly in energy markets).
  - **Negligible impact on Australia GDP due to offsetting effects.** The impact on Australian GDP and GNP is close to zero in the medium term. The scenario suggests that the small decrease in exports would be tempered by a reallocation towards domestic production (particularly to manufacturing where Australia now imports less from the US). In the medium term, international capital is invested in Australia (as it is seen as more desirable than the US or China) making labour more productive.
  - **These indicative Treasury modelling results are consistent with the modelling of others, including the IMF.**

Chart 7: Effect on exports
(relative to no change in tariffs)



Source: Treasury estimates

Chart 8: Effect on investment
(relative to no change in tariffs)



Source: Treasury estimates