The Trade Policy Uncertainty Index

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Summary

- Business investment and hiring decisions are expensive and not easy to reverse, so when firms are
 uncertain about the economic outlook and the expected return on investment, the value of waiting and
 holding off investing increases. This, in turn, leads to lower levels of economic activity.
- We were interested in understanding the broader drivers and impacts of trade on New Zealand, including the role of higher levels of global uncertainty. To further examine this, MFAT and the Reserve Bank New Zealand (RBNZ) contracted Sense Partners to build a Trade Policy Uncertainty Index (TPUI).
- The index clearly demonstrates that an increase in trade policy uncertainty decreases investment and slows hiring decisions by firms, leading to lower levels of economic activity. These impacts are not insignficant the index shows trade policy uncertainty due to the early stages of the China-US trade war in 2018 decreased business investment by \$315 million and delayed 2,240 job hires in New Zealand.
- ECO then applied the index to New Zealand's free trade agreements (FTAs) and global regional trade agreements (RTAs), and found that an increased number of FTAs and RTAs were correlated with lower trade policy uncertainty.
- This correlation could be because, as well as opening up market opportunities, streamlining processes and reducing costs, FTAs create more security and certainty for companies doing business overseas.
 They make the trading environment more certain and provide New Zealand with more economic resilience.¹
- The TPUI and accompanying analysis highlights the detrimental effects of heightened trade policy uncertainty on New Zealand firms and workers. This in turn underscores the value of New Zealand's FTA agenda and economic diplomacy in helping to mitigate uncertainty as far as possible.²

Report

Why does uncertainty matter?

Uncertainty reduces economic activity by decreasing business confidence and in this way impact investment and hiring decisions.

Business investment in plant, machinery, building or new staff is expensive and not easy to reverse, so when firms are uncertain about the economic outlook and the expected return on investment, the value of waiting and holding off investing increases. As uncertainty increases investment decreases, leading to lower levels of economic activity, with spillover effect for employment and income among other indicators.

¹ An alternative interpretation is that the number of negotiated FTA agreements may reflect a positive global environment with reduced uncertainties. This environment is conducive to both increased business investment and hiring decisions, and the negotiation of FTA agreements. FTA agreements could be a signal of the broader global environment.

² Even if a positive global environment is conducive to the signing of FTAs, FTAs still provide value by creating more security and certainty for companies doing business overseas.

What about trade policy uncertainty?

Exporting and importing firms will assess international conditions prior to making business decisions. The prospects of higher and less predictable trade barriers on goods and services, and tensions around global trading conditions (i.e. Trade Policy Uncertainty) will affect those decisions.

Trade policy uncertainty also increases uncertainty around the costs of inputs, forcing firms to think about the substitutability of supply chain inputs. COVID-19 highlighted this risk.

How can we measure trade policy uncertainty?

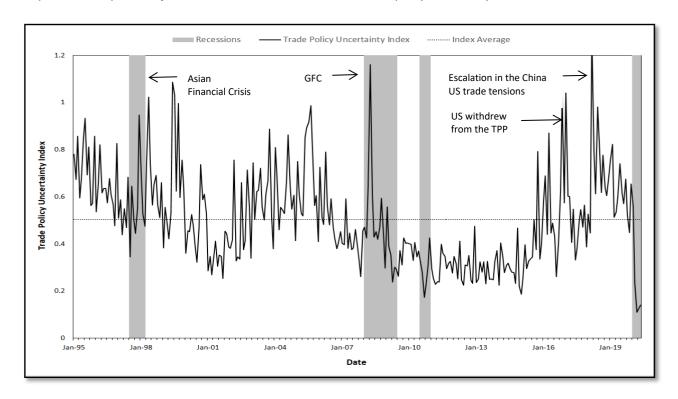
Trade policy uncertainty is almost by definition unobserved, so proxies are required to measure the uncertainty experienced by firms. The TPUI achieves this by creating a text-based measure of uncertainty. They divided the number of media articles with a predefined set of trade policy uncertainty terms³ by the total number of articles published in New Zealand. This approach has previously been taken overseas. Baker, Bloom and Davies 2016 led the way, showing how an index constructed from newspaper articles back to 1987 persuasively captures key moments of economic uncertainty in US history.

The TPUI includes both direct uncertainty (e.g. changes in trade barriers between New Zealand and our trade partners) and indirect trade policy uncertainty (e.g. changes in trade policy agreements between third parties, such as China and the United States).

Figure 1 shows that the peaks in the TPUI match key events in New Zealand's economic and trade history. The index peaked in January 1998 on the back of the Asian Financial Crisis, in September 2008 when Lehman Brothers failed expanding the financial crisis into a global banking crisis, in January 2017 when the US withdrew from the Trans-Pacific Partnership and in July 2018 during an escalation in the China-US trade war.

Figure 1 Trade Policy Uncertainty Index

The TPUI is shown alongside the index average and shaded grey bands representing periods of recession. An index value of one represents one percent of stories contain terms that meet the trade policy uncertainty criteria.



³ Foreign competition, protectionism, tariff, import duty, import barrier, trade treaty, trade policy, trade act, import fee, tax (within ten words of foreign good, foreign oil or import), import and trade agreement.

Using the TPUI Sense Partners linked an increase in trade policy uncertainty with decreased investment and hiring decisions (over the period examined) using some simple macroeconomic models.

On average, 1 in 200 news articles met Sense Partner's Trade Policy Uncertainty criteria. When this increased to around 1 in 160 articles, investment fell by about 1 percent and hiring decreased by between 0.5-0.6 percent.

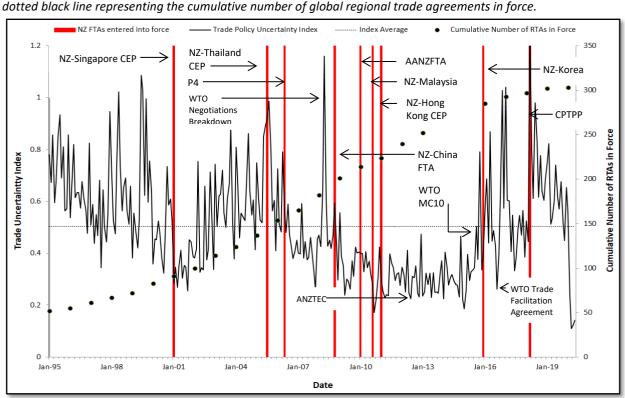
These are not small impacts. The TPUI suggests the three month peak of the trade war between China and the United States in 2018 resulted in a \$315 million decrease in investment and delayed 270 public sector hiring decisions and 1,970 private hires in the New Zealand economy.

So what can we do about trade policy uncertainty?

Figure 2 shows a correlation between an increase in FTAs and RTAs and lower trade policy uncertainty. New Zealand experienced a decline in trade policy uncertainty when the New Zealand-Thailand Closer Economic Partnership entered into force in July 2005, until the end of last US presidential cycle in November 2016. That sustained period of low trade policy uncertainty (2005 - 2016) aligns with seven of New Zealand's nine FTAs entering into force, and the fastest increase in the number of cumulative RTAs in force globally.⁴ An increase in FTAs and RTAs thus appear to correlate with lower trade policy uncertainty.

Figure 2 Trade Policy Uncertainty Index and New Zealand's FTAs

The TPUI is shown alongside shaded red bands representing New Zealand's free trade agreements entering into force, and a datted black line representing the sumulative number of global regional trade agreements in force.



This chart – and Sense Partners' modelling of the impacts of uncertainty on business decisions – underscore the value of New Zealand's FTA negotiations and economic diplomacy work in reducing uncertainty for New Zealand business where possible. Free trade and regional trade agreements open up market opportunities, streamline processes, reduce costs and create more security and certainty for companies doing business overseas. By doing so, they make the trading environment more certain.

⁴ It was also a very quiet period for multilateral reforms in the WTO, which would have reduced the number of articles with trade policy uncertainty terms.

In summary

The TPUI and accompanying analysis highlight the detrimental effect that heightened trade policy uncertainty have on New Zealand firms and workers. This in turn underscores the value of New Zealand's FTA agenda and economic diplomacy in reducing uncertainty where it can. A key driver of MFAT's work – whether directed to multilateral, regional or bilateral initiatives – has been to build resilience for our export community by giving them more markets with which they can trade on an easier, less costly and more predictable basis. This optionality also reduces uncertainty by reducing the risks of exposure to any one market or region.

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