

CHINA ECONOMIC UPDATE JUNE 2019



Can China weaponise rare earths to open a new front in the trade war?

NAB Group Economics

Rare earth minerals are a small share of US-China trade, but it has been suggested that the threat of a Chinese export ban could provide China some leverage in the current trade dispute. The US is highly dependent on imports to meet its rare earth needs – which include high tech applications – theoretically exposing the country to some considerable pain, despite the modest scale of trade.

US-CHINA TRADE TENSIONS RETURN

Last month the trade tensions between the US and China re-escalated, counter to the earlier expectations (as recent as April this year) of an imminent deal that would resolve the dispute between the two countries. On 5 May, The United States announced that it would increase the rate of the tariffs on around US\$200 billion worth of Chinese exports from 10% to 25% (the second phase of trade measures introduced) and start the process of implementing a third phase, that would result in virtually all Chinese exports to the US coming under tariffs.

One segment of Chinese exports not included in the US Trade Representative's list (and would therefore not be subject to tariffs) is rare earth minerals. Although it is a tiny fraction of trade between the two countries, worth around US\$130 million in 2018, these materials have a vital role in a range of high tech products, and there has been speculation that China could introduce export restrictions in retaliation to increased US tariffs.

CHINA'S DOMINANT ROLE IN THE RARE EARTHS INDUSTRY

Rare earths are a group of seventeen metals with a wide range of applications – including permanent magnets (used in electric motors), electronics (particularly displays and batteries) and oil refining. Despite the name, the most common of the rare earth minerals, cerium, is more abundant in the earth's crust than copper. That said, it is unusual for rare earths to be sufficiently concentrated in reserves that are economic to mine.

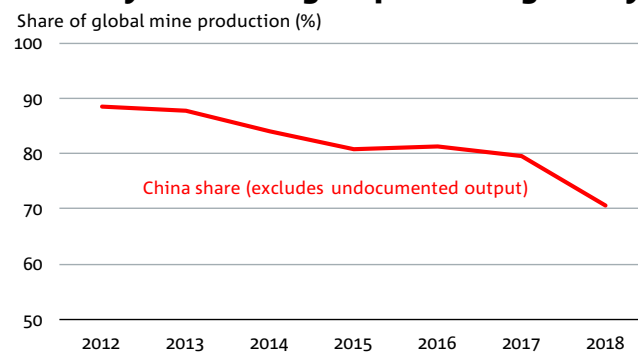
China is home to a sizeable share of these economic reserves. According to the US Geological Service (USGS), China accounts for over one-third of global

reserves, roughly twice the stock of the equal second largest countries, Brazil and Vietnam.

Despite this distribution, China dominates rare earth mineral production. According to USGS data, China accounted for over 70% of global mine production – an estimate that they note may not fully capture the share, given evidence of substantial unapproved rare earth mining operations, with some suggesting that it could be as high as 95% of supply.

RARE EARTH MINING

China by far the largest producer globally



Source: USGS, NAB Economics

Finally, China has come to dominate the refining industry. In part this reflects the challenging nature of the industry – as these processes produce a considerable amount of toxic waste – limiting the appetite of producers to establish facilities in countries with stricter environment controls. According to rare earth research service Adamas Intelligence, China accounts for around 85% of global refining capacity.

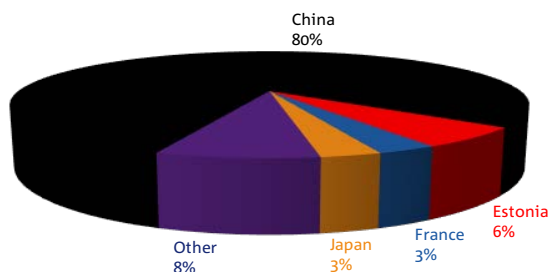
The result of this that the United States is highly dependent on China as a source of refined rare earth minerals – with the USGS estimating that around 80% of US imports between 2014 and 2017 were sourced

from China, with the imports from other sources also relying on China to some degree.

US RARE EARTH IMPORTS

China controls the dominant share

Source of US rare earth imports - 2014-17 (%)



Source: USGS, NAB Economics

WILL CHINA WEAPONISE RARE EARTHS?

Much was made of President Xi's visit to a rare earths processing plant in Jiangxi province in mid-May, with observers suggesting that China may seek to "weaponise" rare earths trade. This view was supported by comments from an unnamed spokesperson for the National Development and Reform Commission quoted in the People's Daily in late May. So far there has been no official announcements regarding the restriction rare earth exports to the United States, reports from state owned media suggest that the Government is seriously considering it. That said, China's rare earth export volumes fell by around 16% yoy in May although it may be too soon to see any actual measures in the trade data.

This would not be the first time that China has used the rare earth trade as a political weapon. In 2010, China restricted exports to Japan following a maritime dispute between the two countries, however these measures were removed following a negative World Trade Organisation ruling.

CONCLUSIONS

The range of market responses to the potential rare earth restrictions have been somewhat extreme – ranging between views that these measures could have a powerful impact on the US economy, to those that suggest there will be minimal pain as non-Chinese supply grows in response. The former view arguably overlooks both existing stockpiles of these products (which may limit the impact in the short term), the potential to reduce consumption of some rare earth products in key uses and potential alternative products in many applications (which are generally less efficient but may be suitable until supplies are guaranteed).

In contrast, the latter view has arguably overstated the potential for a rapid supply response from non-Chinese sources. The 2010 dispute with Japan triggered an increase in rare earth mineral exploration and a number of deposits were discovered. The largest of these, located in Japanese territorial waters in the Pacific, reportedly has over 700 years of global supply (at current usage rates) but at around 6000 metres below sea-level is not practical to bring to production given current technology. More generally, Adamas Intelligence note that it takes around ten years to progress from discovering a deposit to a productive mine. Further, this overlooks the necessary investment required to build non-Chinese refining capacity.

We would argue that the truth probably lies somewhere in the middle – that the potential negative impacts of export restrictions are too small to significantly impact the United States, but also that China's dominant position in rare earths supply is unlikely to be challenged in the short term. While the hope in China may be that the pain inflicted by restrictions on high tech US industry may increase domestic lobbying to reduce or eliminate US trade measures, the recent protectionist trend – potentially expanding to Mexico and India – suggests that this may be unlikely.

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