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The Economy & Finance

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Analysis of the Economic Impact of International Diplomatic Conflicts in Australia. By Bruno Giora and Kshitij Gupta



**DIPLOMATIC CONFLICTS**

This report provides a descriptive analysis of the correlation between international diplomatic conflicts and a country's economy, with a special emphasis on Australia. Due to the descriptive nature of this report, it is structured differently due to its largely analytical nature, especially in data analysis. This section will provide an overall view of the research conducted in this report regarding the impacts that international power struggle events have in economies as well as some financial markets. This will be done in the form of a meta-analysis of several research articles related to the topic and a case study that investigates the trade sanctions implemented by China on Australian products in 2020 and attempts to explain the reasons behind the impacts found

- Understanding the causal links between the political conflicts and trade and financial markets to indicate the impacts on economies.
- Meta-analysis of more than twenty papers to recognise the actual effects of international security events on market returns, bond yields and volatility in the market.
- Relevance of diversification of Australian exports in the country's capacity to withstand the trade sanctions
- Explanation of the importance of the Coal sector as the main cause of a decrease in China destined export revenue in Australia
- Potential reasons as to why Australia did not suffer economic consequences that would be considered too severe to the country's economic and financial health

## **International power dynamics affecting the international trade and the financial markets**

**With international political conflict rising in the previous years, it remains important to analyse how it affects the trade between countries from an economic perspective**

- There has been growing evidence that the shocks to relations are highly persistent and frequently cause changes in trade <sup>1</sup>
- However, the relations are much less affected by trade and the stability of financial markets itself <sup>2</sup>
- A study finds that the US-China trade war reduced U.S. investment growth by 0.3 percentage points by the end of 2019, and it was expected to shave another 1.6 percentage points off of investment growth by 2021 <sup>3</sup>

**Meta-Analysis of the effects of international conflicts and events on the financial markets - Increased market volatility, but exact (long-term) impact vary and appear to depend on a series of factors**

- After performing an extensive meta-analysis, we highlight that there is an increased amount of volatility in the markets however, the exact impact remains contingent on the nature of different factors such as scale of the impact, countries' stock markets etc.
- Chen and Siems observe the U.S. markets' response to fourteen international attacks but find no indication of lowered market returns.<sup>4</sup> which

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<sup>1</sup> Park, JS & Newaz, MK 2018, 'Do terrorist attacks harm financial markets? A meta-analysis of event studies and the determinants of adverse impact' *Global Finance Journal*, vol. 37, pp. 227-247.

<sup>2</sup> Hiscox, MJ (2002) *International Trade and Political Conflict: Commerce, Coalitions, and Mobility*. Princeton University Press, Oxford.

<sup>3</sup> Author, B. (2021). *The Investment Cost of the U.S.-China Trade War*. Liberty Street Economics. <https://libertystreeteconomics.newyorkfed.org/2020/05/the-investment-cost-of-the-us-china-trade-war/>

<sup>4</sup> Chen, A. H., & Siems, T. F. (2004). The effects of terrorism on global capital markets. 21 *European Journal of Political Economy*, 20(2), 349–366. <https://doi.org/10.1016/j.ejpoleco.2003.12.005>

they explain by indicating that US financial markets are more liquid and flexible hence, it can recover much quicker than other states' financial markets

- Moreover, it has been observed that the foreign exchange markets are the most volatile in comparison to the bond and stock markets - hence deteriorating international relations are the most harmful to their terms of trade.
- Research is more conclusive when investigating individual events (such as terrorist attacks). Market returns, on average, seem to be considerably negative following these kind of events such as the events on September 11th or the Madrid train bombings in 2004<sup>5</sup>. Additional research indicates similar results when analysing a wider series of events <sup>6</sup>

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<sup>5</sup>Johnston, R. B., & Nedelescu, O. M. (2005). The impact of terrorism on financial markets: An empirical study. *Journal of Banking and Finance*, 13(1), 7–25. <https://doi.org/10.1016/j.jbankfin.2010.07.026>

<sup>6</sup>Chesney, M., Reshetar, G., & Karaman, M. (2011). The impact of terrorism on financial markets: An empirical study. *Journal of Banking and Finance*, 35(2), 253–267. <https://doi.org/10.1016/j.jbankfin.2010.07.026>

## **Australia as a Case Study - Impact of trade power dynamics between China and Australia**

### **A series of negative impacts on Australian trade balance caused by the sanctions implemented by China<sup>7</sup>**

- In 2020, China starts introducing trade sanctions on Australian products after Australia supported an international enquiry to investigate the origins of the new coronavirus
- Sanctioned products involve: Barley, wine, beef and lamb meat, cotton, lobsters, timber and coal.<sup>8</sup> Different kinds of sanctions were imposed overall including anti-dumping duties and overall tariffs.
- During 2020, Australia also conducted several anti-dumping investigations on Chinese products, and in some cases concluded that this is was indeed the case <sup>9</sup>
- The trading relationships with China in regards to the targeted products generated a revenue of \$25 billion in 2019, which is around 1.3% of Australian GDP.<sup>10</sup> In January 2021, the markets were worth under \$5.5 billion
- Coal was the leading cause of major losses on export revenue to China

### **Australia managed to diversify its trading portfolio considerably**

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<sup>7</sup> Tan, Su-Lin (2020) 'What happened over the first year of the China-Australia trade dispute?' *South China Morning Post*, October 28<sup>th</sup>, 2020. <https://www.scmp.com/economy/china-economy/article/3107228/china-australia-relations-what-has-happened-over-last-six>

<sup>8</sup> Sullivan, K. (2020) 'China's list of sanctions and tariffs on Australian trade is growing. Here's what has been hit so far' *ABC News - Rural*, December 16<sup>th</sup>, 2020. <https://www.abc.net.au/news/2020-12-17/australian-trade-tension-sanctions-china-growing-commodities/12984218>

<sup>9</sup> Tan, Su-Lin (2020) 'What happened over the first year of the China-Australia trade dispute?' *South China Morning Post*, October 28<sup>th</sup>, 2020. <https://www.scmp.com/economy/china-economy/article/3107228/china-australia-relations-what-has-happened-over-last-six>

<sup>10</sup> Rajah, R. (2020) 'The big bark but small bite of China's trade coercion' *The Interpreter – The Lowy Institute*, April 8<sup>th</sup>, 2020. <https://www.loyyinstitute.org/the-interpreter/big-bark-small-bite-china-s-trade-coercion>

- Exports to the rest of the world increased by very similar figures as those shown by the decrease in exports to China<sup>11</sup>
- In fact, in the last months of 2020, the Australian overall trade balance showed a return to numbers close to pre-pandemic levels<sup>12</sup>
- Monthly percentage change on overall Coal export revenue remained at steady levels and did not show significant negative results when the same statistic dropped significantly when looking specifically at trade with China<sup>13</sup>

### **Australia seems to not have suffered too much from trade sanctions and anti-dumping duties placed by China**

- Economists have theorised that this is due to 2 major factors:
  1. China did not touch iron ore trade, which is something China is highly dependent on Australian imports.
  2. The products sanctioned by China are products to which there is a high number of international buyers. Australian producers have been able to adapt and still sell their products to other competitive markets <sup>14</sup>
- Chinese equity investments in Australia also decreased over 50% from over A\$2.6 million to a little over A\$1 million<sup>15</sup>. This is likely due to the conditions that diplomatic relations between the two countries found itself in 2020

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<sup>11</sup>Rajah, R. (2020) 'The big bark but small bite of China's trade coercion' *The Interpreter – The Lowy Institute*, April 8<sup>th</sup>, 2020.

<https://www.lowyinstitute.org/the-interpreter/big-bark-small-bite-china-s-trade-coercion>

<sup>12</sup> Australian Bureau of Statistics (2022) 'International Trade in Goods and Services, Australia' <https://www.abs.gov.au/statistics/economy/international-trade/international-trade-goods-and-services-australia/latest-release#goods-and-services-debits-imports-seasonally-adjusted>

<sup>13</sup> Australian Government – Department of Foreign Affairs and trade (2020) 'Trade statistical pivot tables' <https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>

<sup>14</sup> Rajah, R. (2020) 'The big bark but small bite of China's trade coercion' *The Interpreter – The Lowy Institute*, April 8<sup>th</sup>, 2020.

<https://www.lowyinstitute.org/the-interpreter/big-bark-small-bite-china-s-trade-coercion>

<sup>15</sup> Chinese Investment in Australia Database (2020) '2014-2020 equity data summary' <https://chiia.eaber.org/data/>

- Event study conducted on the Australian stock market does not show any abnormal returns in the period where China first announced trade sanctions. Study was conducted on 10 major Australian stock market indices

## **Analysis**

This section will attempt to provide some information on the impact that events regarding international power dynamics such as trade wars and security matters can affect the economy and overall financial markets.

The use of the China, Australia trade war is to provide a case study to investigate the effectiveness of the implementations of economic sanctions as a way for countries to influence others. The idea is to provide some information on the impact that trade sanctions had on the Australian trade balance and even the stock market (this will be in the form of an event study)

Some background into the trading relations between China and Australia in order to investigate whether the trading sanctions in this particular case, made a significant impact on the Australian economy. The main point of this section is to analyse trade data from the sectors affected by the tariffs and even bans the Chinese government implemented on Australian goods.



EXPORTS

IMPORTS

TARRIF

ANTI-DUMPING SANCTIONS

TRADE SANCTIONS

SUPPLY CHAIN

TARGETING

SUPPLY CHAIN

TARRIF

NON-TARRIF BARRIER

TARRIF

TARRIF

NEW TARRIF

NEW DUTIES

NON-TARRIF BARRIER

## **International power dynamics affecting the international trade and the financial markets**

Over the past decades, the modern world has changed immensely by the activities of globalisation and economic integration. The increased division of labour along with the internationally distributed supply chains have led to a global phenomenon of production and shipping, which has, in turn, increased global economic connectivity.<sup>16</sup> It can be best exemplified by the robust supply chain of Apple Inc. - where the touch ID is created in Taiwan, the accelerometer in Germany, assembled in the Czech Republic and finally sold in the Indian markets. Similarly, numerous companies around the world have set up production hubs in different parts of the world to exploit the comparative advantages of the regions in order to create ingenious products.

However, the increasing political tensions such as trade wars, terrorist attacks, and armed conflicts over the world pose a threat towards increased economic integration.<sup>17</sup> The interconnections between politics, economy, and financial markets have been studied over a long period of time - much of the recent literature represents a clear heterogeneity between them.<sup>18</sup> Some international security events driven by political conflicts have adversely affected the financial markets – in some cases, even leading to them shutting down for multiple days – while some have not affected the markets.

In this report, we aim to highlight the effects of international power dynamics on the economy and financial markets, followed by a meta-analysis of the effects of drastic international events on the markets and a case study on Australia and China.

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<sup>16</sup> Krugman, P, Obstfeld M, Melitz M (2014) International Economics: Theory and Policy. Pearson.

<sup>17</sup> Witt, M. A. (2019). De-globalization: Theories, predictions, and opportunities for international business research. *Journal of International Business Studies*, 50(7), 1053–1077.  
<https://doi.org/10.1057/s41267-019-00219-7>

<sup>18</sup> Whitten, G., Dai, X., Fan, S. *et al.* Do political relations affect international trade? Evidence from China's twelve trading partners. *J. shipp. trd.* 5, 21 (2020). <https://doi.org/10.1186/s41072-020-00076-w>

The recent rising international conflict between different countries reveals the inner fragilities in the international trade sector. Such political tensions can potentially hamper all aspects of economic integration such as investment, supply chain, and trade.<sup>19</sup> Hence, there has been widespread concern over the possibility of major events such as the potential delinking of China from the global supply and trade chains, the invasion of Ukraine by the Russian troops, and many other such instances.<sup>20</sup>

Moreover, as we emphasised the effects of politics on trade, the recent activities illustrate that causality can run either way – there could be adverse impacts of trade on politics.<sup>21</sup> Poor political relationships can be regarded as an effective non-tariff trade barrier. Racial hatred, mutual distrust, unresolved historical tensions, and long-standing political disagreement drive two countries apart, thereby presenting a hidden transaction cost or even an insurmountable obstacle for them to build economic interconnectedness. The recent studies suggest that the power dynamics between countries affect the collective emotions of consumers and trading companies hence, impacting the relationships between importers and exporters.<sup>22</sup> Further, it has increasingly been seen that better relations between countries lead to larger increases in trade while political tensions have the opposite effect.<sup>23</sup>

Taking a closer look at the financial markets, the report's authors analyse the major impacts of international conflicts and security events on them by undertaking a meta-analysis of the events study research. It is important to undertake this

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<sup>19</sup> Olivero, M. P., & Yotov, Y. V. (2012). Dynamic gravity: endogenous country size and asset accumulation. *Canadian Journal of Economics/Revue Canadienne d'économie*, 45(1), 64–92. <https://doi.org/10.1111/j.1540-5982.2011.01687.x>

<sup>20</sup> Whitten, G., Dai, X., Fan, S. *et al.* Do political relations affect international trade? Evidence from China's twelve trading partners. *J. shipp. trd.* **5**, 21 (2020). <https://doi.org/10.1186/s41072-020-00076-w>

<sup>21</sup> Hiscox, MJ (2002) *International Trade and Political Conflict: Commerce, Coalitions, and Mobility*. Princeton University Press, Oxford.

<sup>22</sup> von Scheve, C., & Ismer, S. (2013). Towards a Theory of Collective Emotions. *Emotion Review*, 5(4), 406–413. <https://doi.org/10.1177/1754073913484170>

<sup>23</sup> He, Yinghua & Nielsson, Ulf & Wang, Yonglei, 2017. Hurting without hitting: The economic cost of political tension, *Journal of International Financial Markets, Institutions and Money*, Elsevier, vol. 51(C), pages 106-124.

approach because despite the common belief of detrimental international security events leading to lower prices and creating uncertainty about the near future with a volatile environment in the markets – it has not received much attention from academics and policymakers.<sup>24</sup> With the increasing geopolitical risks, it becomes even more crucial to analyse such events to understand their effects on the global economy and financial markets.

Surveying the individual episode, Karolyi surveyed the earlier research focusing on single attacks such as 9/11 and concluded that the attacks are clearly associated with abnormal negative market returns.<sup>25</sup> Similarly, a paper by Johnston and Nedelescu used linear regression models to conclude that the 9/11 and Madrid attacks of 3/4 had adversely affected the financial markets of 14 countries.<sup>26</sup> Chesney et al. attempted to investigate 79 international attacks from 25 countries, by using multivariate regression models to show that nearly 70% of attacks decreased the returns in markets of at least one country.<sup>27</sup>

It also needs to be understood that the scale of the impact can be different depending on the specific characteristics of countries' stock markets and the international security attacks as highlighted by Eldor and Melnick.<sup>28</sup> Moreover, the overall impact on the economy is seen to be negative, and the targeted attacks on

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<sup>24</sup> Park, J. S., & Newaz, M. K. (2018). Do terrorist attacks harm financial markets? A meta-analysis of event studies and the determinants of adverse impact. *Global Finance Journal*, 37, 227–247. <https://doi.org/10.1016/j.gfj.2018.06.003>

<sup>25</sup> Karolyi, George Andrew, *The Consequences of Terrorism for Financial Markets: What Do We Know?* SSRN Working Paper Series, May. Retrieved from <https://ssrn.com/abstract=904398>

<sup>26</sup> Johnston, R. B., & Nedelescu, O. M. (2005). The impact of terrorism on financial markets: An empirical study. *Journal of Banking and Finance*, 13(1), 7–25. <https://doi.org/10.1016/j.jbankfin.2010.07.026>

<sup>27</sup> Chesney, M., Reshetar, G., & Karaman, M. (2011). The impact of terrorism on financial markets: An empirical study. *Journal of Banking and Finance*, 35(2), 253–267. <https://doi.org/10.1016/j.jbankfin.2010.07.026>

<sup>28</sup> Eldor, R., & Melnick, R. (2004). Financial markets and terrorism. *European Journal of Political Economy*, 20(2), 367–386. <https://doi.org/10.1016/j.ejpoleco.2004.03.002>

a specific company or an industry disproportionately affect the share prices of the respective entities.<sup>29</sup>

It is observed during the meta-analysis that there is an increased emphasis on the market returns, whereas the studies on the volatility of markets are much rarer. The ones that do utilise the required volatility regression models indicate that international security events such as terrorist attacks lead to increased market volatility. One such study is done by Arin et. al that shows that terrorist attacks predominantly lead to a destabilisation in the markets, which may last longer than a week.<sup>30</sup>

Clearly, a lot of literature indicates the negative response of markets to international political conflicts, but in contrast, other research papers strongly argue that adverse impacts do not always occur. For instance, Chen and Siems observe the U.S. markets' response to fourteen international attacks but find no indication of lowered market returns.<sup>31</sup> They provide a credible explanation that financial markets in the US are more liquid and flexible hence, it can recover much quicker than other states' financial markets. This explanation also applies to the UK markets in comparison with the much more illiquid Spanish financial markets. In reference to the 9/11 attacks, Brounm and Derwall find mild and brief impacts and Kollias et al. propose the idea that market reactions depend on specific attributes of the individual attacks.<sup>32</sup> Focussing on the extensive foreign exchange

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<sup>29</sup> Karolyi, G. A., & Martell, R. (2006). Terrorism and the stock market. *International Review of Applied Financial Issues and Economics*, 2(2), 285–314. <https://doi.org/10.2139/ssrn.823465>

<sup>30</sup> Arin, K. P., Ciferri, D., & Spagnolo, N. (2008). The price of terror: The effects of terrorism on stock market returns and volatility. *Economics Letters*, 101(3), 164–167. <https://doi.org/10.1016/j.econlet.2008.07.007>

<sup>31</sup> Chen, A. H., & Siems, T. F. (2004). The effects of terrorism on global capital markets. *21 European Journal of Political Economy*, 20(2), 349–366. <https://doi.org/10.1016/j.ejpoleco.2003.12.005>

<sup>32</sup> Kollias, C., Manou, E., Papadamou, S., & Stagiannis, A. (2011). Stock markets and terrorist attacks: Comparative evidence from a large and a small capitalization market. *European Journal of Political Economy*, 27(SUPPL. 1), S64-S77. <https://doi.org/10.1016/j.ejpoleco.2011.05.002>

markets, Narayan et al. conclude diverse impacts on the appreciation and depreciation of currencies.<sup>33</sup>

From the meta-analysis, we observe that there is clear heterogeneity in the findings from the results. It is believed that the contrasting evidence reflects the lack of comprehensive research on a large number of attacks and their impacts on financial markets. This represents that such research is still in its infancy despite the hundreds of attacks happening globally each year, however, more developing and evolving.<sup>34</sup> The meta-analysis is also indicative of the fact that studies on valuations of foreign exchange and bond yields are rare.

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<sup>33</sup> Narayan, P. K., Narayan, S., Khademalomoom, S., & Phan, D. H. B. (2017). Do terrorist attacks impact exchange rate behavior? New international evidence. *Economic Inquiry*, 56(1), 547–561. <https://doi.org/10.1111/ecin.12447>

<sup>34</sup> Park, J. S., & Newaz, M. K. (2018b). Do terrorist attacks harm financial markets? A meta-analysis of event studies and the determinants of adverse impact. *Global Finance Journal*, 37, 227–247. <https://doi.org/10.1016/j.gfj.2018.06.003>

**TRADE BALANCE**

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## Impact on Australian trade balance sheets

After the insight into the overall literature surrounding how events related to international diplomatic and security impact economies and the financial market, this next section will use the China trade war with Australia as a case study on which to focus our policy recommendations.

Firstly, it is important to explain the ‘timeline’ of events and which goods were terrified. In April of 2020, the Australian government led an international effort from a few countries to call for a coronavirus inquiry after the initial outbreak of Covid-19 in China. The first trade sanction was implemented in May 2020 on barley. In the following months, tariffs were implemented on wine, beef and lamb meat, cotton, lobsters, timber, and coal.

China in the period of 2018-2019 was Australia’s main trade partner, representing over 30% of all exports<sup>35</sup>. It is estimated that this particular market, represented roughly AUD 25 billion to the Australian trade balance sheet (all tariffed goods included) in 2019. The Lowy Institute shows that by the time 2021 arrived, these goods represented a little under AUD 5.5 billion<sup>36</sup>. Which is an incredibly substantial drop. It is important to note that a large portion of this crash has been hypothesized to be a consequence of the Covid-19 pandemic and not exclusive to the trade sanctions. Graph 1, shows historical data on the value of goods exported from Australia to China between July of 2018 and December 2020<sup>37</sup>. An important note should be made regarding the coal industry, which was by far, the biggest export out of all sanctioned goods.

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<sup>35</sup> Australian Government – Department of Foreign Affairs and trade (2020) ‘Trade and investment at a glance 2020’

<https://www.dfat.gov.au/publications/trade-and-investment/trade-and-investment-glance-2020#exports>

<sup>36</sup> Rajah, R. (2020) ‘The big bark but small bite of China’s trade coercion’ *The Interpreter – The Lowy Institute*, April 8<sup>th</sup>, 2020.

<https://www.lowyinstitute.org/the-interpreter/big-bark-small-bite-china-s-trade-coercion>

<sup>37</sup> Australian Government – Department of Foreign Affairs and trade (2020) ‘Trade statistical pivot tables’ <https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>



(1)



(Source: Australian Department of Foreign Affairs and Trade)<sup>38</sup>

However, findings regarding the overall impacts of the sanctions on Australia's trade balance sheets was somewhat different from expected. In fact, The Australian trade balance remained positive throughout 2020 with the overall drop in exports not being equal to the drop in exports to China <sup>39</sup>. There are two potential reasons why this happened: the competitiveness of Australian goods made it easier for the country to export to different trade partners other than China; and the months around the end of 2020 represented an small worldwide recovery towards pre-pandemic trade levels<sup>40</sup>.

<sup>38</sup> Australian Government – Department of Foreign Affairs and trade (2020) 'Trade statistical pivot tables' <https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>

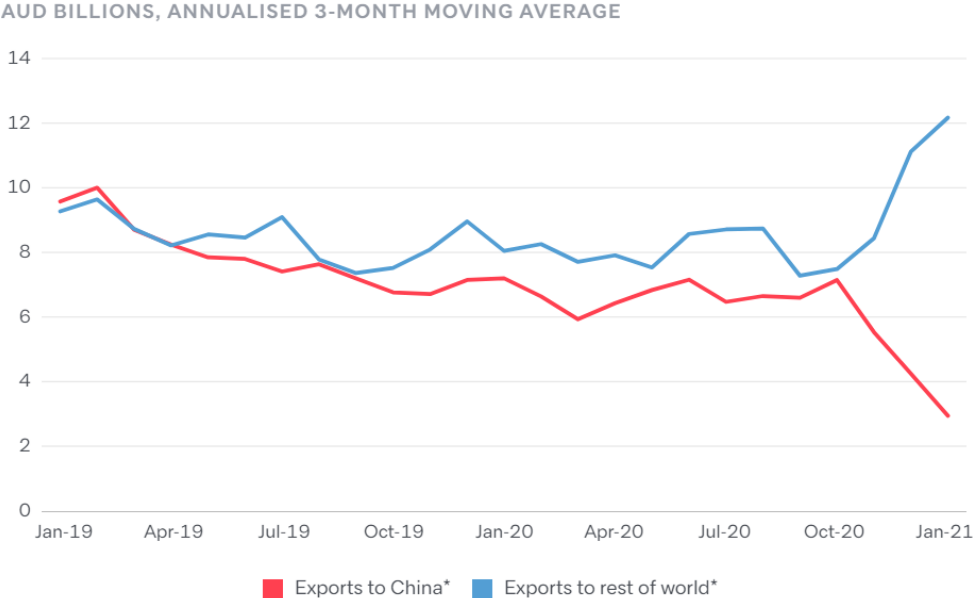
<sup>39</sup> Australian Bureau of Statistics (2022) 'International Trade in Goods and Services, Australia' <https://www.abs.gov.au/statistics/economy/international-trade/international-trade-goods-and-services-australia/latest-release#goods-and-services-debits-imports-seasonally-adjusted>

<sup>40</sup> Rajah, R. (2020) 'The big bark but small bite of China's trade coercion' *The Interpreter – The Lowy Institute*, April 8<sup>th</sup>, 2020. <https://www.loyyinstitute.org/the-interpreter/big-bark-small-bite-china-s-trade-coercion>

Graph 2 shows some evidence as to the diversification effects that Australian goods went through after the fallout of trade relations with China. The graph, presented by the Lowy Institute and uses data from the Australian Department of Foreign Policy and Trade.

(2)

Other Australian exports sanctioned by China successfully diverted



\* Includes successfully diverted Australian exports: barley, copper, cotton, seafood, and timber.

Source: Author's calculations based on Australian Department of Foreign Affairs and Trade statistics

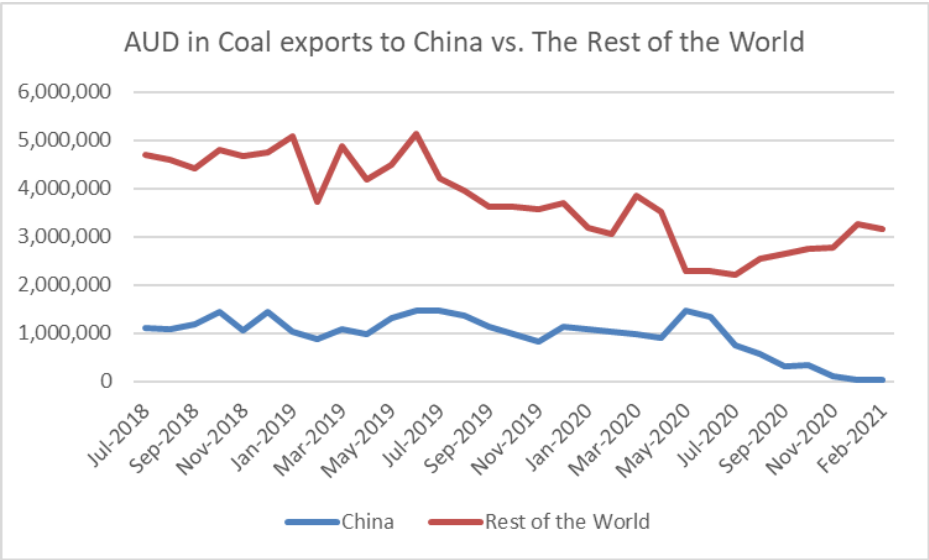
(Source: The Lowy Institute)<sup>41</sup>

As mentioned previously, however, a major reason why Australian exports did not suffer as was initially expected was due to a highly competitive coal market to which Australia was able to sell its own products. The graphs below (3) show the

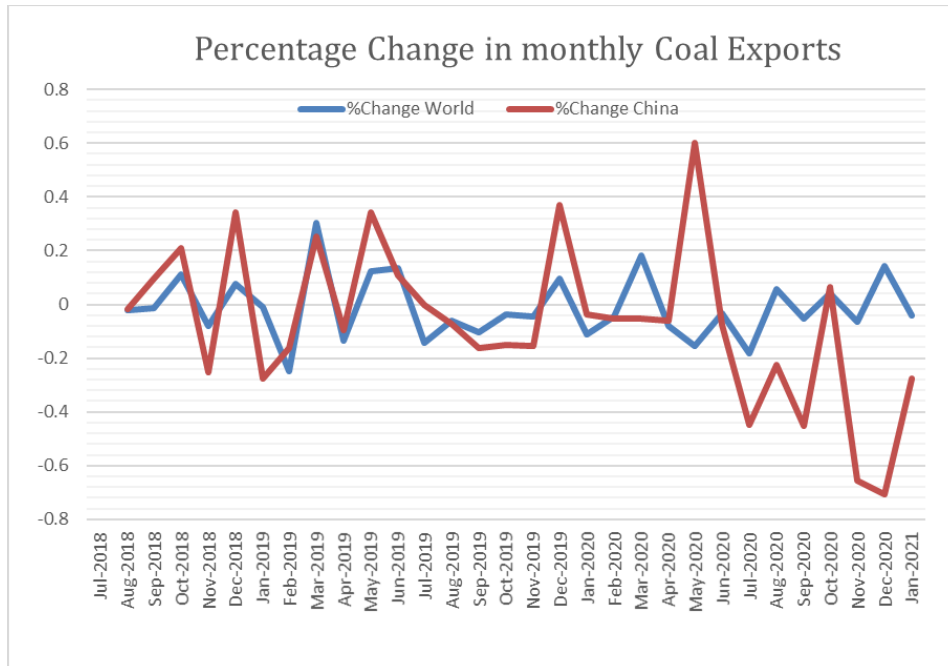
<sup>41</sup> <https://www.lowyinstitute.org/the-interpreter/big-bark-small-bite-china-s-trade-coercion>

total AUD in exports for China and the rest of the world (excluding China), and (4) show the percentage change in total coal exports to China and the whole world (including China) to show the changes in the overall trade balance.

(3)



(4)



(Source: Australian Department of Foreign Affairs and Trade)<sup>42</sup>

Notice that around July 2020 (when relations started to erode) the two lines take opposite directions. Sanctions on coal were only implemented on October of 2020, however, ever since May the Chinese have been trying to increase their domestic production to stop relying on foreign markets for supply <sup>43</sup>

Another important thing to mention was that the main product that Australia exports to China, Iron Ore, was not sanctioned<sup>44</sup>. In fact, in the second semester of 2020, the prices of Iron Ore increased<sup>45</sup>. Graph number 5 shows the impact that this had on Australian revenue from selling goods to China overall.

(5)

<sup>42</sup> Australian Government – Department of Foreign Affairs and trade (2020) 'Trade statistical pivot tables' <https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>

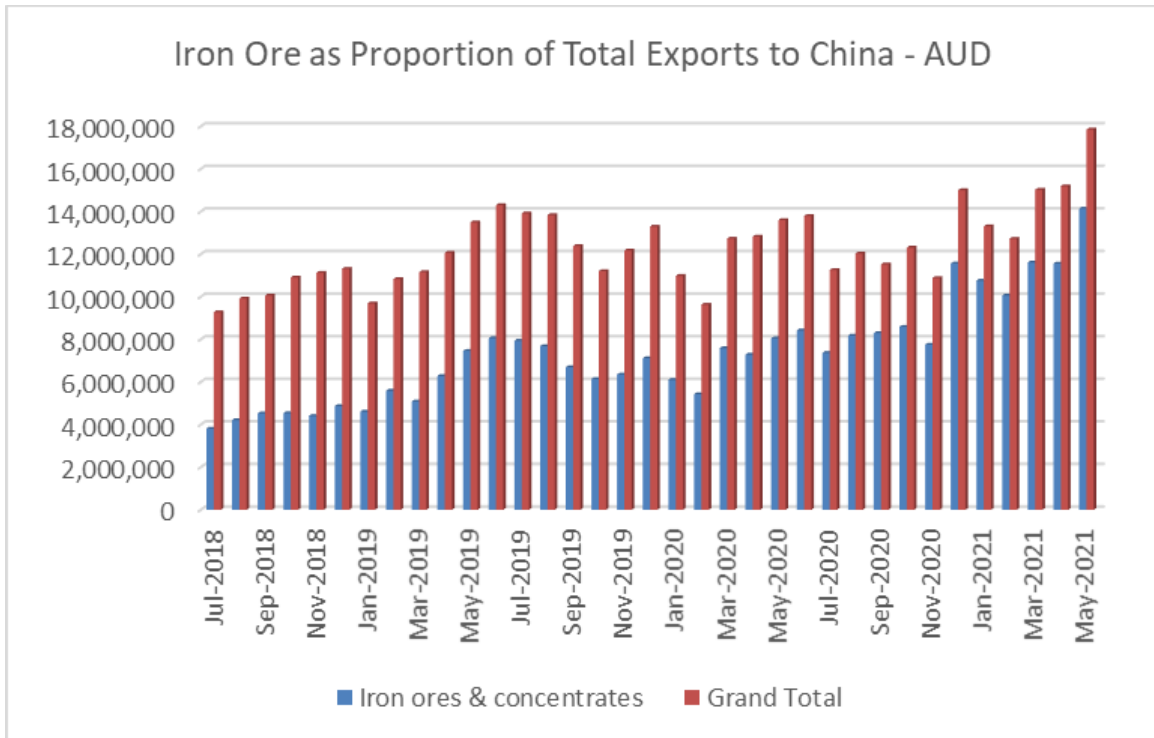
<sup>43</sup> Rajah, R. (2020) 'The big bark but small bite of China's trade coercion' *The Interpreter – The Lowy Institute*, April 8<sup>th</sup>, 2020.

<https://www.lowyinstitute.org/the-interpreter/big-bark-small-bite-china-s-trade-coercion>

<sup>44</sup> ibid

<sup>45</sup> Financial Times (2022) 'Iron Ore' on *Commodities*.

<https://markets.ft.com/data/commodities/tearsheet/summary?c=Iron+ore>



(Source: Australian Department of Foreign Affairs and Trade)<sup>46</sup>

Note that total revenue actually follows an upward trend with some decreases, including the months between July and September 2020, which was around the time the sanctions began. The Graph also shows how much of total revenue originated from Iron Ore which is a measure that also follows an upward trend. This is due to both increased trade and prices of Iron in the time frame investigated.

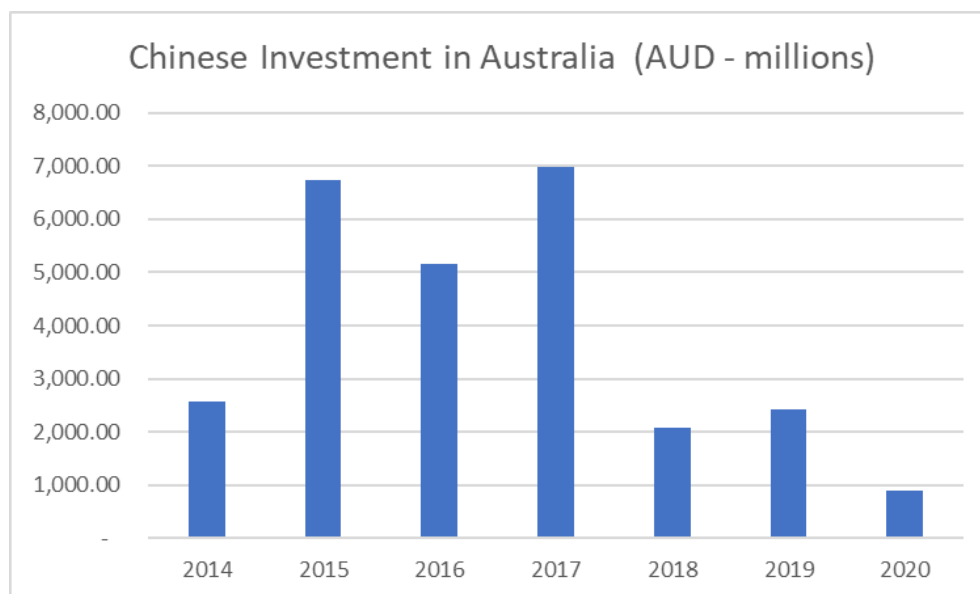
<sup>46</sup> Australian Government – Department of Foreign Affairs and trade (2020) ‘Trade statistical pivot tables’ <https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>

## Impact on Australian Stock Markets and Investment

Another part of the Australian Economy that is relevant to look into is the stock market and investigate any effects that the initiation of trade sanctions had on return on investments in Australian companies. The reason for this is that it has the potential to show how investors saw the market behaving and how confident they were on the stock markets, as well as the economy.

When we consider foreign Chinese investment into Australia, the numbers show a significant decrease overall. In fact, overall Chinese investment in Australia decreased by around 20% in US dollar terms (Outward Direct Investment)<sup>47</sup>. Another statistic that shows similar results is regarding equity investments made from China in comparison to previous years as shown by graph 1.

(1)



(Source: Chinese Investment in Australia Database)<sup>48</sup>

The issue is, these statistics do not necessarily confirm that the cause of these changes were in fact the trade sanctions. There are 2 things that need to be

<sup>47</sup> Barber, V.; Dent, H. Z.; Ferguson, D.; Hendrichke, H.; Li, W. & Qian, S. (2021) 'Demystifying Chinese Investment in Australia' *The University of Sydney & KPMG*. ISSN: 2203-2037. <https://assets.kpmg/content/dam/kpmg/au/pdf/2021/demystifying-chinese-investment-in-australia-july-2021.pdf>

<sup>48</sup> Chinese Investment in Australia Database (2020) '2014-2020 equity data summary' <https://chiia.eaber.org/data/>

considered: cumulative effects of the increases in government restrictions of capital outflow from China and Covid-19.

An investigation that is then worth conducting is an event focused on specific dates that relate to the increasing trade sanctions. It is important to note, that the model used in this report does not show if the overall market had unexpected returns, but it does show if any particular industry was more affected than others.

## Methodology:

The model was developed by Maaneenop and Kotcharin in an article published in the *Journal of Air Transport Management*. This original model was intended to investigate the impacts of Covid-19 in the airline industry, but it can be used using any particular event as a main basis <sup>49</sup>.

The model is built on initially calculating an expected return for a particular asset that is listed on the stock market and then making a comparison between the expected return and the actual real life return. Expected returns are used using a simple market model by regressing the return of an asset on the return of a specific market index using dates previous to the event window chosen.

In this report, the assets chosen were a series of sector specific indexes in the Australian stock market. With the event window being 20 days prior and after the announcement of the first trade sanction (Barley sanction), which was May 19th. Data was gathered from Yahoo Finance.

The independent variable used was the AXS200 index which is the main market index in Australia. The market model is shown in equation 1 where  $R_i$  is the sector index return and  $R_m$  is the return on the ASX200. This equation only used observations previous to the time window.

(1)

$$R_{i,t} = \alpha_{i,t} + \beta_i R_{m,t} + \varepsilon_{i,t}$$

Abnormal returns will be the result of the actual return of the index at time t minus the expected returns which will be dependent on the parameters calculated in the OLS model above. Abnormal returns are represented by equation 2 where  $Ab(R)$  are abnormal returns,  $R_i$  actual returns and the term inside the parentheses is the

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<sup>49</sup> Atems, B. and Yimga, J. (2021) 'Quantifying the Impact of the COVID-19 Pandemic on US Airline Stock Prices' *Journal of Air Transport Management*. Vol 97(102-141).  
<https://reader.elsevier.com/reader/sd/pii/S0969699720305032?token=6CF341289AA517D097EEC171D9B135E4F7DDE5F17E925EC7C6281A04407E0D600F23B09318B112E584A6ECE7033A8235&originRegion=eu-west-1&originCreation=20220227221312>



Expected return given the two parameters calculated in equation 1. This second equation only uses observations inside the time window.

(2)

$$Ab(R)_{i,t} = R_{i,t} - (\hat{\alpha}_i + \hat{\beta}_i R_{m,t})$$

Each abnormal return calculated is then subject to a t-test of significance where the t-statistic is calculated by using equation 3. ( The significance level chosen for the model was 5%).

(3)

$$T = \frac{Ab(R)_i}{Se(R_i)}$$

Results:

[Event Study.xlsx](#) (excel file with event study methodology)

Perhaps not surprisingly, we did not find any statistically significant abnormal returns on any of the indexes investigated, using the event window chosen. In fact, most days in the event window did not show any abnormal returns for the sector indexes meaning they followed the same direction that the market as a whole took. In the time window investigated, investors did not see any one of the industry sectors represented by the indexes used to be more risky or uncertain than the whole of the Australian stock market.

Future research could be directed towards looking at either specific companies, or at different points in time in which the trade sanctions could have made a significant impact on the stock market. The results above show that, in the specific event window, investors did not see the trade sanctions as a threat to any particular

sector. Policy recommendation, therefore, will be heavily reliant on the section above and focused on trade policies instead of finding ways to boost investor confidence in times of diplomatic instability due to the lack of evidence in this particular case and the research conducted.

## **Predictions and Policy Recommendations**

This section will provide some potential insights into policy development based on the findings presented above. While the first policies will be based on broader aspects of major events regarding international relations and power dynamics, the later ones will be focused on findings specific to the Australian case study. As mentioned previously, this will be focused on international trade and the risks that come with deteriorating diplomatic relations between two countries.

### ***Action 1 - Hedge against idiosyncratic risks of Iron Ore and other exports that represent a high proportion of trade revenue***

In the case study used in this report, findings showed that trade sanctions implemented by the Chinese government on Australian products did not have effects on the Australian economy as most would have predicted. The reason being that Australian products turned out to be considerably competitive in other international markets.

However, the report also found that a potential explanation for this was the lack of sanctions on a key export: Iron Ore, which corresponds to a very high proportion of exports overall. Australia went through a prosperous period following the increases in the price of this particular product, but this also means that it is subject to any risks that may affect this particular market. In fact, China has future plans to reduce its dependency on Australian Iron Ore.

The main idea behind the policy recommendation is finding ways to diversify trade portfolios. This could be achieved in two fundamental ways: Finding new trading partners (which is something that Australia did show to be able to do in 2020) and diversifying exports themselves.

65.7% of Australian exports are destined to Asian markets<sup>50</sup>, which means that a major step towards diversification is trying to find partners in other continents. Policies in this area could involve:

- Improvement of Transportation Infrastructure to reduce trading times and long-run costs;
- Increasing trade policy openness by negotiating Free Trade Agreements with countries outside the Indo-Pacific region like what is now being negotiated with the UK.

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<sup>50</sup> Australian Government – Department of Foreign Affairs and trade (2020) 'Trade and investment at a glance 2020'  
<https://www.dfat.gov.au/publications/trade-and-investment/trade-and-investment-glance-2020#exports>