

New Zealand's External Trade: The China Factor

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Abstract: New Zealand (NZ) is a trade dependent nation with exports of goods and services accounting for about 30% of the GDP. Given the fact that NZ's domestic market is small in size NZ has to export to overseas markets to achieve higher growth and higher living standards. NZ has been implementing free trade policies in order to enter new markets and thereby enhance its exports. NZ has negotiated several Free Trade Agreements (FTAs), e.g., the CER with Australia in 1983, the CEP with Singapore in 1985, and a FTA with China in 2008. The value of exports from NZ to China increased by more than 300% between 2008 and 2013 and China has become NZ's top export destination replacing Australia. This paper investigates the effect of the FTA between NZ and China on the trade flows between the two countries vis a vis other major trading partners by computing Trade Intensity Indices. The results indicate that in general the value of the index with China has been rising particularly in the post FTA period while there has been decline with regard to other major trading partners such as Australia.

Key words: trade flows; FTA; trade intensity indices; major trading partners

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1. Introduction

International trade enables the participating countries, particularly small countries to improve their economic prosperity in several different ways. They can efficiently utilize their resources, produce more, export surplus output to other countries. They can also import new technology, plant and machinery, and other inputs from other countries in order to utilize the available resources in an efficient manner. International trade is a principal means for countries to integrate with the global economy, particularly this is true in the case of small, geographically isolated countries with a small market size and high transportation costs. The trade to GDP ratios of small countries such as Austria and Iceland tends to be higher (more than 50%) than the ratios for larger countries such as the USA (12%) (OECD, 2011). New Zealand (NZ) with relatively a small population of 4.5 million has a small market size, and is geographically isolated from big markets. Accordingly, international trade with a trade to GDP ratio of 28%, plays a key role in achieving higher growth rate and improving the living standards of the people. Over the years, NZ's external sector has evolved from being narrow based, in terms of commodity composition and export markets, to broad based due to diversification of products and markets. Prior to Second World War, the UK was the major export destination taking 90% of NZ's exports as UK accorded a preferential status to NZ. During this time primary products such as dairy, meat and wool accounted for 95% of the merchandise exports. In the 60s and 70s NZ achieved a greater degree of diversification in export products and markets, particularly after

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Britain joined the EEC and the special status enjoyed by NZ to access the UK market was diluted. Up to the 1960s pastoral products such as meat, butter, cheese and wool were over 90% of merchandise exports. In 2008 the single biggest generator of foreign exchange was tourism, and the entire service sector generated a quarter of total export revenue. Merchandise exports were led by dairy products and meat, while returns from base metals, fishing, forestry, horticulture, and general manufacturing all exceeded wool (Easton, 2012). As NZ was compelled to explore and gain access to new markets for its exports, it signed a comprehensive free trade agreement with Australia, the Closer Economic Relations (CER) agreement in 1983. As a result of the CER, Australia became NZ's most important trading partner accounting for about 20% of NZ's exports. Encouraged by this success, NZ negotiated FTAs with several other countries such as Singapore (2001), Thailand (2005), and China (2008). An important development is that China, which was NZ's fourth largest export market in 2008, replaced Australia as NZ's top most export destination in 2013, and UK which used to be the only major export market until 70s, was relegated to the 6th position.

This study investigates the impact of trade with China on NZ's external trade in the post FTA years. The paper is organized as follows: section 2 consists of the literature review, an overview of NZ's trade flows with major trading partners is presented in section 3, and methodology is explained in section 4. The analysis and results are presented in section 5, and section 6 concludes.

2. Literature Review

The positive association between trade liberalization and economic growth is well established in economic literature. Trade liberalization, among others, encompasses negotiating bilateral, regional and multi-lateral trade agreements. These agreements may be in the form of Free Trade Agreements (FTAs) and Regional Trade Agreements (RTAs). Free Trade Agreements (FTAs) benefit small countries in multiple ways, the key one being economic integration with large countries. The advantages of such integration include, increase in exports as access is granted to new large markets, Foreign Direct Investment (FDI) flows, importation of new technology, and movement of skilled labor with an overall positive impact on economic growth. In a recent study of the influence of FTAs on Malaysian trade and investment, Sahu (2014) found that Malaysia's trade with its FTA partners has increased significantly over the years. The analysis of trade statistics revealed that Malaysia's total trade with the rest of the world since 2001 has increased by 7.2%, while it increased by 9.3% with its FTA partners. The benefits of FTAs may not be uniformly distributed in the sense FTAs may have positive effect on some sectors and negative effect on some sectors among the member countries in the sense the industries in which a country has a comparative advantage may benefit while the industries in which a country does not have comparative advantage may suffer. Cho et al. (2013) estimated that the proposed China-Korea FTA will have an overall positive effect on the Korean and the Chinese economy in terms of employment and industrial competitiveness. The study indicates that the industries that benefit from the proposed FTA differ in both the countries, e.g., Korea will have an upper hand in the case of Machinery, Electronics, and Chemical Products while China will have an upper hand in Textiles, Agriculture and Fisheries. Kastle and Liesch (2013), investigated the contribution of international trade to economic growth in small populated, developed economies with emphasis on Australia, and found that economic growth is primarily driven by new international connections established through FTAs. In the case of small countries endowed with natural resources, FTAs enable them to increase their exports of primary products in which they have a comparative advantage. Adjaye and Mahadevan (2009) studied

the effects of trade liberalization and RTAs on Fiji, a small Pacific Island economy. Their study revealed that both policies benefited the Fijian economy in varying degrees more so in increasing the exports of traditional commodity, i.e., sugar. Although the overall effects of trade liberalization tend to be positive, the degree to which they contribute to economic performance differ from country to country and from region to region as trade is one of many variables that impact on the economic growth of a country. A comparative study of the impact of trade liberalization on economic performance between Latin America and East Asia it was found that the impact was more significant in the case of East Asia rather than in Latin America (Duran, Mulder & Onodera, 2008). In some cases, the trade flows may increase in the post agreement years while simultaneously decreasing the trade with non-member countries. A study about the effects of the three RTAs (NAFTA, ANZCER, and ASEAN) on the trade flows among the member countries and the non-member countries found that trade among the NAFTA and ANZCER countries increased while trade with non-member countries decreased. Whereas in the case of ASEAN trade among the member countries as well as trade with non-member countries both have increased substantially during the years 1989-2000 (Tang, 2005). Most of the FTAs aim not only to increase trade flows but investment flows among the member countries and usually the small countries benefit from increased FDI flows. Prime (2012) found that Singapore, a resource scarce economy, significantly benefited from FDI in terms of enhanced manufactured exports, growth in GDP and GDP per capita, improved quality of life for its citizens. Thus, among others, FTAs will have a significant positive impact on the trade flows among the member countries. This paper investigates the effect of NZ-China FTA on New Zealand's external trade. China is the second largest economy in the world and accounts for 10 percent of the world economy. For a small country such as NZ, free trade agreement means access to one of the largest economies in the world and the associated benefits.

3. An Overview of New Zealand's Trade Flows with Major Trading Partners

An analysis of the trade flows between and its major trading partners during the years 2001 to 2014, shows that the trade flows between NZ and China have been growing at a higher rate compared with other countries viz., Australia, Japan and USA. Merchandise exports to China increased by 894% in 2014 over 2001 compared to an overall increase in merchandise exports of 62%. During the same period exports to Australia increased by 48% whereas exports to USA and Japan recorded negative growth rates. In 2001 Australia accounted for 20% of NZ's merchandise exports followed by USA (15%), and Japan (14%) and China accounted for only 4%. In 2014 China's share increased to 22% whereas Australia's share decreased to 18%, Japan's share decreased to 6%, and USA's decreased to 8% (Table 1). In fact by 2014 China emerged as NZ's top export destination replacing Australia. A similar picture emerges with regard to merchandise imports into NZ. During the years 2001 to 2014 the merchandise imports from China increased by 279% as against an overall increase by 54%. There has been decline in imports from Australia, Japan and the USA and recorded negative growth rates during the study period (Table 2). In terms of imports also China which accounted for 17% of total imports in 2014 as against 7% in 2001, replaced Australia as the major source of imports. The growth in trade flows between NZ and China is significantly higher in the post FTA years (2009-2014) compared with the pre-FTA years (2001-2008). NZ's market diversification strategy through FTAs, i.e., gaining access to a large market such as China has been successful as evidenced by a significant growth in the trade flows between the two countries.

Table 1 NZ's Merchandise Exports to Major Destinations: 2001-2014 (NZ\$m)

Year	Total	Australia	% of exports	Japan	% of exports	USA	% of exports	China	% of exports
2001	30,986	6,083	20%	4,314	14%	4,651	15%	1,126	4%
2002	31,112	6,326	20%	3,732	12%	4,922	16%	1,434	5%
2003	28,242	6,050	21%	3,354	12%	4,366	15%	1,457	5%
2004	28,686	6,332	22%	3,283	11%	4,297	15%	1,617	6%
2005	29,215	6,507	22%	3,446	12%	4,295	15%	1,587	5%
2006	30,799	6,797	22%	3,303	11%	4,354	14%	1,740	6%
2007	33,361	7,201	22%	3,496	10%	4,522	14%	1,876	6%
2008	38,453	9,172	24%	3,359	9%	4,017	10%	2,091	5%
2009	41,011	9,716	24%	3,373	8%	4,808	12%	3,359	8%
2010	38,993	9,651	25%	3,070	8%	3,556	9%	4,109	11%
2011	44,222	10,314	23%	3,370	8%	3,931	9%	5,635	13%
2012	44,893	10,460	23%	3,387	8%	4,083	9%	6,106	14%
2013	44,113	9,531	22%	2,945	7%	4,116	9%	7,715	18%
2014	50,066	9,029	18%	2,817	6%	4,068	8%	11,194	22%
% change	62%	48%		-35%		-13%		894%	

Source: Statistics New Zealand.

Table 2 NZ's Merchandise Imports: 2001-2014 (NZ\$m)

Year	Total (NZ\$m)	Australia	% of imports	Japan	% of imports	USA	% of imports	China	% of imports
2001	31,927	6939	19%	3493	11%	5042	16%	2207	7%
2002	31,811	7347	23%	3875	12%	4371	14%	2590	8%
2003	32,161	7175	22%	3718	12%	3722	12%	2848	9%
2004	33,378	7812	23%	3895	12%	3916	12%	3376	10%
2005	35,793	7682	21%	4082	11%	4065	11%	4033	11%
2006	39,040	8285	21%	3709	9%	4742	12%	4964	13%
2007	41,165	8622	21%	3945	9%	4078	10%	5587	14%
2008	44,507	8738	20%	3956	9%	4600	10%	6443	15%
2009	46,139	7397	16%	2981	7%	4328	9%	6066	13%
2010	40,079	7697	19%	3107	8%	4392	11%	6762	17%
2011	40,073	7369	18%	2921	7%	5026	13%	7439	19%
2012	47,451	7184	15%	3053	6%	4386	9%	7713	16%
2013	46,524	6424	14%	3087	7%	4527	10%	8260	18%
2014	49,261	6248	13%	3179	6%	4794	10%	8371	17%
% change	54%	-10%		-9%		-5%		279%	

Source: Statistics New Zealand.

4. Objective and Methodology

Given that FTAs lead to growth in trade among the member countries, this study aims to investigate whether New Zealand's trade with China has been growing at a higher rate than the trade with other major trading partners in the post-FTA period.

4.1 Trade Intensity Indices

Trade Intensity Indices for New Zealand's merchandise exports to China have been calculated for each of the years from 2001-2014 to examine the magnitude of trade flows between New Zealand and China in the pre and post-FTA period. Trade Intensity Indices are computed for other major trading partners, viz., Australia, USA and Japan for comparison purposes. This is because although both USA and Japan are New Zealand's major trading partners, presently there are no free trade agreements with them. A comparison of the trade intensity indices can be expected to provide an indication of the impact of the free trade agreement on the trade flows between the two countries.

Trade Intensity Index (I_{ij}) for country i 's exports to country j is defined as the share of country j in country i 's total exports (X_{ij}/X_i) relative to the share of j 's imports (M_j) in total world imports, net of i 's imports ($M_w - M_i$).

$$I_{ij} = (X_{ij}/X_i) / (M_j/(M_w - M_i))$$

The term M_i is deducted from the denominator to take into account that a country does not import to or export from itself. A value of the index greater than unity indicates that country i trades with country j more intensely than does the world as a whole. A value of less than unity indicates a small flow of trade between i and j relative to j 's trade with the rest of the world (Braga, 1994; Faezeh, 1998).

5. Data Analysis and Results

Trade Intensity Indices for four major trading partners viz., Australia, China, Japan, and USA have been computed for the years 2001 to 2013 for which comparable data is available (Table 3). These four countries accounted for significant trade flows, i.e., 54% of NZ's merchandise exports and 46% of merchandise imports in 2014. The trade intensity indices have been declining in the case of Australia (18.14 in 2001 to 12.77 in 2013), Japan (2.11 in 2001 to 1.14 in 2013), and the USA (0.63 in 2001 to 0.52 in 2013). However in the case of China, the value of the index has risen from 1.02 in 2001 to 1.59 by 2013. Although the index declined from 1.02 in 2001 to 0.53 in 2007 there has been a steady increase from 2008 onwards (post-FTA years) as opposed to a steady decline with regard to other countries (Table 3).

Table 3 Trade Intensity Indices

Year	AUS	Jap	USA	China
2001	18.14	2.11	0.63	1.02
2002	17.09	2.10	0.67	0.97
2003	17.46	2.06	0.69	0.84
2004	16.54	2.16	0.73	0.88
2005	16.49	2.03	0.71	0.75
2006	12.29	1.48	0.48	0.56
2007	12.80	1.46	0.48	0.53
2008	13.43	1.28	0.48	0.59
2009	12.12	1.14	0.48	0.76
2010	12.37	1.19	0.48	0.79
2011	15.71	1.44	0.57	1.15
2012	13.95	1.31	0.60	1.29
2013	12.77	1.14	0.52	1.59

Source: Own calculations based on data sourced from Statistics New Zealand and UNCOMTRADE

6. Conclusions

The study indicates that China has emerged as a key market for New Zealand's merchandise exports particularly in the post-FTA years. The merchandise exports recorded an impressive growth rate of 894% in the year 2014 over 2001. During the same time period China's share of NZ's merchandise exports increased from 4% to 22%. A similar trend can be observed with regard to merchandise imports from China. There has been an overall growth of 279% in NZ's merchandise imports from China during the period of study and China accounted for 17% of imports in 2014 as against 7% in 2001. The combined effect of growth in exports and imports to and from China is reflected in the Trade Intensity Indices which indicate a growing trend particularly in the post FTA years while the value of indices has been declining with other major trading partners. Thus NZ trades with China more intensely than the rest of the world in the items they export to or import from China. Further research needs to be done whether this shift in the markets is sustainable in the long run, i.e., whether China can remain the top trading partner in the long run.

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