



Bridging Markets, Building Alliances: Assessing the India-Australia Economic Cooperation through the Lens of Trade Liberalization and Geoeconomic Strategy

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ABSTRACT

India and Australia forged stronger connections, notably in the economic domain, during the period after their independence. The Free Trade agreement, formally referred to as the Economic Cooperation and Trade Agreement, between India and Australia became operational in December 2022. This article aims to analyse India's trading prospects with Australia. In order to accomplish the goal, a Revealed Comparative Advantage, Trade Intensity Index, and Trade Potential Index have been computed utilizing secondary data obtained from the UNCOMTRADE Database. The findings indicated that both nations had a notable edge in distinct goods. It signifies that there are some goods in which the nation is not engaging in competition with each other. This study examines the potential sectors for commodities where bilateral commerce might be advantageous, making a free commerce agreement (FTA) a mutually beneficial arrangement for both countries.

Keywords: India-Australia Bilateral Trade, Trade Potential, Free Trade Agreement, Revealed Comparative Advantage, Trade Intensity Index

JEL Classifications: F10, F14, C43

1. INTRODUCTION

International trade is crucial to the development of the world economy and for all industrialised nations. Indian overseas trade has a long, prosperous history. Originally, there was always trade balance as the earnings from exports were massive. However, India's trade was seriously impacted during 18th century with the arrival of the British who enforced high taxes, thus harming India's trade relations with other nations. Even after Independence, there were several challenges for our country especially lack of manufacturing facilities. It was only after 1991 that India's trade flourished once again. In 1991, India adopted the principles of (LPG) that is, Liberalisation, Privatisation and Globalisation. Since then, India is currently the second fastest growing economy in the world after Chi-. The Indian

economy showed growth of more than 5% annually even during the most recent recession (Alam and Ahmed, 2017).

1.1. India-Australia Past Relations

India and Australia have a long-standing relationship that dates back to the early 19th century. The relationship between the two countries has been shaped by their shared history as British colonies, as well as their common interests in the region and beyond. In the post-independence era, India and Australia developed closer ties, particularly in the economic sphere. Australia was one of the first countries to recognize India's independence in 1947, and the two countries established diplomatic relations in 1945. In the 1950s and 1960s, Australia provided economic aid to India, and Indian students began to study in Australia.

The relationship between India and Australia was strengthened in the 1980s and 1990s, as both countries moved towards economic liberalization. Bilateral trade between the two countries increased, and Indian investment in Australia grew. India and Australia also began to cooperate in the areas of science and technology, with joint research projects and academic exchanges.

In recent years, India and Australia have sought to deepen their strategic partnership. In 2008, the two countries signed a Joint Declaration on Security Cooperation, which paved the way for closer defence ties. India and Australia have also strengthened their cooperation in the areas of energy, education, and cultural exchange. Overall, the relationship between India and Australia has evolved over time, from one that was defined by their shared history as British colonies to one that is focused on economic cooperation and strategic partnership. While there have been challenges, the two countries have shown a willingness to work together to address shared interests and concerns.

1.2. Australia Trade Profile

Australia is a mixed market economy. Its economy depends on agriculture and foreign investments. In 2023, Australia was the number 13 economy in the world, 22nd in total exports, 24th in total imports, 16th in terms of GDP per capita and the 74th most complex economy according to the Economic Complexity Index (ECI). From 2012 to 2023, Australia's economy grew at an annual rate of 3.39% and its growth rate will remain strong at 4.2% in 2022, according to the International Monetary Fund (IMF).

Australia's main exports are iron ore (which accounts for more than 30% of the world's iron ore supply), coal, gold, petroleum, mineral fuels including oil, bovine meat, inorganic chemicals, and wheat and cereals. While the top imports are processed petroleum oils, cars, crude oil, pharmaceuticals, electro-medical equipment and more. To sustain this economic growth, free trade agreements (FTA) have become integral to their trade. Currently, Australia benefits from its 15 FTAs with 26 countries.

Table 1 shows that, from \$135 billion in 2000 to \$657 billion in 2023, Australia's overall trade increased by about 5 times in the twenty-first century. Likewise, throughout the specified time frame, Australia's imports and exports increased by more than four times and more than six times, respectively. It is interesting to note that over this time, Australia's trade balance went from deficit to surplus, reaching a current surplus of \$81 billion. Australia's global trade share increased from 1% to 1.8% throughout this time as well.

1.3. India Trade Profile

India is one of the largest and fastest-growing economies in the world, with a population of over 1.45 billion people. The country has a diverse economy that is heavily reliant on trade, both in terms of imports and exports. India is the world's 5th largest economy by nominal GDP and the 3rd largest by purchasing power parity. India's total trade in 2023 was \$1104 billion, with exports accounting for \$431 billion and imports accounting for \$672 billion. India's top exports include refined petroleum, diamonds, jewellery, pharmaceuticals, electrical goods and rice. Its top import categories include crude oil, gold, coal, petroleum products, and electronic

goods. Yet India has a trade deficit, meaning it imports more than it exports. The country has been working to reduce this deficit by promoting exports and encouraging domestic manufacturing.

India's major trading partners include the United States, China, the United Arab Emirates, Saudi Arabia, and Germany. India is a member of the World Trade Organization (WTO), and has signed free trade agreements (FTAs) with several countries, including Japan, South Korea, and the Association of Southeast Asian nations (ASEAN). India has been pushing for greater economic integration in the South Asian region, with efforts to reduce trade barriers and increase cross-border investments. Between November 2021 and November 2022, the exports of India have been increased by \$3.11 billion (9.78%) from \$31.7 Billion to \$34.8 Billion, while imports increased by \$5.46 billion (10.3%) from \$52.8 Billion to 58.2 billion. Table 2 reflect that India's global trade share has also increased significantly from less than one to around 2.5% in 21st century. Overall, India's trade profile reflects its status as a major player in the global economy, with a diverse range of export products and a significant import demand for energy and other raw materials.

1.4. Australia-India Bilateral Trade Profile

India and Australia have enjoyed a trading relationship since the 18th century. Today, the two countries enjoy beneficial bilateral relations. In recent years, the trade relationship between Australia and India has seen an enormous growth. Rising India-Australia relations contribute to a growing bilateral relationship between the two. India and Australia are each other's important trading partners. Bilateral trade between India and Australia reached US\$ 26.3 billion in 2023. India's exports of goods to Australia increased by 135% between 2019 and 2021. India exported \$7.7 billion worth of goods in 2023 and imported \$18.5 billion from Australia. It means India has trade deficit with Australia.

Australia is the 17th largest trading partner of India and India is Australia's 9th largest trading partner. During 2023, Australia's bilateral trade in goods and services with India was US\$ 27.5 billion, with India's imports from Australia (primarily [96%] raw materials and intermediate goods) amounted to 16.5 US \$billion while its exports to Australia (finished products) amounted to 10.5 US \$ billion. The balance of trade is in favour of Australia by US\$ 6.5 billion. India's exports to Australia grew 135% between 2019 and 2021. India's main exports to Australia are refined petroleum, pearls and gems, jewellery, made-up textile articles, women's clothing, manufactures of base metal, while India's major imports are coal, confidential items of trade, copper ores, natural gas, non-ferrous and ferrous waste and scrap and education related services.

Bilateral cooperation has expanded across a variety of new areas, on both bilateral as well as global level which includes the Quad with US, and Japan, to further enhance cooperation and development as well as the Trilateral Supply Chain Resilience Initiative (SCRI) with Japan; an arrangement which seeks to enhance the resilience of supply chains in the Indo-Pacific Region.

In 2018, the products from India that paid the highest import tariffs to enter Australia were food preparations and grape wines, sparkling

wines, fermented beverages, alcoholic drinks etc. During the same period, the products from Australia that paid the highest import tariffs to enter India were vegetables and mixtures, both fresh as well as dried, including grapes, prunes, apricot etc., at the tariff of 5%.

From “Strategic Partnership” in 2009, the bilateral relationship between the two countries has progressed to Comprehensive Strategic Partnership (CSP) in 2020 and now an ECTA in 2022 which will help boost bilateral trade in goods and services cross \$70 billion in the next 5 years according to experts. This is India’s first complete trade agreement to be signed with any developed country in a decade. Over the years, various mechanisms including high level visits, annual meetings of Prime Ministers, Foreign Ministers’ Dialogue, Joint Trade and Commerce Ministerial Commission, Defence Policy Talks, Australia-India Education Council, Energy Dialogue, etc., have been conducted to improve the relationship between the two.

1.5. Recent Developments between India and Australia

India was Australia’s sixth-largest export market and seventh-largest trade partner in 2020, driven by coal and global education. But Australia is also becoming a more significant market for Indian goods. Recently both nations upgraded their bilateral Strategic Partnership, which they had established in 2009, to a Comprehensive Strategic Partnership (CSP) in 2020.

In order to encourage partnership in a number of sectors, including key minerals, health, critical technology, research, and agriculture, both nations formally agreed to reengage on CECA in September 2021. On September 30, 2021, the 17th India-Australia Joint Ministerial Commission officially started talks on the Comprehensive Economic Cooperation Agreement (CECA) between the two countries. Both parties committed at the conference to reach an interim agreement or early harvest trade deal by December 2021; however, that deadline was advanced to the end of March 2022.

1.6. Free Trade Agreement

The India-Australia Economic Cooperation and Trade Agreement (“Ind-Aus ECTA”) was signed on 2 April, 2022. On December 29, 2022, the Australia-India Economic Cooperation and Trade Agreement (ECTA) came into effect. This agreement will strengthen the economic connections between the two countries and open up new commercial possibilities for both. With high tariffs on some extra products, over 85% of Australian commodities sent to India are already duty-free, and that percentage will increase to 90% in the next 6 years. In addition, 96% of imports from India are already duty-free and will increase to 100% in next 4 years. India’s exports of goods to Australia increased by 135% between 2019 and 2021.

Also, Australia will be provided preferential access to the Indian markets for 70% of its tariff lines, which will mostly consist of coal, mineral ores, wines, sea foods, etc. The ECTA is expected to strengthen the strong business ties between the two nations and increase bilateral commerce from the current \$31 billion to \$45 billion over the next 5 years. In addition, it is predicted that the ECTA would generate 10 lakh new employment to India.

The India-Australia ECTA emphasizes services trade in addition to trade in goods. Australia will provide Indian service providers access to the market in around 135 sub sectors that cover important industries for India, including IT, ITES, business services, healthcare, education, and arts. The market access that India will provide to Australia, on the other hand, will include around 103 sub-sectors, including business services, communication services, and construction and associated engineering services, etc.

2. LITERATURE REVIEW

In the 21st century, the dynamics of India’s international trade links with various regions of the world are examined in the research of Alam et al. (2017) and Alam et al. (2024). The 2017 research work offers an empirical examination of trade trends between the GCC and India, emphasising the need for more economic cooperation as well as substantial development potential. The 2024 article, on the other hand, highlights the transition from colonial legacy to contemporary strategic relationship by analysing the India–UK Free Trade Agreement within the framework of historical ties. Collectively, these pieces highlight India’s growing significance in international commerce and the tactical value of establishing varied bilateral deals.

Bhatia et al. (2018) analyse the trends and dynamics of India–UK bilateral trade in light of Brexit, employing trade indices such as Revealed Comparative Advantage and Trade Complementarity Index. Their analysis indicates minimal trade complementarity and highlights industries in which India possesses a competitive advantage. The research indicates that a Free Trade Agreement may substantially increase trade volumes and economic collaboration between the two countries. The report underscores the strategic significance of enhancing bilateral trade relations in a post-Brexit context.

Radha Raghuramapatrani and D. Srinivas Chary (2017) aim to evaluate the bilateral trading relations between Australia and India to identify potential areas for furthering trade and uses the framework of Revealed Comparative Advantage (RCA), Revealed Import Dependency Index (RID), Trade Intensity Indices (TII) and Gravity Coefficient (GC). Based on the results, the authors conclude that there is a trade imbalance between the countries and for many of Australia’s top exports, India’s RID is growing slower than the global RCA. However, there is a future scope of further growth via an FTA between the two countries. This FTA will play a major role in reducing the non-tariff barriers by introducing Mutual Recognition Agreements (MRA) to eliminate the disparity in trade.

Grare (2014) observes the trade relationship between the two countries in relation to their shared strategic interests in the Indian Ocean region and the rising powers of Chi- in the Asia-Pacific region. The paper looks at the increased trade between Australia and India in recent years and the prospect for a closer strategic relationship for the future.

Medhekar (2021) explores the extensive bilateral trade and opportunities at various levels that can be formed between the two countries for mutual gain amid the dynamic geo-political environment. It also advocates for a Free Trade Agreement

between the countries to promote trade relations and for further research to be conducted on the 10 areas of the Indian economy as identified in the “Indian Economic Strategy Report-2035” that include education, resources, tourism, agribusiness, infrastructure, health, etc., to -me a few.

Sharma (2016) studies the investment and economic relationship between Australia and India following the discussions for a Comprehensive Economic Co-Operation Agreement (CECA) and tries to examine the areas (education, resources, tourism, agribusiness, infrastructure, health, etc.) that need to be synergized for this comprehensive relationship. The paper advocates for creating an Australia-India and India-Australia Trade Index for enhancing Australian investment and trade in India and vice versa and also move towards institutionalizing the relationship.

Alam et al. (2013) specifically focus on agriculture as a key area in the proposed FTA between Australia and India since consistent development in the industry for both countries require new export markets to be opened. The paper assesses anti-dumping rules, tariff and non-tariff barriers in Indian agriculture and critically examines how an FTA could reduce these issues and concludes that tackling these concerns through a bilateral FTA could promote trade liberalization for both countries.

Frameworks like the revealed comparative advantage (RCA), Trade Index Intensity and trade potential can be used to determine the trade flow between Australia and India. However, trade data after 2019-2020 is negligible. Keeping this in mind, along with the recently signed India-Australia Economic Co-operation and Trade Agreement (IND-AUS ECTA) between the Government of India and Australia in 2022, this paper tries to shed light on the recent data on trade and various other developments between the two countries.

A rising strategic and economic alignment between India and Australia is highlighted in recent research on the two countries' economic relations, particularly in the post-COVID-19 and post-China realignment eras. In their investigation of the evolution of trade ties in the face of global disruptions, Khandelwal and Gupta (2022) highlight the Comprehensive Economic Cooperation Agreement's (CECA) potential to increase bilateral commerce. Underpinned by Australia's India Economic Strategy-2035, Medhekar (2021) outlines four major industries as areas of focus for growth: Education, tourism, agriculture, and renewable energy. While noting regulatory and infrastructure barriers, Bhowmick and Das (2024) offer a forward-looking agenda that makes use of the Economic Cooperation and Trade Agreement (ECTA) to strengthen cooperation across digital technologies, energy, and education. Palit (2022) emphasizes the importance of educating SMEs to optimize the benefits of the ECTA and the transformative role it plays in liberalizing trade through streamlined rules of origin. In support of this, Saha (2022) documents the trade talks that resulted in the ECTA and the continuous movement toward a more comprehensive CECA, highlighting strategic convergence and shared political will. All of these studies suggest that formal trade agreements, sector-specific prospects, and common geopolitical objectives are indicators of a growing bilateral partnership.

From the above literature, it is evident that trade plays a significant role in the growth of any economy and every country is trying to remove trade barriers and make a trade agreement with their major trade partner country. In this process, India recently makes a trade agreement with Australia and as per my knowledge, there is very few literatures are available to dealt with possible consequences of this agreement between both the side. So, aim of this paper is to analyse significance of trade agreement of both countries.

3. DATA SOURCES AND METHODOLOGY

In this paper, revealed comparative advantage (RCA), trade intensity index (TII) and trade potential index (TPI) have been calculated. The data is supplied from the “UNCOMTRADE database.” For calculation of trade intensity index (TII), data is taken from 2001 to 2023 and trade potential has been calculated for the year 2023 (on the basis of latest available data).

3.1. Revealed Comparative Advantage

The revealed comparative advantage (RCA) index (developed by Balassa in 1965) assumes that a nation's export volume to the world is an important consideration when determining its comparative advantage. RCA index highlights “how competitive is a product in countries” export compared to the products share in world trade. A product with a high RCA is deemed competitive and can be exported to nations with a low RCA (Sarath Chandran, 2010). Similar RCA features between two countries indicate that there are limited chances to develop productive trade relations between the two.

$$RCA_{ij} = (X_{ij}/X_{it}) / (X_{wj}/X_{wt})$$

Where,

X_{ij} - Country i's exports of product j

X_{wj} -world exports of product j

X_{it} -Country i's total exports

X_{wt} -world total exports.

If RCA value is <1, it means the country has a revealed comparative disadvantage in that product. Similarly, if value is more than one, it implies country has a competitive advantage in that product.

3.2. Trade Intensity Index

The changing trends in Australia-India bilateral trade relations can be understood by the Trade intensity index (TII). TII is the ratio of a trading partner's share to a country/region's total trade and the share of world trade with the same trading partner. TII also highlights the relative importance of low levels of trade (in absolute terms) between countries. The value TII always varies between zero and infinity. An index greater than one implies that trade between two countries is greater than expected considering how significant they are to global trade. This index is based on importance of trade value at global level. TII was explained by Kojima (1964) and Drysdale (1969).

Export intensity Index (EII) of Australia and India:

$$EII = (X_{IG}/X_I)/(M_G/(M_W-M_I))$$

Where

X_{IG} = India's export to Australia

X_I = India's total export

M_G = Total import of Australia

M_W = Total world imports

M_I = Total imports of India

Import intensity index (III) of Australia and India:

$$III = (X_{IG}/M_I)/(X_G/(X_W-X_I))$$

Where,

X_{IG} = Import of India from Australia

M_I = Total import of India

X_G = Total export of Australia

X_W = Total world export

X_I = Total export of India.

3.3. Trade Potential Index

When two nations decide to have a free trade relation, this decision involves widespread benefits for both. This is done by calculating the trade potentials of both countries. For a given commodity, if import is compared with its export, then after excluding the existing trade in that commodity, the trade potentials could be estimated under the most favourable conditions of competition (Bano et al., 2013). Trade potential can be calculated as:

$$\text{Trade Potential} = [\text{minimum } (X_E Y_M) - BE]$$

Where,

X_E = Country X's total export.

Y_M = Country Y's total import

BE= Bilateral exports from one country to another

4. RESULTS

4.1. Trade Intensity Index of Australia and India

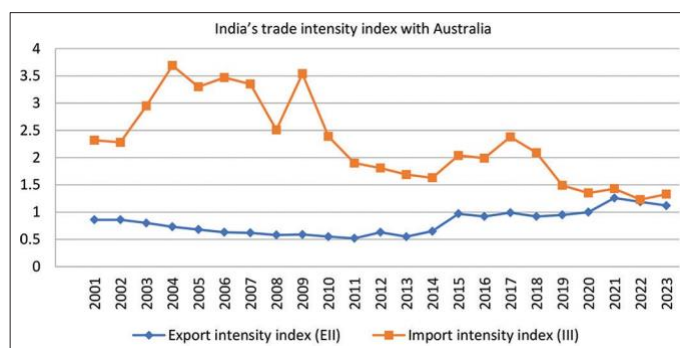
The following Table 3 shows trends in the trade intensity of Australia and India with respect to each other. The value of export intensity index (EII) of India remains below 1 initially but has been rising since 2015 and after 2020, India's EII value reached one and is rising. On the other hand, the value of trade intensity for Australia's exports to India constantly remains above 1 although the values fluctuate each year. As of 2011, TII of Australia shows a continued decline. In 2004, EII of Australia is 4.27, which shows a very intense relation with India in that year. The reason behind declining trade trend after 2005 could be attributed to the economic crisis which affected both Australia and India.

Export and import intensity indices show the ratio of the share of country i's trade with country j's relative to the share of world

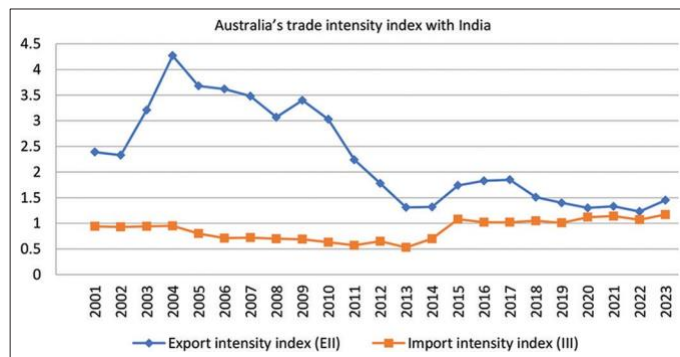
trade destined for country j. The value of export and import trade indices above/below than one is a sign of larger/smaller than expected trade flows between two countries engaged in trade (Wu and Zhou, 2006). The above table shows that India's EII was <1 till 2020 but is steadily rising. This indicates that the export level of India to Australia is less than that of Australia in the world market share but that India is doing better now. Also, the import intensity index (III) of India with Australia is above one which means that the import level of India with Australia is less than Australia's import share in the world market.

On the other hand, Australia's export intensity index (EII) shows declining trend that states that Australia's exports to India is greater than India to the world. Australia's import intensity index (III) also shows a decline along with the export intensity index (EII) which means that Australia's imports from India are declining than that of India's share in world market.

Further comparing, Australia's export intensity index (EII) with India's export intensity index (EII), it shows that India's export intensity index (EII) is smaller than UK's. Thus, India's dependence on Australian exports is much stronger than that of Australia on India's export market. While Australia's import intensity index (III) is greater than India's import intensity index (III), showing that Australia's dependence on Indian market is much less than that of India's dependence on Australia. This can be further illustrated with the help of charts as follows:



Source: Authors Calculation



Source: Authors Calculation

4.2. Trade Potential between Australia and India

Australia and India have the potential to trade at a higher level in several commodities. The following Table 4 gives a brief explanation about the trade potentials of both Australia and India for the year 2023 in some

Table 1: Australia's trade profile (in billion \$)

Year	Export	World export share (%)	Import	World import share (%)	Total trade	World trade share (%)	Trade balance
2000	63.8	1.00	71.6	1.12	135.3	1.02	-7.8
2004	86.5	0.93	109.5	1.18	196.0	0.96	-23.0
2008	186.9	1.16	200.6	1.24	387.5	1.19	-13.8
2012	256.2	1.43	250.5	1.39	506.7	1.44	5.8
2016	189.6	1.2	189.4	1.2	379.0	1.21	0.2
2020	245.0	1.42	212.0	1.23	457.0	1.44	33.1
2023	369.2	1.67	287.9	1.27	657.1	1.47	81.4

Source: UNComtrade Database

Table 2: India trade profile (in billion \$)

Year	Export	World export share (%)	Import	World import share (%)	Total trade	World trade share (%)	Trade balance
2000	42.4	0.68	52.9	0.83	95.3	0.68	-10.6
2004	75.9	0.84	99.0	1.07	174.9	0.84	-23.1
2008	181.9	1.16	315.7	1.96	497.6	1.16	-133.9
2012	289.6	1.62	489.0	2.72	778.5	1.62	-199.4
2016	260.3	1.66	356.7	2.26	617.0	1.66	-96.4
2020	275.5	1.61	368.0	2.14	643.5	1.61	-92.5
2023	431.4	1.95	672.1	2.97	1103.5	2.47	-240.7

Source: UNComtrade Database

Table 3: Trade intensity index between Australia and India

Year	India's trade intensity index with Australia		Australia's trade intensity index with India	
	Export intensity index (EII)	Import intensity index (III)	Export intensity index (EII)	Import intensity index (III)
2001	0.86	2.32	2.39	0.94
2002	0.86	2.28	2.33	0.93
2003	0.8	2.95	3.21	0.94
2004	0.73	3.69	4.27	0.95
2005	0.68	3.3	3.68	0.8
2006	0.63	3.47	3.62	0.71
2007	0.62	3.35	3.48	0.72
2008	0.58	2.51	3.07	0.7
2009	0.59	3.54	3.4	0.69
2010	0.55	2.39	3.03	0.63
2011	0.52	1.9	2.24	0.57
2012	0.63	1.81	1.78	0.65
2013	0.55	1.69	1.31	0.53
2014	0.65	1.63	1.32	0.7
2015	0.97	2.04	1.74	1.08
2016	0.92	1.99	1.83	1.02
2017	0.99	2.38	1.85	1.02
2018	0.92	2.09	1.51	1.05
2019	0.95	1.49	1.4	1.01
2020	1	1.35	1.3	1.12
2021	1.26	1.43	1.33	1.14
2022	1.19	1.23	1.23	1.07
2023	1.12	1.33	1.45	1.17

Source: Authors Calculation

commodities and also attempts to explain how much the actual trade can grow in comparison to the potential between the two countries. In every commodity, there is potential to increase the amount of trade. For some commodities like Cocoa and cocoa prepar. (18), Beverages, spirits (22), Albuminoidal subs (35), Aircraft, Spacecraft (88), Clocks and watches (91) and Arms and ammunition (93) both countries can increase their trade potential by several times. In the commodity, Ships, Boats (89), both Australia and India have the highest potential to increase their trade by 3677.70 and 5250.68 times respectively.

In some commodities like Pulp of Wood (47), only India has the potential to increase its trade potential by 0.28 times while as in

other commodities like Fertilisers (31), both countries can only increase their potential by least significant amounts of 2.58 for India and 2.18 for Australia. Commodities like Dairy products (04), Plastics and articles thereof (39), Rubber and articles thereof (40), Tin and articles thereof (80), Misc. articles of base metal (83) and Vehicles o/t railway (87) give India the opportunity to increase their trade potential compared top Australia. On the other hand, in commodities like Products of animal origin (05), Cocoa and cocoa prepar. (18), Nickel and articles there of (75) and Beverages, spirits (22), Australia has the potential to grow its trade by leaps and bounds. Overall, it can be interpreted that both countries have the potential to increase their trade potential in a

Table 4: India's trade potential with Australia

Commodity (HS 2-digit)	India trade potential	India actual trade	India (TP/AT) ratio to increase potential	AUS trade potential	AUS actual trade	AUS (TP/AT) ratio to increase potential
Dairy products (04)	440781.52	5348.08	82.42	35222.68	4961.63	7.10
Products of animal origin (05)	96553.93	1228.00	78.63	33807.16	153.78	219.84
Cocoa and cocoa prepar. (18)	188469.35	1228.94	153.36	216479.97	860.28	251.64
Beverages, spirits (22)	273880.28	7604.69	36.01	832713.64	6232.11	133.62
Fertilisers (31)	126567.70	49068.46	2.58	131072.10	60153.09	2.18
Albuminoidal subs (35)	232152.80	2880.99	80.58	213881.85	2975.52	71.88
Plastics and articles there of (39)	5385274.3	73586.00	73.18	806794.36	74060.43	10.89
Rubber and articles there of (40)	3176079.5	60908.72	52.14	241399.84	64720.61	3.73
Nickel and articles there of (75)	72067.74	18025.45	4.00	98339.03	261.10	376.63
Tin and articles there of (80)	10930.87	11.77	929.02	19534.87	435.90	44.82
Misc articles of base metal (83)	655683.21	11604.54	56.50	116468.87	19861.87	5.86
Vehicles o/t railway (87)	17339465.12	83597.59	207.42	1340063.19	88711.80	15.11
Aircraft, spacecraft (88)	1489802.69	6677.62	223.10	1847528.48	8134.74	227.12
Ships, boats (89)	719663.57	137.06	5250.68	346406.52	94.19	3677.70
Clocks and watches (91)	96635.80	262.91	367.57	111249.24	576.37	193.02
Arms and ammunition (93)	128766.12	836.21	153.99	66869.94	1504.05	44.46

Source: Authors Calculation

Table 5: RCA of Australia

Commodity (HS2-digit)	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	2023
Live animals (01)	5.75	6.23	4.65	4.81	4.22	3.62	3.42	5.62	4.27	4.49	3.26
Meat and edible meat (02)	7.56	7.52	7.71	6.72	4.66	4.14	4.96	6.00	5.46	5.79	4.15
Dairy products (04)	5.07	4.04	3.96	3.21	2.29	1.75	1.76	1.89	1.58	1.35	1.22
Products of animal origin (05)	1.84	1.98	1.93	1.07	0.93	0.73	0.90	2.03	1.89	1.72	1.48
Cereals (10)	8.39	5.50	6.36	3.00	4.54	4.61	4.83	4.36	4.71	2.04	3.91
Prod of milling industry (11)	4.24	4.41	3.88	3.79	3.62	2.47	2.87	2.56	2.37	2.38	2.24
Ores, slag and ash (26)	20.58	20.40	18.32	18.65	21.78	21.26	24.95	25.86	22.86	23.15	22.98
Mineral fuels, oils (27)	2.30	2.11	2.11	1.77	2.24	1.62	1.51	2.75	2.84	1.65	3.06
Inorganic chemicals (28)	5.97	6.45	5.78	5.93	4.15	3.06	3.97	4.05	4.21	1.00	2.73
Wool, fine animal hair (51)	15.28	15.18	12.99	15.07	11.42	12.15	13.01	14.94	16.00	12.15	12.81
Cotton (52)	3.15	1.62	1.72	0.96	0.84	2.57	2.70	1.96	2.16	1.36	1.43
Natural/cultured pearls (71)	2.34	2.95	2.28	3.16	2.85	1.83	1.26	1.94	1.72	1.88	1.43
Copper and articles thereof (74)	2.41	2.29	1.93	1.89	1.63	1.61	1.70	1.76	1.33	1.46	1.26
Nickel and articles thereof (75)	9.11	4.30	2.56	3.50	2.77	1.93	2.12	0.20	0.23	0.28	0.11
Aluminium and art. there of (76)	3.95	3.72	3.40	3.31	2.51	2.10	1.88	1.55	1.36	1.27	1.11
Lead and articles there of (78)	12.10	14.19	13.46	13.04	10.55	8.55	9.17	10.46	8.27	5.59	6.66
Zinc and articles there of (79)	7.60	8.07	7.15	6.93	5.96	4.57	5.02	5.16	5.35	4.21	4.43
UN special code (99)	1.62	1.97	1.58	1.88	1.12	1.11	1.04	1.34	1.00	8.12	0.78

Source: Authors Calculation

Table 6: RCA of India

Commodities (HS2-digit)	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	2023
Live animals (01)	0.04	0.05	0.07	0.05	0.04	0.02	0.08	0.11	0.6	0.02	0.02
Meat and edible meat (02)	0.92	0.80	1.00	1.04	1.15	1.67	2.01	2.12	1.94	1.43	1.10
Dairy products (04)	0.33	0.31	0.40	0.50	0.45	0.23	0.21	0.23	0.23	0.22	0.24
Edible vegetables (07)	1.49	1.36	1.59	1.23	1.11	0.95	1.00	1.01	1.01	1.01	0.89
Edible fruits and nuts (08)	2.60	1.77	1.60	1.42	1.04	0.99	0.91	0.89	0.81	0.64	0.64
Coffee tea, mate and spices (09)	9.41	6.38	4.98	4.75	4.11	3.63	3.56	3.82	4.01	4.53	4.09
Ores, slag and ash (26)	2.89	4.40	4.85	4.10	0.97	0.91	0.75	0.52	0.66	1.06	0.69
Mineral, fuels oil (27)	0.55	0.67	1.09	1.12	1.33	1.11	1.54	1.14	1.11	1.20	1.58
Pharmaceutical products (30)	1.22	1.08	1.02	1.12	1.24	1.31	1.56	1.66	1.71	1.74	1.34
Rubber and articles there of (40)	0.94	1.09	0.99	0.93	0.88	0.78	0.88	0.90	1.01	1.06	1.16
Cotton (52)	9.13	6.62	7.09	7.71	7.99	8.16	8.04	7.35	7.77	7.78	8.60
Iron and steel (72)	1.12	1.86	1.55	1.37	1.31	1.13	1.22	1.31	2.01	2.07	2.12
Wool, fine animal hair (51)	0.56	0.56	0.63	0.80	0.81	0.82	0.79	0.77	0.77	0.73	0.56
Clock and watches (91)	0.39	0.38	0.16	0.12	0.33	0.09	0.11	0.11	0.11	0.10	0.08
Knitted/crocheted fabrics (60)	0.30	0.29	0.32	0.39	0.41	0.43	0.41	0.49	0.74	0.86	0.96
Lead and articles there of (78)	0.15	0.09	3.08	0.94	1.22	2.37	1.98	2.03	2.01	2.98	2.89
Natural/cultured pearls (71)	8.76	7.61	5.95	1.43	2.22	3.49	3.12	3.96	2.34	2.25	2.53

Source: Authors Calculation

majority of commodities which serves as proof of substantially developing trade relations between both countries.

4.3. Revealed Comparative Advantage (RCA)

4.3.1. Australia's revealed comparative advantage

To study Australia's competitiveness in the world market, revealed comparative advantage (RCA) of all commodities (HS-2 digit) has been calculated from year 2001 to 2023. Out of 97 commodities, Australia has comparative advantage in several products throughout the years. The Table 5 clearly shows that Australia has major comparative advantage in Wool, fine animal hair (51) along with other commodity groups which are live animals (01), meat and edible meat (02), dairy products (04), Products of animal origin (05), Cereals (10), prod of milling industry (11). Among these groups, Australia has maximum RCA in Ores, slag and ash (26) with RCA values in the 20's showing an extraordinary advantage in trade in this commodity. Other commodities like Lead and articles thereof (78), Inorganic chemicals (28) and Zinc and articles thereof (79) also possess high RCA value.

In case of some product group like Products of animal origin (05), Australia has comparative advantage but not consistently. But among this category, the other commodities possess comparative advantage. In commodities like Cotton (52), Natural/cultured pearls (71), Copper and articles thereof (74), Nickel and articles thereof (75), Aluminium and art. Thereof (76), Australia's RCA is comparatively lower with UN Special Code (99) being the lowest among the commodities listed here.

4.4. India's Revealed Comparative Advantage

The following Table 6 shows the India's RCA value of all commodities whose values are more and <1 from 2001 to 2023. As we know, India has almost absolute advantage in Edible vegetables, Pharmaceuticals and other products. There are some products in which India has comparative advantage throughout given period of time. The following table of RCA values clearly shows that they have high comparative advantage in Coffee tea, mate and amp; spices (09), Cotton (52), and Natural/cultured pearls (71), while pharmaceutical products (30), Edible fruits & nuts (08), possesses moderate comparative advantage. On the other hand, the values of products like Rubber and amp; articles thereof (40), Edible vegetables (07), Ores, slag and amp; ash (26) are fluctuating over the years, while Live animals (01), Dairy Products (04), Wool, fine animal hair (51), Clock & watches (91) have low comparative advantage.

5. CONCLUSION

India's trade with Australia has increased remarkably over the past years. However, India's exports are still lacking compared to Australia and there is a deficit in the trade balance of the country. Even though India's trade balance with Australia is deficient, India still has comparative advantage in multiple goods over Australia. Thus, to balance the trade, India should focus to export products and services which have a comparative advantage over Australia. Both countries also have the potential to trade higher in several commodities as shown by their trade potentials. Thus, the actual trade can grow in comparison to the potential between the two

countries. India's trade Intensity Index has also been steadily rising since 2015. This is significant indication for the India's growing trade capability with Australia.

There are several potential areas of interest to both countries. For these reasons, the recently signed FTA between Australia and India will give both countries new prospects for growth as well. This Free Trade Agreement will reduce tariffs on various goods and services create opportunities for businesses of both countries to expand in each other's markets and boost economic growth strengthening the strategic partnership between Australia and India.

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