

CUTS Dossier on Preferential Trade Agreements

July-September 2020

(Volume XIV, No. 3)

Contents

1. UAE Deal Paves Way for South Korea FTA.....	2
1.1 CUTS Comments	2
a) Impact on India's exports to UAE.....	2
Food for Thought	4
b) Impact on India's exports to South Korea	4
Food for Thought	5
2. Thai-EU FTA study could wrap up this month	6
2.1 CUTS Comments	6
a) Impact on India's exports to EU.....	6
Food for Thought	7
b) Impact on India's exports to Thailand	8
Food for Thought	9
3. Bangladesh plans signing FTAs with African countries.....	10
3.1 CUTS Comments	10
a) Impact on India's exports to Bangladesh	10
Food for Thought	11
b) Impact on India's exports to Morocco.....	11
Food for Thought	12
Annexure I	13
Finger-Kreinin Index	13
FKI to a Destination Country.....	13
RECPI	13

1. UAE Deal Paves Way for South Korea FTA

The normalisation with the United Arab Emirates has given fresh impetus to negotiations for a free trade agreement with South Korea, according to Globes. The FTA has been in talking stages for several years, slowed by political considerations. But the UAE deal reportedly made the upgrade in economic ties “acceptable from the point of view of South Korea’s trade relations with the Arab world,” said Globes.

(<https://hamodia.com/2020/09/08/uae-deal-paves-way-south-korea-fta/>)

CUTS Comments

1.1 UAE and South Korea both are the major export destinations of India. India’s exports to UAE are the second largest after US. India’s total trade with UAE was very large at US\$ 59.85 billion in the year 2019. And India had very low negative trade balance of US\$ 0.78 billion in the same year with UAE. India’s total trade with South Korea although not as much high as trade with UAE, but, the trade volume was significant US\$ 20.77 billion in the year 2019. Also, India had relatively high negative trade balance of US\$ 11.46 billion in this same year.

In order to analyse the impact of this FTA on India, exports from India to each of these countries have been examined and compared with exports between UAE and South Korea.

a) Impact on India’s exports to UAE

In 2019, India’s exports to UAE were worth US\$ 4.65 billion. South Korea’s exports to UAE in this same year were US\$ 3.47 billion. Three key export products are found to be common among their export baskets to UAE. They are electronic products, i.e. telephones (HS code 851712), petroleum spirit (HS code 271012), and light petroleum (HS code 271019).

Other key export of India to UAE are jewellery and parts of precious metal, two types of diamonds (one is worked but not mounted or set and the other is unworked or simply sawn), floating docks, semi milled or wholly milled rice, floating, submersible drilling, cotton T-shirts, singlets and other vests.

Other key export products of South Korea in UAE market are mixture of the products from automobile, and electronics sectors. Those products are motor vehicles parts, parts for diesel and semi diesel engines, spark ignition engine of 1500 and 3000cc, lead acid electric accumulators (vehicle), pneumatic tyres new of rubber for motor cars, colour reception apparatus for television, and cigarettes containing tobacco.

In order to understand impact on India’s exports to UAE, two Indices have been computed: FKI (Finger Kreinin Index); RECPI (Relative Export Competitive Pressure Index) (see Annexure I).

The FKI analysis measures the degree of similarity between product baskets of two source countries in export of goods to a given destination country. Table 1.A shows FKI values for India over a period of five years in UAE market while South Korea as competitor.

As shown in Table 1.A, very less similarity is found in exports baskets of India and its competitor South Korea to UAE. The highest value of this Index was 0.1950 in the year 2019, which is very low.

The RECPI analysis compares the degree of competitiveness between India and its competitor country (South Korea) in exporting common products to a particular destination market, UAE in this case. Table 1.B below presents findings of RECPI analysis of India in UAE market with South Korea as competitor.

It depicts that India will face insignificant export competition and pressure from South Korea in UAE market. This seems to be a result of lack of comparable products in export baskets of both countries and/or due to low volume of exports of South Korea as compared to India in common products.

Table 1: India's FKI and RECPI with South Korea in UAE's Market

1.A. India's FKI with South Korea in UAE's Market					
Competitor	2015	2016	2017	2018	2019
South Korea	0.1035	0.1002	0.1504	0.1659	0.1950
1.B India's RECPI with South Korea in UAE's Market					
Competitor	2015	2016	2017	2018	2019
South Korea	0.0042	0.0059	0.0216	0.0133	0.0125

Source: TradeSift calculations using data from UN Comtrade via WITS 6-digit database

In order to better understand possible trade diversion, which may be experienced by India owing to preferential treatments among these two countries, SMART analysis was conducted, findings of which are presented in Table 2 below. India's products from automobile, electronics to iron and steel industries will be affected heavily.

As shown in Table 2, India's future exports to UAE of spark ignition engine of two variations 1500-3000 cc and 1000-1500 cc could be affected much, by more than one million US\$. Other affected items are non-alloyed zinc, flat rolled iron or non-alloy steel, exports of which could be reduced by more than US\$0.5 million.

Table 2: Trade Diversion likely to be experienced by India

Product Code	Description	Trade Diversion (US\$ thousands)
870323	Spark ignition engine of 1500 3000 cc	-1318.03
790111	Zinc, not alloyed	-749.03
721049	Flat rolled iron or non- alloy steel	-661.66
870322	Spark ignition engine of 1000 1500 cc	-643.55
850710	Lead acid electric accumulators (vehicle)	-450.99
730630	Pipes of Iron and steel	-409.88
291735	Phthalic anhydride	-390.67
848180	Taps, cocks, valves, and similar appliances of pipes	-295.49
841821	Refrigerators	-291.11
732690	Articles of iron or steel	-279.38

Source: CUTS Calculations using data from UN Comtrade via WITS 6-digit database and using WITS SMART analysis tool

Food for Thought

South Korea is not a major competitor of India in UAE's market. However, it has been observed that India's exports of certain products such as automobile, iron and steel, chemical and electronics industries to this market could be impacted significantly as a consequence of this FTA. A framework agreement between India and Gulf Cooperation Council was signed on 25th August, 2004. Since then a series of negotiations happened. However, a final agreement is yet to be reached. Indian government should engage in bilateral talks with its counterparts in the UAE and raise its concern about preferential market access for these affected products.

b) Impact on India's exports to South Korea

In 2019, India's exports to South Korea were worth US\$ 29.54 billion. UAE's exports to South Korea were US\$ 8.99 billion. Two petroleum products and one aluminium product are found to be common among India and UAE's key export items to South Korea. These three products are petroleum spirit, light petroleum, and non-alloyed aluminium. Other key export products of India are ferro chromium, non-alloyed Zinc, refined lead, oil cake, electrodes for graphite or for furnace, iron ore, and diamonds.

Other key items of UAE are petroleum oil, aluminium alloys, cartridges, and natural gas in liquid form, waste and scrap of prim cell, liquefied burns, and liquefied propane. FKI index values listed in Table 3.A show that there is very less similarity in the basket of India and UAE in their exports to South Korea. The RECPI index (Table 3.B) values were not high either, even negligible, over the past four years. However, the value of this RECPI in the recent past was very high, which was more than one.

Table 3: India's FKI and RECPI with UAE in South Korea Market

3.A India's FKI with UAE in South Korea Market					
Competitor	2015	2016	2017	2018	2019
UAE	0.1605	0.1649	0.0791	0.1362	0.1674

3.B India's RECPI with UAE in South Korea Market					
Competitor	2015	2016	2017	2018	2019
UAE	0.0665	0.0881	0.0388	0.0181	1.2513

Source: TradeSift calculations using data from UN Comtrade via WITS 6-digit database

As before, in order to have a better understanding about possible trade diversion from India to UAE in South Korea's market owing to favourable duties as a result of this bilateral FTA, SMART analysis was carried out. Findings of such analysis are presented in Table 4 below, which highlights the possibility of trade diversion in exports of non-alloyed and alloyed unwrought aluminium, non-alloyed wire aluminium, refined lead unwrought, and electrical control and distribution boards.

Table 4: Trade Diversion likely to be experienced by India

Product Code	Description	Trade Diversion (US\$ thousands)
760110	Aluminium unwrought, not alloyed	-571.00
780110	Lead refined unwrought	-364.00
760120	Aluminium unwrought, alloyed	-129.01
760511	Wire aluminium, not alloyed	-106.66
853710	Electrical control and distribution boards	-62.36

Source: CUTS Calculations using data from UN Comtrade via WITS 6-digit database and using WITS SMART analysis tool

Food for Thought

India has experienced a continuous growth in trade deficit with South Korea after the implementation of its Comprehensive Economic Partnership Agreement in January, 2010. In order to lower this trade deficit and for mutual benefits of both the countries, Indian Prime Minister Narendra Modi and South Korean President Moon Jae-in had signed an Early Harvest Package so as to upgrade this CEPA in July, 2018.¹

South Korea has agreed to provide tariff concession on 17 Indian products under this EHP. Among them, seven are fish products and others include alcoholic beverage beer, mango, jams and jellies, corn, and maize.² However, this list is not comprehensive and not solving the intention of India. Hence, there is a need for further negotiation between these two countries in order to expand the product list under this EHP.

Our SMART analysis depicts that India's exports to South Korea on certain products such as different kinds of aluminium, refined lead, and electrical control and distribution board could be affected as a result of this FTA. Indian Government should consider these products in its list of priority products while negotiating with South Korea to upgrade the EHP.

¹ <https://www.thehindubusinessline.com/news/world/india-s-korea-set-sights-on-50-billion-trade/article24382091.ece>

² <https://www.india-briefing.com/news/india-south-korea-cepa-investment-electronics-infrastructure-17425.html/>

2. Thai-EU FTA study could wrap up this month

FTA negotiations between Thailand and the EU were put on hold after the 2014 coup. The EU protested the suspension of democracy. The Trade Negotiations Department looks set to conclude the overall study of the long-awaited free trade agreement (FTA) with the EU and send the report to the commerce minister for consideration this month or early next. The pact, once implemented, is expected to help raise exports by 3.4%, imports by 3.4% and investment by 2.7% a year.

(<https://www.bangkokpost.com/business/1986699/official-thai-eu-fa-study-could-wrap-up-this-month>)

2.1 CUTS Comments

Both the European Union (EU) and Thailand are the India's leading export destinations. India has an existing free trade agreement with Thailand. India is also getting preferential treatment from Thailand under its Comprehensive Economic Cooperation Agreement with the Association of Southeast Asian Nations (ASEAN).

It will not be appropriate to compare total trade statistics of India with the EU and Thailand, because the EU is a group of countries and Thailand is an individual country. In 2019, India's total trade with Thailand was worth US\$ 11.37 billion. And that of total trade with the EU in this same year was US\$ 105.40 billion.

a) Impact on India's exports to the EU

In 2019, India's exports to the EU were worth US\$ 55.86 billion. Thailand's exports to the EU were less than half of that of India. It was US\$ 22.23 billion in the year 2019. Jewellery and parts of precious metal is the only one product found to be a common export of both India and Thailand to the EU. The items that India majorly exports to the EU are light petroleum, two types of diamonds (worked and unworked used to make jewellery items), medicaments, turbo jet engines, cotton T-shirts, singlets and other vests, boots (sole rubber or plastic upper leather), motor vehicle parts, and different kind of fish.

Thailand's key exports to the EU consist mostly products of the electronic sector and some products are from agriculture, pharmaceutical, and automobile sectors. Those key export products are storage units (used for electricity purpose), fowls meat and meat offal, different types of air conditioners, diesel powered trucks, electronic integrated circuits (other than amplifiers memories processors and controllers), machines which perform two or more of the functions of printing, copying, facsimile transmission, and spectacle lenses.

Our FKI analysis is shown in Table 5.A, which is the indicator of homogeneity in the export baskets of two countries and reflects that there is little similarity between the exports of India and Thailand in the EU's market. This is further confirmed by the values of RECPI (see Table 5.B), which show that India faces limited competition from Thailand in the EU's market.

Table 5: India's FKI and RECPI with Thailand in the EU's Market

5.A India's FKI with Thailand in the EU Market					
Competitor	2015	2016	2017	2018	2019
Thailand	0.2287	0.2304	0.2197	0.2098	0.2160
5.B India's RECPI with Thailand in EU's Market					
Competitor	2015	2016	2017	2018	2019
Thailand	0.1062	0.1081	0.0907	0.0392	0.0290

Source: TradeSift calculations using data from UN Comtrade via WITS 6-digit database

In order to better understand possible trade diversion, which is likely to be faced by India from Thailand in the EU's market, a SMART analysis has been carried out. Findings of this analysis are presented in Table 6 below. It is observed that exports of some products of India's automobile, pharmaceutical, jewellery, textile, footwear, and agriculture sectors are likely to be reduced by more than US\$ one million.

Table 6: Trade Diversion likely to be experienced by India

Product Code	Description	Trade Diversion (US\$ thousands)
870421	Trucks (diesel engine)	-3818.20
900150	Spectacle lenses	-2277.53
711311	Jewellery and parts, silver, including plated silver	-2269.06
871130	Motorcycles, spark ignition engine of 250 500 cc	-1942.87
200899	Fruits	-1386.85
640391	Boots, sole rubber or plastic upper leather	-1215.71
610990	Knitted T shirts, singlets etc	-1150.76
640399	Footwear, sole rubber, plastics uppers of leather	-1143.54
30617	Different kinds of fish	-1032.32

Source: CUTS Calculations using data from UN Comtrade via WITS 6-digit database and using WITS SMART analysis tool

Food for Thought

The 15th India-EU summit was held on 15th July this year. The main agenda was to discuss trade and investment relations. Positive talks about the necessity of a trade agreement, requirement of cooperation and solidarity to protect human lives and to mitigate socio-economic disruption in consequence of the Covid-19 pandemic were discussed. Also, it was agreed that a regular High Level Dialogue at the ministerial level to provide guidance to the bilateral trade and investment relations will be held.³

³ Joint Statement of the 15th India-EU Summit (July 15, 2020):

https://www.mea.gov.in/bilateral-documents.htm?dtl/32827/Joint_Statement_of_the_15th_IndiaEU_Summit_July_15_2022

Hence, it can be expected that the Broad-based Bilateral Trade and Investment Agreement (BITA) between India and the EU, whose negotiation is stalled since seven years, may resume soon. It is observed from our SMART analysis that India's exports of a number of products from a mix of industries such as automobile, footwear, textile, jewellery, pharmaceutical, and agriculture to the EU may be reduced significantly. The Indian government should request the EU for lowering of import tariffs as well as non-tariff measures (NTMs) on those products at their next High Level Dialogue.

b) Impact on India's exports to Thailand

In 2019, India's exports to Thailand were worth US\$ 7.06 billion. The EU's exports to Thailand were USD 22.23 billion. Medicaments are the only one common product which both India and the EU exports heavily to Thailand. Other primary export items exported by India to the EU are diamonds, two types of diesel engine, light petroleum, cuttlefish, non-alloyed unwrought aluminium, motor vehicle parts and p-xylene. Other primary export items of the EU to Thailand are electronic integrated circuits (other than amplifiers memories processors and controllers).

Our FKI analysis (see Table 7.A) over a period of last five years shows that there is hardly any common product in the export baskets of India and the EU to Thailand. RECPI (see Table 7.B) also reflects that India faces insignificant competition from the EU in Thailand's market.

Table 7: India's FKI and RECPI with EU in Thailand Market

7.A India's FKI with the EU in Thailand's Market					
Competitor	2015	2016	2017	2018	2019
EU	0.2328	0.2558	0.2428	0.2351	0.2350
7.B India's RECPI with the EU in Thailand's Market					
Competitor	2015	2016	2017	2018	2019
EU	0.3574	0.3546	0.3696	0.3685	0.3230

Source: TradeSift calculations using data from UN Comtrade via WITS 6-digit database

Our SMART analysis reveals that India's exports to Thailand of certain products, which are mostly from pharmaceutical and automobile sectors, could be affected. Most affected export products are listed in the table below. These products include medicaments, motor vehicle parts, fungicides, air or gas compressors, penicillin and streptomycin, transmissions for motor vehicles, and tractors.

Table 8: Trade Diversion likely to be experienced by India

Product Code	Description	Trade Diversion (US\$ thousands)
300490	Medicaments	-5235.90
870899	Motor vehicle parts	-1369.66
380892	Fungicides	-989.55
870829	Parts and accessories of bodies nes for motor vehicle	-946.05
841480	Air or gas compressors	-581.81
300410	Penicillin and Streptomycin	-581.38
870840	Transmissions for motor vehicles	-562.81
870190	Tractors	-504.75

Source: CUTS Calculations using data from UN Comtrade via WITS 6-digit database and using WITS SMART analysis tool

Food for Thought

It has been observed that India's high potential products from pharmaceutical industry could be affected more in Thailand by this FTA. Second most affected product is parts of motor vehicles. Exports of many other products of the automobile sector could also be affected significantly. Bilateral discussions between India and Thailand are needed to mitigate such impacts. The Indian government should demand lower import tariffs as well as removal of NTMs faced by Indian exporters on these particular products.

We understand that many Indian companies, particularly those from pharmaceuticals and automobile sectors, would benefit from their trade with Thailand in the coming years by the ASEAN Economic Community Blueprint, 2025. This initiative will help seamless movement of goods by lowering tariffs, NTMs, and make them hassle-free by major trade facilitation initiatives.⁴

⁴ https://www.business-standard.com/article/news-ani/india-thailand-trade-up-60-percent-in-2-years-will-this-continue-119082600294_1.html

3. Bangladesh plans signing FTAs with African countries

The government has planned to sign free trade agreements, or FTAs, with some African countries, including Morocco, to boost the country's export earnings, officials said. They said the commerce ministry is expecting to start discussion in this regard first with Morocco, a North African country. After signing the FTA with Morocco, the government would take the move to hold talks with other African nations, they added. When contacted, commerce secretary Md Jafar Uddin said, "We have started working on signing FTA with Morocco, aiming to address the challenges after graduation from the least developed country category." (<https://thefinancialexpress.com.bd/trade/bd-plans-signing-ftas-with-african-countries-1593836160>)

3.1 CUTS Comments

India's exports to Bangladesh are much higher as compared to its imports. In 2019, India's total trade with Bangladesh was worth US\$ 9.46 billion. India had a huge trade surplus of US\$ 7.03 billion. India's trade with Morocco as compared to Bangladesh is not that high. In 2019, it was US\$ 2.04 billion. Also, India had negative trade balance with Morocco, which was of US\$ 0.17 billion.

a) Impact on India's exports to Bangladesh

India's key export items to Bangladesh included not-carded or combed cotton, electrical energy, light petroleum distillates, cotton yarn, motorcycles, vehicles other than railway or tramway rolling stock, and parts and accessories thereof, ferrous products from direct reduction of iron ore, denim cotton, sugar and sugar confectionery, cane or beet sugar. Morocco's key export items to Bangladesh included superphosphates, di-ammonium phosphate, natural calcium phosphates, flour or meal, pellet, fish, etc. for animal feed, fresh or dried mandarin, clementine and citrus hybrids, woven fabric of combed wool, nylon, and carded wool, and belts and bandoliers of leather.

There is no similarity in key items exported by India and Morocco to Bangladesh and very little similarity in their entire export baskets. Our FKI analysis in Table 9.A corroborates this. RECPI analysis (see Table 9.B) also shows that India faces insignificant competition from Morocco in Bangladesh's market.

Table 9: India's FKI and RECPI with Morocco in Bangladesh Market

9.A India's FKI with Morocco in Bangladesh's Market					
Competitor	2015	2016	2017	2018	2019
Morocco	0.0012	0.0002	0.0027	0.0017	0.0021
9.B India's RECPI with Morocco in Bangladesh Market					
Competitor	2015	2016	2017	2018	2019
Morocco	0.0001	0.0000	0.0000	0.0000	0.0000

Source: TradeSift calculations using data from UN Comtrade via WITS 6-digit database

Our SMART analysis has found that possible effect of this FTA on India's future exports to Bangladesh is very negligible. Phosphoric acid may be the most affected product, which could be reduced by US\$ 129,630. Plastic caps and closures, and cotton yarn are two other products, exports of which could be reduced by US\$ 4,900 and US\$ 1,630, respectively.

Food for Thought

This FTA will not hurt India's exports to Bangladesh market as Morocco is not a major competitor in this market. However, India should keep an eye on its exports of the above-stated three products, which may be affected as a result of this FTA.

a) Impact on India's exports to Morocco

In 2019, India's exports to Morocco were worth US\$ 935.02 million. Bangladesh's exports to Morocco were even lower than that. Total exports of Bangladesh to Morocco were worth US\$ 57.89 million. India's key products exported to Morocco comprise of light petroleum distillates, telephones for cellular networks, polyethylene terephthalate, medicaments; textured yarn, cotton yarn, automobiles of diesel engine, yarn of polyester and cotton, cumin seeds and ginger.

Bangladesh's exports to Morocco were mostly textile products. They included boys trousers and shorts of non-knitted cotton, T-shirts, singlets and other vests of knitted cotton, yarn of jute, textile fibre, denim cotton, non-knitted cotton women/girls trousers and shorts, non-knitted cotton men/boys shirts, knitted pullovers, cardigans, etc. of manmade fibres, pullovers, cardigans, etc. of knitted cotton, men, and boys anoraks of non-knitted manmade fibres.

There is some common textile items in both countries' export to Morocco and our FKI analysis (see Table 10.A) confirms this. However, RECPI index (see Table 10.B) is close to zero, reflecting that India faces no competition from Bangladesh in Morocco's market.

Table 10: India's FKI and RECPI with the Bangladesh in Morocco

10.A India's FKI with the Bangladesh in Morocco's Market					
Competitor	2015	2016	2017	2018	2019
Bangladesh	0.0046	0.0103	0.0113	0.0175	0.0074
10.B India's RECPI with the Bangladesh in Morocco's Market					
Competitor	2015	2016	2017	2018	2019
Bangladesh	0.0000	0.0000	0.0000	0.0000	0.0000

Source: TradeSift calculations using data from UN Comtrade via WITS 6-digit database

Our SMART analysis depicts that very few export products from India could be affected in Morocco's market. Majority of such products, about 90 per cent, are from the textile sector. Top five most affected products are listed in the table below.

Table 11: Trade Diversion likely to be experienced by India

Product Code	Description	Trade Diversion (US\$ thousands)
620342	Non-knitted cotton men, boys trousers and shorts	-188.01
620462	Non-knitted cotton women, girls trousers and shorts	-117.98
610910	T shirts, singlets and other vests of knitted cotton	-97.06
611120	Babies garments, accessories of knitted cotton	-73.29
620520	Mens, boys shirts of non-knitted cotton	-68.75

Source: CUTS Calculations using data from UN Comtrade via WITS 6-digit database and using WITS SMART analysis tool

Food for thought

Overall India's exports to Morocco may not hamper much due to this FTA. It has been observed from our analysis that both India and Bangladesh have completely different commodity baskets exporting to Morocco. India's export basket is more diverse as compared to that of Bangladesh. Bangladesh's export basket is dominated by the textile items.

Hence, Indian textile exporters may face some competition from Bangladesh in their access to Morocco's market as in other such markets in rest of the world. Indian textile manufactures should enhance their competitiveness. Moreover, there is large complementarity of textile products of India and Morocco. The Indian government should approach Morocco for preferential treatment of two way movements of their products, particularly textile items.

Annexure I

FK Index

The Finger-Kreinin (FK) index provides a way of measuring how similar are two sets of numbers. In principle, it can be used to compare the similarity between either the structure of a country's imports or exports with any two partner countries, to indicate how similar is a country's export pattern to its import pattern, whether geographically or by product; or to compare the structure of production in two different countries.

FKI to a Destination Country

This version of the FK Index compares export patterns of two countries into a given market (for example, UK and Japan's exports to the world or to India). Another way of thinking about this is that it compares how similar are the imports of a given country from two different suppliers. This is useful if we want to consider overall similarity of exports of two countries and therefore, their degree of competitiveness/complementarity either with respect to particular markets or with respect to their trade with the rest of world.

The formula for the FK Index to a destination country is as follows:

$$FK_{i_1 i_2 j} = \sum_k \min \left[\left(\frac{x_{i_1 j}^k}{X_{i_1 j}} \right), \left(\frac{x_{i_2 j}^k}{X_{i_2 j}} \right) \right]$$

In the FKI by destination, i_1 and i_2 are two source countries and j is a destination country. x^k refers to trade flow in product k ; X as total trade flow, so $x_{i_1 j}^k/X_{i_1 j}$ is the share of product k in country i_1 's total exports to the destination partner (j). $x_{i_2 j}^k/X_{i_2 j}$ is the share of product k in the comparator country's (i_2) total exports.

RECPI

The Relative Export Competitive Pressure Index (RECPI) is about exploring average degree of competition country i_1 faces in country j 's market from country i_2 , by taking into account both the structure and level of competing countries' trade. Country i_1 will be interested in the value of country i_2 's exports to country j , and also in the extent to which country i_2 's exports are in direct competition with country i_1 's exports.

The Relative Export Competitive Pressure Index (RECPI) is defined for exporter i_1 with respect to competitor i_2 in market j as:

$$RECPI = \frac{\sum_k s_{i_2 j}^k x_{i_2 j}^k}{\sum_k s_{i_1 j}^k x_{i_1 j}^k}$$

where k refers to the product, i_1 to the reporting country, i_2 to the competitor country, and the s and x data refer to a given export destination, country j . $x_{i_1 j}^k$ is the value of country i_1 's exports to country j of good k , and $s_{i_1 j}^k$ gives the share of good k in country i_1 's exports to country j .

The RECPI is a summary measure which aggregates information from across a range of sectors, subsectors or products. Hence, it can be calculated either for all trade, or for particular sectors - in all cases on the basis of more detailed sub-sectoral or product level detail.