A NOTE ON THE ALIGNMENT OF THE EXPORTS OF INDIA WITH WORLD DEMAND PATTERN

Section1: Introduction

That India's merchandise exports have not grown perceptibly since 2014 is a matter of concern. From $ 317 billion in 2014 to $ 324 billion in 2019 (WTO data) is surely not much. But the stagnation that the figures suggest is more in India's share in world merchandise trade than in the absolute numbers. Actually, both world GDP and world exports went through a U-curve between 2014 and 2018. Both witnessed a sharp fall in 2015, followed by a flattening in 2016, and a recovery thereafter. However, the trough world GDP crossed was shallower than the one world merchandise exports did. India's exports followed world exports so closely that its share (in the world) stuck to 1.7%, with only a slight dip in 2015. On the other hand, India's share in world GDP has climbed to 3.2% in 2018 from 2.6% in 2014. (See Table 1 below). Implying that India has outperformed the rest of the world in GDP, and also that the rest of the sectors of the economy of India (as a whole) have bested the merchandise exports sector in terms of growth. It is for this reason that the share of merchandise exports in India's GDP has fallen from 15.5% in 2014 to 11.7% in 2018.

Table 1: India's Share in World GDP and World Merchandise Exports (%)

Year	2014	2015	2016	2017	2018	2019
In World GDP[a]	2.6	2.9	3.0	3.2	3.2	--
In World Merchandise Exports[b]	1.7	1.6	1.7	1.7	1.7	1.7

[a] *Source: United Nations Statistics Division. 2019 figures are not available yet.*

[b] *Source: World Trade Organization.*

World total merchandise exports, and hence the total imports have been wobbling, and the only way India's export growth can take off is by increasing India's share in global exports. There are two plausible and related explanations for the low share India has achieved till date.

First, the commodity-wise composition of India's merchandise exports does not wholly match with the composition of world merchandise exports. This composition, theoretically, has to be similar to that of imports (i.e. commodity-wise composition of markets, which is important for India's exports), and so, in this report, export data have been taken for both India and the world, as comparison is convenient.

Secondly, the destination-wise breakdown of India's exports is not in sync with the country-wise import pattern of the world, either.

Data source is UN Comtrade Database. In most cases, data up to 2018 have been used because more than 21% of world trade data is yet to be displayed on the UN Comtrade Database. Wherever available, data for 2019 have been used.

Section 2: Commodity-wise Composition of Exports

World merchandise exports, when broken down into ITC-HS two-digit chapters, have a highly skewed distribution in terms of value (in US dollars). Five chapters contribute almost 50% to world exports. See Table 2 below. The shares of four among them – 'Electrical and Electronic Equipment', 'Nuclear Reactors, Boilers, Machinery, etc.', 'Vehicles other than railway, Tramway' and 'Plastics and articles thereof' – have also grown between 2014 and 2018. These are all manufactured goods, except the crude oil component of Chapter 27. Any country which intends to excel in merchandise exports needs to have a sizeable proportion of these commodity groups in its export basket.

Table 2: Percentage Shares of Major Commodity Groups in World Exports

(in terms of Value)

HS Chapter	Description	2014	2015	2016	2017	2018
85	Electrical, electronic equipment	12.64	14.28	14.48	14.57	14.56
84	Nuclear reactors, boilers, machinery, etc	11.45	11.91	11.90	11.92	12.09
27	Mineral fuels, oils, distillation products, etc	15.52	10.25	9.18	10.44	11.63
87	Vehicles other than railway, tramway	7.49	8.21	8.54	8.34	8.15
39	Plastics and articles thereof	3.30	3.36	3.42	3.43	3.43
	Other	49.60	51.99	52.48	51.29	50.13

Source: Computed from UN Comtrade Database

Table 3 below shows how India's export composition compares to that of the world in terms of the five major ITC-HS Chapters mentioned above. The top five in world export list account for only about one-third of India's exports. The main mismatch lies in the cases of 'Electrical and Electronic Equipment' and 'Nuclear Reactors, Boilers, Machinery, etc.'. The meagre shares of 3.67% and 6.33%, respectively, in 2018, are way below 14.56% and 12.09% in the case of world exports. Total world exports of 'Electrical and Electronic Equipment' runs into more than $ 2.7 trillion, whereas India's exports only about $ 12 billion (2018 figures). India's share in world exports is a very low 0.43%. Similarly, in case of 'Nuclear Reactors, Boilers, Machinery, etc.', of total world exports of about $ 2.3 trillion, India accounts for only around $ 20 billion, its share being only 0.9%.

Only in the case of 'Mineral fuels, oils, distillation products, etc'does is the share of the commodity group in total exports of India (15.07%) exceed that in world exports (11.63%). India's share in world export is 2.22%. This is indeed reassuring, as India's exports of 'Mineral fuels, oils, distillation products, etc' constitutes not so much of crude oil as of petroleum products.

Again, 'Vehicles other than railway, tramway' constituted 8.15% of world exports in 2018, but 5.66% of India's exports. India's share in the world exports thus worked out to a low 1.19%. Passenger cars is a major component of this commodity group, and is a growing sector. Total world exports of this commodity group stood at around $ 1.53 trillion in 2018.

In the case of 'Plastics and articles thereof', too, the share in world exports is higher than that in India's exports. It is also an important sector, with world exports exceeding $ 645 billion in 2018.

Put in a more formal analytical language, the India's Revealed Comparative Advantage (RCA) Index for the all the commodity groups in Tables 2 and 3 except for 'Mineral fuels, oils, distillation products, etc' is less than 1, and significantly so. RCA Index is nothing but a commodity's share in a country's exports divided by its share in world exports – it measures the importance of a particular commodity (or a commodity group) in the country's exports compared to its importance in world exports. Now, as the commodity groups shown in Tables 2 and 3 constitute over half of world trade in merchandise, a lack of comparative advantage in them is an issue requiring close attention and remedy. Moreover, these are industrial products, some are high-end manufactured items, like 'Electrical and Electronic Equipment', 'Nuclear Reactors, Boilers, Machinery, etc.' and 'Vehicles other than railway, Tramway'. A low RCA Index in case of these commodity groups does not indicate a high degree of sophistication in the manufacturing sector of a particular country. Of particular concern is the performance of India as regards 'Electrical and Electronic Equipment', which is the most important commodity group (chapter, in terms of value of exports and imports), wherein the RCA Index is disappointingly low – less than even 0.3.

Table 3: Percentage Shares of Major World Exports in India's Export Basket

HS Chapter	Description	2014	2015	2016	2017	2018
85	Electrical, electronic equipment	2.83	3.00	3.16	2.99	3.67
84	Nuclear reactors, boilers, machinery, etc	4.28	5.00	5.21	5.65	6.33
27	Mineral fuels, oils, distillation products, etc	19.63	11.87	10.65	12.19	15.07
87	Vehicles other than railway, tramway	4.56	5.33	5.76	5.51	5.66
39	Plastics and articles thereof	1.70	1.90	2.00	2.01	2.44
	Other	66.99	72.90	73.23	71.66	66.83

Source: Computed from UN Comtrade Database

What then are the commodities for which India has the highest RCA Index values? The top ten ITC-HS chapters in terms of RCA values are shown in Table 4 below. The majority of them are agricultural products and primary products. High-end manufacturing is not required in their production. Take, for example, 'cotton'. In India's export basket, cotton has enjoyed a share which is around nine times that it has enjoyed in world export basket in 2018. This has remained stable over the last few years – since 2014 at least.

Table 4: Ten ITC-HS chapters with the highest RCA values

Chapter	Description	2014	2015	2016	2017	2018
52	Cotton	8.88	9.04	7.68	8.03	9.05
13	Lac, gums, resins, vegetable saps and extracts nes	16.48	9.52	7.90	7.51	7.18
57	Carpets and other textile floor coverings	6.98	7.88	7.51	6.97	7.13
53	Vegetable textile fibres nes, paper yarn, woven fabric	4.90	4.71	7.55	6.63	6.02
63	Other made textile articles, sets, worn clothing etc	4.48	5.01	4.84	4.94	4.95

09	Coffee, tea, mate and spices	3.78	4.31	4.53	4.56	4.79
10	Cereals	5.23	4.25	3.88	4.55	4.19
78	Lead and articles thereof	1.61	1.85	1.53	2.84	3.68
03	Fish, crustaceans, molluscs, aquatic invertebrates nes	3.24	3.20	3.20	3.88	3.53
14	Vegetable plaiting materials, vegetable products nes	4.27	5.20	5.78	4.11	3.36

Source: Computed from UN Comtrade Database

These commodity groups are however not very important in global merchandise trade. The shares (in %) of these commodity groups in world exports in terms of value (current US dollar) are given in Table 5 below. It will be seen that none of these commodity groups have a share of even 1% in world exports. Out of these ten groups, only two – 'cereals' and 'fish, crustaceans, molluscs, aquatic invertebrates nes' – have a share of over 0.5% in global exports. Hence, India has the highest (revealed) comparative advantage in the commodity groups which have little importance in world exports.

Table 5: Shares in World Exports of the 10 Chapters for which India has the Highest RCA Indices

Chapter	Description	2014	2015	2016	2017	2018
52	Cotton	0.33	0.34	0.32	0.32	0.31
13	Lac, gums, resins, vegetable saps and extracts nes	0.05	0.04	0.04	0.04	0.04
57	Carpets and other textile floor coverings	0.09	0.09	0.10	0.09	0.08
53	Vegetable textile fibres nes, paper yarn, woven fabric	0.02	0.03	0.02	0.02	0.02
63	Other made textile articles, sets, worn clothing etc	0.35	0.38	0.38	0.36	0.34
9	Coffee, tea, mate and spices	0.26	0.28	0.29	0.29	0.24
10	Cereals	0.65	0.65	0.61	0.59	0.59
78	Lead and articles thereof	0.04	0.04	0.04	0.05	0.04
3	Fish, crustaceans, molluscs, aquatic invertebrates nes	0.58	0.60	0.67	0.66	0.63
14	Vegetable plaiting materials, vegetable products nes	0.005	0.005	0.005	0.006	0.005

Source: Computed from UN Comtrade Database

This situation needs a remedy. The shares of those commodities which have the highest importance in world exports (commodity groups in Table 2) are required to be increased in India's export basket. However, there is a silver lining. Figures in Table 3 show that, except for 'Mineral fuels, oils, distillation products, etc', all the other four top commodity groups in world exports have increased their share in India's total exports between 2014 and 2018. 'Mineral fuels, oils, distillation products, etc' are subject to international price volatilities to a great extent, and fluctuations in the short-run may not prove anything of importance.

A glance at Table A-1 in the Appendix-1 will help bring out clearly why the point above regarding India's alignment of exports to the general world trade pattern needs to be emphasized. This Table shows data of the ten largest exporters of the world. The 2019 data do not show any significant deviation from it – it has not been included in the Table data from all these countries, including from China, are not available yet. The shares of the top five commodity groups taken together constitute more than 40% of total exports in all these countries – except for France. In case of five countries, they are above 50%. Republic of Korea, Japan and Hong Kong show shares above 60%. The data of these countries prove why

they could do so well in world exports. Moreover, in most of the cases, the shares of these commodity groups have been increasing over the recent years.

The discussion in Appendix-2 offers a few examples of East Asian and South-East Asian countries which, when their exports rose significantly, witnessed a sharp rise in the shares (in total trade) of high-end manufactures like 'Nuclear reactors, boilers, machinery, etc' and 'Electrical, electronic equipment'.

Section 3: Destination-wise Composition of Exports

World merchandise imports ran into around $ 19 trillion in 2018. According to WTO Press Release dated 8th April 2020, it is expected to be $ 19.23 trillion in 2019.

(https://www.wto.org/english/news_e/pres20_e/pr855_e.htm).

The shares of the eleven (India and ten other countries) largest importers are given in Table 6 below. The figures of 2019 are not shown as the data for all the countries are not yet available. It is seen that the top ten importers (leaving out India) account for about 54% of world imports.

Table 6: Percentage Shares of the Largest Importers in World Imports

Countries	2014	2015	2016	2017	2018
USA	12.98	14.29	14.21	13.73	13.69
China	10.55	10.37	10.04	10.52	11.20
Germany	6.54	6.53	6.71	6.67	6.78
Japan	4.37	3.86	3.84	3.83	3.92
UK	3.74	3.89	4.02	3.66	3.52
France	3.55	3.48	3.54	3.50	3.46
Hong Kong	3.23	3.45	3.46	3.36	3.29
Rep. of Korea	2.83	2.70	2.57	2.73	2.81
India	2.47	2.41	2.26	2.53	2.66
Italy	2.55	2.54	2.57	2.59	2.64
Netherlands	2.73	2.43	2.58	2.64	2.63
Total of the 11 countries	55.54	55.95	55.79	55.76	56.60
Total leaving out India	53.07	53.54	53.54	53.23	53.94

Source: Computed from UN Comtrade Database

Table 7 below shows the shares of the top ten importing countries of the world in India's exports. They constitute below 40% of the Indian exports. Except for the USA, Hong Kong and the Netherlands, shares of all major importers are below their shares in world imports. In the case of China, Germany, Japan and France, they are significantly so.

Table 7: Percentage Shares of the top ten importing countries of the world in India's exports

Countries	2014	2015	2016	2017	2018
USA	13.44	15.25	16.13	15.63	16.02
China	4.23	3.62	3.42	4.24	5.08
Hong Kong	4.22	4.59	5.07	5.10	4.07
UK	3.04	3.36	3.29	3.04	3.02
Germany	2.44	2.66	2.76	2.80	2.78
Netherlands	2.13	1.84	1.87	1.84	2.69
Italy	1.71	1.60	1.71	1.92	1.71
France	1.60	1.82	1.87	1.71	1.64
Rep. of Korea	1.51	1.37	1.33	1.49	1.49
Japan	1.81	1.71	1.47	1.53	1.47
Total of the 10 countries	36.15	37.83	38.93	39.31	39.97

Source: Computed from UN Comtrade Database

In terms of Export Intensity Index, therefore, they – barring the three exceptions – have values less than 1, in most cases, way below 1. These are the largest markets, and if in the majority of them the Export Trade Intensity Index is substantially lower than 1, achieving a high growth rate of exports becomes difficult. The issue of the direction of India's merchandise exports needs to be addressed.

If we consider a few of the top ten exporters (who happen to be the same countries as the top ten importers, if we leave out India), we may have an idea of how much they exported to top importers. The largest exporter is China. Table 8A below shows that its exports to the other top importers of the world constitute almost 53% of its total exports, much higher than India's figures.

Table 8A:PercentageShares of the top importing countries of the world in the Exports of China

Countries	2014	2015	2016	2017	2018
USA	16.95	18.03	18.39	19.01	19.23
Hong Kong	15.50	14.54	13.69	12.34	12.15
Japan	6.38	5.97	6.16	6.06	5.90
Rep. of Korea	4.28	4.46	4.47	4.54	4.37
Germany	3.10	3.04	3.11	3.14	3.12
Netherlands	2.77	2.62	2.74	2.97	2.93
UK	2.44	2.62	2.65	2.51	2.28
Italy	1.23	1.22	1.26	1.29	1.33
France	1.24	1.19	1.19	1.24	1.25
Total of the above countries	53.90	53.68	53.66	53.09	52.58

Source: Computed from UN Comtrade Database

Germany is another large exporter – the third largest in terms of value. The percentage share of its exports going to the other nine largest importers works out to 45%. Table 8B below shows the details.

Table 8B:PercentageShares of the top importing countries of the world in the Exports of Germany

Countries	2014	2015	2016	2017	2018
USA	8.53	9.53	8.87	8.74	8.60
France	8.91	8.57	8.36	8.22	7.96
China	6.62	5.98	6.32	6.74	7.07
Netherlands	6.21	6.14	6.19	6.20	6.37
UK	7.00	7.40	7.09	6.62	6.19
Italy	4.78	4.82	5.06	5.08	5.27
Japan	1.52	1.43	1.52	1.53	1.55
Rep. of Korea	1.39	1.50	1.43	1.36	1.31
Hong Kong	0.53	0.50	0.56	0.54	0.46
Total of the 9 countries	45.48	45.86	45.42	45.04	44.78

Source: Computed from UN Comtrade Database

Japan, the fourth largest exporter of the world. The percentage shares of its exports heading for different destination countries is shown in Table 8C below. The total percentage share of the other nine largest importers comes to more than 58%.

Table 8C:PercentageShares of the top importing countries of the world in the Exports of Japan

Countries	2014	2015	2016	2017	2018
China	18.31	17.49	17.65	19.02	19.51
USA	18.95	20.23	20.25	19.35	19.05
Rep. of Korea	7.46	7.04	7.17	7.64	7.11
Hong Kong	5.53	5.60	5.21	5.08	4.70
Germany	2.76	2.60	2.74	2.71	2.83
UK	1.62	1.72	2.12	1.97	1.88
Netherlands	1.89	1.86	1.83	1.78	1.72
France	0.86	0.84	0.97	0.90	0.99
Italy	0.51	0.58	0.73	0.70	0.64
Total of the 9 countries	57.89	57.95	58.67	59.14	58.45

Source: Computed from UN Comtrade Database

Or, take the United Kingdom for instance. Again, the shares of exports going to the other nine largest importers is about 51%, close to the world share. See Table 8D below.

Table 8D:PercentageShares of the top importing countries of the world in the Exports of the United Kingdom

Countries	2014	2015	2016	2017	2018
USA	12.56	14.88	14.96	13.38	13.44
Germany	10.18	10.00	10.64	10.56	9.68
Netherlands	7.19	5.67	6.19	6.24	7.03
France	6.36	5.85	6.43	6.88	6.54
China	5.13	5.92	4.41	4.84	5.64
Italy	2.82	2.76	3.19	2.99	2.85
Hong Kong	2.36	2.17	2.19	2.11	2.10
Japan	1.39	1.41	1.56	1.67	1.71
Rep. of Korea	1.35	1.54	1.45	1.70	1.59
Total of the 9 countries	49.34	50.21	51.02	50.35	50.58

Source: Computed from UN Comtrade Database

The USA, however, is an exception, partly because it is itself the largest importer in the world, and when it is itself removed from the list of destinations, the pattern of percentage shares seen in the case of the other large exporters is not followed in its (US's) case.

Section 4: Conclusion

From the brief study above, it is evident that regarding both commodity-wise and export destination-wise composition, India is not in step with the rest of the world. Or rather, not yet. More focus is required on the manufacture and exports of machinery, electrical and electronic goods, passenger cars and other vehicles, and other items which need sophisticated production processes. Those are the goods that hold the key to success in international trade. It may be noted that they not only hold the lion's share of world trade, their shares are increasing continuously in terms of value. This is not unexpected – it had been apprehended by literature on international trade long back that in order to thrive in the field of international trade, a nation needs to move away from primary goods to processed goods to high-end manufacturing products.

It is also true that India needs to increase her exports to some very wealthy markets. A realignment in her destination-wise composition of exports is needed. More focus on countries like Germany, Japan, France, Italy and other large markets will help boost the country's exports. The two factors may be related to some extent – an increased ability to produce better quality manufactured products at competitive prices may further open up markets of developed industrial countries at a faster rate.

There is an encouraging development to be noticed in the recent years though. There is a perceptible change in the right direction. Table 3 and Table 7 show that both commodity-wise and destination-wise composition of India's exports are moving closer towards the world demand pattern. However, a faster movement would have been welcome.

APPENDIX-1

TABLE A-1

China	Description	2014	2015	2016	2017	2018
27	Mineral fuels, oils, distillation products, etc	1.47	1.23	1.28	1.56	1.87
39	Plastics and articles thereof	2.85	2.89	2.97	3.09	3.21
84	Nuclear reactors, boilers, machinery, etc	17.11	16.02	16.39	16.93	17.24
85	Electrical, electronic equipment	24.37	26.14	26.37	26.44	26.64
87	Vehicles other than railway, tramway	2.74	2.75	2.87	2.97	3.01
	Total of 5 chapters mentioned above	**48.55**	**49.03**	**49.88**	**51.00**	**51.97**
France						
27	Mineral fuels, oils, distillation products, etc	3.88	2.96	2.31	2.80	3.29
39	Plastics and articles thereof	4.06	3.95	3.99	4.11	3.97
84	Nuclear reactors, boilers, machinery, etc	11.70	11.52	11.72	11.62	11.91
85	Electrical, electronic equipment	7.77	7.99	8.01	7.99	7.89
87	Vehicles other than railway, tramway	8.40	8.85	9.28	9.76	9.92
	Total of 5 chapters mentioned above	**35.82**	**35.27**	**35.31**	**36.27**	**36.98**
Germany						
27	Mineral fuels, oils, distillation products, etc	2.36	2.24	1.73	1.81	2.13
39	Plastics and articles thereof	4.20	4.08	4.16	4.36	4.20
84	Nuclear reactors, boilers, machinery, etc	17.12	16.76	16.56	17.14	17.50
85	Electrical, electronic equipment	9.83	9.90	10.29	10.37	10.58
87	Vehicles other than railway, tramway	17.32	18.21	18.27	17.78	16.90
	Total of 5 chapters mentioned above	**50.83**	**51.18**	**51.01**	**51.47**	**51.31**
Hong Kong						
27	Mineral fuels, oils, distillation products, etc	0.16	0.14	0.10	0.11	0.12
39	Plastics and articles thereof	2.64	2.41	2.13	1.93	1.76
84	Nuclear reactors, boilers, machinery, etc	13.19	12.69	11.85	12.25	13.09
85	Electrical, electronic equipment	45.79	48.83	50.24	51.20	54.42
87	Vehicles other than railway, tramway	0.33	0.29	0.26	0.23	0.22
	Total of 5 chapters mentioned above	**62.11**	**64.36**	**64.57**	**65.71**	**69.62**
Italy						
27	Mineral fuels, oils, distillation products, etc	3.72	3.21	2.59	3.19	3.34
39	Plastics and articles thereof	4.08	4.09	4.11	4.14	4.14
84	Nuclear reactors, boilers, machinery, etc	20.33	20.20	20.00	19.64	19.48
85	Electrical, electronic equipment	5.67	6.00	6.01	5.97	6.19
87	Vehicles other than railway, tramway	7.28	8.32	8.54	8.66	8.23

	Total of 5 chapters mentioned above	**41.07**	**41.82**	**41.26**	**41.59**	**41.38**
Japan						
27	Mineral fuels, oils, distillation products, etc	2.29	1.82	1.45	1.63	1.81
39	Plastics and articles thereof	3.66	3.60	3.63	3.60	3.54
84	Nuclear reactors, boilers, machinery, etc	19.19	18.83	19.22	19.83	20.04
85	Electrical, electronic equipment	15.08	15.30	15.22	15.12	14.82
87	Vehicles other than railway, tramway	20.65	21.45	21.99	20.95	20.87
	Total of 5 chapters mentioned above	**60.87**	**61.00**	**61.51**	**61.13**	**61.09**
Rep. of Korea						
27	Mineral fuels, oils, distillation products, etc	9.19	6.29	5.55	6.35	7.93
39	Plastics and articles thereof	5.56	5.36	5.58	5.49	5.77
84	Nuclear reactors, boilers, machinery, etc	11.00	11.79	11.75	12.08	12.84
85	Electrical, electronic equipment	24.12	26.26	27.11	28.43	30.52
87	Vehicles other than railway, tramway	12.80	13.10	12.65	10.79	10.11
	Total of 5 chapters mentioned above	**62.67**	**62.81**	**62.64**	**63.14**	**67.18**
Netherlands						
27	Mineral fuels, oils, distillation products, etc	16.87	10.89	12.04	13.11	11.36
39	Plastics and articles thereof	4.54	4.97	4.62	4.54	4.60
84	Nuclear reactors, boilers, machinery, etc	13.66	14.29	13.28	12.75	14.03
85	Electrical, electronic equipment	8.67	9.77	9.40	10.17	10.56
87	Vehicles other than railway, tramway	3.54	4.02	4.20	4.39	4.73
	Total of 5 chapters mentioned above	**47.27**	**43.93**	**43.55**	**44.95**	**45.28**
UK						
27	Mineral fuels, oils, distillation products, etc	10.76	7.07	6.26	8.00	9.46
39	Plastics and articles thereof	2.51	2.54	2.66	2.69	2.52
84	Nuclear reactors, boilers, machinery, etc	14.01	13.81	14.66	14.80	14.75
85	Electrical, electronic equipment	6.24	6.25	6.52	6.44	5.88
87	Vehicles other than railway, tramway	10.64	10.88	12.47	12.16	11.14
	Total of 5 chapters mentioned above	**44.17**	**40.55**	**42.57**	**44.10**	**43.76**
USA						
27	Mineral fuels, oils, distillation products, etc	9.61	6.93	6.48	9.00	11.57
39	Plastics and articles thereof	3.89	4.01	4.04	4.01	4.00
84	Nuclear reactors, boilers, machinery, etc	13.57	13.72	13.16	13.07	12.81
85	Electrical, electronic equipment	10.64	11.32	11.51	11.28	10.59
87	Vehicles other than railway, tramway	8.39	8.48	8.59	8.44	7.85
	Total of 5 chapters mentioned above	**46.10**	**44.47**	**43.78**	**45.79**	**46.82**

APPENDIX-2

A few examples from East and South-East Asia will bear out the positive impact of the increasing share of advanced manufacturing item groups like ITC-HS Chapters 84 (Nuclear reactors, boilers, machinery, etc) and 85 (Electrical, electronic equipment) on overall export performance. Vietnam is the latest case in point. See Table A-2.1 below. The last decade saw a tremendous expansion in the exports of Vietnam – from $ 57.10 billion in 2019 to $ 264.61 billion in 2019, clocking an incredible 16.57% Compound Annual Growth Rate (CAGR). The commodity groups that fuelled the growth were high-end manufactures. The CAGR of exports of 'Nuclear reactors, boilers, machinery, etc', during the same period was 18.64%, was actually modest in comparison to that of 'Electrical, electronic equipment', which stood at a staggering 36.90%. Of the absolute increase in total exports of $ 207.51 billion, the increase of $103.68 billion was due to the two commodity groups (mentioned above) alone, of which Electrical, electronic equipment accounted for about $ 93 billion. The share of the two commodity groups together, in total exports, shot up from only 11.51% in 2009 to 41.67% in 2019. The data clearly narrates the story.

Table A-2.1:Vietnam's Total Exports of Items under ITC-HS 84 and 85

		2009		2019	
ITC-HS Chapter	Description	Export Value (in $ bn)	% Share in total exports	Export Value (in $ bn)	% Share in total exports
84	Nuclear reactors, boilers, machinery, etc	2.37	4.15	13.09	4.95
85	Electrical, electronic equipment	4.20	7.36	97.16	36.72
	Total Exports	57.10	100	264.61	100

Another prominent example is China herself. This shift towards manufactured items began in China way back in the mid-1990s. Hence, data from 1995 to 2018 (UN Comtrade Database is yet to report 2019 data for China) has been used in this case. The reader, going through Table A-2.2 below will not miss the parallel between the experience of China and that of Vietnam.

Table A-2.2:China's Total Exports of Items under ITC-HS 84 and 85

		1995		2018	
ITC-HS Chapter	Description	Value in $ bn	% Share in total exports	Value in $ bn	% Share in total exports

84	Nuclear reactors, boilers, machinery, etc	8.67	5.83	429.95	17.24
85	Electrical, electronic equipment	19.00	12.77	664.43	26.64
	Total Exports	148.78	100	2494.23	100

Thailand, as the reader will remember, had her exports surging through the 1980s and the 1990s. As data for most of the 1980s is not available on the UN Comtrade Database, those from the 1990s have been used in case of Thailand, and are shown in Table A-2.3 below. Again, the parallel between Thailand, and Vietnam and China is evident. The share (in total exports) of the two commodity groups mentioned in the Table rose from 21.19% in 1990 to 39.67% in 2000.

Table A-2.3:Thailand's Total Exports of Items under ITC-HS 84 and 85

		1990		2000	
ITC-HS Chapter	Description	Value (in $ bn)	% Share in total exports	Value (in $ bn)	% Share in total exports
84	Nuclear reactors, boilers, machinery, etc	2.21	9.57	11.79	17.13
85	Electrical, electronic equipment	2.68	11.62	15.51	22.54
	Total Exports	23.07	100	68.82	100

The experience of the Republic of Korea, from 1990 to 2019, has not been quite different. A substantial growth in exports has seen an attendant rise in the shares of 'Nuclear reactors, boilers, machinery, etc' and 'Electrical, electronic equipment' in total exports. This trend has been replicated in a number of countries, which pushed hard to increase exports.