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## India's Export Concentration Index: A Measure of Economic Vulnerability

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### Introduction

Export concentration depicts the concentration of country's export to small number of countries or products. The country who exports to small number of countries has larger export concentration Index. Suppose a country export to only one country in that case it has perfectly concentrated export index. In case a country exports to large number of countries shows a lower export concentration ratio. India has 219 export partners worldwide. India exports 4411 products with HH Market Concentration Index of 0.06. India's merchandise trade is 27.53 (percent of G.D.P). Annual growth of exports of goods and services is 4.51 which are 19.18 percent of GDP. GDP serves as development indicator of any nation. Annual percentage growth rate of GDP of India in 2016 was 7.11. By taking 2000 as the base year the Export Value Index of 2015 was 630.37. The export of India in 2016 was 260,326,912.34 US\$ Thousand. East Asia & Pacific serve as the biggest export partner of India with 59,235,011 US\$ Thousand which is 22.75 percent of overall export percentage. The main objectives of the present study that explore the India's export concentration index.

### Research Methodology

Data has been collected from WITS (World Integrated Trade Solution) and UNCTAD. Export concentration Index has been used as a measure to depict the degree to which India's exports concentration with regard to countries and products. Data has been taken from 2000 to 2016.

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## Results and Conclusions

Table: 1 Export's Concentration Index

Year	Concentration Index
2001	0.122
2002	0.132
2003	0.132
2004	0.120
2005	0.133
2006	0.140
2007	0.150
2008	0.158
2009	0.148
2010	0.164
2011	0.182
2012	0.172
2013	0.183
2014	0.174
2015	0.119
2016	0.120

**Source:** UNCTAD secretariat calculations, based on UNCTAD, UNCTAD Stat Merchandise Trade Matrix.

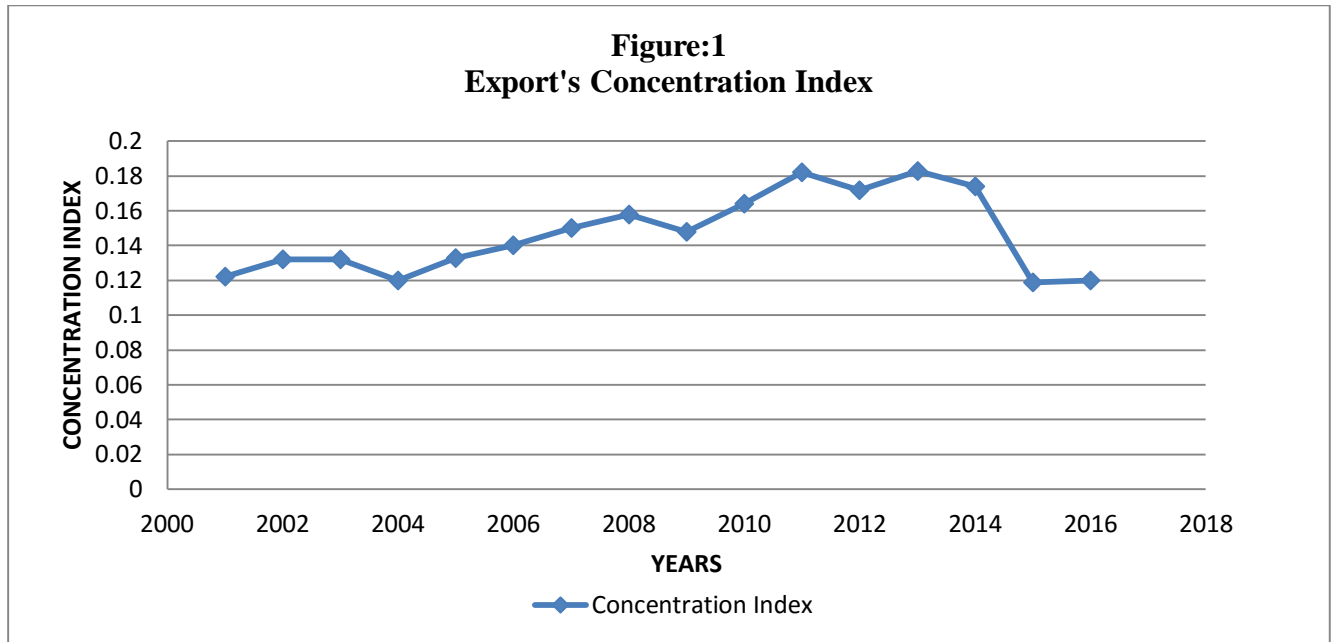


Table 1 depicts the concentration index of India from 2001 to 2016. It was 0.22 in 2001 rose to 0.32 in 2002 and 2003. It again slashed to 0.20 in 2004. It rose from 2005 to 2008. It was 0.33, 0.40, 0.50 and 0.58 in 2005, 2006, 2007 and 2008 respectively. It showed a downward trend in 2009 as 0.48 and again rose from 0.64 and 0.82 in 2010 and 2011 respectively. In 2012 it again slashed down to 0.72. It showed a fluctuating trend in 2013, 2014, 2015 and 2016 as 0.83, 0.74, 0.19 and 0.20 respectively.

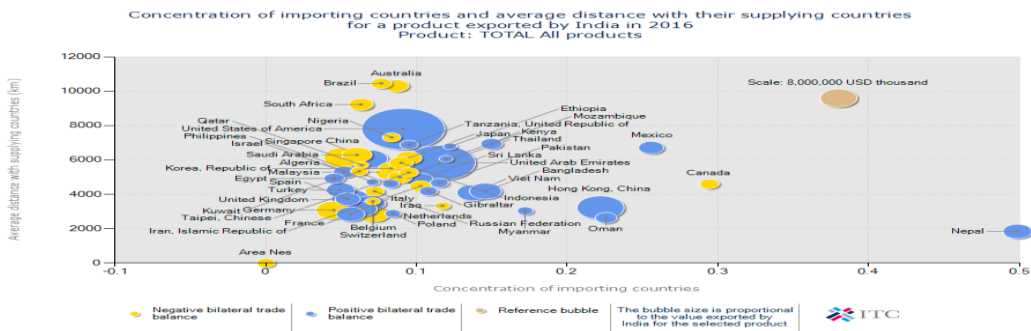
**Table:2 Concentration of all supplying countries of partner countries**

Importers	Concentration of all supplying countries of partner countries
United States of America	0.09
United Arab Emirates	0.12
Hong Kong, China	0.22
China	0.05
United Kingdom	0.06
Singapore	0.07
Germany	0.05
Viet Nam	0.14
Bangladesh	0.15
Belgium	0.07

Saudi Arabia	0.06
Netherlands	0.07
France	0.06
Nepal	0.5
Turkey	0.05
Italy	0.06
Malaysia	0.08
Sri Lanka	0.1
Japan	0.09
Korea, Republic of	0.08
Mexico	0.26
Spain	0.05
South Africa	0.06
Indonesia	0.09
Thailand	0.09
Australia	0.09
Israel	0.05
Oman	0.23

Sources: ITC calculations based on UN COMTRADE statistics

Figure: 2



Sources: ITC calculations based on UN COMTRADE statistics.

The above table shows the concentration of India with partner countries. India has highest concentration with Oman i.e. 0.23 followed by Hong Kong, Bangladesh, Vietnam, United Arab Emirates and Sri Lanka as 0.22, 0.15, 0.14, 0.12 and 1 respectively. It has very low concentration level with United States of America, China, United Kingdom, Singapore, Germany, Belgium, Saudi Arabia, Netherlands, France, Turkey, Italy, Malaysia, Japan, Korea, Spain, South Africa, Indonesia, Thailand Australia and Israel as 0.09, 0.05, 0.06, 0.07, 0.05, 0.07, 0.06, 0.07, 0.06, 0.05, 0.06, 0.08, 0.09, 0.08, 0.05, 0.06, 0.09, 0.09, 0.09 and 0.05 respectively.

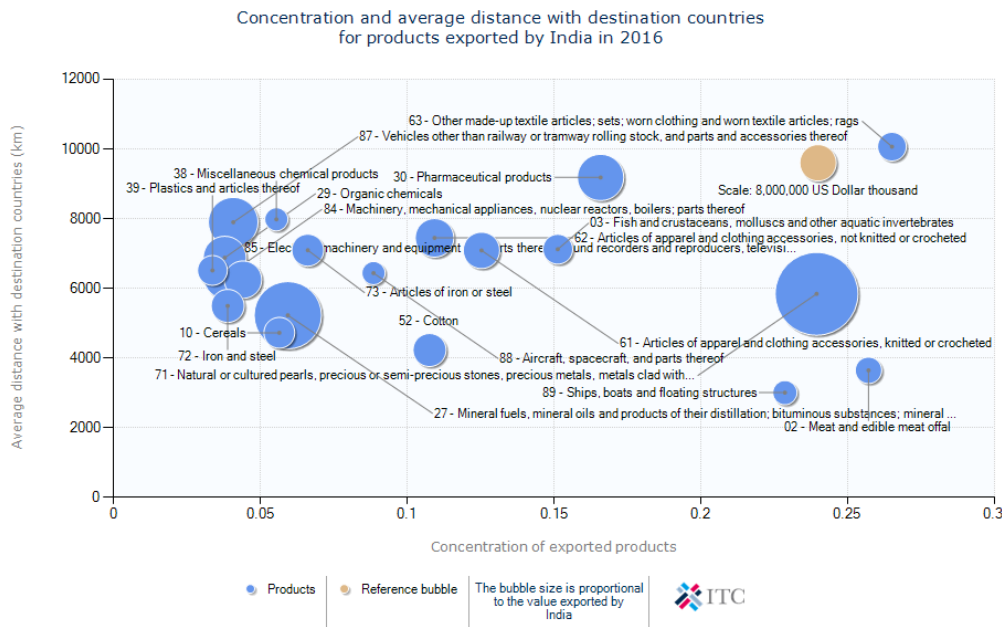
Co de	Product label	Concentration of importing countries
	All products	0.05
'71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad ...	0.24
'27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	0.06
'87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	0.04
'84	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof	0.04
'30	Pharmaceutical products	0.17
'29	Organic chemicals	0.04
'62	Articles of apparel and clothing accessories, not knitted or crocheted	0.11
'85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...	0.04
'61	Articles of apparel and clothing accessories, knitted or crocheted	0.13
'72	Iron and steel	0.04
'52	Cotton	0.11
'73	Articles of iron or steel	0.07
'10	Cereals	0.06
'39	Plastics and articles thereof	0.03
'03	Fish and crustaceans, molluscs and other aquatic invertebrates	0.15
'63	Other made-up textile articles; sets; worn clothing and worn textile articles; rags	0.27
'02	Meat and edible meat offal	0.26
'89	Ships, boats and floating structures	0.23
'38	Miscellaneous chemical products	0.06
'88	Aircraft, spacecraft, and parts thereof	0.09
'09	Coffee, tea, maté and spices	0.04
'64	Footwear, gaiters and the like; parts of such articles	0.08
'76	Aluminium and articles thereof	0.07
'90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical ...	0.05
'32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring ...	0.04
'40	Rubber and articles thereof	0.04
'42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles ...	0.1
'74	Copper and articles thereof	0.13
'55	Man-made staple fibres	0.04
'54	Man-made filaments; strip and the like of man-made textile materials	0.05
'25	Salt; sulphur; earths and stone; plastering materials, lime and cement	0.11
'57	Carpets and other textile floor coverings	0.25
'17	Sugars and sugar confectionery	0.13
'12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...	0.06
'08	Edible fruit and nuts; peel of citrus fruit or melons	0.09
'33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	0.05
'94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; ...	0.17
'68	Articles of stone, plaster, cement, asbestos, mica or similar materials	0.1
'26	Ores, slag and ash	0.79
'28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...	0.05



'48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	0.04
'07	Edible vegetables and certain roots and tubers	0.05
'69	Ceramic products	0.06
'24	Tobacco and manufactured tobacco substitutes	0.07
'41	Raw hides and skins (other than furskins) and leather	0.12
'15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal ...	0.14
'13	Lac; gums, resins and other vegetable saps and extracts	0.24
'99	Commodities not elsewhere specified	
'23	Residues and waste from the food industries; prepared animal fodder	0.09
'82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	0.06
'70	Glass and glassware	0.07
'21	Miscellaneous edible preparations	0.06
'96	Miscellaneous manufactured articles	0.05
'83	Miscellaneous articles of base metal	0.07
'19	Preparations of cereals, flour, starch or milk; pastrycooks' products	0.06
'34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial ...	0.04
'20	Preparations of vegetables, fruit, nuts or other parts of plants	0.07
'79	Zinc and articles thereof	0.1
'56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	0.09
'53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	0.09
'44	Wood and articles of wood; wood charcoal	0.16
'58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	0.07
'97	Works of art, collectors' pieces and antiques	0.23
'22	Beverages, spirits and vinegar	0.11
'95	Toys, games and sports requisites; parts and accessories thereof	0.11
'16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	0.4
'49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, ...	0.06
'04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere ...	0.09
'60	Knitted or crocheted fabrics	0.25
'67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles ...	0.4
'35	Albuminoid substances; modified starches; glues; enzymes	0.06
'11	Products of the milling industry; malt; starches; inulin; wheat gluten	0.07
'59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable ...	0.06
'86	Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures ...	0.21
'18	Cocoa and cocoa preparations	0.07
'78	Lead and articles thereof	0.19
'51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	0.08
'75	Nickel and articles thereof	0.15
'36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	0.04
'05	Products of animal origin, not elsewhere specified or included	0.2
'91	Clocks and watches and parts thereof	0.13
'50	Silk	0.09
'31	Fertilisers	0.09
'93	Arms and ammunition; parts and accessories thereof	0.24

'06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	0.09
'14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	0.23
'81	Other base metals; cermets; articles thereof	0.1
'65	Headgear and parts thereof	0.06
'01	Live animals	0.54
'80	Tin and articles thereof	0.43
'92	Musical instruments; parts and accessories of such articles	0.1
'37	Photographic or cinematographic goods	0.08
'43	Furskins and artificial fur; manufactures thereof	0.14
'46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	0.16
'47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or ...	0.56
'66	Umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof	0.57
'45	Cork and articles of cork	0.13

Figure:3



Sources: ITC calculations based on UN COMTRADE statistics.

The above table delineates the concentration of importing countries with India. In Ores, slag and ash India has highest level of concentration with importing countries i.e. 0.79 followed by product codes 66, 47, 01, 80, 63, 02, 60, 13, 93, 71, 14, 89, 97 and 86 as 0.57, 0.56, 0.54, 0.43, 0.27, 0.26, 0.25, 0.24, 0.24, 0.24, 0.23, 0.23, 0.23, 0.23 and 0.21 respectively. The lower level of concentration of product codes 27, 87, 84, 29, 85, 72, 73, 10, 39, 38, 88, 09, 64, 76, 90, 32, 40, 55, 12, 08, 33, 28, 48, 07, 69, 24, 23, 82, 70, 21, 96, 83, 19, 34, 20, 56, 53, 58, 49, 04, 35, 11, 59, 18, 51, 36, 50, 31, 06, 65 and 37 were 0.06, 0.04, 0.04, 0.04, 0.04, 0.04, 0.03, 0.06, 0.09, 0.04, 0.08, 0.07, 0.05, 0.04, 0.04, 0.04, 0.05, 0.06, 0.09, 0.05, 0.05, 0.04, 0.05, 0.06, 0.07, 0.09, 0.06, 0.07, 0.06, 0.05, 0.07, 0.06, 0.04, 0.07, 0.09, 0.09, 0.07, 0.06, 0.09, 0.06, 0.07, 0.06, 0.07, 0.08, 0.04, 0.09, 0.09 and 0.09 respectively. The product codes 30, 62, 61, 52, 03, 42, 74, 25, 17, 94, 68, 41, 15, 79, 44, 22, 95, 78, 75, 91, 81, 92, 43, 46 and 45 have concentration level as 0.17, 0.11, 0.13, 0.11, 0.15, 0.1, 0.13, 0.11, 0.13, 0.17, 0.1, 0.12, 0.14, 0.1, 0.16, 0.11, 0.11, 0.19, 0.15, 0.13, 0.1, 0.1 and 0.13 respectively.

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