Peru-India Joint Feasibility Study

Chapters 1-9

CHAPTER 1 MACROECONOMIC OVERVIEW

1.1 PERSPECTIVE OF INDIA

1.1.1 INTRODUCTION

This chapter provides macroeconomic overview of India and Peru discussing economic indicators of both the countries India and Peru have shown impressive growth performance in the recent past years. However, global growth has remained more or less stagnant in the last few years affecting global trade growth. Global economic growth has been projected to be slower. The IMF has projected that world economic output growth would be 3.1% for 2015 and 3.6% for 2016.

Coming to the Global Trade, as per the World Trade Organization (WTO), global trade has been projected to grow at the rate of 2.8% in 2015 down from 3.3% projected earlier in April 2015. For 2016, WTO has reduced its projection from 4.0% to 3.9%. According to WTO, several factors contributed to the sluggishness of trade and output in 2014 and at the start of 2015, including falling import demand in China, Brazil and other emerging economies, decline in oil prices, exchange rate fluctuations, uncertainty regarding the monetary policy of United States and volatility in financial market.

1.1.2 MACROECONOMIC ENVIRONMENT AND INDICATORS

The early 1990s marked a profound change in India's economic policies. The immediate goals were macro-economic stabilization and structural adjustment ensuing reforms aimed at enhancing efficiency, productivity and competitiveness of the economy, *inter alia*, these included industrial deregulation, liberalization of foreign direct investment, trade liberalization, and reforms in public sector, infrastructure and the financial sector. Since then India has embarked on greater economic growth and trade development.

Table 1 – India's Key Economic Indicators

Subject Description	Unit	2012-13	2013-14	2014-15	2015-16
GDP Growth Rate (at 2011-12 Prices)	%	5.6	6.6	7.2	7.6
Index of Industrial Production (Growth) b	%	1.1	-0.1	2.8	3.1d
Inflation (WPI) (average)	%	7.4	6.0	2	-2.8 e
Inflation CPI (Combined) (average)	%	10.2	9.5	5.9	4.9e
Current Account Balance (CAB)/GDP	%	-4.8	-1.7	-1.3	-1.4f
Foreign Exchange Reserves	US$ billion	292	304.2	341.6	349.6c

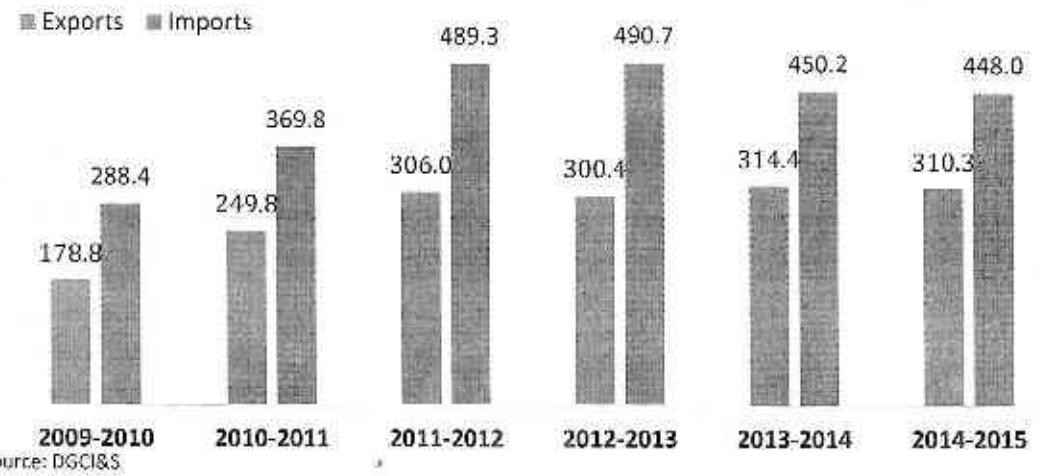
Source: Economic Survey 2015-16
Notes: b: (Base 2004-05), c: as at end of January 2016, d: Apr-Dec 2015-16, e : Apr-January 2015-16, f : Apr-September 2015-16

India registered robust growth of 7.2 percent in 2014-15 and 7.6 per cent in 2015-16, thus becoming the fastest growing major economy in the world. As per the estimates of the International Monetary Fund (IMF), global growth averaged 3.1 per cent in 2015, declining from 3.4 percent registered in 2014. While growth in advanced economies has improved modestly since 2013, the emerging economies have witnessed a consistently declining trend in

growth rate since 2010. It is against this background that the recent Indian growth story appears particularly bright.

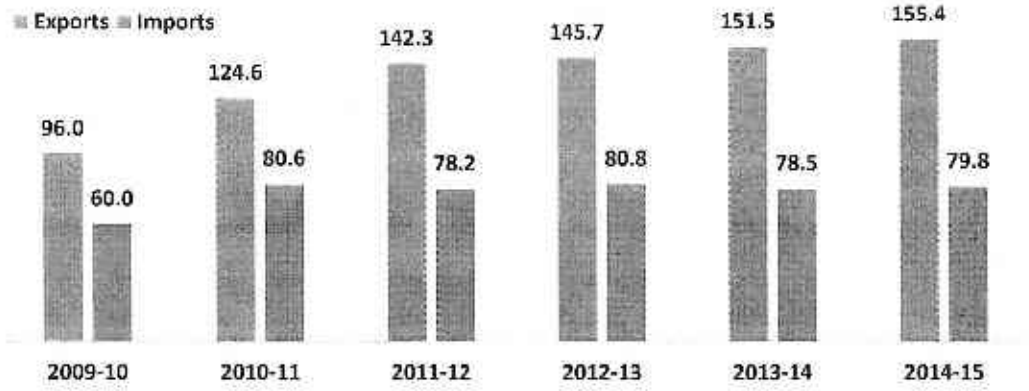
Additionally, its other macroeconomic parameters like inflation, fiscal deficit and current account balance have exhibited distinct signs of improvement. Wholesale price inflation has been in negative territory for more than a year and the all-important consumer prices inflation has declined to nearly half of what it was a few years ago. However, weak growth in advanced and emerging economies has taken its toll on India's exports.

Figure 1 – India: Trade in Merchandise Goods
(US$ billion)



Source: DGCI&S

Figure 2 – India's trade: Trade in Services
(US$ billion)



Source: RBI

India's merchandise exports for the year 2014-15 amounted to US $ 310.3 billion as against US$ 314.4 billion in 2013-14 registering a negative growth of 1.29%, while imports in 2014-15 came down to US $ 448 billion from US$ 450.2 billion in 2013-14 registering a negative growth of 0.48%.[1] The trade deficit in 2014-15 increased to US $ 137.7 billion up from US $ 135.8 billion in 2013-14. India's Services exports for the year 2014-15 stood at US$ 155.4 billion as against US$ 151.5 billion in 2013-14 registering a positive growth of 2.6%, while imports in

[1] The data is based on DGCI&S.

2014-15 increased to US $ 79.8 billion from US$ 78.5 billion in 2013-14. The Trade surplus in 2014-15 stood at US $ 75.6 billion up from US$ 73 billion in 2013-14.

As per the current rankings for the year 2014, India is the 19th largest exporter (with a share of 1.7%) and 12th largest importer (with a share of 2.4%) of merchandise trade in the world. In Commercial Services Exports, India is the 8th largest exporter in 2014 (with a share of 3.2%). In imports of commercial services India ranks 10th (with a share of 2.6%).

1.1.3 GDP Production and Structure

Growth in the agriculture sector in 2015-16 has continued to be lower than the average of last decade, mainly on account of it being the second successive year of lower than- normal monsoon rains. Growth in the services sector moderated slightly, but still remains robust; while the acceleration in manufacturing growth compensated for it.

Growth in industry is estimated to have accelerated during the current year on the strength of improving manufacturing activity. The Index of Industrial Production (IIP) showed that manufacturing production grew by 3.1 per cent during April-December 2015-16, vis-à-vis a growth of 1.8 per cent in the corresponding period of the previous year.

Table 2 - Growth in GDP and Major Sectors
(% change)

Sector	2013-14 (2R)	2014-15 (1R)	2015-16 (AE)
Agriculture, forestry and fishing	**4.2**	**-0.2**	**1.1**
Industry	**5.0**	**5.9**	**7.3**
Mining and quarrying	3.0	10.8	6.9
Manufacturing	5.6	5.5	9.5
Electricity, gas, water supply etc.	4.7	8.0	5.9
Construction	4.6	4.4	3.7
Services	**7.8**	**10.3**	**9.2**
Trade, hotels, transport and communication	7.8	9.8	9.5
Financing, real estate, professional services etc.	10.1	10.6	10.3
Public administration, defence and other services	4.5	10.7	6.9
GVA (Gross Value Added) at constant basic prices	**6.3**	**7.1**	**7.3**
GDP at constant market prices	**6.6**	**7.2**	**7.6**

Source: based on data from CSO
Note: AE – Advance estimates, 1R - First Revised Estimates, 2R - Second Revised Estimates

1.1.4 MICRO, SMALL AND MEDIUM ENTERPRISES (MSME)

Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs not only play crucial role in providing large employment opportunities at comparatively lower capital cost than large industries but also help in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio-economic development of the country.

The manufacturing sector under MSMEs consisting of 36 million units provides employment to over 80 million persons. The manufacturers produce more than 6,000 products and contribute about 8% to GDP, 45% of manufacturing output and 40% of exports of the country. The MSME sector has the potential to spread industrial growth across the country and can be a major partner in the process of inclusive growth.

1.1.4.1 CONTRIBUTION OF MSME SECTOR IN THE GROSS DOMESTIC PRODUCT

The estimated contribution of MSME sector to GDP and Output, during 2006-07 to 2012-13 is given below:

Table 3 - Contribution of Manufacturing Output of MSME in GDP (2004-05 prices)

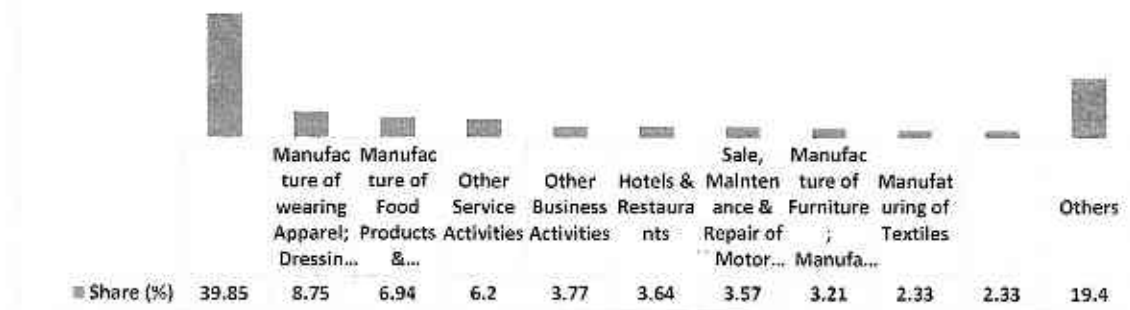
Year	Share of MSME Sector in total GDP (%)		
	Manufacturing Sector MSME	Service Sector MSME	Total
2006-07	7.73	27.4	35.13
2007-08	7.81	27.6	35.41
2008-09	7.52	28.6	36.12
2009-10	7.45	28.6	36.05
2010-11	7.39	29.3	36.69
2011-12	7.27	30.7	37.97
2012-13	7.04	30.5	37.54

Note: Fourth All India Census of MSME 2006-07, National Accounts Statistics (2014), CSO, MOSPI and Annual Survey of Industries, CSO MOSPI

Source: Ministry of Micro, Small and Medium Enterprises, Annual Report 2014-15

The leading industries with their respective shares are as depicted below:

Figure 3- India: Leading Industries in the MSME Sector
(% share)



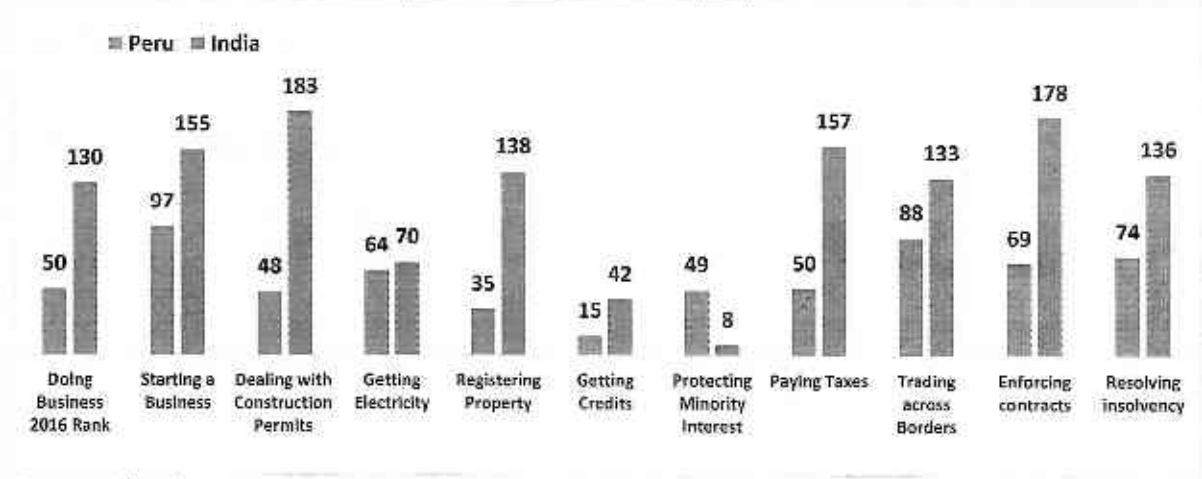
Source: Ministry of Micro Small and Medium Enterprises, Annual Report 2014-15

Worldwide, the MSMEs have been accepted as the engine of economic growth for promoting equitable development. MSMEs play an important role in export promotion of the country. To maintain its niche in the international and global markets, MSMEs are required to remain globally competitive. They have to continuously update themselves to meet the challenges emerging out of changes in technology, changes in demands, emergence of new markets, etc.

MSMEs are key drivers of innovation, economic growth and new employment generation. The importance of MSMEs in the current FTA arises because it will promote greater linkage and development for both the countries. A better way to utilize the FTA would be to collaborate in the global value chains through the development of MSMEs. There is a direct link between internationalisation and MSME performance. In the current flagship programme of "Make in India' the relevance of MSMEs is of greater importance because of the potential that this sector holds in developing business and promoting growth.

1.1.5 DOING BUSINESS INDICATORS

Figure 4- India: Doing Business 2016 Indicators
(Rank in Various Business Topics)



Source: World Bank

As per World Bank's 'Doing Business Report 2016', India ranks at 130th position among 189 countries. In "starting a Business" and 'Trading across Borders' criteria, India is ranked at 155th and 133rd position. In order to improve India's 'Doing Business Environment', major initiatives have been taken up in the last one year, which include, simplification and rationalization of the existing rules and introduction of information technology to make governance more efficient and effective.

On the other hand, Peru ranks at 50th position among 189 countries in 'Ease of Doing Business'. In "starting a Business" and 'Trading across Borders' criteria, Peru is ranked at 97 and 88th position respectively.

1.2 PERSPECTIVE OF PERU

1.2.1 MACROECONOMIC ENVIRONMENT AND INDICATORS

During 2004-2014, Peru was the fastest-growing country in Latin America, with an average annual growth rate of 6.1% in its Gross Domestic Product (GDP), above the regional average rate of 3.6%. The main driving forces behind this growth were the positive trends in Peru's main export commodity prices and the strong dynamics in the non-primary sectors of the economy. This outstanding economic performance led to a reduction in the incidence of poverty as a share of total population in 25.9 percentage points between 2004 and 2014.

In 2014, nominal GDP in Peru reached US$ 202,675 million, having grown in 2.4% in real terms. From a sectoral point of view, the latter increase in real terms was mainly explained by the dynamics of non-primary sectors such as construction (+1.6%), commerce (+4.4%) and services (+5%).

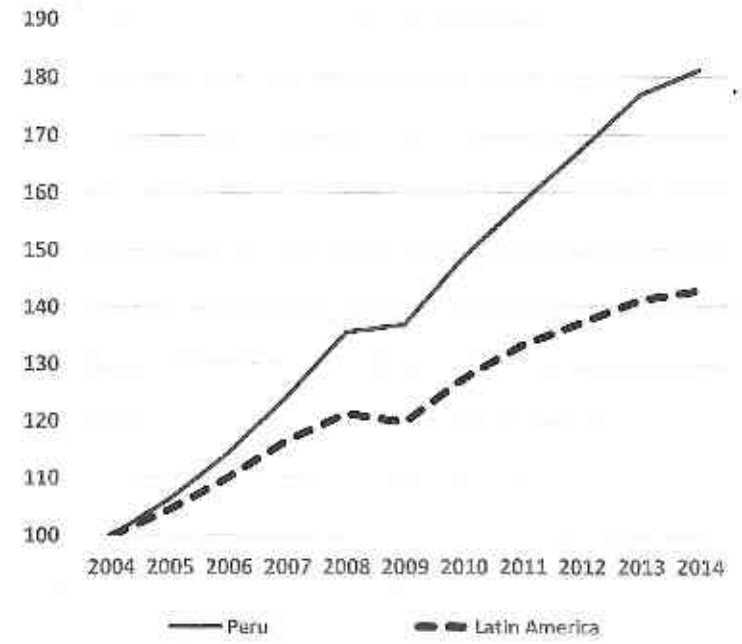
Nominal GDP per capita (in dollar terms) grew from US$ 2,489 in 2004 to US$ 6,577 in 2014, at an average annual rate of 10.2%. On the other hand, per capita GDP in purchasing-power-parity (PPP) terms went from US$ 6,295 in 2004 to US$ 11,817 in 2014, registering an average annual growth rate of 6.5% during that period.

Table 4 – Peru: Macroeconomic Indicators, 2014

Population (million)	30,8
GDP, current prices (US$ million)	202,675
GDP, constant prices (% change)	2,4
GDP PPP (US$ million)	371,344
GDP per capita (US$)	6,577
GDP PPP per capita (US$)	11,817
Exchange rate average (Nuevo sol/US$)	2.84
Inflation, end of period (% change)	3.22
Export of goods (% of GDP)	19.4
Import of goods (% of GDP)	20.1
Total trade in goods (% of GDP)	39,5
Exports of goods and services (% of GDP)	22.3
Imports of goods and services (% of GDP)	23.9
Total trade in goods and services (% of GDP)	46.2
Current account balance (% of GDP)	-4.0
Foreign direct investment, net inflows (US$ million)	7,789

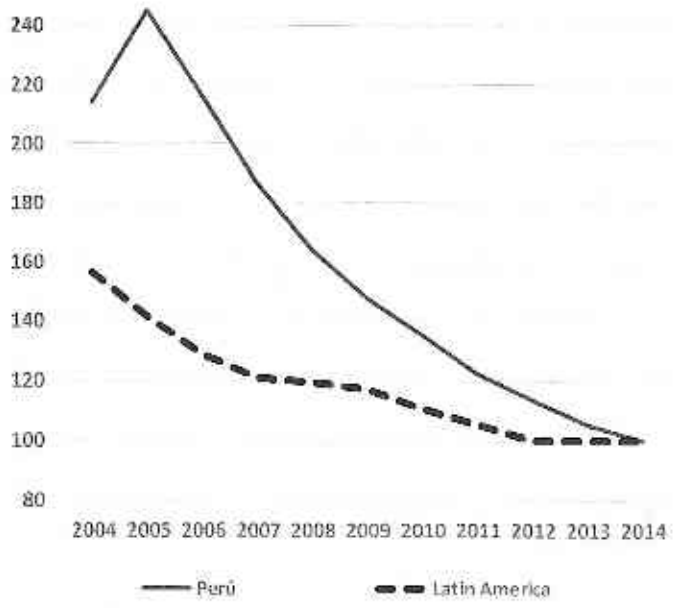
Source: IMF WEO, BCRP, National Institute of Statistics of Peru (INEI)

Figure 5 - Peru and Latin America: Real GDP Index, 2004-2014
(Index 2004=100)



Source: ECLAC, Central Bank of Peru (BCRP)

Figure 6 - Peru and Latin America: Incidence of Poverty Index, 2004-2014
(Index 2014=100)



Source: ECLAC, Central Bank of Peru (BCRP)

Table 5 – Peru: Real GDP by Economic Sector, 2004-2014
(Annual % change)

Economic Sectors	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GDP	**5.0**	**6.3**	**7.5**	**8.5**	**9.1**	**1.0**	**8.5**	**6.5**	**6.0**	**5.8**	**2.4**
Agriculture and Livestock	-0.5	3.4	8.9	3.3	8.0	1.3	4.3	4.1	5.9	1.5	1.6
Fishing	40.3	4.9	3.7	9.3	3.0	-3.4	-19.6	52.9	-32.2	24.8	-27.9
Mining and fuel	6.0	10.3	1.9	4.2	8.1	1.0	1.3	0.6	2.8	4.9	-0.8
Manufacturing	7.4	6.6	7.3	10.6	8.6	-6.7	10.8	8.6	1.5	5.0	-3.6
Electricity and water	5.5	5.6	7.6	9.2	8.1	1.1	8.1	7.6	5.8	5.5	4.9
Construction	4.9	8.7	15.0	16.6	16.8	6.8	17.8	3.6	15.8	8.9	1.6
Commerce	5.8	5.2	11.9	10.3	11.0	-0.5	12.5	8.9	7.2	5.9	4.4
Services	3.9	5.3	7.8	8.7	8.7	3.6	8.8	7.0	7.3	6.1	5.0

Source: Central Bank of Peru

The current account balance as a share of GDP moved from a surplus of 0.1% in 2004 to a deficit of 4.0% in 2014. The deterioration of the merchandise trade balance is explained by the downward trend in the terms of trade faced by the economy (-5.8% change in 2014), mainly due to the sharp decline in the international prices of Peruvian's main export commodities, such as copper and gold, whose export values fell in 2014 by 10% and 30%, respectively.

On the other hand, the financial account balance as a share of GDP registered surpluses during 2004-2014, thanks mainly to the large inflows of foreign direct investment (FDI) received by Peru. In 2014, FDI net inflows reached 3.8% of nominal GDP.

Table 6 – Peru: Balance of Payments
(US$ million)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CURRENT ACCOUNT	**0.1**	**1.5**	**3.3**	**1.5**	**-4.3**	**-0.5**	**-2.4**	**-1.9**	**-2.7**	**-4.2**	**-4.0**
1. Trade balance	4.5	7.1	10.2	8.3	2.1	5.0	4.7	5.4	3.3	0.3	-0.6
a. Exports FOB	19.2	23.2	27.1	27.4	25.5	22.2	24.1	27.2	24.6	21.2	19.5
b. Imports FOB	-14.7	-16.1	-16.9	-19.1	-23.4	-17.3	-19.4	-21.8	-21.3	-20.9	-20.1
2. Services	-1.1	-1.1	-0.8	-1.2	-1.7	-1.0	-1.6	-1.3	-1.3	-0.9	-0.9
a. Exports	3.0	3.1	3.0	3.1	3.0	3.0	2.5	2.5	2.5	2.9	2.9
b. Imports	-4.1	-4.2	-3.9	-4.2	-4.7	-4.0	-4.1	-3.8	-3.8	-3.8	-3.8
3. Investment income	-5.5	-6.8	-8.5	-8.1	-7.2	-6.9	-7.5	-7.8	-6.4	-5.3	-4.6
a. Private sector	-4.1	-5.7	-7.8	-7.7	-7.2	-6.9	-7.4	-7.5	-6.0	-4.8	-4.3
b. Public sector	-1.3	-1.1	-0.7	-0.4	0.0	0.1	-0.2	-0.3	-0.4	-0.4	-0.3
4. Current transfers	2.1	2.4	2.5	2.4	2.4	2.4	2.0	1.9	1.7	1.7	2.2
FINANCIAL ACCOUNT	**3.1**	**0.3**	**0.3**	**8.3**	**7.1**	**1.9**	**9.2**	**5.1**	**10.3**	**5.7**	**3.4**
1. Private sector	1.5	1.2	2.8	8.0	7.9	3.5	7.7	5.4	8.2	7.4	3.2
2. Public sector	1.3	-0.6	-1.1	-1.7	-1.2	0.1	1.6	0.4	0.8	-0.7	0.0
3. Short-term capital	0.3	-0.3	-1.4	2.0	0.5	-1.7	-0.2	-0.7	1.3	-1.1	0.2
EXCEPTIONAL FINANCING	-	**0.1**	-	**0.1**	-	-	-	-	-	-	-
NET ERRORS/OMISSIONS	**0.3**	**0.2**	**-0.5**	**-0.4**	**-0.2**	**-0.5**	**0.7**	**-0.5**	**0.1**	**0.0**	**-0.5**
TOTAL	**3.5**	**2.2**	**3.1**	**9.4**	**2.6**	**0.9**	**7.5**	**2.7**	**7.7**	**1.4**	**-1.1**

Source: Central Bank of Peru

1.2.2 GROSS DOMESTIC PRODUCTION STRUCTURE

In 2014, the services sector was the main component in GDP structure, accounting for 59.9% of total GDP in constant terms, followed by the manufacturing and agriculture sectors, which accounted for 14.2% and 5.7% of GDP, respectively.

The manufacturing sector is concentrated on low and medium technology goods. In 2014, the main items in terms of output value were foodstuffs, chemicals and textiles. Manufactured goods accounted for 30% of total merchandise exports and consisted mainly of apparel/clothing accessories, chemicals and fishing products.

On the other hand, the agricultural sector provides employment for almost one third of the economically active population[7]. Peru is a net exporter of agricultural products, with our main exports being coffee, cacao, asparagus, grapes, mangos, avocado and quinoa. On the other hand, the main products consumed in the domestic market are rice, potatoes, corn, lemon, orange, bananas, beans and tangerine. Agricultural imports are mainly inputs for feeding poultry and cattle (e.g., yellow corn, soybean) and inputs for producing pasta (wheat).

Turning to the primary sectors of the economy, the mining sector contributes with 11.7% of GDP and generates about 70% of total exports. Peru's wealth in natural resources makes it one of the world's leading mineral producers (Peru is the 3rd largest producer of silver, copper, zinc and tin; 4th producer of lead, molybdenum and mercury; and 5th largest gold producer)[3].

Finally, Peru has a fishing sector whose share in real GDP has not changed significantly in the latest years. Peru's main resources are prawns on the north coast; turbot, flatfish, abalone and oysters on the south coast; trout in lakes and lagoons; and some tropical species of fish in the Amazonia. The fishing sector has potential for developing canned, frozen and cured products for direct human consumption, which has not yet been fully exploited, partly due to the priority given to fishmeal processing. Peru is the largest producer and exporter of fishmeal, with an average annual production of 1.4 million tons over the last decade, with China being the main buyer.

1.2.3 MEDIUM, SMALL AND MICRO ENTERPRISES (MSME) PROFILE

In 2013, the MSME sector accounted for 99.5% of Peru's economic units and employed 68.6% of the economically active population[4]. The number of MSMEs has grown at an average annual rate of 7.6% between 2009 and 2013. The majority of firms are micro-enterprises (94.6%), small-enterprises (4.6%) and medium enterprises (0.2%).

Peru promotes the formalization and development of MSMEs in order to raise productivity, employment and tax collection, as well as this sector's share of the domestic market, government procurement and exports[5].

In 2014, the Ministry of Production of Peru (PRODUCE) announced the implementation of a National Plan for Productive Diversification (PNDP), which is based on six main lines of action:

- Facilitation of the emergence of new engines of growth through Working Committees (so far, the following have been implemented: Forestry, Aquaculture, Creative Industries, Textiles and Gastronomy).

[7] According to the Ministry of Agriculture, 4.8 million people worked in this sector in 2012, of which 84% were located in rural areas.

[3] Source: Ministry of Energy and Mining, Statistic Report (January 2015).

[4] MSMEs are categorized according to their annual sales income (measured in tax units). Micro enterprises are those whose annual sales reach a maximum amount of 150 tax units. Small enterprises may sell over 150 tax units up to a maximum of 1,700 tax units. Medium enterprises may sell over 1,700 tax units up to a maximum of 2,300 tax units. (Law 30056 of 2 July 2013). In 2015 the value of a tax unit was 3,850 nuevos soles.

[5] Law 28015 of 3 July 2003 (Law on the Promotion and Formalization of Micro and Small Enterprises) and the regulations in Supreme Decree 008-2008-TR of 30 September 2008 (implementing regulations for the Law on MSEs).

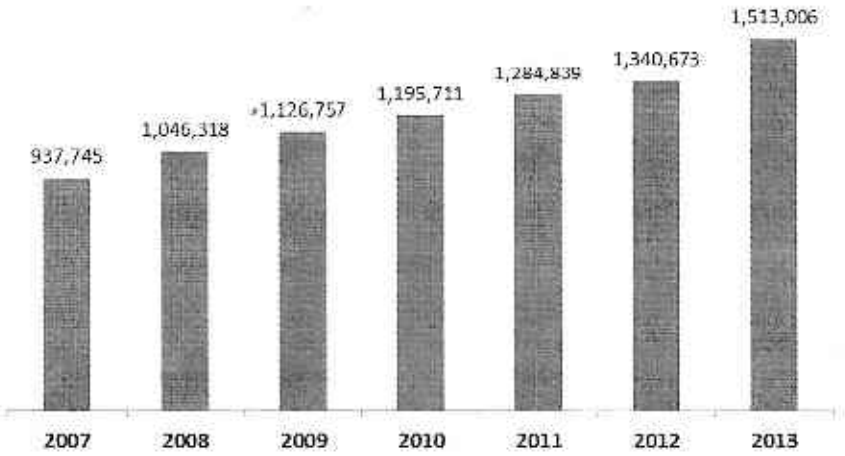
- Development of Innovation and Technology Centres (CITEs) and strengthening the National Institute of Production (ITP).
- Implement the national innovation policy.
- Implement the national quality policy.
- Develop and promote modern industrial parks.
- Reduce the financing cost for Small and Medium Enterprises (SMEs).

In the PNDP, the main strategies considered with the objective of improving the competitiveness of the MSME sector are the following:

- Administrative simplification: introducing new tax schemes for MSMEs.
- Technological extension programme for MSMEs: reinforcing 20 technology innovation centers, enhancing technological diffusion for the agricultural sector.
- MSME cost-reduction and financing reform: creating a fund for financing MSMEs and mutual guarantee funds.

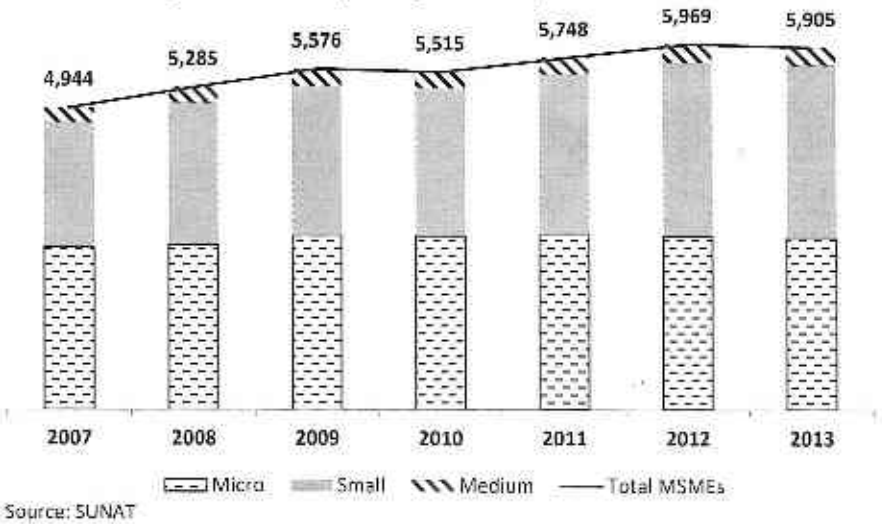
In 2013, only 0.2% of total MSMEs registered export activities. Between 2007 and 2013, the number of exporting MSMEs grew by 19%, equivalent to an average annual rate of 3%. In the latest year, 46% and 39% of total exporting MSMEs were concentrated in the commerce and services sectors.

Figure 7 – Peru: Number of Medium, Small and Micro Enterprises (MSMEs), 2007-2013



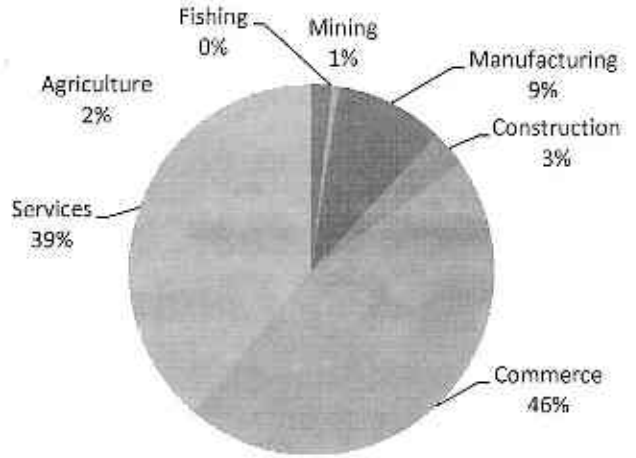
Source: SUNAT, Ministry of Production

Figure 8 - Peru: Exporting MSMEs by Size, 2007-2013



Source: SUNAT

Figure 9 – Peru: Exporting MSMEs by Economic Sector, 2013



Source: SUNAT

Ashita Praveen

CHAPTER 2 TRADE IN GOODS

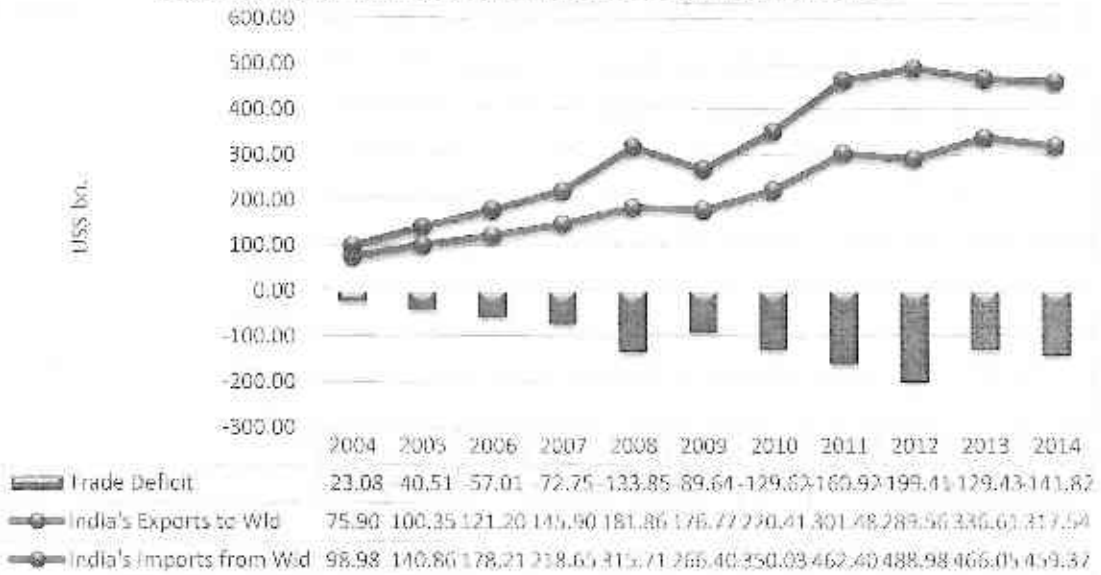
2.1 PERSPECTIVE OF INDIA

2.1.1 TRADE WITH THE WORLD

In the last decade, India's total trade with the world increased from US$ 173.3 billion in 2004 to US$ 765.4 billion in 2014, at an exponential growth rate of 15 percent. India's exports increased from US$ 75 billion in 2004 to US$ 317 billion in 2014.6 India's imports in value terms increased from US$ 98 billion in 2004 to US$ 449 billion in 2014 with a decadal growth of 20 percent. The trade balance during the period was negative and it further deteriorated from US$ 23 billion in 2004 to US$ 132 billion. India's total trade with world grew at 16.4 percent during 2004-14. Its exports and imports have increased throughout the period of analysis with exports growing at almost 16 percent and imports also increased higher at 17 percent. The trade balance of India, suggested that India has been absorbing much more from the world, in terms of imports than it was contributing to the global economy in terms of exports. India is a growing market for the global economy.

The tracing of the decade's trends observed in value of trade terms across the groups/partners (world and Peru) becomes an important part of this chapter. Compositions and growth rates have been used in this chapter to understand the emerging trends from and ex-post analysis of the decade of 2004 to 2014. The period of study of 2004 to 2014 is divided further into two phases 2004 to 2009 and 2010 to 2014, in order to capture the effective dynamism in terms of composition as reflected in shares and the differential growth rates.

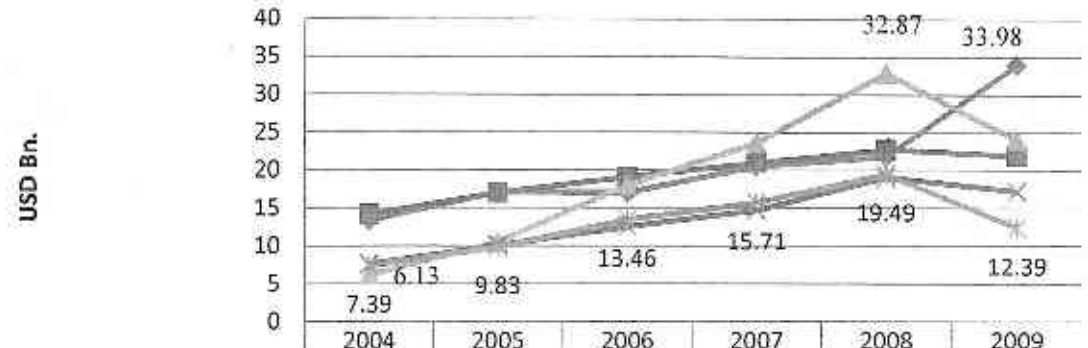
Figure 10- India: Total Trade and Trade Deficit with World, 2004-14



Source: Author based on the WITS online database

[6] The data is based on WITS online database.

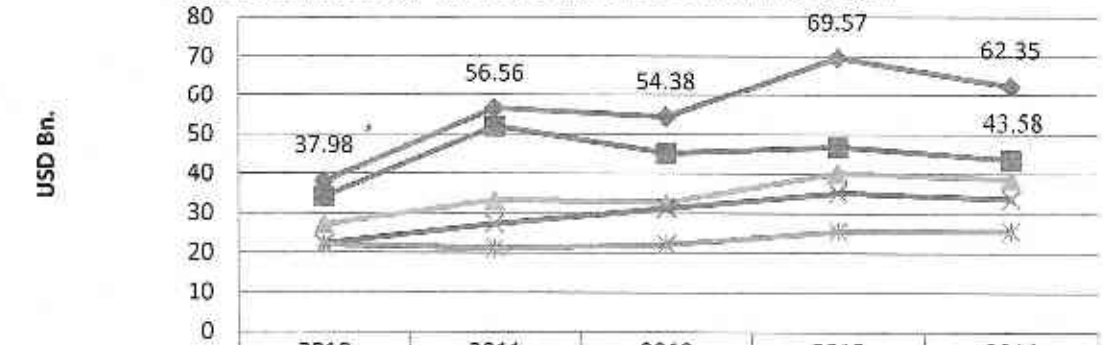
Figure 11- India: Sector-wise Top 5 Exports to World: 2004 to 2009



	2004	2005	2006	2007	2008	2009
Stone And Glass	13.37	17.09	17.00	20.54	21.78	33.98
Textiles and Clothing	14.15	17.03	19.10	20.97	22.70	21.91
Fuels	6.13	10.50	18.00	23.62	32.87	24.02
Chemicals	7.62	10.10	12.54	14.70	19.05	17.18
Metals	7.39	9.83	13.46	15.71	19.49	12.39

Source: Author based on the WITS online database

Figure 12- India: Sector-wise Top 5 Exports to World: 2010 to 2014



	2010	2011	2012	2013	2014
Metals	37.98	56.56	54.38	69.57	62.35
Food Products	34.14	51.97	45.22	46.79	43.58
Miscellaneous	27.13	33.37	32.68	40.19	38.60
Mach and Elec	22.29	27.34	31.25	35.15	33.62
Animal	21.94	21.20	22.08	25.48	25.59

Source: Author based on the WITS online database

India's exports to World during the two phases seem to have had a substantial shift in the trade of prominent goods, sector-wise. While Stone and Glass(68 to 71), Textile and clothing (50 to 63), Fuels (27), Chemicals (28-38) and Metals(72-83) were the top items of export in 2004-09, they were displaced by- Food Products(16-24), Miscellaneous (90-99), Machine and Electric (84-85) and Animal (01-05) as broad categories, though metals(72-83) continued to be in the top of the five sectors even in the second phase- with values ranging from US$ 38 in 2010 to US$ 70 billion in 2013 and dropping marginally to US$ 63 billion in 2014.

During 2004-09 the top sector with maximum exports to world was stone and glass and an interesting observation in this chapter of goods was that during 2009 while the remaining prominent chapters showed a decline, stone and glass demonstrated a rise in trade value. In the second phase the changes in the trade value were more subtle with fewer fluctuations.

Variation in the trend of metals exported was seen during the study period where after remaining low at US$ 15.7 billion in 2007, it increased to US$ 19.5 billion in 2008 but again drastically fell to US$ 12.4 billion in 2009. This trend continued in the following years where the trade value did increase massively where metal (72 -83) recorded the highest value of US$ 70 billion in 2013.

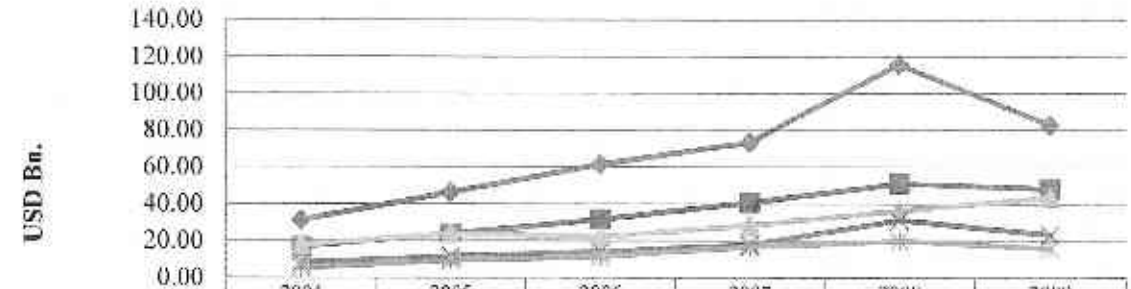
Table 7 clearly indicates that the metals (Chapters 72-83) accounted for nearly 20 percent of India's exports to World. India's export has seen a significant transformation from commodity exports to consumer durables.

Table 7- India's Export and Changing Sectoral Composition across the Two Phases

Chapters	Description	First Phase (2004 to 2009)		First Phase (2010 to 2014)	
		Share (%)	Growth Rates	Share (%)	Growth Rates
68-71	Stone And Glass	15.4	17.3		
50-63	Textiles and Clothing	14.4	9.4		
27-27	Fuels	14.4	35.1		
28-38	Chemicals	10.1	19.1		
72-83	Metals	9.8	14.7	19.2	12.7
16-24	Food Products			15.1	3.9
90-99	Miscellaneous			11.7	9.3
84-85	Mach and Electrical			10.2	11.3
01-05	Animal			7.9	5.0
Total of top ten Chapter (%)		64.1	19.1	95.6	8.5

Note: Exponential growth rates used for the complete table.
Source: Author based on the WITS online database

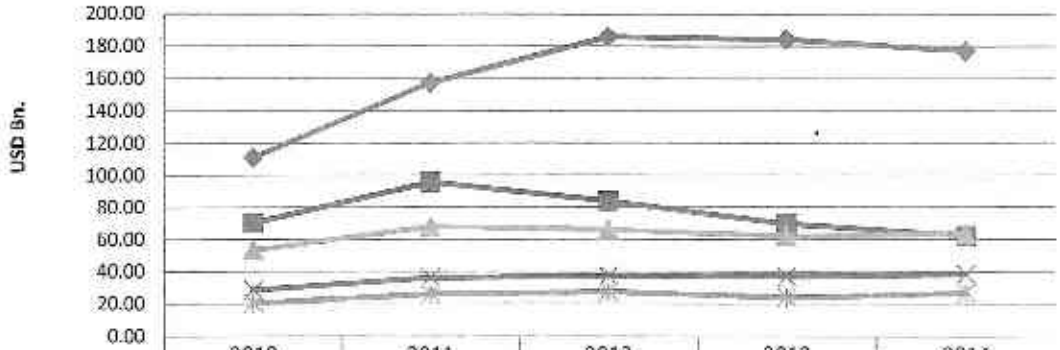
Figure 13- India: Sector-wise Top 5 Imports from World, 2004 to 2009



	2004	2005	2006	2007	2008	2009
Fuels	31.16	46.32	61.43	73.25	115.88	82.66
Mach and Elec	16.92	23.95	31.67	40.84	50.98	48.25
Stone And Glass	18.18	23.97	22.24	28.49	36.39	43.69
Chemicals	8.14	11.76	14.23	18.02	31.22	23.15
Metals	5.44	9.44	11.66	16.84	19.93	15.91

Source: Author based on the WITS online database

Figure 14- India's Sector-wise Top 5 Imports from World, 2010 to 2014



	2010	2011	2012	2013	2014
Fuels	110.84	157.36	185.70	184.19	176.95
Stone And Glass	70.09	95.52	83.61	69.39	61.90
Mach and Elec	53.30	67.73	65.85	61.71	63.09
Chemicals	28.56	36.15	37.21	36.73	38.36
Metals	20.37	26.27	27.53	23.87	26.68

Source: Author based on the WITS online database

Table 8- Comparison of Sector-Wise Imports Trends of India from the World

Chapters	Description	First Phase (2004 to 2009)		Second Phase (2010 to 2014)	
		Share (%)	Growth Rates	Share (%)	Growth Rates
27-27	Fuels	33.7	25.0	36.6	11.5
84-85	Mach and Elec	17.4	24.8	14.0	2.5
68-71	Stone And Glass	14.2	18.3	17.1	-5.5
28-38	Chemicals	8.7	27.1	7.9	6.2
72-83	Metals	6.5	25.6	5.6	4.5
Total of top five Sectors (%)		80.6	24.2	81.2	3.9

Source: Author based on the WITS online database

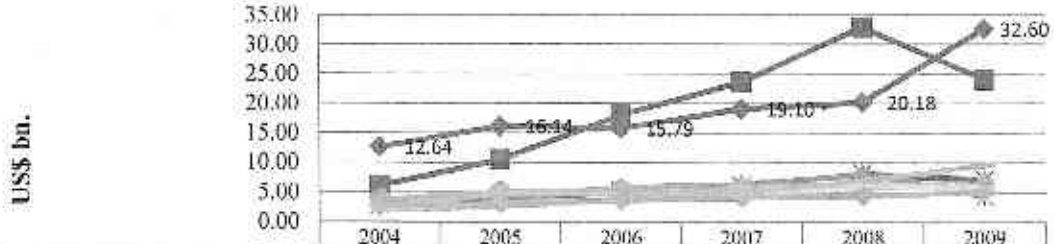
These five sectors accounted for an average of nearly 81 percent of India's imports from the World for the whole period of 2004 to 2014. The concentration of imports from the world has increased marginally by nearly one percentage point from 80.6 percent in the first phase to 81.2 percent in the second phase by the top five sectors

2.1.1.1 CHAPTER-WISE ANALYSIS

During the phase 2004-09, the prominent chapters in which India's exports to the world are Mineral fuels and oils (Chap 27), Organic Chemicals (Chap 29), Vehicles (Chap 87), Pharmaceuticals (Chap 30), Cotton (Chap 52), etc. Several of these chapters also coincide with the top Indian exports to Peru like Cotton, Vehicles, Pharmaceuticals, Iron and Steel, etc.

No real change in the top exports during 2010-14 was observed. Mineral fuels and oil were the most prominent export items to the world in the first phase. The trade continued to increase till 2008 where the trade value was 32.8 billion USD but plunged to 24.02 billion in 2009. From 2010-14 mineral fuels were the most prominent exports to world where fluctuations were observed.

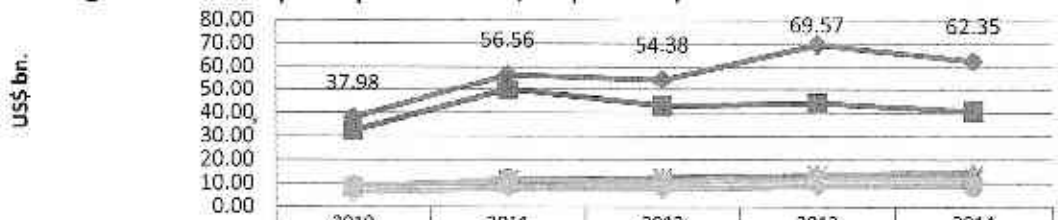
Figure 15- India: Top 10 Exports to World, Chapter-wise, 2004-09



	2004	2005	2006	2007	2008	2009
Natural/cultured pearls, prec stone	12.64	16.14	15.79	19.10	20.18	32.60
Mineral fuels, oils & product of th	6.13	10.50	18.00	23.62	32.87	24.02
Organic chemicals.	3.29	4.44	5.78	6.52	7.91	6.97
Nuclear reactors, boilers, mchy & m	2.02	4.06	4.96	6.12	8.11	7.17
Iron and steel.	3.50	4.33	5.19	5.98	8.20	4.39
Art of apparel & clothing access, n	3.76	5.08	5.44	5.24	5.88	6.12
Ores, slag and ash.	2.48	4.85	4.60	5.86	6.52	5.79
Electrical mchy equip parts thereof	1.96	2.64	3.75	4.70	7.01	9.62
Vehicles o/t railw/tramw roll-stock	2.25	3.20	3.66	4.08	6.09	5.72
Art of apparel & clothing access,	2.66	3.12	3.58	4.13	4.38	5.19

Source: Author based on the WITS online database

Figure 16- India: Top 10 Exports to World, Chapter-wise, 2010-14



	2010	2011	2012	2013	2014
Mineral fuels, oils & product of th	37.98	56.56	54.38	69.57	62.35
Natural/cultured pearls, prec stone	32.46	50.02	43.09	44.16	40.70
Vehicles o/t railw/tramw roll-stock	9.29	10.28	12.20	13.79	14.48
Organic chemicals.	8.59	11.15	12.55	13.30	12.04
Nuclear reactors, boilers, mchy & m	8.16	10.76	11.07	13.13	13.60
Electrical mchy equip parts thereof	8.69	11.73	10.75	11.23	9.00
Pharmaceutical products.	6.10	8.25	9.57	11.66	11.56
Cotton.	6.89	7.80	8.57	11.29	8.88
Iron and steel.	7.00	7.93	7.70	10.21	9.08
Art of apparel & clothing access, n	6.04	7.94	7.43	8.74	9.06

Source: Author based on the WITS online database

Table 9- India's Export to World and Changing Sectoral Composition across the Two Phases

Chapter	Description	First Phase (2004 to 2009)		Second Phase (2010 to 2014)	
		Share (%)	Growth Rates	Share (%)	Growth Rates
71	Natural/cultured pearls, prec stone	14.5	17.3	14.4	3.3
27	Mineral fuels, oils & product of th	14.4	35.1	19.2	12.7
29	Organic chemicals.	4.4	17.4	3.9	8.9
84	Nuclear reactors, boilers, mchy & m	4.2	21.4	3.9	13.0
72	Iron and steel.	3.9	9.5	2.9	8.1
62	Art of apparel & clothing access, n	3.9	8.5	2.7	9.5
26	Ores, slag and ash.	3.8	16.6		
85	Electrical mchy equip parts	3.7	37.4	3.5	0.3

	thereof				
87	Vehicles o/t railw/tramw roll-stock	3.1	21.1	4.1	12.6
61	Art of apparel & clothing access.	2.9	13.7		
30	Pharmaceutical products.			3.2	17.7
52	Cotton.			3.0	9.2
Total of top ten Chapter (%)		58.7	19.8	54.5	8.5
Coefficient of Variation		77.3	48.8	95.1	52.5

Source: Author based on the WITS online database

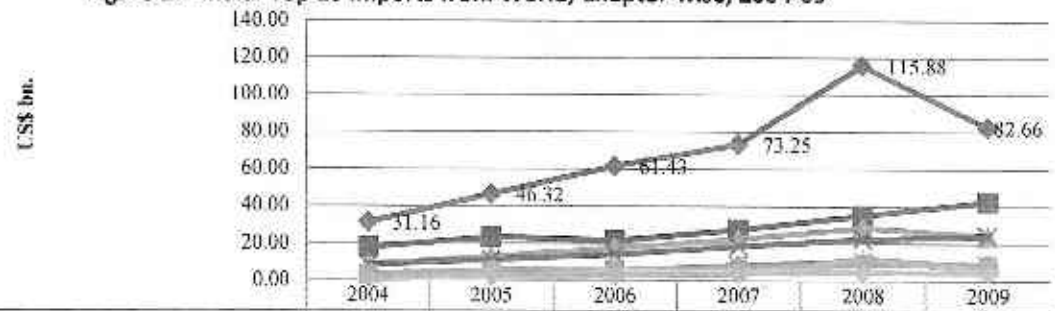
India's top 10 chapter-wise exports remained nearly similar across both the phases with addition of two chapters replacing the first phase chapters like Ores, Slag and ash and articles of Apparel accessories. These two chapters were replaced by pharmaceutical products (Ch.30) recording a share of 3.2 percent of India's exports and growth of nearly 18 percent and the Cotton (Ch.52) with a share of 3 percent to total exports and the growth of 9 percent. The Coefficient of variations indicates that in both shares and growth rates there is a marked increase in value (see Table 9), suggesting an increased concentration among the top 10 chapters. While we can observe an increased concentration of shares in favour of Mineral fuels which increased from the first phase share of 14.5 percent to 19.2 percent share in the second phase.

The second phase also indicates a lower average growth rate for the 10 chapters from nearly 20 percent in the first phase to 8.5 percent in the second phase – suggesting a drop of 12.5 percent. The average growth rate decreased with only few chapters having very high growth during 2010 to 2014.

IMPORTS SIDE OF CHAPTER-WISE TRENDS

During 2010-14, the top imports from world remained similar to the imports during 2004-09. Trade with Peru in the same period saw a few changes with new chapters entering the top imports such as, Salt; Sulphur; Earth & Stone, Residues & Waste from the food industries, Man-made staple fibres and Edible fruit and nuts.

Figure 17- India: Top 10 Imports from World, Chapter-wise, 2004-09

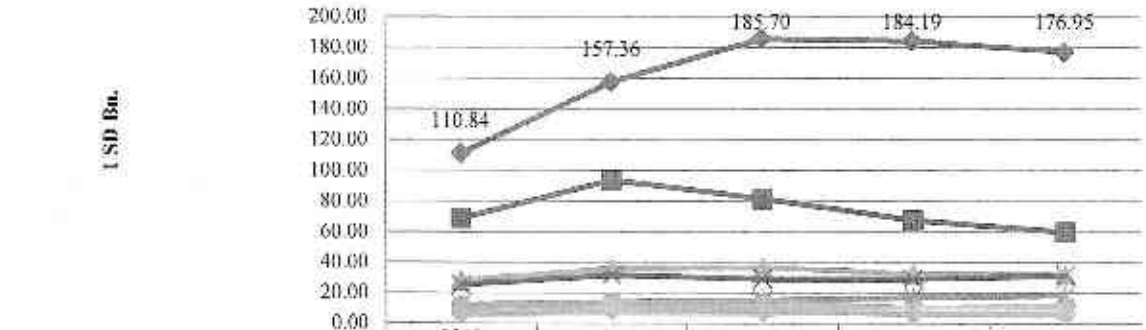


	2004	2005	2006	2007	2008	2009
Mineral fuels, oils & product of th	31.16	46.32	61.43	73.25	115.88	82.66
Natural/cultured pearls, prec stone	17.73	23.32	21.43	27.49	35.09	42.61
Nuclear reactors, boilers, mchy & m	8.62	12.89	17.61	22.33	28.53	24.12
Electrical mchy equip parts thereof	8.30	11.06	14.05	18.51	22.45	24.13
Iron and steel.	2.71	5.31	5.57	8.37	10.77	8.46
Organic chemicals.	3.79	5.10	5.80	7.46	8.89	8.49
Aircraft, spacecraft, and parts the	1.16	1.95	5.20	3.08	12.17	5.20
Fertilisers.	0.70	1.66	2.65	3.90	12.28	6.06
Ores, slag and ash.	0.97	1.16	4.88	4.94	5.25	3.44
Optical, photo, cine, meas, checkin	1.81	2.56	3.01	3.85	4.65	4.61

Source: Author based on the WITS online database

Mineral fuels and oils ranked first in the imports from world and were seen increasing constantly till 2008 at a trade value of US$ 115.8 billion but fell to 82.6 billion USD in 2009. A visible increase in imports was then observed from 2011 onwards. Mineral fuels had the highest growth rate of 35 percent during the first phase.

Figure 18- India: Top 10 Imports from World, Chapter-wise, 2010-14



	2010	2011	2012	2013	2014
Mineral fuels, oils & product of th	110.84	157.36	185.70	184.19	176.95
Natural/cultured pearls, prec stone	68.63	93.60	81.58	67.50	59.84
Nuclear reactors, boilers, mchy & m	28.14	36.01	36.74	32.39	31.65
Electrical mchy equip parts thereof	25.16	31.71	29.11	29.32	31.44
Organic chemicals.	12.12	14.03	15.24	16.92	18.24
Iron and steel.	10.70	12.95	13.74	10.12	11.29
Animal/veg fats & oils & their clea	6.44	9.23	11.00	9.82	10.64
Plastics and articles thereof.	7.35	8.03	9.31	10.01	11.82
Ores, slag and ash.	5.54	6.45	6.48	8.49	7.56
Fertilisers.	6.16	8.71	7.88	5.96	5.70

Source: Author based on the WITS online database

Table 10- India: Import from World and Changing Sectoral Composition across the Two Phases

Chapter	Description	First Phase (2004 to 2009)		Second Phase (2010 to 2014)	
		Share (%)	Growth Rates	Share (%)	Growth Rates
27	Mineral fuels, oils & product of th	33.7	25.0	36.6	11.5
71	Natural/cultured pearls, prec stone	13.8	18.2	16.7	-5.8
84	Nuclear reactors, boilers, mchy & m	9.4	24.9	7.4	1.3
85	Electrical mchy equip parts thereof	8.1	24.7	6.6	3.7
72	Iron and steel.	3.4	26.5	2.6	-1.4
29	Organic chemicals.	3.2	18.5	3.4	10.6
88	Aircraft, spacecraft, and parts the	2.4	42.7		
31	Fertilisers.	2.2	63.5	1.5	-5.2
26	Ores, slag and ash.	1.7	36.4	1.6	9.4
90	Optical, photo, cine, meas, checkin	1.7	21.1		
15	Animal/veg fats & oils & their clea			2.1	11.3
39	Plastics and articles thereof.			2.1	12.4
Total of top ten Chapter (%)		79.5	30.2	80.6	4.8
Coefficient of Variation (COV)		124.7	46.5	137.0	150.4

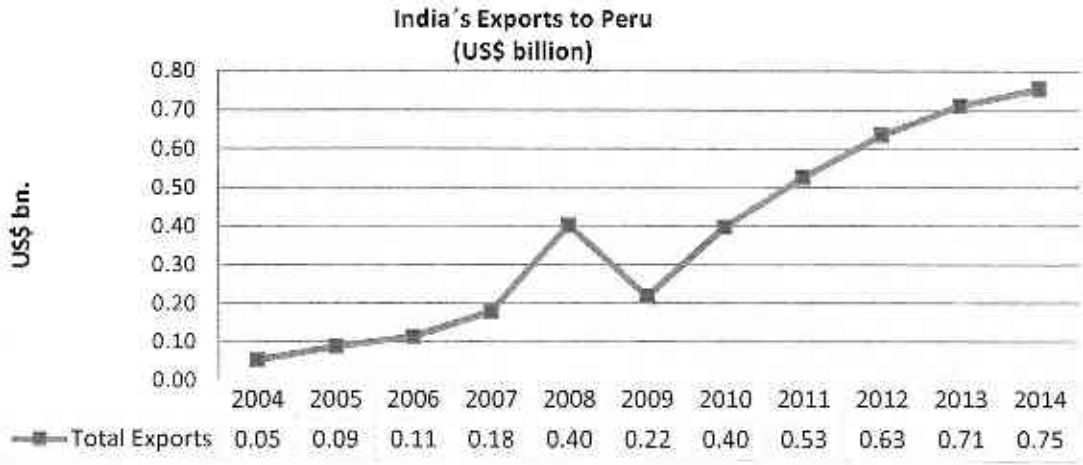
Source: Author based on the WITS online database

India's imports from world showed nearly steady concentration during both the phases with the coefficient of variation of shares only marginally increasing from 124 percent in the first phase to 137 percent in the second phase. While the Coefficient of variation of growth rates showed a remarkable increase from 46.5 percent in the first phase to 150.4 in the second phase, the same was due to wide variations in growth observed in the second phase with some of the chapters having a negative growth rate.

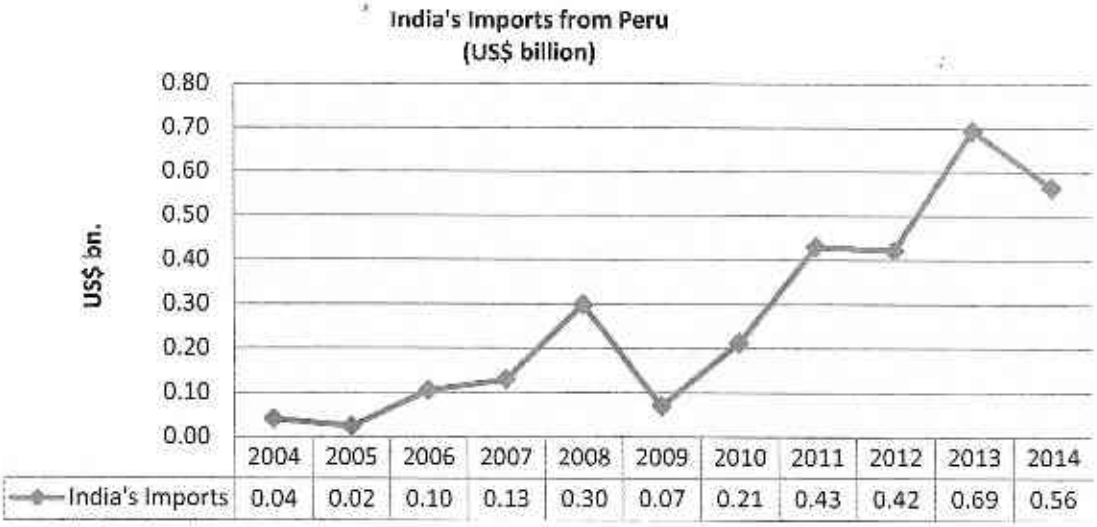
2.1.1.2 INDIA'S BILATERAL TRADE WITH PERU

Trade between India and Peru has increased over the last decade. The growth of exports since 2004 to 2014 has been 30.1 percent while imports grew by 37.8[7] percent. The kink in trends observed in India and Peru bilateral trade was used for the division of the overall period of 2004 to 2014 into two phases i.e., 2004 to 2009 and 2010 to 2014.

Figure 19- India: total exports and imports to Peru, 2004-14



Source: Author based on the WITS online database



Source: Author based on the WITS online database

India is presently having only a meagre share in Peru's total import market, therefore this clearly suggests huge potential for India increase its shares. India's total trade with world during 2014 was 776.91 billion USD, indicating the huge potential for bilateral trade; there exists mutual benefit for both the countries to take benefit.

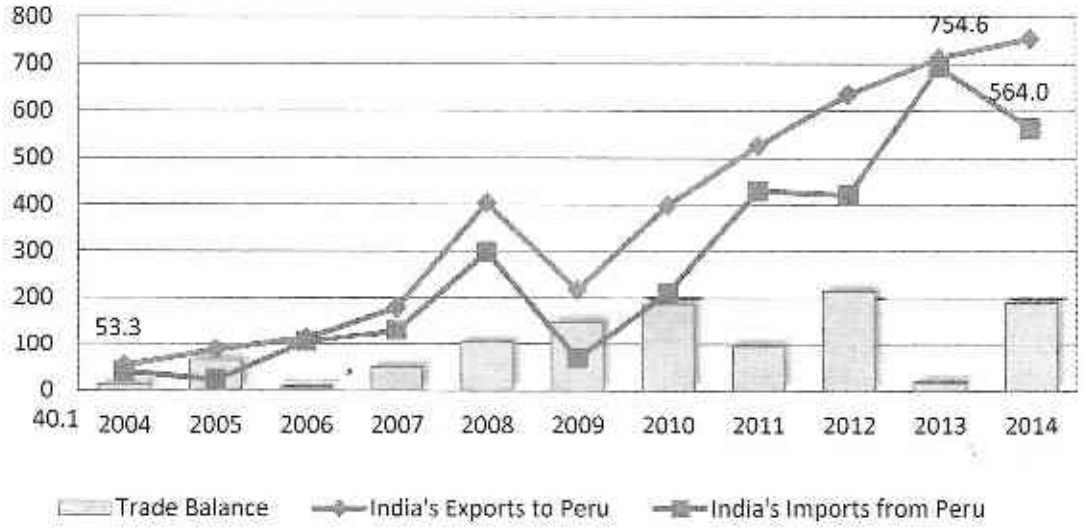
[7] Exponential growth rates used for arriving at the figure, as they account for the complete series of data and differ from the annual average growth rates.

Both parties should attempt to increase the market shares in their respective partners' markets. India and Peru can capitalise on this potential by increasing their volume of bilateral trade in goods.

India's trade with Peru grew throughout the study period. The growth of total trade during this period was 31.6[8] percent which also saw a sharp drop in value from US$ 701 million in 2008 to US$ 286.7 million in 2009, but total trade picked up in the following years and went as high as US$ 1318.5 million in 2014.

Both India and Peru have shown unforeseen spurts in trade since 2010 onwards, however similar trends also existed in the first phase of 2004 to 2009- with the highest value in 2012 at US$ 214.2 million.

Figure 20- India: total trade and trade balance with Peru, 2004-14



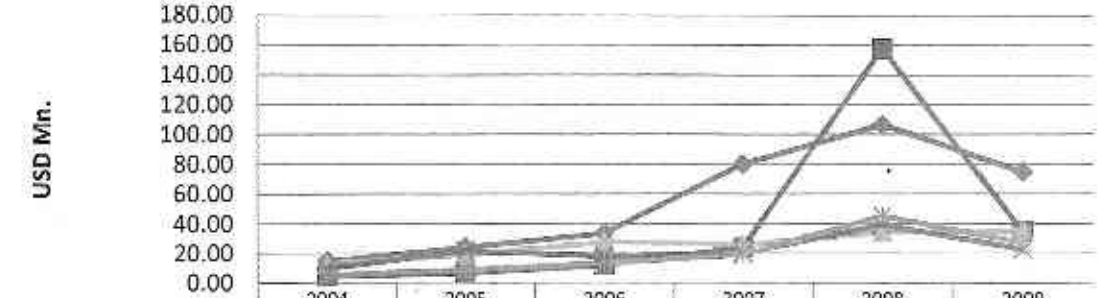
Source: Author based on the WITS online database

2.1.1.3 INDIA'S EXPORTS AND IMPORTS: SECTOR-WISE ANALYSIS

India's exports and imports to Peru are analysed in this sub-section. The world integrated trade solutions (WITS) broadly categorises the ninety six chapters into sixteen sectors. We have identified the top five sections traded in exports and imports for the two phases of the analysis.

[8] Exponential growth rates used for arriving the figure, as they account for time trends for the complete series of data and differ from the annual average growth rates.

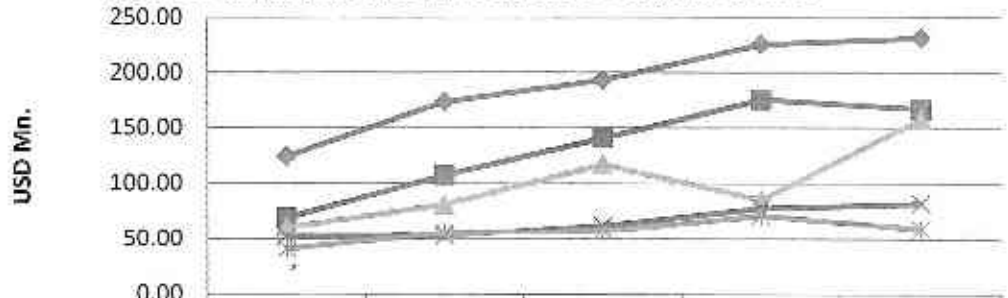
Figure 21- India: Sector-wise Top 5 Exports to Peru, 2004 to 2009



	2004	2005	2006	2007	2008	2009
Textiles and Clothing	14.63	23.94	33.34	80.09	106.51	74.65
Metals	4.51	6.42	11.84	23.75	157.62	34.55
Chemicals	12.98	19.15	27.62	25.61	34.03	34.98
Plastic OR Rubber	9.83	21.39	17.81	20.17	39.11	22.46
Transportation	5.21	8.80	13.31	19.23	44.90	26.98

Source: Author based on the WITS online database

Figure 22- India: Sector-wise Top 5 Exports to Peru, 2010 to 2014



	2010	2011	2012	2013	2014
Textiles and Clothing	123.97	173.34	192.88	225.27	230.77
Transportation	69.00	107.33	140.60	175.31	166.76
Metals	60.34	81.12	116.90	85.25	157.48
Chemicals	51.88	52.79	61.98	77.74	81.99
Plastic OR Rubber	40.65	55.34	57.48	71.24	59.05

Source: Author based on the WITS online database

Trade with Peru has not seen any change in the Sectoral terms that appeared to be top exports, other than a shift in the ranking of each of these Sectors in the two phases which indicate the similarity of exports in the entire decade.

India's export in Textile and Clothing (50 to 63) has shown a consistent increasing trend all through the period. It dominated the second phase with exports from transportation (86 to 89) at the second rank. The Metal (72 to 83) was pushed to third rank.

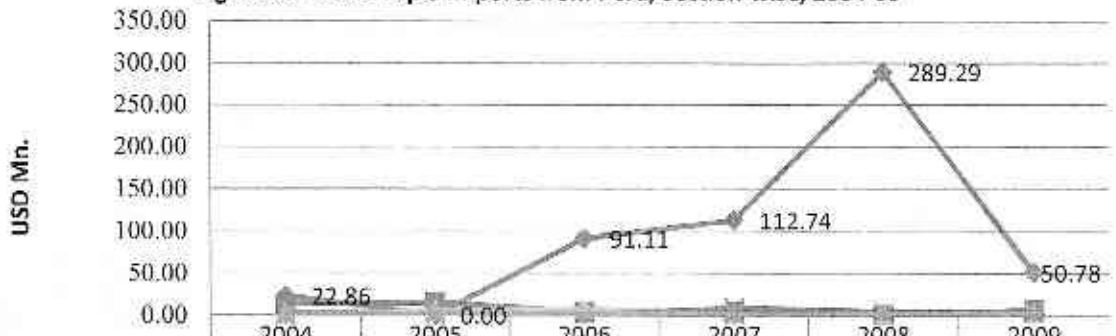
Imports Side of Sector-wise Trends

On imports side for India and Peru, unlike the near similarity observed in exports trends over the two phases there has been some compositional shifts. The important sections have seen some changes with the addition of two sections and changes observed in the relative positions/ranks.

In the first phase imports from Peru were prominent in sections like Minerals (Chapters 25-26); Food products (Chapters 16 -24); Metals (Chapters 72 -83); Stone and Glasses (Chapters 68 -71) and Hides and skins (Chapters 41 -43).

In the second phase we can see two additional sections emerging with Vegetable (Chapters 06-14) and Chemicals (Chapters 28-38) and the withdrawal of Food products and Hides and skin of the first phase.

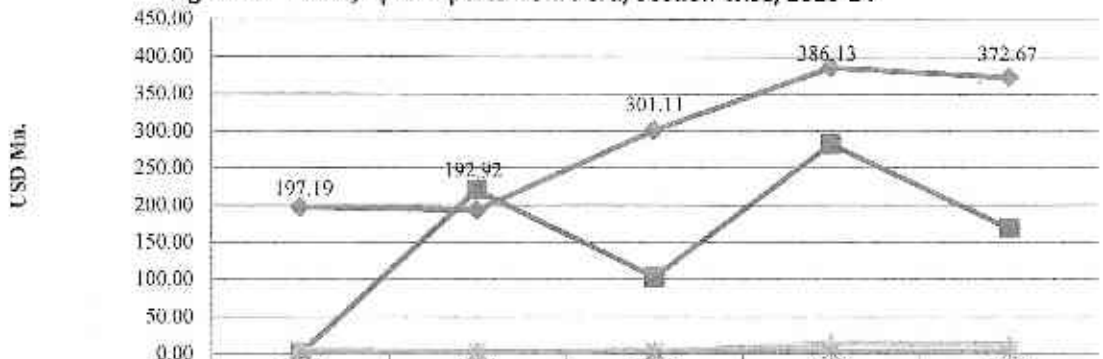
Figure 23- India: Top 5 Imports from Peru, Section-wise, 2004-09



	2004	2005	2006	2007	2008	2009
Minerals	22.86	0.00	91.11	112.74	289.29	50.78
Food Products	13.60	14.84	3.56	3.37	0.22	6.48
Metals	2.03	4.90	7.09	2.22	0.63	2.22
Stone And Glass	0.02	0.04	0.33	8.51	3.71	4.48
Hides And Skins	0.42	1.01	0.33	0.58	1.71	1.64

Source: Author based on the WITS online database

Figure 24- India: Top 5 Imports from Peru, Section-wise, 2010-14



	2010	2011	2012	2013	2014
Minerals	197.19	192.92	301.11	386.13	372.67
Stone And Glass	0.04	220.14	102.28	282.44	168.16
Metals	4.49	1.36	2.65	13.90	12.65
Vegetable	3.02	2.26	2.39	2.23	3.46
Chemicals	1.48	1.83	3.50	3.05	3.09

Source: Author based on the WITS online database

Table 11- India's Imports from Peru and Changing Sectoral Composition across the Two Phases

Chapter	Description	First Phase (2004 to 2009)		Second Phase (2010 to 2014)	
		Share (%)	Growth Rates	Share (%)	Growth Rates
25-26	Minerals	85.3	83.3	62.5	21.7
16-24	Food Products	6.3	-37.5		
72-83	Metals	2.9	-17.8	1.5	55.3
68-71	Stone And Glass	2.6	246.6	33.3	440.9
41-43	Hides And Skins	0.9	29.0	-	-
06-15	Vegetable	-	-	0.6	2.6
28-38	Chemicals	-	-	0.6	22.0
Total of top five Sectors (%)		97.9	60.7	98.5	108.5

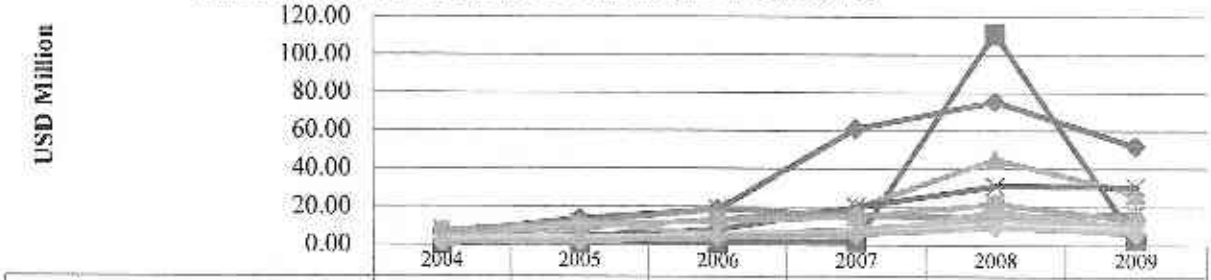
Source: Author based on the WITS online database

The high concentration in the first phase of minerals sector accounts for nearly 85 percent share of the total imports from Peru by India, however, in the second phase the share of Mineral sector decreased to 63 percent and followed by Stones and Glass sector with 33 percent share. The overall dependence on the top five sectors remained almost at 98 percent of the total imports.

The chapters which were prominent in India's imports from world during the period 2004-09 were Mineral fuels, oils (Ch. 27), Natural/cultured pearls, and precious stone (Ch. 71), Nuclear reactors, boilers (Ch. 84), Electrical machinery & equipment and parts thereof (Ch. 85), Iron and steel (Ch. 72), etc.

In comparison, India's top imports from Peru during this period coinciding with the top imports from world during this period were Ores, slag and ash, Natural/cultured pearls, precious stone, Iron and steel and Nuclear reactors, boilers, machinery.

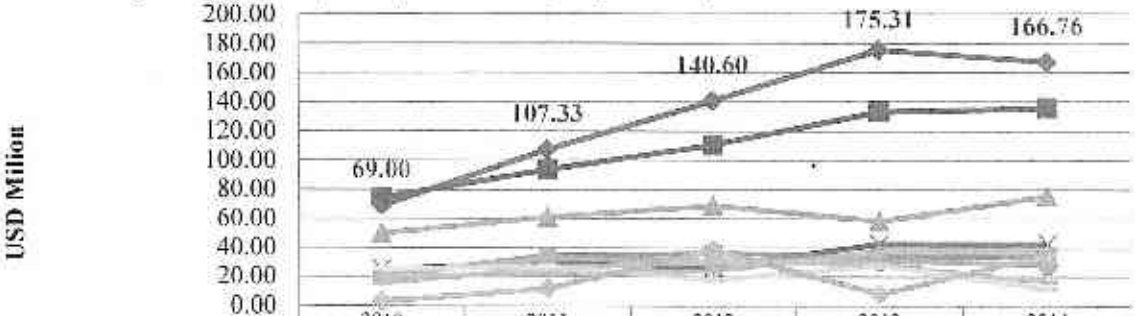
Figure 25- India: Top 10 Exports to Peru, Chapter-wise, 2004-09



	2004	2005	2006	2007	2008	2009
Cotton.	5.75	13.72	18.47	60.97	75.23	51.85
Articles of iron or steel.	0.48	0.93	1.21	2.02	110.96	2.91
Vehicles o/t railw/tramw roll-stock	5.21	8.80	13.31	19.22	44.90	26.98
Iron and steel.	3.54	4.80	8.04	19.85	30.88	30.42
Pharmaceutical products.	7.54	11.76	18.88	15.17	14.28	16.59
Rubber and articles thereof.	6.83	9.82	12.74	14.89	21.40	12.93
Plastics and articles thereof.	3.00	11.58	5.07	5.28	17.71	9.53
Man-made staple fibres.	4.06	3.67	5.35	8.36	14.01	8.94
Organic chemicals.	3.22	3.93	4.85	6.17	10.53	8.11
Man-made filaments.	0.85	1.80	3.94	5.40	9.58	5.91

Source: Author based on the WITS online database

Figure 26- India: Top 10 Exports to Peru, Chapter-wise, 2010-14



	2010	2011	2012	2013	2014
Vehicles o/t rail/tramw roll-stock	69.00	107.33	140.60	175.31	166.76
Cotton.	74.56	93.60	110.60	133.31	135.79
Iron and steel.	49.89	61.46	69.12	58.50	75.76
Plastics and articles thereof.	25.06	29.50	26.43	42.80	42.69
Man-made filaments.	20.53	34.55	36.32	33.50	35.13
Man-made staple fibres.	20.43	33.16	30.37	31.21	28.40
Pharmaceutical products.	19.55	22.91	24.34	37.58	37.80
Rubber and articles thereof.	15.59	25.84	31.05	28.44	16.36
Electrical mchy equip parts thereof	25.62	26.58	18.04	27.88	11.27
Articles of iron or steel.	2.96	11.88	38.46	8.10	35.20

Source: Author based on the WITS online database

Table 12- Indian Imports from Peru at the HS Chapter level (US$ million)

Chapter	Chapter Description	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
26	Ores, slag and ash	9.75	22.86	0.00	91.10	113.74	298.29	50.76	197.15	169.59	172.54	280.42	277.04
71	Natural/cultured pearls, prec stone	0.05	0.02	0.04	0.33	8.51	3.71	4.48	0.00	220.13	101.85	282.03	167.80
25	Salt; sulphur; earth & stone; plaster	0.05	0.00	0.00	0.01	0.00	0.00	0.01	0.01	32.00	128.57	109.70	55.61
23	Residues & waste from the food indu	12.25	12.56	14.84	3.56	3.36	0.21	6.47	1.52	3.09	2.91	1.21	0.51
79	Zinc and articles thereof.	0.31	0.05	1.46	3.77	0.09	0.11	0.77	3.15	0.38	0.35	8.44	9.95
27	Mineral fuels, oils & product of th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
74	Copper and articles thereof.	2.31	1.58	1.05	1.78	1.29	0.09	0.50	0.11	0.10	0.94	3.97	1.19
41	Raw hides and skins (other than fu	0.01	0.42	1.01	0.35	0.58	1.71	1.63	1.38	1.49	2.26	1.57	1.50
28	Inorgn chem; compds of prec mtl	0.07	0.59	0.89	0.52	0.62	0.48	0.60	0.66	1.00	1.07	1.87	1.99
55	Man-made staple fibres.	0.02	0.00	0.01	0.00	0.00	0.02	1.22	1.75	2.63	1.54	1.41	0.01
8	Edible fruit and nuts; peel of cit	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.42	1.17	1.35	1.21	1.42
32	Tanning/dyeing extract; tannins &	0.26	0.27	0.20	0.27	0.28	0.41	0.27	0.74	0.56	0.81	1.08	0.84
84	Nuclear reactors, boilers, mchy & m	0.18	0.30	1.05	0.37	0.30	0.09	0.12	0.14	1.38	0.31	0.08	0.13
7	Edible vegetables and certain roots	0.11	0.05	0.00	0.52	0.21	0.07	0.64	2.26	0.95	0.62	0.17	0.31
76	Aluminium and articles thereof	0.23	0.05	0.11	0.43	0.05	0.00	0.00	0.04	0.20	0.04	0.85	0.68
72	Iron and steel.	0.09	0.25	0.25	1.05	0.72	0.30	0.62	0.28	0.43	0.38	0.12	0.03
51	Wool, fine/coarse animal hair; hors	0.00	0.05	0.15	0.19	0.02	0.55	0.10	0.08	0.00	0.27	0.22	0.01
18	Cocoa and cocoa preparations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
70	Glass and glassware.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.43	0.41	0.36
13	Lac; gums, resins & other vegetable	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.24	1.22
81	Other base metals; cermets; article	0.00	0.04	0.05	0.00	0.08	0.00	0.23	0.00	0.00	0.00	0.30	0.70
30	Pharmaceutical products.	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42	0.00	0.00
9	Coffee, tea, mate and spices.	0.00	0.00	0.00	0.45	0.00	0.35	0.01	0.08	0.13	0.21	0.00	0.04
15	Animal/vegetable fats	0.00	0.03	0.07	0.01	0.04	0.18	0.25	0.16	0.00	0.07	0.42	0.01

Source: Compiled by Authors based on WITS Comtrade.

Table 12 provides Indian Imports from Peru at the HS chapter level. It shows that Import of ores slag and ash from Peru saw an increase till 2008 followed by a sharp decline in 2009 from trade value 298.2 million USD in 2008 to 50.7 million USD in 2009. But this decline was soon reversed in the following year with imports of ores slag and ash from Peru at a trade value of 197.1 million USD. Natural/ cultured pearls showed a fluctuating trend between 2010 and 2014.

Table 13- Summary Table of Feasibility for India's Export Expansion

Chapter	Description	Based on Top 10 Chapters List of the Second Phase (2010-14)			
		LAC List	Peru List	World List	Comment on Presence of top 10 Chapters list
87	Vehicles o/t railw/tramw roll-stock	Present	Present	Present	Across all the three
85	Electrical mach. Equip parts thereof	Present	Present	Present	Across all the three
84	Nuclear reactors, boilers, mach, & m	Present		Present	World and LAC
73	Articles of iron or steel		Present		Peru only
72	Iron and steel	Present	Present	Present	Across all the three
71	Natural/cultured pearls, precious stone			Present	World only
62	Art of apparel & clothing access, n			Present	World only
55	Man-made staple fibres		Present		Peru only
54	Man-made filaments	Present	Present		LAC and Peru
52	Cotton	Present	Present	Present	Across all the three
40	Rubber and articles thereof		Present		Peru only
39	Plastics and articles thereof		Present		Peru only
38	Miscellaneous chemical products	Present			LAC only
30	Pharmaceutical products	Present	Present	Present	Across all the three
29	Organic chemicals	Present		Present	World and LAC
27	Mineral fuels, oils & product	Present		Present	World and LAC

Note: * = Peru included in LAC.
Source: Compiled by the authors.

Table 13 provides a summary of top 10 chapters from the list of India's exports to World, LAC and Peru analysed after removing duplicates and we have nearly 20 chapters which are unique. The 16 chapters can be further divided into permutation and combination like: 'across all the three', 'Peru only', 'LAC and Peru'; 'World and LAC', 'LAC only' and 'World and Peru'.

In five chapters like; vehicles (Ch.87), Electrical mach. equip parts thereof (85), Iron and steel (Ch.72), cotton (Ch.52) and pharmaceutical products, we can find these chapters across all the three groups. India's endeavour would be to first try and achieve optimization in these chapters before moving into other chapters. The second order of priority is those belonging to LAC and Peru list. Only one chapter belongs to this category that is man-made filament (this being an intermediate product). India should be analyzing in detail its exports to LAC and Peru as to why this is happening. It should be careful in expanding those exports which fall in the category of only Peru list which are Articles of iron or steel (Ch. 72), Man-made staple fibers (Ch. 54), Rubber and articles thereof (Ch. 40) and Plastics and articles thereof (Ch.39).

Table 14- Summary Table of Feasibility for Peru's Export Expansion

Chapter	Description	Based on Top 10 Chapters List of the Second Phase (2010-14)			
		LAC List*	India List	World List	Comment on Presence of top 10 Chapters list
8	Edible fruit and nuts; peel of citr		Present		India only
15	Animal/veg fats & oils & their clea	Present		Present	World and LAC
17	Sugars and sugar confectionery.	Present			LAC only
23	Residues & waste from the food indu		Present		India only
25	Salt; sulphur; earth & ston: plaste	Present	Present		World and India
26	Ores, slag and ash.	Present	Present	Present	Across all the three
27	Mineral fuels, oils & product of th	Present		Present	World and LAC
28	Inorgn Chem.; compds of prec mtl, r		Present		India only
29	Organic chemicals.			Present	World only
31	Fertilisers.			Present	World only
39	Plastics and articles thereof.			Present	World only
41	Raw hides and skins (other than		Present		India only

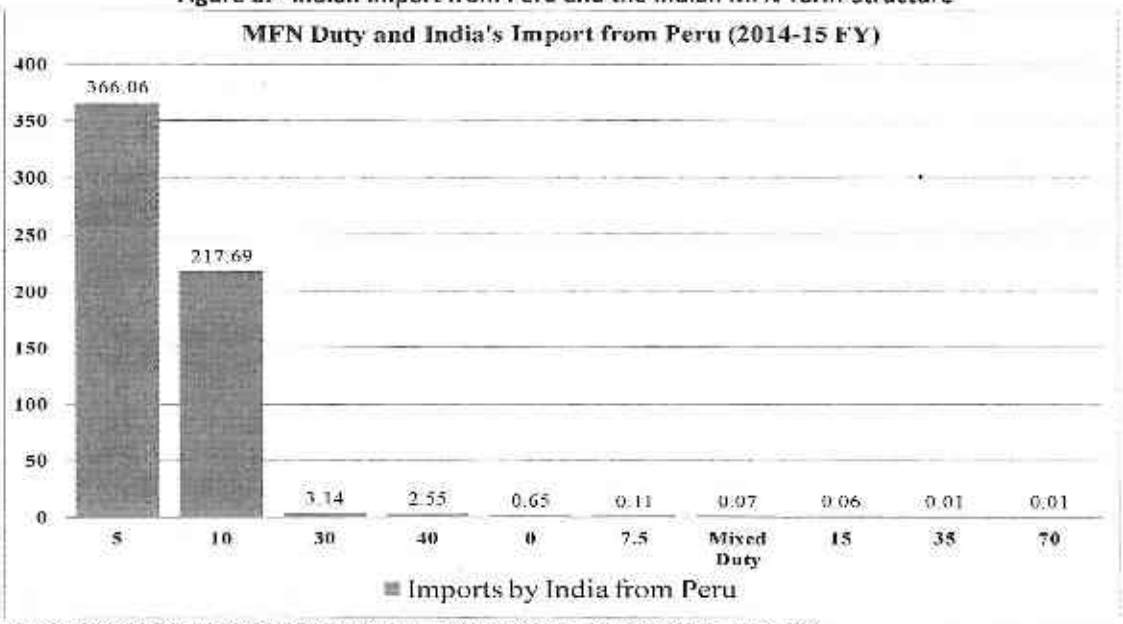
	fu				
44	Wood and articles of wood; wood ch	Present			LAC only
55	Man-made staple fibres.		Present		India only
71	Natural/cultured pearls, prec stone	Present	Present	Present	Across all the three
72	Iron and steel.	Present		Present	World and LAC
74	Copper and articles thereof.		Present		India only
79	Zinc and articles thereof.		Present		India only
84	Nuclear reactors, boilers, mchy & m	Present		Present	World and LAC
85	Electrical mchy equip parts thereof	Present		Present	World and LAC

Note: * = Peru included in LAC.
Source: Compiled by the authors.

Table 14 provides a summary of top 10 chapters from the list of Peru's exports to World, LAC and India analysed after removing duplicates, we have nearly 20 chapters which are unique. The 20 chapters can be further divided into permutation and combination like: 'across all the three', 'Peru only', 'LAC and Peru'; 'World and LAC', 'LAC only' and 'World and Peru'.

The five categories have been listed in table 13, of this India may attempt to facilitate expansion of imports from Peru under the category of 'Peru only' as these are imports which fall in the category of 'bulk consignments'. There are seven chapters of which Edible fruit and nuts (Ch. 8) and Residues & waste from the food industry (Ch.23) provide trade facilitating measures by creating SPS friendly environment for Peru's exports in this Category. Further the Inorganic chemicals (Ch. 28) could be used in some of the growing industries in India like: Fibers & Plastics; Microchip; Mining Ore & Metals; and Paint Pigment & Coatings. The Raw hides and Skins (Ch. 41), Man-made staple fibers (Ch.54), Copper and articles thereof (Ch. 74) and Zinc and articles thereof (Ch.79). Most of these products fall in intermediary or raw material category are required for value addition within India – there is a urgent need for expanding the domestic use of these for value chain creation with in India. This should be India's approach in the short-run (immediate response) while moving for investment led long-run strategies which would be discussed later.

Figure 27- Indian Import from Peru and the Indian MFN Tariff Structure



Source: Compiled by authors based on 8 digit details from export-import databank, DGCIS, DoC.

In FY 2014-15 the bilateral import between India and Peru suggested that nearly 98.8 percent of India's Import from Peru fell under MFN tariff rates of 5 percent and 10 percent.

Table 15 - Peruvian Exports to India & World during 2013 & 2014

S.N.	HS 2012	Description	Peruvian Exports to World		Peruvian Exports to India	
			2013	2014	2013	2014
		Total	**42569**	**38459**	**593**	**321**
1	26	Ores, slag and ash	11517	10558	193	130
2	71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	8981	6079	274	93
3	25	Salt; sulphur; earths and stone; plastering materials, lime and cement	488	423	105	78
4	79	Zinc and articles thereof	636	633	9	5
5	28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	299	270	1	3
6	8	Edible fruit and nuts; peel of citrus fruit or melons	1102	1536	1	2
7	41	Raw hides and skins (other than furskins) and leather	26	36	1	2
8	18	Cocoa and cocoa preparations	146	234	0	1
9	55	Man-made staple fibres	77	94	2	1
10	84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	221	284	1	1

S.N.	HS 2012	Description	Peruvian Exports to World		Peruvian Exports to India	
11	85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	137	106	0	1
12	74	Copper and articles thereof	2697	2417	1	1
13	13	Lac; gums, resins and other vegetable saps and extracts	20	18	0	1
14	76	Aluminium and articles thereof	29	34	1	0
15	10	Cereals	125	221	0	0
16	81	Other base metals; cermets; articles thereof	22	17	0	0
17	14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	34	35	1	0
18	70	Glass and glassware	62	74	0	0
19	23	Residues and waste from the food industries; prepared animal fodder	1521	1517	1	0
20	32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	102	122	0	0
		Total 20 Chapters	**28242**	**24709**	**591**	**320**
		% Share	**66**	**64**	**100**	**100**

Source: COMTRADE

Table 16- Peruvian Import from India & World during 2013 & 2014

S.N.	HS 2012	Description	Peruvian Import from World		Peruvian Imports from India	
			2013	**2014**	**2013**	**2014**
		Total	**43322**	**42194**	**724**	**836**
1	87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	4895	3983	168	181
2	52	Cotton	351	372	124	138
3	72	Iron and steel	1595	1495	62	68
4	39	Plastics and articles thereof	2178	2220	34	54
5	30	Pharmaceutical products	695	714	39	44
6	54	Man-made filaments; strip and the like of man-made textile materials	204	205	34	36
7	85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	4074	4590	24	35
8	84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	6389	6319	27	32

S.N.	HS 2012	Description	Peruvian Import from World		Peruvian Imports from India	
9	55	Man-made staple fibres	147	167	32	28
10	40	Rubber and articles thereof	831	766	30	26
11	73	Articles of iron or steel	1063	1188	11	25
12	29	Organic chemicals	565	570	23	22
13	61	Articles of apparel and clothing accessories, knitted or crocheted	318	323	14	20
14	32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	276	289	13	19
15	76	Aluminium and articles thereof	196	201	9	16
16	62	Articles of apparel and clothing accessories,not knitted or crocheted	338	364	1	15
17	74	Copper and articles thereof	48	60	0	8
18	38	Miscellaneous chemical products	809	813	8	8
19	82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	248	242	9	7
20	42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silk-worm gut)	115	128	5	6
		Total 20 Chapters	**25335**	**25009**	**667**	**788**
		% Share	**58.48**	**59.27**	**92.12**	**94.24**

Source: COMTRADE

2.1.2 CONCLUSION

Broadly what could be concluded based on analysis is that both India and Peru's bilateral trade has increased over last five years. The trends observed at the sector-wise and Chapter-wise sections signalled a true potential for enhancing trade between India and Peru. Both parties should be attempting to increase the market shares in their respective partner's markets – the same can be categorised into short-term and long term approaches. India and Peru can capitalise on this potential by increasing their volumes of bilateral trade in goods within the existing dominant sectors and chapters by intensification of exports in the short term. This would require liberalisation of the various processes and strengthening the infrastructure. The major items of India's import from Peru and Peru's import from India reveals scope for enhancement of bilateral trade and trade diversion after both countries eliminate their tariffs.

The bilateral import between India and Peru suggests that close to 99 per cent of imports from Peru is under the MFN tariff rate of 5% to 10%. Of the Indian exports to Peru, 51% and 9% of the trade fall under the MFN tariff of 6% and 11%. It would be a potential MFN on which India should be asking for similar treatment for accessing the Peruvian market at the time of negotiations.

Peru is a commodity exporter and among Peru's main items of exports to India include items under the chapters, Ores, slag and ash (Ch.26), Natural or Cultured Pearls, precious or semi-

precious stones (Ch.71), Salt, Sulphur, Earths and Stone (Ch.25), Zinc and articles thereof (Ch.79), Inorganic Chemicals (Ch.28), Edible fruits and nuts (Ch.08), Raw hides and skins (Ch.41), Copper and articles thereof (Ch.74). Items which are imported under these chapters from Peru are necessary inputs at appropriate stages of the value chain acting as feed for our growth and also useful for the 'Make in India' initiative which encourages multi-national, as well as national companies to manufacture their products in India.

Among India's top exports to Peru include items under the chapters Motor car/vehicles (Ch.78), Flat rolled products of iron (Ch.72), Cotton yarn (Ch.52), Motorcycles/mopeds (Ch.87), Polypropylene (Ch.39), Textured filament yarn of polyester (Ch.54), Medicaments including vaccines (Ch.30), Articles of Copper (Ch.74) and Tyres (Ch.40). India faces competition in exporting the products under these chapters as there is no level playing field due to countries such as China, USA and Canada already having FTAs with Peru and enjoying duty concessions on these products. Amidst such low or no tariff agreements already executed by Peru and increasing competition, Indian products may find it harder to make their way to Peru. In the short term, gains for India may be limited in accessing the Peruvian market. While in the case of Peru, which traditionally is a commodity exporter, gives it a leverage to access the Indian market in the sectors of its interest faster both in terms of value and volume.

A detailed analysis under Chapter 7 would allow us to identify the potential products (disaggregated at 6 digit HS), chapters and sectors which have a comparative advantage in terms of bilateral trade. The chapter would also analyse the possibility of investments and other channels of further consolidation of the bilateral trade ties. Therefore, the results from the chapter 2 are only indicative and largely based on past trends and these need not necessarily address the future direction of trade.

2.2 PERSPECTIVE OF PERU

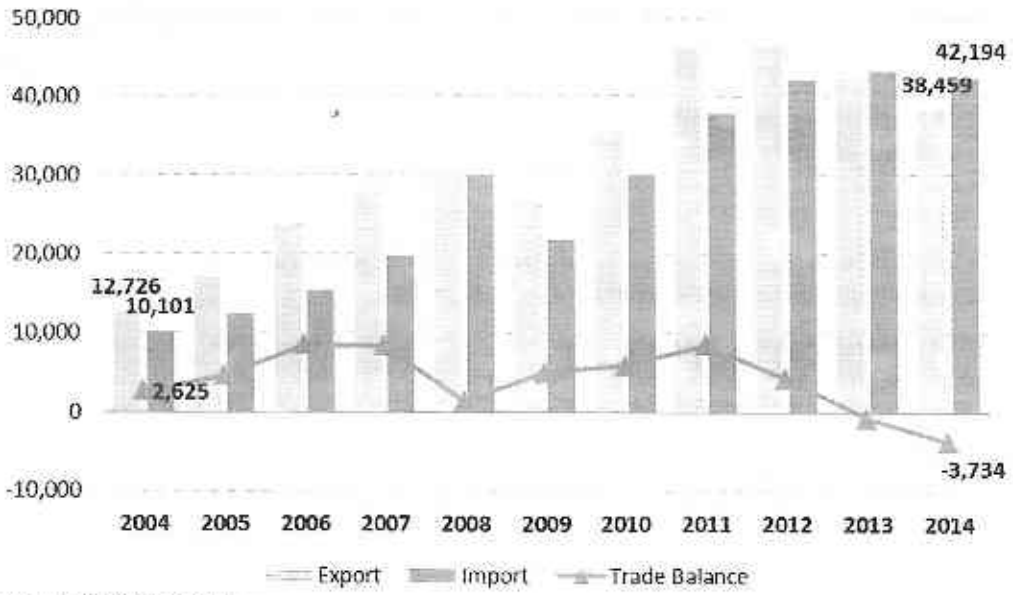
2.2.1 TRADE WITH THE WORLD

In the last decade, Peru's total trade with the world increased from US$ 22,827 million in 2004 to 80,653 million in 2014, at an average annual rate of 13.5%. Between 2004 and 2012, trade flows grew steadily at average annual rate[9] of 18%; however, during 2012-2014 it decreased in 5% due to the reduction of Peru's exports by 9%. Therefore, as Figure 1 shows, Peru maintained a positive trade balance only for the period 2004-2012.

Peru is one of the world's leading producers of a variety of minerals; however, over the last few years, it has been relying increasingly on copper and gold, which between 2004 and 2014 accounted for about 74% of its mining exports and 43% of total exports.

During 2004-2014, Peruvian exports grew at an average annual rate of 11.7%. However, in 2014 exports decreased by 9.7%, due to the falling trend in the international prices of its main export commodities.

Figure 28 – Peru: Total exports, total imports and trade balance, 2004-2014
(US$ million)



Source: UN COMTRADE Database

Between 2004 and 2014, the composition of Peruvian exports has not changed significantly. Traditional[10] exports accounted for more than 75% of total exports. Within this sector, mining products have been the most important, particularly copper and gold, with 23.4% and 19.4%, respectively, of Peru's total exports (period 2004-2014).

[9] Average annual rates in all sections prepared by Peru have been calculated according to the formula of compound annual growth rates (CAGR).

[10] According to the Supreme Decree N° 076-92-EF, traditional exports include mining products (copper, tin, iron, gold, silver, lead, zinc, molybdenum, bismuth and tungsten), agricultural products (cotton, sugar, coffee, coca leaves and derivatives, molasses, wool and furs), petroleum and derivatives, natural gas, fish meal and oil fish. In contrast, the products, which are not included in the Supreme Decree 076-92-EF, are considered as non-traditional. These products tend to have a higher added value.

Non-traditional products have grown at an average annual rate of 12.8% in the last ten years. The share of non-traditional exports has increased from 27.3% in 2004 to 30.3 in 2014. The most important non-traditional sectors were agriculture, textiles/apparel and chemicals. Exports of agricultural products were among the most dynamic, so that its share in total exports increased from 6.3% in 2004 to 10.9% in 2014.

In 2014, international prices of copper and gold fell by 6.4% and 10.3%, respectively. As a result, Peru´s mining exports fell to US$ 19,488 million, from US$ 23,687 million in 2013, showing a reduction of 17.7%. As a result, traditional exports and total exports declined in 15.4% and 9.7%, respectively.

Table 17 - Peruvian Exports by Economic Sectors
(US$ million)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average Growth Rate 04-14	14/13
Total Exports	**12,726**	**17,114**	**23,765**	**28,069**	**31,288**	**26,738**	**35,807**	**46,381**	**46,354**	**42,569**	**38,459**	**11.7%**	**-9.7%**
Traditional	**9,247**	**12,831**	**18,484**	**21,764**	**23,734**	**20,564**	**28,180**	**36,236**	**35,400**	**31,709**	**26,811**	**11.2%**	**-15.4%**
Mining	**7,120**	**9,601**	**14,669**	**17,419**	**18,376**	**16,165**	**21,976**	**27,555**	**26,634**	**23,687**	**19,488**	**10.6%**	**-17.7%**
Copper	2,481	3,360	6,089	7,219	7,652	5,934	8,879	10,721	10,731	9,821	8,875	13.6%	-9.6%
Gold	2,424	3,075	4,009	4,191	5,584	6,790	7,758	10,240	9,707	8,243	5,660	8.8%	-31.3%
Oil & Natutal gas	**368**	**924**	**1,150**	**1,413**	**1,526**	**1,355**	**2,241**	**3,476**	**3,670**	**3,940**	**3,145**	**23.9%**	**-20.2%**
Fishing*	1,108	1,306	1,340	1,475	1,813	1,698	1,897	2,129	2,339	1,731	1,752	4.7%	1.2%
Agriculture	325	331	574	460	686	636	975	1,689	1,095	789	847	10.1%	7.4%
Non-Traditional	**3,479**	**4,284**	**5,281**	**6,305**	**7,554**	**6,174**	**7,627**	**10,145**	**10,955**	**10,860**	**11,648**	**12.8%**	**7.3%**
Agriculture	798	1,006	1,215	1,508	1,903	1,815	2,184	2,815	3,064	3,406	4,198	18.1%	23.2%
Textiles and apparel	1,092	1,275	1,472	1,735	2,025	1,496	1,561	1,990	2,177	1,928	1,800	5.1%	-6.6%
Chemical	407	536	598	800	1,037	832	1,225	1,649	1,629	1,503	1,509	14.0%	0.4%
Fishing	282	330	437	494	626	520	652	1,051	1,007	1,048	1,167	15.2%	11.4%
Iron & metal	303	387	722	818	822	502	804	1,021	1,006	1,022	1,036	13.1%	1.4%
Non-metallic mining	94	118	135	164	175	147	251	491	722	721	669	21.5%	8.1%
Metal mechanical	136	190	164	212	325	366	402	490	554	553	593	15.8%	7.3%
Other**	365	442	538	573	640	496	548	637	805	679	682	6.4%	0.4%

* Only fish meal and oil fish. ** Includes hides/skins, wood paper, craft and jewellery.
Source: UN-COMTRADE Database

Table 18 - Peruvian Exports by Economic Sectors
(Shares)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average share 04-14
Total Exports	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Traditional	**73%**	**75%**	**78%**	**78%**	**76%**	**77%**	**79%**	**78%**	**76%**	**74%**	**70%**	**76%**
Mining	56%	56%	62%	62%	59%	60%	61%	59%	57%	56%	51%	58%
Copper	19%	20%	26%	26%	24%	22%	25%	23%	23%	23%	23%	23%
Gold	19%	18%	17%	15%	18%	25%	22%	22%	21%	19%	15%	19%
Oil & Natutal gas	3%	5%	5%	5%	5%	5%	6%	7%	8%	9%	8%	7%
Fishing*	9%	8%	6%	5%	6%	6%	5%	5%	5%	4%	5%	5%
Agriculture	3%	2%	2%	2%	2%	2%	3%	4%	2%	2%	2%	2%
Non-Traditional	**27%**	**25%**	**22%**	**22%**	**24%**	**23%**	**21%**	**22%**	**24%**	**26%**	**30%**	**24%**
Agriculture	6%	6%	5%	5%	6%	7%	6%	6%	7%	8%	11%	7%
Textiles and apparel	9%	7%	6%	6%	6%	6%	4%	4%	5%	5%	5%	5%
Chemical	3%	3%	3%	3%	3%	3%	3%	4%	4%	4%	4%	3%
Fishing	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Iron & metal	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	3%	2%
Non-metallic mining	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%
Metal-mechanical	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%	1%
Other**	3%	3%	2%	2%	2%	2%	2%	1%	2%	2%	2%	2%

* Only fish meal and oil fish. ** Includes hides/skins, wood-paper, craft and jewellery.
Source: UN-COMTRADE Database

At a chapter level, Peruvian exports are concentrated in chapters 26, 71, 27 and 74, which are related to mining and oil/petroleum products.

Table 19 - Total Peruvian Exports at the HS Chapter level, 2004-2014
(US$ million)

CH	Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average Growth Rate 04-14
Total		**12,726**	**17,114**	**23,765**	**28,085**	**31,288**	**26,738**	**35,807**	**46,381**	**46,354**	**42,569**	**38,459**	**11.7%**
26	Ores, slag and ash	2,526	3,835	6,296	8,965	8,580	6,763	10,264	13,165	13,375	11,517	10,558	15.4%
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	2,755	3,463	4,598	4,838	6,262	7,039	7,987	10,460	10,285	8,981	6,079	8.2%
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	694	1,596	1,902	2,410	2,861	2,068	3,345	4,886	5,365	5,520	4,753	21.2%
74	Copper and articles thereof	1,508	2,135	3,574	2,987	3,162	2,218	3,113	3,403	2,781	2,697	2,417	4.8%
08	Edible fruit and nuts; peel of citrus fruit or melons	128	167	236	282	380	416	538	824	902	1,102	1,536	28.2%
23	Residues and waste from the food industries; prepared animal fodder	990	1,190	1,191	1,283	1,500	1,515	1,713	1,916	1,940	1,521	1,517	4.4%
61	Articles of apparel and clothing accessories, knitted or crocheted	810	963	1,097	1,263	1,449	1,062	1,079	1,363	1,433	1,257	1,093	3.0%
09	Coffee, tea, mate and spices	342	403	590	525	784	690	994	1,737	1,141	803	854	9.6%
03	Fish and crustaceans, molluscs and other	219	271	313	367	419	389	496	724	712	768	806	13.9%
79	Zinc and articles thereof	191	716	469	476	350	224	405	642	563	636	633	12.7%
	TOP 10 Chapters	**10,163**	**14,240**	**20,267**	**23,391**	**25,747**	**22,384**	**29,927**	**39,121**	**38,498**	**34,803**	**30,248**	**11.5%**
	Share	*80%*	*83%*	*85%*	*83%*	*82%*	*84%*	*84%*	*84%*	*83%*	*82%*	*79%*	

Source: UN-COMTRADE Database

2.2.1.1 PERUVIAN TRADE PARTNERS, 2004-2014

Peru's main export destinations are the United States, China, Switzerland, Canada and Brazil. Exports to the United States accounted for 18.3% of Peru's total exports (2004-2014). Peruvian exports to China increased at a rate of 18.9% in the last ten years. As a result, it was the first export destination of Peru in 2011, 2012 and 2014. Peru's most important European partners are Switzerland, Spain and Germany; and its main partners in Latin American are Brazil, Chile and Colombia.

Table 20 - Peruvian Exports by Country, 2004-2014
(US$ million)

N°	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Share 2004-2014	Average Growth Rate 04-14
	TOTAL	**12,726**	**17,114**	**23,765**	**28,085**	**31,288**	**26,738**	**35,807**	**46,381**	**46,354**	**42,569**	**38,459**	**100.0%**	**11.7%**
1	China	1,245	1,861	2,269	3,040	3,735	4,078	5,437	6,972	7,843	7,354	7,025	14.6%	18.9%
2	USA	3,730	5,257	5,707	5,586	5,835	4,604	6,134	6,270	6,665	7,819	6,234	18.3%	5.3%
3	Switzerland	282	786	1,688	2,335	3,410	3,954	3,845	5,938	5,074	3,025	2,642	9.4%	25.1%
4	Canada	326	1,022	1,612	1,841	1,950	2,311	3,329	4,232	3,448	2,742	2,552	7.3%	22.8%
5	Brazil	358	453	815	932	895	508	950	1,288	1,406	1,757	1,593	3.1%	16.1%
6	Japan	554	604	1,231	2,181	1,860	1,376	1,792	2,174	2,571	2,226	1,583	5.2%	11.1%
7	Chile	719	1,129	1,430	1,695	1,841	752	1,373	1,948	2,030	1,685	1,537	4.6%	7.9%
8	Spain	420	558	766	988	1,024	737	1,195	1,709	1,859	1,593	1,383	3.5%	12.5%
9	Germany	382	515	812	930	1,028	1,042	1,521	1,921	1,866	1,169	1,234	3.6%	12.4%
10	Colombia	262	347	506	617	709	644	798	1,045	921	855	1,228	2.3%	16.7%
	TOP 10	**8,278**	**12,533**	**16,834**	**20,147**	**22,287**	**20,006**	**26,375**	**33,492**	**33,685**	**30,226**	**26,991**	**71.8%**	**12.5%**
	Rest	**4,448**	**4,581**	**6,930**	**7,938**	**9,001**	**6,732**	**9,433**	**12,889**	**12,670**	**12,343**	**11,468**	**28.2%**	**9.9%**

Source: UN COMTRADE Database

In 2014, the top twenty products that Peru exported accounted for 67% of total exports. Among those, the most important were:

- Copper ore
- Gold
- Copper cathodes
- Light/medium oils and petroleum preparations
- Fish flours and pellets
- Zinc ores
- Lead ores
- Liquefied natural gas

Table 21 - Peru´s main export products, 2013-2014
(US$ million)

N°	HS 2012	Description	2013		2014		Var. 14/13
			US$ Mill.	Share	US$ Mill.	Share	
		Total Exports	**42,569**	**100%**	**38,459**	**100%**	**-10%**
1	260300	Copper ores and concentrates	7,601	18%	6,926	18%	-9%
2	710812	Gold, incl. gold plated with platinum, unwrought, for non-monetary purposes (excl. gold in powder form)	8,207	19%	5,628	15%	-31%
3	740311	Copper, refined, in the form of cathodes and sections of cathodes	2,104	5%	1,860	5%	-12%
4	271012	Light oils and preparations, of petroleum or bituminous minerals which >= 90% by volume "incl. losses" distil at 210°C "ASTM D 86 method" (excl. containing biodiesel)	1,792	4%	1,712	4%	-4%
5	271019	Medium oils and preparations, of petroleum or bituminous minerals, not containing biodiesel, n.e.s.	1,561	4%	1,577	4%	1%
6	230120	Flours, meals and pellets of fish or crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption	1,389	3%	1,357	4%	-2%
7	260800	Zinc ores and concentrates	1,038	2%	1,166	3%	12%
8	260700	Lead ores and concentrates	1,145	3%	1,017	3%	-11%
9	271111	Natural gas, liquefied	1,372	3%	786	2%	-43%
10	090111	Coffee (excl. roasted and decaffeinated)	699	2%	732	2%	5%
11	260111	Non-agglomerated iron ores and concentrates (excl. roasted iron pyrites)	857	2%	647	2%	-25%
12	080610	Fresh grapes	443	1%	643	2%	45%
13	800110	Unwrought tin, not alloyed	528	1%	540	1%	2%
14	270900	Petroleum oils and oils obtained from bituminous minerals, crude	538	1%	496	1%	-8%
15	150420	Fats and oils of fish and their fractions, whether or not refined (excl. liver oils and chemically modified)	342	1%	395	1%	15%
Rest			**12,953**	**30%**	**12,977**	**34%**	**0.2%**

Source: UN-COMTRADE Database

During the last ten years, Peruvian imports increased at an average annual rate of 15.4%. At a chapter level imports consisted mainly of machinery and equipment, mineral fuels, vehicles, plastics, iron & steel products and cereals. As shown in the Table below, the 10 top sectors covered approximately 69% of total Peru´s imports.

In 2014, Peruvian imports decreased by 3% with respect to 2013. This reduction was explained by lower imports of transport equipment and fuels.

Table 22 - Total Peruvian Imports at the HS Chapter level, 2004-2014
(US$ million)

CH	Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average Growth Rate 04-14
Total general		10,101	12,502	15,311	20,359	29,933	21,813	29,966	37,891	42,163	43,322	42,194	15.4%
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	1,361	1,696	2,172	3,035	4,450	3,572	4,517	5,858	6,534	6,437	6,356	16.7%
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	1,886	2,471	2,960	3,822	5,468	3,086	4,257	5,951	6,087	6,689	5,984	12.2%
85	Electrical machinery and equipment and parts thereof;	893	1,121	1,470	2,026	2,787	2,045	2,683	3,478	3,979	4,024	4,550	17.7%
87	Vehicles other than railway or tramway rolling- stock, and parts and accessories thereof	525	667	993	1,534	2,806	1,919	3,144	3,738	4,915	4,895	3,983	22.5%
39	Plastics and articles thereof	598	771	894	1,155	1,533	1,059	1,604	1,964	2,026	2,181	2,224	14.0%
72	Iron and steel	308	430	583	830	1,595	874	1,487	1,555	1,675	1,595	1,495	17.1%
10	Cereals	467	495	525	815	1,158	807	980	1,411	1,369	1,385	1,365	11.3%
73	Articles of iron or steel	187	281	435	544	964	676	827	1,178	1,271	1,063	1,188	20.3%
38	Miscellaneous chemical products	145	176	214	266	363	378	499	800	825	809	813	18.8%
48	Paper and paperboard; articles of paper pulp, of	279	335	385	441	593	501	607	694	749	753	773	10.7%
	TOP 10 Chapters	6,650	8,441	10,631	14,469	21,716	14,911	20,606	26,627	29,430	29,830	28,731	15.8%
	Share	66%	68%	69%	71%	73%	68%	69%	70%	70%	69%	68%	

Source: UN COMTRADE Database

During the last ten years, the United States has been the largest supplier of imported goods to Peru, with a 19.3% share of total imports during 2004-2014. The second most important supplier is China (16.3%), followed by Brazil (6.8%) and Ecuador (5.2%).

Table 23 – Peruvian Imports by Country, 2004-2014
(US$ million)

N°	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Share 2004-2014	Average Growth Rate 04-14
	TOTAL	**10,101**	**12,502**	**15,311**	**20,359**	**29,933**	**21,813**	**29,966**	**37,891**	**42,163**	**43,322**	**42,194**	**100.0%**	**15.4%**
1	China	768	1,058	1,584	2,463	4,069	3,267	5,140	6,365	7,814	8,414	8,925	16.3%	27.8%
2	USA	1,982	2,220	2,516	3,579	5,637	4,315	5,828	7,430	7,932	8,804	8,802	19.3%	16.1%
3	Brazil	698	1,028	1,597	1,879	2,418	1,681	2,183	2,440	2,579	2,325	1,994	6.8%	11.1%
4	Mexico	283	364	519	752	1,163	735	1,127	1,388	1,674	1,817	1,925	3.8%	21.1%
5	Ecuador	668	914	1,092	1,514	1,776	1,022	1,423	1,878	2,012	1,930	1,774	5.2%	10.3%
6	Germany	273	401	507	692	856	712	891	1,126	1,365	1,386	1,477	3.2%	18.4%
7	Korea, Rep.	297	348	392	520	780	647	1,042	1,497	1,648	1,589	1,382	3.3%	16.6%
8	Chile	471	616	864	880	1,183	997	1,050	1,343	1,244	1,327	1,279	3.7%	10.5%
9	Argentina	560	724	802	1,123	1,582	875	1,110	1,840	1,951	1,565	1,253	4.4%	8.4%
10	Colombia	779	773	951	984	1,283	947	1,327	1,468	1,563	1,467	1,244	4.2%	4.8%
	TOP 10	**6,779**	**8,446**	**10,823**	**14,387**	**20,747**	**15,198**	**21,121**	**26,774**	**29,783**	**30,625**	**30,055**	**70.3%**	**16.1%**
	Rest	**3,322**	**4,056**	**4,488**	**5,971**	**9,186**	**6,615**	**8,844**	**11,117**	**12,380**	**12,697**	**12,139**	**29.7%**	**13.8%**

Source: UN-COMTRADE Database

In 2014, the top twenty products imported by Peru concentrated 27.5% of total Peruvian imports. The most important were:

- Petroleum oils
- Medium oils and preparations
- Mobile telephones
- Motor vehicles
- Soybean oil and its residues
- Wheat and meslin

Table 24 - Peru´s Main Import Products, 2013-2014
(US$ million)

N°	HS 2012	Description	2013		2014		Var. 14/13
			US$ Mill.	Share	US$ Mill.	Share	
Total Imports			**43,322**	**100%**	**42,194**	**100%**	**-3%**
1	270900	Petroleum oils and oils obtained from bituminous minerals, crude	3,355	8%	3,018	7%	-10%
2	271019	Medium oils and preparations, of petroleum or bituminous minerals, not containing biodiesel, n.e.s.	2,617	6%	2,375	6%	-9%
3	851712	Telephones for cellular networks "mobile telephones" or for other wireless networks	862	2%	1,126	3%	31%
4	870323	Motor cars and other motor vehicles principally designed for the transport of persons, of a cylinder capacity > 1.500 cm³ but <= 3.000 cm³	1,001	2%	961	2%	-4%
5	230400	Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soya-bean oil	531	1%	563	1%	6%
6	100199	Wheat and meslin (excl. seed for sowing, and durum wheat)	567	1%	551	1%	-3%
7	100590	Maize (excl. seed for sowing)	561	1%	550	1%	-2%
8	870322	Motor cars and other motor vehicles principally designed for the transport of persons, of a cylinder capacity > 1.000 cm³ but <= 1.500 cm³	475	1%	498	1%	5%
9	847130	Data-processing machines, automatic, portable, weighing <= 10 kg, consisting of at least a central processing unit, a keyboard and a display (excl. peripheral units)	486	1%	480	1%	-1%
10	852872	Reception apparatus for television, colour, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus, designed to incorporate a video display or screen	454	1%	456	1%	1%
11	271012	Light oils and preparations, of petroleum or bituminous minerals which >= 90% by volume "incl. losses" distil at 210°C "ASTM D 86 method" (excl. containing biodiesel)	434	1%	360	1%	-17%
12	847490	Parts of machinery for working mineral substances of heading 8474, n.e.s.	215	0%	338	1%	57%
13	300490	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes, put up in measured doses	333	1%	335	1%	1%
14	390210	Polypropylene, in primary forms	290	1%	321	1%	11%
15	842952	Self-propelled mechanical shovels, excavators and shovel loaders, with a 360° revolving superstructure	288	1%	319	1%	11%
Rest			**30,851**	**71%**	**29,942**	**71%**	**-3%**

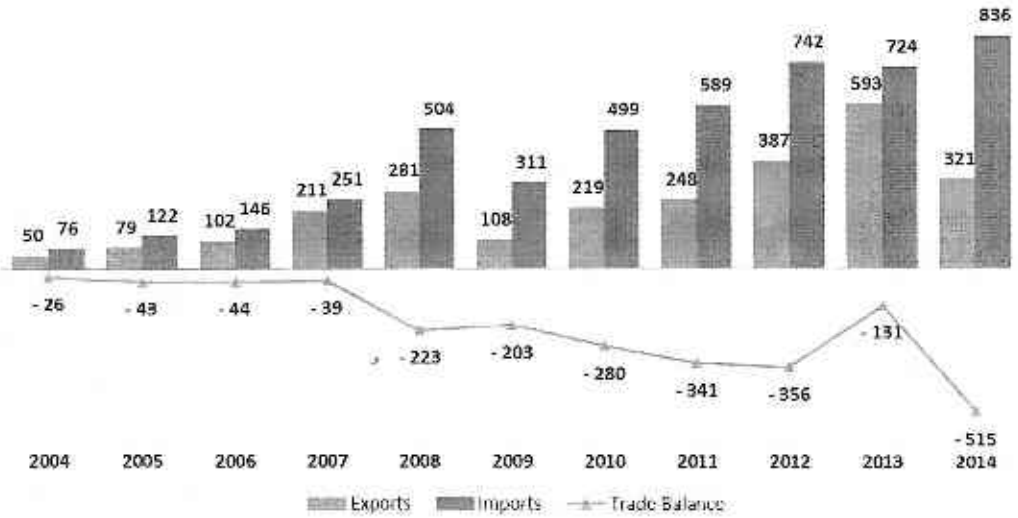
Source: UN-COMTRADE Database

2.2.2 PERU-INDIA BILATERAL TRADE

During the last decade, bilateral trade between Peru and India grew consistently, and amounted to US$ 1,157 million in 2014. Peruvian exports to India went from US$ 50 million in 2004 to US$ 321 million in 2014, registering an average annual growth rate of 20%. On the other hand, Peruvian imports from India also increased considerably, at an average annual rate of 27%, going from US$ 76 million in 2004 to US$ 836 million in 2014.

During this period, Peru recorded a trade deficit with India, which grew at an average annual rate of 35%. Bilateral flows between Peru and India represented only 1% of total Peruvian trade (average 2004-2010).

Figure 29 - Peru-India Bilateral Trade 2004-2014
(US$ million)



Source: WITS

Peruvian exports to India during 2004-2014 were concentrated in traditional products (with an average share of 88%), and increased at a 17% average annual rate. During the same period, the main product exported to India was copper ore, which represented 56% of total exports. Non-traditional exports started to increase in 2011 due to the introduction of natural calcium phosphates, which represented more than 70% of non-traditional exports to India between 2011 and 2014. As a result, non-traditional exports have increased at an annual average rate of 36% over the last decade.

Table 25 - Peruvian Exports to India by Type, 2004-2014
(US$ million)

Type of Exports	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average Annual Growth
Traditional	46	73	96	205	277	100	202	197	303	477	227	17%
% total	91%	92%	94%	97%	103%	93%	92%	79%	78%	80%	71%	
Non-Traditional	4	6	6	6	4	8	17	51	84	116	94	36%
% total	9%	8%	6%	3%	2%	7%	8%	21%	22%	20%	29%	
Total	**50**	**79**	**102**	**211**	**268**	**108**	**219**	**248**	**387**	**593**	**321**	**20%**

Source: WITS

The number of exported Peruvian goods to India (at the 6-digit level) increased from 24 in 2004 to 94 in 2014. However, only a few products were exported during the whole period (e.g., copper

ores, flour/pellets of crustaceans, zinc plates, sheepskin/lambskin, boron oxides, zinc oxides, tara, inorganic tanning substances).

In 2014, Peruvian exports to India reached US$ 321 million, decreasing in 46% with respect to 2013. Traditional exports to India were concentrated on mining products, such as copper ores (with a share of 31% of total exports) and gold (29%).

In 2014, only four products concentrated 94% of Peruvian exports to India: copper ores (US$ 99.7 million), gold including gold plated with platinum (US$ 92.8 million), natural calcium phosphates (US$ 78.0 million) and lead ores (US$ 30.2 million). In 2014, the main non-traditional products that Peru exported to India were natural calcium phosphates, boron oxides, fresh grapes, sheepskin/lambskin and cocoa beans.

Table 26 - Main Peruvian Exports to India
(US$ million)

N°	HS 2002	Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average Growth Rate
		Total Exports	**49.9**	**79.0**	**102.3**	**211.2**	**281.4**	**108.0**	**219.0**	**248.2**	**386.5**	**592.8**	**320.9**	**20%**
1	260300	Copper ores and concentrates	34.9	62.1	81.5	190.5	249.2	91.0	160.9	169.5	140.1	176.3	99.7	11%
2	710812	Gold, gold plated with platinum, unwrought, for non-monetary purposes (excl. gold in powder form)	-	-	-	-	-	-	-	-	106.6	263.6	92.8	-
3	251010	Natural calcium phosphates and natural aluminium calcium phosphates, natural and phosphatic chalk, unground	-	-	-	-	-	-	4.5	39.1	69.9	104.8	78.0	-
4	260800	Zinc ores and concentrates			6.8	11.3	26.3	3.1	38.3	23.8	38.9	7.3		-
5	260700	Lead ores and concentrates	-	-	-	-	-	-	-	0.0	13.6	9.2	30.2	-
6	230120	Flours, meals and pellets of fish or crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption	9.4	8.9	2.7	2.5	0.2	5.3	1.2	1.6	2.0	1.0	0.3	-29%
7	790500	Zinc plates, sheets, strip	1.7	1.9	2.4	3.1	1.5	1.5	1.3	1.0	1.1	0.4	0.7	-9%
8	790111	Unwrought zinc, not alloyed, containing by weight >= 99,99% of zinc	-	0.6	3.0	-	-	-	-	-	-	8.6	3.0	-
9	410510	Skins of sheep or lambs, in the wet state "incl. wet-blue", tanned, without wool on, whether or not split (excl. further prepared and pre-tanned only)	0.6	0.7	0.3	0.5	1.0	1.4	1.3	1.9	2.3	1.3	1.4	10%
10	710691	Silver, incl. silver plated with gold or platinum, unwrought (excl. silver in powder form)	-	-	-	-	-	-	-	-	-	10.6	-	-
11	550130	Filament tow as specified in Note 1 to chapter 55, acrylic or modacrylic	-	-	-	-	-	0.8	3.3	1.3	1.6	1.3	0.8	-
12	080610	Fresh grapes	-	-	-	-	0.1	0.2	0.8	1.3	1.8	0.7	2.0	-
13	071339	Dried, shelled beans "Vigna and Phaseolus", whether or not skinned or split	0.1		0.5	0.1	-	0.8	2.3	0.9	0.8	0.4	-	-100%
14	281000	Oxides of boron; boric acids	0.2	0.3	0.2	0.1	0.2	0.5	0.2	0.2	0.9	0.7	2.1	24%
15	281700	Zinc oxide; zinc peroxide	0.0	0.1	0.2	0.6	0.3	0.2	0.7	1.2	0.3	0.5	0.1	38%
16	740400	Waste and scrap, of copper	0.4	0.3	0.9	0.8		0.2	0.5	0.1	0.9		0.2	-8%
18	140410	Tara	0.1	0.1	0.3	0.3	0.1	0.3	0.3	0.4	0.5	0.5	0.3	12%
19	740321	Copper-zinc base alloys "brass" unwrought		1.6	0.9		0.1							-
20	320290	Inorganic tanning substances; tanning preparations, whether or not containing natural tanning substances;	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.3	0.3	0.2	4%
		Rest	1.9	2.4	2.3	1.1	2.2	2.2	2.2	5.1	4.5	4.9	8.6	16%

Source: UN-COMTRADE Database

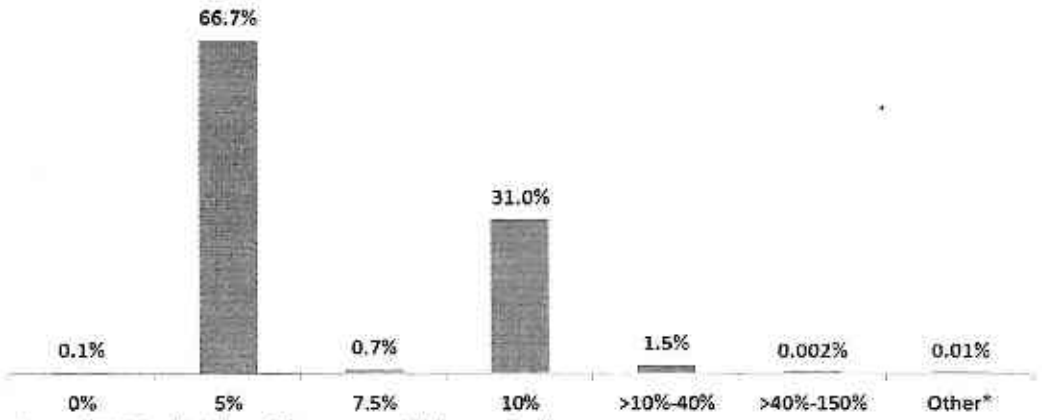
Table 27 - Peruvian Exports to India at the HS Chapter level
(US$ million)

CH	Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average Growth
	Total	**49.9**	**79.0**	**102.3**	**211.2**	**281.4**	**108.0**	**219.0**	**248.2**	**386.5**	**592.8**	**320.9**	**20%**
26	Ores, slag and ash	34.9	62.1	88.4	201.8	275.6	94.2	199.3	193.7	192.8	192.9	130.1	14%
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	106.6	274.3	92.9	122%
25	Salt; sulphur; earths and stone; plastering materials, lime and cement	0.0	0.0	0.0	0.0	0.0	0.0	4.5	39.1	70.0	104.9	78.2	134%
79	Zinc and articles thereof	1.7	2.5	5.4	3.1	1.5	1.5	1.7	1.2	1.3	9.4	4.6	10%
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	0.3	0.6	0.4	0.7	0.5	0.7	1.0	1.5	1.2	1.5	2.6	23%
08	Edible fruit and nuts; peel of citrus fruit or melons		0.0	-	-	0.1	0.2	0.8	1.4	1.8	0.7	2.0	-
41	Raw hides and skins and leather	0.6	0.7	0.3	0.8	1.7	1.4	1.3	2.2	2.4	1.3	1.5	10%
18	Cocoa and cocoa preparations	-	-	-	-	-	-	-	-	-	-	1.3	-
55	Man-made staple fibres	-	-	-	-	0.1	1.1	3.6	1.6	1.7	1.6	1.1	-
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	0.3	0.1	0.0	0.0		0.4	0.1	0.3	0.0	0.6	1.1	12%
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, TV image and sound recorders and reproducers, and parts and accessories of such articles	0.0	0.0	-	0.0	-	0.0	0.1	0.1	0.0	0.0	0.9	34%
74	Copper and articles thereof	1.2	3.0	2.5	0.8	0.1	0.3	0.5	0.7	1.2	0.6	0.8	-4%
13	Lac; gums, resins and other vegetable saps and extracts	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.2	0.1	0.6	137%
76	Aluminium and articles thereof	0.4	0.1	0.3	0.0	-	0.4	0.8	0.5	0.9	0.6	0.5	2%
10	Cereals	-	-	-	-	-	-	-	-	0.0	0.2	0.4	-
	Rest	**10.3**	**9.9**	**4.8**	**4.0**	**1.9**	**7.7**	**5.3**	**5.8**	**6.5**	**4.1**	**2.5**	**-13%**

Source: UN-COMTRADE Database

According to tariff levels for entry in India, currently 66.7% of Peruvian exports to India face a Most-Favoured-Nation (MFN) tariff of 5%, while 31% face an MFN tariff of 10%.

Figure 30 - Peruvian Exports to India by MFN tariff structure[11]
(% export value 2014)



Source: SUNAT and Ministry of Commerce and Industry of India
*Tariff applied to textiles (10% or Rs. 45/83/85/90 per piece, whichever is higher)

During 2004-2014, Peruvian imports from India grew at an average annual rate of 27%. The flow of imports increased considerably during this period, especially due to higher purchases of cotton yarn, flat-rolled products of iron or non-alloy steel, motorcycles and motor vehicles.

Compared to Peruvian exports, products imported from India show a higher degree of diversification. In 2014, the top ten products imported by Peru concentrated 47% of total Peruvian imports from India, among which the following stand out:

- ✓ Motorcars
- ✓ Flat-rolled products of iron or non-alloy steel
- ✓ Single yarn containing fibers of combed cotton
- ✓ Motorcycles
- ✓ Polypropylene

[11] 6-digit average.

Table 28 – Main Peruvian Imports from India
(US$ million)

N°	HS 2002	Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average Growth Rate
			76.2	**122.0**	**146.0**	**250.6**	**503.9**	**310.8**	**498.6**	**589.4**	**742.4**	**723.9**	**836.3**	**27%**
1	870322	Motor cars a/ vehicles principally designed for the transport of persons, of a cylinder capacity <= 1.000 cm³	0.0	0.0	0.1	3.0	9.5	6.5	10.8	15.8	29.0	64.8	90.1	119%
2	721041	Flat-rolled products of iron or non-alloy steel, of a width of >= 600 mm, hot-rolled or cold-rolled "cold-reduced", corrugated, plated or coated with zinc	0.8	2.8	3.5	7.7	21.3	76.1	45.6	38.4	63.1	48.9	50.7	52%
3	520523	Single cotton yarn, with a linear density of 192,31 decitex to < 232,56 decitex ">	0.4	2.5	4.3	16.7	27.7	17.9	21.9	23.2	34.8	48.2	45.3	60%
4	871120	Motorcycles, incl. mopeds, with reciprocating internal combustion piston engine of a cylinder capacity > 50 cm³ but <= 250 cm³	7.2	7.6	11.2	17.4	33.9	27.2	46.5	61.8	71.7	47.3	39.1	18%
5	390210	Polypropylene, in primary forms	0.1	0.9	0.3	0.8	11.5	3.9	19.8	16.7	14.2	20.9	36.3	93%
6	540233	Textured filament yarn of polyester	0.9	3.0	3.6	4.7	8.2	5.6	19.6	30.8	41.3	31.6	34.1	44%
7	870322	Motor cars/ vehicles principally designed for the transport of persons, of a cylinder capacity > 1.000 cm³ but <= 1.500 cm³	-	0.1	0.3	0.2	0.7	0.1	3.1	10.4	31.7	35.4	32.1	
8	520513	Single cotton yarn, with a linear density of 192,31 decitex to < 232,56 decitex	0.3	1.3	0.9	6.9	12.1	11.4	14.7	10.7	13.4	13.1	23.9	54%
9	520522	Single cotton yarn, with a linear density of 232,56 decitex to < 714,29 decitex	0.1	1.4	1.7	6.7	15.7	8.7	14.0	14.1	17.8	20.0	23.3	84%
10	520526	Single cotton yarn,with a linear density of 106,38 decitex to < 125 decitex ">	2.2	6.2	6.3	13.6	14.8	10.6	16.1	16.9	23.9	17.6	21.6	26%
11	300490	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes, put up in measured doses*	4.1	6.4	9.7	10.4	8.6	11.0	12.3	14.8	15.7	18.4	20.0	17%
12	401120	New pneumatic tyres, of rubber, of a kind used for buses and lorries	7.6	10.7	11.2	12.6	18.2	14.7	10.8	17.1	15.5	17.6	15.6	8%
13	730511	Line pipe of a kind used for oil or gas pipelines,diameter of > 406,4 mm, of iron or steel, longitudinally submerged arc welded	-	-	-	36.7	126.3	-	-	-	20.9	-	14.0	-
14	761490	Stranded wires, cables, ropes and similar articles, of aluminium	0.3	-	-	-	-	-	1.8	1.0	2.8	7.7	13.0	44%
15	300220	Vaccines for human medicine	1.2	3.0	7.4	2.3	1.7	2.2	4.3	2.4	5.6	6.0	12.3	26%
16	850423	Liquid dielectric transformers, having a power handling capacity > 10.000 kVA	-	-	-	-	-	4.3	2.0	25.9	-	9.1	10.4	-
17	551511	Woven fabrics containing predominantly, but < 85% polyester staple fibres by weight, mixed principally or solely with viscose staple	2.5	2.0	3.0	4.7	8.5	5.6	10.8	10.7	8.5	7.8	10.1	15%
18	741999	Articles of copper, n.e.s.	0.0	0.0	0.0	0.0	14.0	0.0	3.6	4.1	3.5	0.0	7.8	121%
19	550953	Yarn containing predominantly, but < 85% polyester staple fibres by weight, mixed principally or solely with cotton	0.4	0.7	0.6	0.8	2.0	1.2	1.9	10.4	7.5	6.2	7.6	35%
20	720230	Ferro-silico-manganese	-	-	0.2	0.6	5.4	2.6	3.8	5.0	6.0	4.8	7.3	-
		Rest	48	73	82	105	164	151	235	259	316	298	322	21%

* Excluding medicaments containing antibiotics, hormones or steroids used as hormones, pro vitamins, vitamins or derivatives thereof used as vitamins

Source: WITS

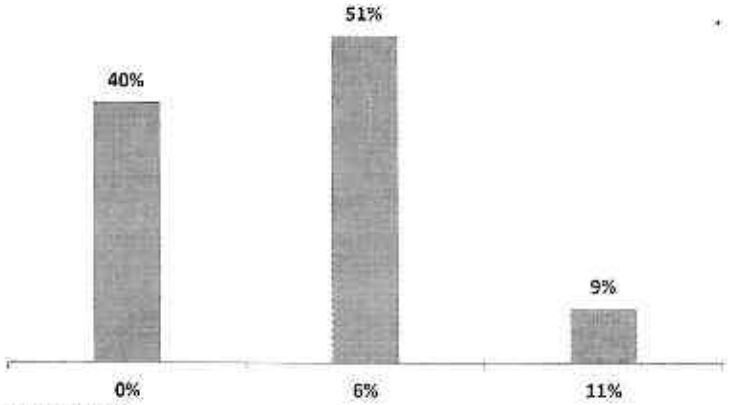
Table 29 - Peruvian Imports from India at the HS Chapter level
(US$ million)

Chapter	Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average Growth 04-14
	Total	**76**	**125**	**146**	**252**	**503**	**311**	**499**	**589**	**742**	**724**	**836**	**27%**
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	9	9	13	23	50	40	70	104	151	168	181	35%
52	Cotton	5	15	18	55	97	63	91	92	118	124	138	39%
72	Iron and steel	3	7	10	19	40	42	64	57	88	62	68	35%
39	Plastics and articles thereof	1	14	11	7	19	11	28	34	34	34	54	44%
30	Pharmaceutical products	9	13	20	19	19	21	26	30	33	39	44	17%
54	Man- made filaments	1	3	4	6	12	7	22	34	44	34	36	45%
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	5	6	4	7	11	14	39	42	20	24	35	23%
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	4	6	8	9	11	25	23	25	26	27	32	24%
55	Man- made staple fibres	4	5	6	10	16	10	21	38	32	32	28	21%
40	Rubber and articles thereof	9	13	14	17	25	19	19	27	31	30	26	11%
73	Articles of iron or steel	1	2	3	41	133	5	13	16	47	11	25	39%
29	Organic chemicals	11	13	15	18	20	17	25	24	27	23	22	7%
61	Articles of apparel and clothing accessories, knitted or crocheted	1	1	1	1	3	7	7	3	4	14	20	32%
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	2	2	2	3	4	5	8	9	11	13	19	26%
76	Aluminium and articles thereof	1	0	0	1	1	1	3	1	6	9	16	38%
62	Articles of apparel and clothing accessories, not knitted or crocheted	2	1	1	1	1	2	3	5	7	11	15	25%
74	Copper and articles thereof	0	0	0	0	18	0	4	5	4	0	6	96%
38	Miscellaneous chemical products	1	1	1	1	3	4	9	7	9	8	8	20%
82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	1	1	1	1	2	2	2	3	5	9	7	27%
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silk- worm gut)	1	1	1	1	1	1	2	2	5	5	6	26%
	Rest	**6**	**12**	**11**	**13**	**15**	**19**	**26**	**31**	**41**	**47**	**48**	**22%**

Source: WITS

According to tariff levels for entry in Peru, currently 40% of Peruvian imports from India face an MFN tariff of 0%, while 51% face a tariff of 6% (most of the products affected by this tariff belong to the metal-mechanical and textile sectors).

Figure 31 - Peruvian Imports from India by MFN tariff structure [12]
(% import value 2014)



Source: SUNAT

[17] 6-digit average.

CHAPTER 3 TRADE IN SERVICES

3.1 PERSPECTIVE OF INDIA

3.1.1 INDIA'S TRADE WITH THE WORLD

India's services trade has witnessed consistently high levels of growth in recent years. As per WTO International Trade Statistics, 2014, India was ranked as the 8th largest exporter with a share of 3.15% in the world total exports and also 8th largest importer with a share of 3.07% in the world total imports of commercial services. India's services exports at $ 155.4 billion in 2014-15 constituted about half of India's merchandise exports at $316.74 billion.

India's services sector has emerged as a prominent sector in terms of its contribution to national and states incomes, trade flows, FDI inflows, and employment. Over the past two decades, the service sector has replaced agriculture as the dominant sector in India. The share of service sector in GDP has risen from 38 percent in 1980's to around 52 per cent in 2014-15. The growth in the services sector has been increasing at a faster rate and ranges between 8% to 9% making it one of the driving forces of the Indian Economy. The Services sector also contributes to improving efficiencies in the manufacturing sector in addition to playing a significant role in employment generation. India's comparative advantages and strengths are in Mode 1 (Cross border trade) and Mode 4 (Movement of natural persons).

Various policy reforms have been taking place in India in a number of Services sector such as Financial Services, Telecom Services, Air Transport Services, Education Services, Health Services, Postal Services and Professional Services.

While there is a services dominated growth, India is also experiencing a services dominated export growth. At the same time, there have been changes in the composition of services trade - from traditional services such as travel and transport towards knowledge-based services and business services. Like Brazil and China, India's exports of 'other services' have grown manifold.

India scores over other countries on availability of a technically qualified workforce with knowledge of English. In India's export basket of services the share of IT and ITES is prominent.The country's cost competitiveness in providing IT services, which is cheaper than the US continues to be its Unique Selling Proposition (USP) in the global sourcing market. India's highly qualified talent pool of technical graduates is one of the largest in the world, facilitating its emergence as a preferred destination for outsourcing.

Surplus on account of India's services exports has been a cushioning factor for financing a large part of the merchandise trade deficit in recent years. During 2014-15, net surplus on account of services exports at US$ 75.7 billion stood higher than that in 2013-14 and financed more than 50 per cent of trade deficit.

3.1.2 BILATERAL TRADE

In India data on services is primarily collected by Reserve Bank of India (RBI) in the form of BOP statistics under the 'invisibles' head. One of the key issues in Services is lack of robust statistics on services. The Department of Commerce has taken a lead role in this area and is engaged with RBI with regard to sectoral and modal improvement of BOP statistics on trade in services and the CSO and DGCIS for collection of information on specific service sectors through surveys. Due to certain limitations, RBI shares trade services statistics for internal use only.

3.1.3 OVERVIEW OF INDIA'S SCHEDULED COMMITMENTS AT GATS, WTO

India submitted its conditional Initial Offer at WTO in January 2004 under the Doha Round of services negotiations offering substantially improved access in critical service sectors. Later on, India submitted its Revised Offer at WTO on 24th August 2005 adopting specific commitments in 11 of the 12 sectors of the General Agreement on Trade in Services (GATS) (excluding Other Services not included elsewhere).

The modes of supply of interest to India are Mode 1 (Cross border supply) and Mode 4 (Movement of Natural Persons).

India had already made a substantial mode 4 initial offer by including all the categories of natural persons like intra-corporate transferees, business visitors, contractual service suppliers and independent professionals. Further improvements were made in the sectoral coverage of both the contractual service suppliers and independent professionals and the definition and parameters of all these categories were brought in line with the common categories paper submitted by a number of members including India.

3.1.4 SECTORAL OVERVIEW

3.1.4.1 FINANCIAL SERVICES

India has a diversified financial sector undergoing rapid expansion, both in terms of strong growth of existing financial services firms and new entities entering the market. The financial services sector has been an important contributor to the country's gross domestic product (GDP) accounting for nearly 6 per cent share in 2014-15. The sector comprises commercial banks, insurance companies, non-banking financial companies, co-operatives, pension funds, mutual funds and other smaller financial entities. However, the financial sector in India is predominantly a banking sector with commercial banks accounting for more than 64 per cent of the total assets held by the financial system.

The commitments in financial services are subject to entry requirements, domestic laws, rules and regulations, guidelines and the terms and conditions of the Reserve Bank of India, Securities and Exchange Board of India and any other competent authority in India.

Relaxation of foreign investment rules has received a positive response from the insurance sector. Over the coming years there could be a series of joint venture deals between global insurance

giants and local players. The relaxation in the foreign direct investment (FDI) limit to 49 per cent can result in additional investments.

3.1.4.2 BANKING

In recent years, the Reserve Bank of India (RBI) has outlined a roadmap for presence of foreign banks in India (phase I from 2005 to 2009 and phase II after 2009). In order to establish and operate banks in India, foreign entity has to comply with the domestic laws and the terms and conditions of the Reserve Bank of India. In India, foreign bank can operate through branch operations and as a wholly owned subsidiary licensed and supervised as a bank in its home country and subject to regulations of the Reserve Bank of India. The other norms consist of a limitation of twenty licenses per year both for new entrants and existing banks.

As per the roadmap from March 2004 foreign banks have been permitted to hold a total of 74 per cent foreign equity in Indian private banks wherein 49% is through Automatic route while beyond 49% and upto 74% is through Foreign Investment Promotion Board (FIPBP), while there has been an aggregate cap of 20 per cent for Indian public sector banks. However individual foreign banks are restricted to holding less than 5 per cent equity of any one bank unless a bank is identified for restructuring.

For non-banking finance companies, FDI up to 100 per cent is allowed automatically subject to minimum capitalization norms.

Investments in other financial services companies by branches of foreign banks licensed to do banking business in India individually must not to exceed 10 per cent of owned funds or 30 per cent of the invested company's capital whichever is lower. Licenses for new foreign banks may be denied when the maximum share of assets in India both on and off balance sheet of foreign banks to total assets both on and off balance sheet of the banking system exceeds 15 per cent. Foreign banks are subject to non-discriminatory resource allocation requirements.

The initial minimum paid-up voting equity capital for a bank shall be Rs 5 billion. Any additional voting equity capital to be brought in will depend on the business plan of the Promoters. Notwithstanding the current FDI policy stated above, the aggregate non-resident shareholding from FDI, NRIs and FIIs in the new private sector banks shall not exceed 49 per cent of the paid-up voting equity capital for the first 5 years from the date of licensing of the bank. No non-resident shareholder, directly or indirectly, individually or in groups, or through subsidiary, associate or joint venture will be permitted to hold 5 per cent or more of the paid-up voting equity capital of the bank for a period of 5 years from the date of commencement of business of the bank. After the expiry of 5 years from the date of commencement of business of the bank, the aggregate foreign shareholding would be as per the extant FDI policy.

For the provision of national treatment, public sector enterprises are permitted to invest surplus funds in term deposits only with scheduled commercial banks incorporated in India; their investment of surplus funds in term deposits with Wholly Owned Subsidiaries would be subject to guidelines by Reserve Bank of India.

As per RBI data, there are 182 branches of Indian Banks at Overseas Centres as on October 31, 2015, constituting of 163 public sector bank branches and 19 private sector bank branches. Among

all the banks, State Bank of India has the highest number of branches i.e. 52 branches set up abroad. In addition, there are 26 subsidiaries of Indian Banks abroad.

3.1.4.3 INSURANCE

India is the fifteenth largest insurance market in the world in terms of premium volume, and has the potential to grow exponentially in the coming years. A fast growing economy, rising income levels and improving life expectancy rates are some of the many favorable factors that are likely to boost growth in the sector in the coming years.
India has carried out significant reforms in the insurance sector. The previously nationalized insurance sector in India was opened to private investment in April 2000 and a foreign ownership cap of 26 per cent was put in place. Further liberalization occurred in 2007. These reforms have resulted in lower insurance cists for Indian business and private consumers. In the general insurance sector in particular, the number of licensed general insurers has increased from the four state-owned entities in 2000 to 22 currently, many of whom benefit from the capital and expertise of a foreign partner. Foreign Direct Investment in the insurance sector stood at US$ 341 million in March-September, 2015, showing a growth of 152 per cent compared to the same period last year.

There are no limitations on the foreign insurance companies to establish and operate in India, except that the establishment would be through incorporation with foreign equity not exceeding 49 per cent wherein 26% will be through Automatic route and beyond 26% and up to 49% will be permitted through Government route i.e. FIPB route and further subject to the condition that in the case of foreign investors having prior collaboration in that specific service sector in India, FIPB approval would be required.

In case of Insurance intermediation, limited to reinsurance, overseas brokers are allowed to have resident representatives and representative offices who can procure reinsurance business from Indian insurance companies to the extent mentioned above. They can also place reinsurance business from abroad with Indian insurance companies but other than the resident representatives and representative offices cannot undertake any other activity in India. All expenses of the resident representatives and representative offices have to be met by remittances from abroad and no income can be received in India from Indian residents. For operation as Actuarial and Advisory Services, formal certification by Actuarial Society of India would be required.

3.1.4.4 TELECOMMUNICATIONS SERVICES

India is currently the world's second-largest telecommunications market and has registered strong growth in the past decade and half. Reformist policies of the Government of India along with strong consumer demand have been instrumental for this rapid growth in the Indian telecom sector. The government has enabled easy market access to telecom equipment and a fair and proactive regulatory framework has ensured availability of telecom services to the consumer at affordable prices.

Until the mid 1990s, the Government was the sole provider of telecom services. There has been gradual deregulation, starting with the announcement of the National Telecommunications Policy

in 1994 allowing private entry into various telecom sub-sector. The Government also established an independent regulator, the Telecom Regulatory Authority in 1997. The major breakthrough came with the initiation of the National Telecommunications Policy in 1999 which opened up telecom services to the private sector without any restrictions on the number of operators except in the cellular mobile market due to frequency constraints. Since 1999 reforms have continued including in relation to internet telephony, long distance service and modernization of Radio Frequency spectrum allocation.

The Department of Telecommunications (DOT) under Ministry of Communications and IT is responsible for policy formulation, performance review, monitoring, international cooperation, Research & Development and grant of licenses to operators for providing basic and value added services in various cities and telecom circles as per approved policy of the Government. The Department also allocates frequency and manages radio communications in close coordination with the international bodies. It is also responsible for enforcing wireless regulatory measures and monitoring the wireless transmission of all users in the country.

The deregulation of foreign direct investment (FDI) norms has made the sector one of the fastest growing and a top employment opportunity generator in the country. With increasing subscriber base there have been a lot of investments and developments in the sector. The industry has attracted FDI worth US$ 17,717.10 million during the period April 2000 to September 2015, according to the data released by Department of Industrial Policy and Promotion (DIPP).

3.1.4.5 Temporary Entry For Business Persons

In India's Revised Offer to the WTO (24 August 2005) India had already made a substantial mode 4 initial offer by including all the categories of natural persons like business visitors, intra-corporate transferees, contractual service suppliers and independent professionals. Further improvements have been made in the sectoral coverage of both the contractual service suppliers and independent professionals and the definition and parameters of all these categories have been brought in line with the common categories paper submitted by a number of members including India.

The Government of India issues the following visas: Business Visa, Conference Visa, Diplomatic Visa, Employment Visa, Emergency Visa, Entry Visa, Journalist Visa, Medical Visa, Missionaries Visa, Research Visa, Students Visa, Tourist Visa, Transit Visa and Permit to re-enter within 2 months. However, natural persons entering for supplying services are given Business Visa or Employment Visa, depending on the category of natural person. Minimum wage requirements in respect of foreign nationals may be prescribed (except for Business Visitors).

3.1.4.6 Education Services

Prominent amongst the service sectors is higher education services. India has the third largest higher education system in the world in terms of enrolments, after China and the US. Considering the importance of education and skill development, the Government of India has set itself an aggressive target of achieving 30 per cent gross enrolment ratio (GER) in higher education by 2020. According to the Ministry of Human Resource and Development (HRD) data, enrolments

have increased from 15.5 million (GER of 12.4 per cent) in 2006-07 to 29.6 million (GER 21.1 per cent) in 2012-13.

Realising the fast growth of education sector in India, many private education providers are looking for relevant acquisitions and alliances in this space. India has much to offer in cross border supply of education services. E-learning and courses offered on the internet are covered in this Mode.

100% FDI is permitted in Higher Education services sector. The total amount of foreign direct investments (FDI) inflow into the education sector in India stood at US$ 1,171.10 million from April 2000 to June 2015, according to data released by Department of Industrial Policy and Promotion (DIPP).

3.1.4.7 TOURISM AND TRAVEL RELATED SERVICES

The Indian Tourism and Hospitality industry has emerged as one of the key drivers of growth among the services sectors in India. Tourism in India is an employment generator and a significant source of foreign exchange for the country, apart from being an economic activity that helps local and host communities. According to Economic Survey 2014-15, during 2012-13, tourism contributed 6.9 percent to total GDP, of which 3.7 per cent was the direct contribution and 3.1 per cent indirect contribution. Tourism also contributed 12.4 per cent to the total employment 12.4 per cent (5.3 per cent direct and 7.0 per cent indirect) during the same period. The sector's direct contribution to gross domestic product (GDP) is expected to grow at 7.8 per cent per annum during the period 2013-2023. The foreign direct investment (FDI) inflows in hotel and tourism sector during the period April 2000–March 2014 stood at US$ 7,348.09 million, as per the data released by Department of Industrial Policy and Promotion (DIPP).

According to the World Travel and Tourism Council (WTTC), the Indian travel and tourism industry ranked 5th in the long-term (10-year) growth and is expected to be the second largest employer in the world by 2019.

The role of the Indian Government, which has provided policy and infrastructural support, has been instrumental in the growth and development of the industry. The tourism policy of the government aims at speedy implementation of tourism projects, development of integrated tourism circuits, special capacity building in the hospitality sector and new marketing strategies. Golf Tourism, Education Tourism, Luxury Trains, Eco-Tourism, Sports Tourism and Medical Tourism are emerging new products in tourism.

Table 30 - Indian Tourism Fact Sheet, 2014

No. of foreign tourist arrivals in India	7.68 million
• Annual Growth Rate	10.2%
FOREX earnings from Tourism	USD 20.24 billion
• Annual Growth Rate	9.7%
Share of India in International Tourist Arrivals	0.68%
India's rank in World Tourist Arrivals	41
Share of India in International Tourism Receipts (US$ terms)	1.58%
India's rank in World Tourism Receipts	15

The Government's decision to introduce the electronic visa facility (e-Visa) will give a much needed boost to inbound travel in India.

3.1.4.8 HEALTH CARE SERVICES

The Indian Systems of Medicine and Homoeopathy (Ayurvedic, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH)) cover both the systems which originated in India and abroad, but which got adopted and adapted in India in the course of time. India has 15 agro-climatic zones, 47,000 plant species and 15,000 medicinal plants that include 7,000 plants used in Ayurveda, 700 in Unani medicine, 600 in Siddha medicine and 30 in modern medicine. This makes India one among 12 mega bio-diverse countries of the world. The Indian systems of medicine have identified 1,500 medicinal plants, of which 500 species are mostly used in preparation of drugs.

In India, Ministry of AYUSH enters into cooperation agreements to strengthen, promote and develop Cooperation in the field of Traditional Indian Systems of Medicines. Such international cooperation facilitates capacity building, training, exchange of information, exchange of experts, health manpower development, and technical support in establishing laboratories / hospitals and research in mutually identified areas, on the basis of equality, reciprocity and mutual benefit. It provides opportunities for sharing and emulating best practices and learning from each other, to address the health challenges faced by the country.

3.1.4.9 PROFESSIONAL SERVICES: ACCOUNTANCY & AUDITING SERVICES

The Institute of Chartered Accountants of India (ICAI) is a statutory body established under the Chartered Accountants Act, 1949 (Act No. XXXVIII of 1949) for the regulation of the profession of Chartered Accountants in India. During its 64 years of existence, ICAI has achieved recognition as a premier accounting body not only in the country but also globally, for its contribution in the fields of education, professional development, maintenance of high accounting, auditing and ethical standards. ICAI now is the second largest accounting body in the whole world.

ICAI develops skilled professionals with competencies to service clients not only within India but across the globe that requires technical skills as also cross cultural appreciation and understanding of global needs. It is playing a predominant role in setting world class standards in identified service areas

As on date membership of ICAI is about 2.55 million with more than 0.85 million students. The education process of ICAI leads to development of Indian CAs as world class professionals. Presently, there are about 20,000 members working abroad and performing range of accounting functions.

CAs in India are trained in International Financial Reporting Standards (IFRS), Forensic Accounting, Fraud Detection, Valuation, Enterprise Risk Management, Business Finance, International Taxation, International Forex and Treasury Management, Derivatives, Arbitration, Information Systems Audit, Computer Accounting and Auditing Techniques and host of other niche capabilities which make them truly combat professionals suited to handle any complex business situation. More

than 60,000 ICAI members are trained/ under process of training in emerging area of business enterprise and this is likely to spur newer levels of service delivery innovations.

3.1.4.10 COMPUTER AND IT SERVICES

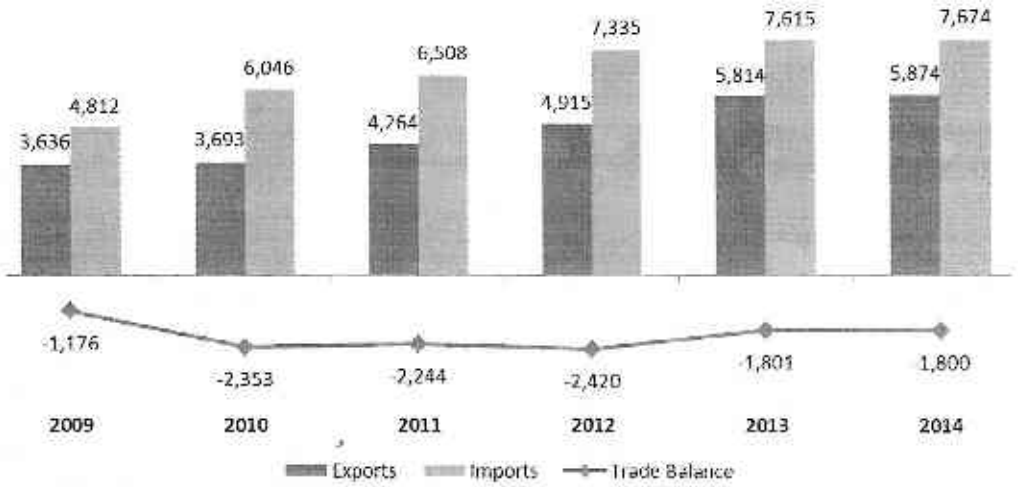
India is the world's largest sourcing destination for the information technology (IT) industry, accounting for approximately 67 per cent of the US$ 124-130 billion market. The industry employs about 10 million workforces. More importantly, the industry has led the economic transformation of the country and altered the perception of India in the global economy. India's cost competitiveness in providing IT services, which is approximately 3-4 times cheaper than the US, continues to be the mainstay of its unique selling proposition (USP) in the global sourcing market. However, India is also gaining prominence in terms of intellectual capital with several global IT firms setting up their innovation centres in India. The IT industry has also created significant demand in the Indian education sector, especially for engineering and computer science. The Indian IT and ITeS industry is divided into four major segments – IT services, business process management (BPM), software products and engineering services, and hardware.The IT-BPM sector in India grew at a Compound Annual Growth rate (CAGR) of 15 per cent over 2010-15, which is 3-4 times higher than the global IT-BPM spend, and is estimated to expand at a CAGR of 9.5 per cent to US$ 300 billion by 2020.Indian IT's core competencies and strengths have attracted significant investments from major countries. The computer software and hardware sector in India attracted cumulative foreign direct investment (FDI) inflows worth US$ 17.575 billion between April 2000 and May 2015, according to data released by the Department of Industrial Policy and Promotion (DIPP).

3.2 PERSPECTIVE OF PERU

3.2.1 TRADE WITH THE WORLD

Peru is a net importer of services. During the last five years, Peruvian service exports to the world grew at an average rate of 10.1%, while imports increased at a rate of 9.8%.

Figure 32 – Peru: Trade in Services, 2009-2014
(US$ million)



Source: Central Bank of Peru

During the last five years, service exports growth was driven by travel-related services (which accounted for 52% of Peru's total service exports and increased at an average annual rate of 8.3%) and transportation services (which grew at an average annual rate of 12.7%).

During the last five years, service imports have registered a steady increase, reaching US$ 7,674 million in 2014. Transportation services are the most important category of service imports, followed by travel and insurance and reinsurance services.

Table 31 – Peru: Service Exports, 2009-2014
(US$ million, percentage change)

Services	2009		2010		2011		2012		2013		2014		Average growth 09-14	Var.14/13
	US$ million	%	US$ million	%	US$ million	%	US$ million	%	US$ million	%	US$ million	%		
Total	**3,636**	**100**	**3,693**	**100**	**4,264**	**100**	**4,915**	**100**	**5,814**	**100**	**5,874**	**100**	**10.1**	**1.0**
Travel	2,014	55	2,008	54	2,262	53	2,443	50	3,009	52	3,001	51	8.3	-0.003
Transportation	758	21	854	23	994	23	1,223	25	1,524	26	1,380	23	12.7	-9.5
Insurance and Reinsurance	271	7	166	5	230	5	361	7	400	7	539	9	14.8	34.9
Communications	91	3	102	3	132	3	147	3	131	2	149	3	10.3	13.6
Other Services	501	14	562	15	646	15	742	15	749	13	804	14	9.9	7.3

Note: Other services include financial services, computer and information services, royalties and license fees, business services and government services.

Source: Central Bank of Peru

Table 32 – Peru: Service Imports, 2009-2014
(US$ million, percentage change)

Services	2009		2010		2011		2012		2013		2014		Average growth 09-14	Var. 13/14
	US$ million	%	US$ million	%	US$ million	%	US$ million	%	US$ million	%	US$ million	%		
Total	**4,812**	**100**	**6,046**	**100**	**6,508**	**100**	**7,335**	**100**	**7,615**	**100**	**7,674**	**100**	**9.8**	**0.8**
Transportation	1,737	36	2,453	41	2,524	39	2,850	39	2,891	38	2,819	37	10.2	-2.5
Travel	1,088	23	1,276	21	1,356	21	1,439	20	1,601	21	1,584	21	7.8	-1.0
Insurance and reinsurances	447	9	491	8	588	9	728	10	803	11	915	12	15.4	13.9
Communication	161	3	180	3	179	3	221	3	278	4	295	4	12.9	6.2
Other	1,379	29	1,645	27	1,861	29	2,097	29	2,042	27	2,060	27	8.4	0.9

Note: Other services include insurance services, financial services, computer and information services, royalties and license fees, business services and government services.
Source: Central Bank of Peru

3.2.2 PERU-INDIA BILATERAL TRADE

Due to data availability limitations reported by the Central Bank of Peru[13], the latter cannot provide a series of historical information of Peru's bilateral trade in services. Therefore, Peru will have to rely on the mirror information provided by the Government of India, should the latter be able to produce that information.

3.2.3 SECTORAL OVERVIEW[14]

Peru adopted specific commitments in 7 of the 12 sectors of the General Agreement on Trade in Services (GATS), namely, business services, communications, financial services, tourism and travel-related services, distribution services, recreational/cultural/sporting services and transport services.

Peru participated in the post-Uruguay Round negotiations on telecommunications and financial services, and the respective commitments appear in the Fourth and Fifth Protocols to the GATS.

The list of MFN exemptions[15] contains a horizontal exemption to the effect that the movement of nationals of a country that has a reciprocal labour agreement or an agreement on dual nationality, or of foreign personnel recruited under bilateral or multilateral agreements concluded by Peru

[13] The Central Bank of Peru is the institution that reports official figures on the Peruvian Balance of Payments statistics. Even though Peru faces important limitations in terms of the availability of bilateral statistics on its international trade of services, the Commission for the Promotion of Exports and Tourism of Peru (PROMPERU), an agency of MINCETUR, is implementing a survey of exporting services firms since 2009. The main service sectors identified in this database are: i) call-centers; ii) franchises; and iii) software. As regards to markets, the main market destinations are Spain, Chile and USA.

[14] This section is based on the Trade Policy Review of Peru (WTO, 2013).

[15] Peru's final list of Article II exemptions (MFN) can be found in WTO documents GATS/EL/69 of 15 April 1994 and GATS/EL/69/Suppl.1 of 26 February 1998.

shall not be subject to the limitations on the recruitment of foreign workers. The exemptions from MFN treatment relating to specific sectors concern land and maritime transport with countries of the Andean Community (CAN); land transport with member countries of the Convention on International Land Transport[16]; and recreational/cultural/sporting services with several Latin American countries[17]. In addition, based on the principle of reciprocity, Peru also has an exemption on all activities related to financial services. All the exemptions from the MFN principle are for an indefinite period.

During the Doha Round negotiations on services, Peru submitted an initial offer in 2003 and a revised offer in 2005[18].

Within the CAN, Colombia, Ecuador and Peru have rules for free trade in services, except in the subsectors Financial Services and TV Broadcasting Services (regarding minimum percentages of domestic production programming), where there is a mandate to issue special rules by 30 June 2017 at the latest. Within the CAN, the national treatment and MFN principles apply to all sectors, except for those in which there is a mandate to issue specific sectoral rules.

The commitments related to services made by Peru in its various regional trade agreements are very varied and go beyond those included in the Schedule annexed to the GATS or in the offer submitted within that context.

In most of its trade agreements, Peru follows a negative list approach for the services negotiations. This is the case of the agreements with the United States, Canada, Singapore, Korea, Japan, Pacific Alliance, TPP, among others.
Peru is part of the group of WTO Members that participate in the negotiations for a Trade in Services Agreement (TiSA), which would comprise commitments that go beyond the GATS.

3.2.3.1 FINANCIAL SERVICES

By 2014, there were 159 entities under the supervision of the Supervisory Authority of Banking, Insurance and Private Pension Fund Managers (SBS), which is responsible for regulating and supervising the following: (i) private banking institutions; (ii) financing institutions; (iii) non-banking microfinance institutions; (iv) state-owned entities; (v) financial leasing companies; (vi) insurance companies; (vii) pension fund managers (AFP); among others. Banking institutions constitute the main player in the financial system, with 55% of the assets[19].

In the case of the Securities Market, by 2015, there were 430 entities under the supervision of the Supervisory Authority of the Securities Market (SMV), which is responsible for regulating and supervising the following: (i) issuers (ii) rating agencies (iii) brokers - dealers; (iv) mutual funds managers (open-end funds and closed-end funds); (v) trust companies, (vi) price suppliers, (vii) stock exchanges (BVL) and (viii) clearing and settlement institutions.

[16] Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay.
[17] Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Uruguay and of Venezuela.
[18] WTO online information: http://www.wto.org/english/tratop_e/serv_e/s_negs_e.htm
[19] Source: SBS.

The General Law on the Financial System and the Insurance System and on the Organization of the Supervisory Authority (Law 26702 and amendments) contains the principal legal provisions relating to the financial and insurance system; and in the case of the securities market, it is contained in the Securities Market Law (DL 861).

In July 2000, Law 27328 was promulgated, under which the scope of the SBS was extended, incorporating under its control and supervision the Administrators of Private Pension Funds (AFPs). The AFP are supervised under the TUO Law DS 054-97-EF, which contains the principal legal provisions applicable to the private pension system.

in 2008, new supplementary legislation was adopted, in particular, Legislative Decrees 1028 and 1052, which were intended to make the financial system more competitive through the elimination of the modular scheme[20], the adoption of Basel II rules and the commitments undertaken in the Trade Promotion Agreement with the United States.

In addition, the following were also adopted: Law 29038, which incorporated the Financial Intelligence Unit to the SBS (to prevent money laundering and terrorist financing); Law 29440 on Payments and Securities Systems; Law 29489 on the Coverage of the Deposits Insurance Fund; Law 29571-Code for the Protection and Defense of Consumers; Law 29850 on Surety and Guarantee Companies; Law 29637 regulating Covered Mortgage Bonds; Law 29782 on Strengthening Supervision of the Securities Market; Law 29946 on Insurance Contracts; Law 29985 on Electronic Money and Law 30050 on the Promotion of the Securities Market.

Peruvian regulation has partially implemented the Basel III International Regulatory Framework. Some changes to the Law 26702 and SBS rules are needed in order to be able to fully implement the Basel III framework. Regarding to the rules issued by the SBS, it is important to mention that according to the regulation of "Additional regulatory capital requirements", approved by SBS Resolution N° 8425-2011, Peruvian credit institutions must accumulate different capital buffers: a) countercyclical buffer; b) buffer for systemic risk; and c) additional risk-sensitive capital requirements that include a capital buffer for large exposures to debtors, regions or economic sectors; a capital buffer for interest rate risk in the banking book and capital buffer for propensity to risk. These buffers are required in addition to the capital charges for credit, market and operational risks. Additionally, SBS has issued the regulation of "Liquidity risk management", approved by SBS Resolution N° 9075-2012. This rule includes provisions about responsibilities and functions of the Board of Directors, senior management, risk unit, Asset-Liability Committee; early-warning indicators, liquidity ratios (Liquidity Coverage Ratio, daily liquidity ratios and liquid assets ratio), liquidity stress tests, concentration of funding and contractual maturity mismatch, among others.

[20] This scheme contained three modules with different financial services. If an institution decided to extend the range of its financial services, it was obliged to provide all the services in each module and could not expand its financial services progressively.

Table 33 - Composition of the Peruvian Financial Sector, December 2014

Institution	Number	Amount of assets (S/.millions)	Percentage of assets
Banking institutions	**17**	**289,482**	**55.3**
Financing institutions	**12**	**14,893**	**2.8**
Non-bank microfinance institutions	**33**	**20,944**	**4.0**
Municipal funds	12	17,106	3.3
Rural savings and loan funds	10	2,281	0.4
Small and micro-enterprise development	11	1,557	0.3
State-owned entities	**4**	**47,687**	**9.1**
Bank of the Nation (Banco de la Nación)	1	28,284	5.4
Development Finance Corporation (COFIDE)	1	9,715	1.9
Agricultural Bank (Agrobanco)	1	1,915	0.4
Housing Fund (MiVivienda)	1	7,773	1.5
Insurance companies	**18**	**33,303**	**6.4**
Pension funds	**4**	**117,284**	**22.4**
Other supervised entities [1/]	**71**	**n.a.**	
Total	**159**	**523,593**	**100.0**

Source: SBS.

1/ Including: 2 financial leasing companies, 1 factoring company, 2 mortgage management companies, 7 money transfer companies, 4 credit unions and mutuals, 4 general deposit organizations, 2 trust fund service companies, 2 money transport, custody and management companies, 1 loan consolidation and guarantee company, 43 Regional or provincial fund associations against traffic accidents, 1 Savings and Loans Cooperative, the National Federation of Cooperatives and Loans of Peru and the Central Reserve Bank of Peru

According to Law 26702, foreign investment in financial and insurance companies receives the same treatment as Peruvian capital. There are no limitations on foreign participation in the financial and insurance market[21]. Similarly, Law 26702 indicates that majority shareholders in a company operating within the financial or insurance system may not (directly or indirectly) own over 5% of the shares in another company of the same type. The transfer or purchase of shares in a company exceeding 10% of its capital to a single person must be authorized by the SBS. According to Article 224, in order to carry out certain activities listed in the Law, both Peruvian and foreign companies operating in the financial and insurance sector must set up subsidiaries, none of which may engage in more than one of the activities listed[22]. For financial companies setting up subsidiaries, the total investment in subsidiaries may not exceed 40% of the company's equity, except in the case of subsidiaries of life insurance companies.

Similarly, the State may not participate in the Peruvian financial system except through COFIDE as a second-tier development bank, the Bank of the Nation, the Agricultural Bank and the MiVivienda fund.

The Income Tax Law includes an exemption until 31 December 2015 for any fixed or variable interest, in national or foreign currency, paid on a deposit in accordance with Law 26702, as well

[21] Law 26702.

[22] These activities are: real estate capitalization companies; general deposit warehouses; brokerage firms, subject to the Law on the Securities Market; mutual fund and investment fund programmes; companies that provide safe deposit, transport and management services for cash and securities, provided that they have authorization from the SBS and the Ministry of the Interior; and securitization trustees, subject to the provisions of the Law on the Securities Market.

as for any capital gains on such deposits, except in the case of third-category[23] income[24]. Likewise, in the case of the securities market, the Income Tax Law includes an exemption until 31 December 2018 for capital gains on the negotiation of stocks.

In accordance with DL 861, in the securities market, companies under its supervision receive the same treatment as Peruvian capital.

The Law on Strengthening Supervision of the Securities Market granted the Supervisory Authority for the Securities Market (SMV) greater powers to regulate and supervise the securities market, stock exchanges, stockbrokers and other market participants.

The Law on Promotion of the Securities Market[25] establishes, among other things, a special regime for public offerings of securities or financial instruments for institutional investors, and authorizes the SMV to establish a special public offering regime for small and medium-sized enterprises. In addition, it increases the prudential requirements for entities that participate as intermediaries in the securities market by raising the minimum capital by 33%, by requiring contributions to the guarantee fund in order to commence operations, and by requiring persons authorized by the SMV to set up a comprehensive risk management system[26].

Peru participated in the negotiations on financial services at the WTO and adopted the Fifth Protocol to the GATS. Peru's Schedule states that there are no limitations on market access for banking services when accepting deposits and other funds refundable to the public, except that financial companies may not accept deposits on behalf of financial institutions not authorized to operate in Peru.

3.2.3.2 BANKING SERVICES

According to Law 26702, to be able to establish and operate a bank in Peru, including a subsidiary of a foreign bank, it is necessary to submit an application to the SBS. Once the full documentation has been received, in order to issue the authorization for organization, as the first phase of the process, the SBS requests the opinion of the Central Bank (BCRP), who must deliver its opinion within 30 days. The SBS then has to issue its decision regarding the application within 90 days of having received the Central Bank's opinion. The authorization for organization lasts for two years, in this period the petitioner has to accomplish all the requirements established in the first phase of authorization for organization and ask for the authorization for operation. In this phase SBS could observe any pending issue. After the petitioner accomplishes all the requirements, the SBS will issue the authorization for operation.

According to Law 26702 (Article 39), should a foreign bank decide to close its operations, the assets of its Peruvian branch must be primarily used to compensate Peruvian creditors and

[23] Third category income refers to trading and industry income.
[24] Supreme Decree 172-2004-EF and amendments.
[25] Law 30050.
[26] The Law also incorporates in the Penal Code provisions that penalize issuers' managers or representatives who provide the market with false information and amends the Law on the Securities Market to establish the civil liability of issuers' managers for prejudice caused as a result of arrangements that are not made in the public interest but in their own interests or those of related third parties.

foreigners domiciled in Peru. This limitation on national treatment does not apply to subsidiaries, for which the treatment applicable is the order of priority for payment established in Law 26702.

There are no legal limitations on private capital holdings, including foreign holdings, in commercial banks. In order to provide commercial banking services, foreign banks may set up branches or subsidiaries. In the case of branches, capital must be placed in Peru to serve as a basis for operations. The minimum capital needed to set up a bank in Peru is S/. 25.6 million[27].

To provide financial services in the securities/commodities markets or asset management services (including pension funds), foreign banking institutions established in Peru must operate through subsidiaries, not branches.

The provisions of the Law apply to branches of foreign banks, which enjoy the same rights and are subject to the same obligations as similar Peruvian establishments. There are no legal limitations on the number of banks that may operate in Peru or on the number of offices that a bank established in Peru may open. The services that banks can offer do not depend on the origin of their capital[28].

Residents of Peru may make deposits in foreign banks without limitations. Both companies and individuals may maintain and operate foreign bank accounts. There are no limits on the amount of transactions with entities abroad.

Banks may freely determine the interest rates, commission and fees for their transactions. Nevertheless, when setting interest rates they must respect, exceptionally the limits indicated by the BCRP, in accordance with its Organic Law[29].

The SBS is responsible for monitoring and regulating against money laundering and the financing of terrorism in respect of the natural and legal persons within its sphere of competence. It has issued supplementary rules on the prevention of money laundering and terrorism financing[30].

Peru levies a financial transactions tax (0.005%)[31], whose purpose is to serve as a source of information on tax evasion.

Banks and, in general, all the financial system companies may not engage in insurance activities. They could only be involved in insurance commercial transactions (insurance selling). However, an investor may simultaneously hold shares in banking and insurance companies.

3.2.3.3 INSURANCE SERVICES

Residents of Peru may buy insurance from abroad without limitations.

It is permitted to supply cross – border insurance services in Peru:

[27] As of January-March 2015. The minimum capital requirement is updated quarterly.
[28] Article 22 of Law 26702.
[29] Article 9 of Law 26702. According to the authorities, the setting of interest rates has never been restricted for this reason.
[30] Approved by SBS Resolution No. 838-2008 of 28 March 2008.
[31] Law 29667.

(a) insurance of risks related to:
  (i) maritime shipping and commercial aviation and space launching and freight (including satellites), with such insurance to cover any or all of the following: the goods being transported, the vehicle transporting the goods, and any liability arising therefrom, and
  (ii) goods in international transit;
(b) reinsurance and retrocession;
(c) consultancy, actuarial, risk assessment, and claim settlement services; and
(d) insurance intermediation, such as brokerage and agency of insurance of risks related to services listed in subparagraphs (a) and (b);

All insurance activities, including social security services, are open to foreign investment. There are no limitations on Peruvian or foreign private capital holdings in insurance companies. Peruvian residents may take out insurance and reinsurance abroad. Foreign companies may set up branches or subsidiaries in order to provide insurance services. Before setting up a branch or agency an insurance company must obtain prior authorization from the SBS.

There are no legal limitations on the number of operating insurance companies, nor is there any limitation on the number of agencies they may open, although the SBS must be informed whenever an agency is opened or closed. There are no differences between the types of services which insurance companies with domestic or foreign capital may offer. Insurance companies freely determine the terms of their policies, their rates and other conditions, provided they comply with the legal provisions that govern the insurance contract[32].

The minimum amounts of registered capital, in cash, required for insurance companies are as follows[33]: company operating in a single branch (general or life insurance) S/. 4.7 million; company operating in both branches (general and life insurance) S/. 6.4 million; insurance and reinsurance company S/. 16.3 million; reinsurance company S/. 9.9 million. The requirements concerning solvency margins and technical reserves established in the legislation apply equally to companies with Peruvian or foreign capital.

The SBS keeps a register of foreign reinsurance companies. In order to be listed in this register the company concerned must submit an application. However, in Peru insurance companies may also take out reinsurance with reinsurance companies not enrolled in the SBS Register, provided that at the time the latter have a "non-vulnerable" risk classification.

Under Law 29946, compulsory insurance must be taken through insurance companies established in Peru and duly authorized by the SBS. According to the authorities, this provision is not intended to affect Peru's commitments under its regional trade agreements in respect of cross-border trade in financial services.

3.2.3.4 SECURITIES MARKET

At the end of December 2015, the market capitalization was US$ 90,657 million, and the traded value was S/. 10,742.95 million.

[32] Law 29946.
[33] As of October-December 2014.

The number of open-end funds were 107 and public close-end funds 20, with US$ 6,290.23[34] million and US$ 792,22[35] million in assets under management (AUM), respectively. In addition there were 15 public trust funds with US$ 5,034.58[36] million AUM.

The SMV through the Public Register of the Security Market (RPMV) maintains a register of the market participants under its supervision who must follow the obligations established in the law. In order to be listed in this register the company must be authorized by the SMV.

The minimum capital[37]: needed to set up an exchange in Peru is S/. 7.6 million; a clearing and settlement institution is S/. 3.8 million, a brokerage house S/. 1.8 million; mutual funds and investment trust companies S/. 1.4 million.

The SMV is responsible for monitoring and regulating against money laundering and the financing of terrorism in respect of the natural and legal persons within its sphere of competence. It has issued supplementary rules on the prevention of money laundering and the financing of terrorism.

Financial Intermediaries, collective investment managers and the other entities under the supervision of SMV may freely determine the commission, fees.

3.2.3.5 TELECOMMUNICATION SERVICES

Two institutions have regulatory and administrative responsibilities in the telecommunications sector. On the one hand, the Ministry of Transportation and Communications (MTC) sets telecommunications policy, grants and cancels concessions/authorizations/permits/licenses, administers and oversees the frequency spectrum/numbering and approves telecommunications equipment. It also acts as the Technical Secretariat of the Telecommunications Investment Fund (FITEL).

On the other hand, the Supervisory Authority for Private Investment in Telecommunications (OSIPTEL) is responsible for regulating tariffs, service quality, the rights and obligations of operators and users, supervising the conduct of the operators, investigating and sanctioning breaches of the regulations, settling disputes between companies and dealing with complaints from users.

The basic regulatory framework for the telecommunications sector is contained in the Single Harmonized Text of the Telecommunications Law[38] and its implementing regulations, which classify services into: (i) carrier services; (ii) teleservices or final services; (iii) distribution services; and (iv) value-added services. Within this regulatory framework, the following services require a special concession before they can be provided: carrier services; public teleservices or final services; and public distribution services. Enrolment in the public telecommunications services register is also required. To operate private final and radio-communications services and private distribution and broadcasting services an authorization is required, together with the

[34] As of November 2015.
[35] As of September 2015.
[36] As of September 2015.
[37] Capital required for 2016. The minimum capital requirement is updated annually.
[38] Supreme Decree 013-93-TCC.

corresponding permit and license. Value-added services need to be registered and those that require their own telecommunications networks, separate from those of the carrier services or teleservices, require special authorization from the MTC.

Concessions are granted at the request of a party or following an open bid[39]. A single concession may comprise the possibility of providing more than one public telecommunications service. The allocation of a specific portion of the frequency spectrum allows it to be used in accordance with the provisions of the National Frequency Allocation Plan; allocation is by open competition or at the request of a party.

Legislation in the sector gives Peruvian and foreign investors the right to provide telecommunications services in the following forms: (i) public services, with no restrictions on foreign investment, and (ii) broadcasting services. To own a broadcasting service, legal persons must be domiciled and established in Peru[40].

In order to promote investment in the sector and encourage competition, Peru has taken the following actions: (i) establishment of a special and temporary regime to create the infrastructure needed to provide telecommunications services[41], (ii) regulation of access to and shared use of the telecommunications infrastructure managed by major providers[42], (iii) promotion of the marketing and resale of services[43], (iv) establishment of a special regime for promoting the development of public telecommunications services in rural areas and places of priority social interest[44], and, (v) prioritization of public frequency spectrum bidding which make it possible to promote the expansion of services in bands identified for public telecommunications services[45].

Peru's telecommunications sector has registered sustained growth since the mid 1990's, particularly the mobile phone market. However, in 2013, only 22% of Peruvian households had access to the Internet and 32% of households had at least one computer in the home. In general, the level of access to telecommunications services remains low in the country's poorest departments and poor urban areas.

The landline and mobile phone markets continue to display a high degree of concentration. In 2014, *Telefonica del Perú*[46] had 78.4% of the total number of fixed lines. This concession, renewed until 2027, is subject to specific obligations concerning third-party access to the operator's basic infrastructure and network facilities. The rest of the landline market is divided up among 19 operators, led by *América Móvil Perú* (19.35%) and *Americatel Perú* (1.28%).

At the end of 2014, the leading mobile phone operators were *Telefónica del Perú*, with 54.7% of the lines in service, followed by *América Móvil Perú* (39.5%), Entel Peru (5.5%) and Viettel Peru (0.3%).

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[39] Single Concession Law, Law 28737 of 18 May 2006.
[40] Article 24 of the Radio and Television Law (Law 28278 of 23 June 2004).
[41] Law 29022, as extended by Law 29868.
[42] Legislative Decree 1019, as supplemented by Resolution N° 020-2008-CD/OSIPTEL.
[43] Supreme Decree 003-2007-MTC.
[44] Supreme Decree 024-2008-MTC.
[45] Supreme Decree 003-2007-MTC.
[46] In 2014 Telefónica del Perú absorbed Telefónica Móviles.

Subscription, pay and cable TV services are provided wirelessly through satellite technology and over wires through hybrid networks with coaxial and/or optical fibre cables. In 2014, there were around 1.68 million subscribers. Based on figures for the wired subscription TV market only, the main operators were *Telefónica Multimedia* (51.9% of the market), *América Móvil Perú* (14.5%) and DirectTV (12.2%).
In the fixed broadband market there is a total of 35 operators, of which *Telefónica del Perú* has 81.8% of total connections, followed by *América Móvil Perú* (15.26%). In the mobile broadband market the main operators are: *Telefónica del Perú* (55.6%), *América Móvil Perú* (39.9%) and Entel Perú (3.75%).

In 2012, the Law on the Promotion of Broadband and Construction of the National Optical Fibre Backbone Network was adopted for the purpose of encouraging the development and use of broadband technologies throughout the country and will connect Peru's 180 provincial capitals through the network, with investment estimated at US$ 300 million.

In accordance with the Single Harmonized Text of the Telecommunications Law, public telecommunication services concessionaires may set their tariffs freely, subject to a ceiling determined by OSIPTEL. If the concession agreement establishes a specific rate-setting criterion, then it will be applied. The Law authorizes OSIPTEL to opt for not fixing ceilings when competitive conditions in the market are guaranteed.

In 2013, the Law 30083 establishes measures to strengthen competition in the public mobile phone market through the introduction of the concept of Mobile Virtual Network Operators (MVNO), able to provide services without their own networks/radio spectrum, based on agreements with established mobile operators.

3.2.3.6 TEMPORARY ENTRY FOR BUSINESS VISITORS

Under the GATS, Peru maintains horizontal commitments on the movement of natural persons. Natural persons supplying services or employed by companies in the sectors included in Peru's Schedule may enter the country for a period of not more than three years renewable for successive periods.

Such persons may not comprise more than 20% of the total workforce employed by the company and their remuneration may not exceed 30% of the total payroll, with several exceptions.

In the context of FTAs, Peru has included a Chapter on Temporary Entry of Business Persons in several trade agreements. This chapter seeks to facilitate the movement of business persons between Peru and its trading partners.

In these Chapters, Peru has assumed the commitment to not impose economic needs test to the business persons who seek to enter Peru under the following categories: Business Visitors, Investors, Intra-Corporate Transferees and Professionals (which includes Independent Professionals and Contractual Service Suppliers).

In its Temporary Entry Chapters, Peru has also included commitments regarding transparency; the processing of applications in reasonable timeframes; and the imposition of fees which do not constitute obstacles to trade.

3.2.3.7 PROFESSIONAL SERVICES - ACCOUNTANCY

In order to practice as an accountant, a professional needs to obtain the relevant license from the Association of Accountants. This requirement is applied equally to national or foreign accountants. There are no economic need test nor numerical limitations on the issuance of licenses for accountants.

If the accountant has obtained its professional degree outside Peru, it is necessary to get the degree recognized before obtaining the license.

Anita Praveen.

CHAPTER 4 INVESTMENT

4.1 PERSPECTIVE OF INDIA

4.1.1 INTRODUCTION

Investment Cooperation is important for the furtherance of bilateral economic relations. The relatively small amount of mutual investment between India and Peru reflects the existence of great potential for future cooperation.

4.1.2 FDI POLICY OF INDIA

The Department of Industrial Policy and Promotion is the nodal Department of the Government of India for formulation of the policy on Foreign Direct Investment (FDI). The Government has put in place an investor-friendly policy on FDI, under which FDI, up to 100% is permitted under the automatic route in most sectors/activities. Under this route, no Central Government permission is required for FDI inflow, but the same is subject to applicable laws/regulations, security and other conditionalities.

In most of the sectors under the automatic route, FDI up to 100% is permitted, except the following sectors where FDI limit is capped below 100%:

i. Petroleum Refining by Public Sector undertakings (49%)
ii. Cable Networks (49%)
iii. Scheduled Air Transport Service/ Domestic Scheduled Air Transport Service (49%; 100% for NRIs) (Foreign airlines are allowed to invest in the capital of Indian companies operating scheduled and non-scheduled air transport services, up to the limit of 49% of their paid-up capital through Government approval route)
iv. Commodity Exchange (49%) (Investment by FII/FPI under Portfolio Investment Scheme is limited to 23% and Investment under FDI scheme limited to 26%)
v. Credit Information Companies (74%) (Investment by FII/FPI under Portfolio Investment Scheme is limited to 24%)
vi. Infrastructure Companies in Securities Markets (49%) (FDI limit of 26% and FII/FPI limit of 23%)
vii. Power Exchanges (49%)

4.1.2.1 PROHIBITED SECTORS

FDI is prohibited in the following sectors/activities:

i. Lottery Business including Government /private lottery, online lotteries, etc.
ii. Gambling and Betting including casinos etc.
iii. Chit funds
iv. Nidhi company-(borrowing from members and lending to members only).
v. Trading in Transferable Development Rights (TDRs)
vi. Real Estate Business (other than construction development) or Construction of Farm Houses

vii. Manufacturing of Cigars, cheroots, cigarillos and cigarettes, of tobacco or of tobacco substitutes

viii. Activities / sectors private sector investment e.g. Atomic Energy and Railway Transport (except construction, operation and maintenance of (i) Suburban corridor projects through PPP, (ii) High speed train projects, (iii) Dedicated freight lines, (iv) Rolling stock including train sets, and locomotives/coaches manufacturing and maintenance facilities, (v) Railway Electrification, (vi) Signalling systems, (vii) Freight terminals, (viii) Passenger terminals, (ix) Infrastructure in industrial park pertaining to railway line/sidings including electrified railway lines and connectivities to main railway line and (x) Mass Rapid Transport Systems.)

4.1.2.2 APPROVAL ROUTE SECTORS

In sectors where FDI is not permitted through the automatic route (and are not in the prohibited list), FDI is allowed through Government approval route. Under this route, applications are considered for approval by the Foreign Investment Promotion Board (FIPB). FIPB comprises representatives from Department of Economic Affairs, Department of Industrial Policy & Promotion, Department of Commerce, Ministry of External Affairs and Ministry of Overseas Indian Affairs. The Board can also co-opt other Secretaries to the Central Government and top officials of financial institutions, banks and professional experts of Industry and Commerce, as and when necessary.

The proposals involving investments of more than INR Rs 1200 crore (equivalent to US$ 12 billion) under Government approval route, are considered by Cabinet Committee on Economic Affairs. Approval from Cabinet Committee on Security is required for more than 49% FDI in defence and railway infrastructure projects.

LIST OF SECTORS WHERE GOVERNMENT APPROVAL IS REQUIRED

The list of sectors where Government approval is required, along with corresponding FDI limit are listed below:

i. Tea sector including TEA plantations (100%)

ii. Mining and mineral separation of titanium bearing minerals and ores, its value addition and integrated activities (100%)

iii. FDI in enterprise which is not a Micro or small Scale enterprise, but manufactures items reserved for small scale sector (beyond 24% and up to 100%)

iv. Defence (49% on Government approval route. Above 49% to Cabinet Committee on Security (CCS) on case to case basis, wherever it is likely to result in access to modern and 'state-of-art' technology in the country)

v. Terrestrial Broadcasting FM (FM Radio) (26%)

vi. Up linking of 'news and current affairs' TV channels (26%)

vii. Up linking of 'non-news & current affairs' TV channels (100%)

viii. Publishing/printing of scientific & technical magazines/specialty journals/periodicals (100%)

ix. Publishing of newspaper and periodicals dealing with news and current affairs (26%)

x. Publication of Indian editions of foreign magazines dealing with news and current affairs (26%)

xi. Publication of facsimile edition of foreign newspaper (100%)

xii. Satellites (74%)

xiii. Private Security Agencies (49%)
xiv. Multi Brand Retail Trading (51%)
xv. Public Sector Banking (20%)
xvi. Pharmaceuticals-Brownfield (100%)

4.1.2.3 PARTLY ALLOWED SECTORS

FDI is partly allowed through automatic route and partly on Government approval route: In addition to the above, there are certain sectors where FDI is partly allowed through automatic route and partly on Government approval route. Such sectors, along with the corresponding FDI limits are listed below:

i. Broadcasting Carriage Services (Automatic up to 49%; Government approval beyond 49% & up to 74%)
ii. Airports-Brownfield beyond (Automatic up to 74%; Government approval beyond 74%& up to 100%)
iii. Non-Scheduled Air Transport Service (Automatic up to 49%; Government approval beyond 49% & up to 74%)(Foreign airlines are allowed to invest in the capital of Indian companies operating non-scheduled air transport services, up to the limit of 49% of their paid-up capital through Government approval route)
iv. Ground Handling Services (Automatic up to 49%; Government approval beyond 49% & up to 74%)
v. Telecom (Automatic up to 49%; Government approval beyond 49%& up to 100%)
vi. Single Brand Retail Trading (Automatic up to 49%; Government approval beyond 49%& up to 100%)
vii. Asset Reconstruction Companies (Automatic up to 49%; Government approval beyond 49%& up to 100%)
viii. Private Sector Banking (Automatic up to 49%; Government approval beyond 49% & up to 74%)
ix. Insurance (Automatic up to 26%; Government approval beyond 26% & up to 49%)

4.1.2.4 INITIATIVES BY THE GOVERNMENT OF INDIA FOR LIBERALIZATION OF FDI POLICY

The Government play an active role in investment promotion through dissemination of information on the investment climate and opportunities in India and by advising prospective investors about investment policies and procedures and opportunities.

The following initiatives have been taken in recent past for further liberalization of the FDI policy:

(1) The limit in FDI in the Defence sector has been increased from 26% to 49% under Government approval route and beyond 49% is permitted on case to case basis, wherever it is likely to result in access to modern and 'state-of-art' technology in the country, with the approval of Cabinet Committee on Security. Further, portfolio investment which was not permitted earlier has now been allowed up to 24% under automatic route.

(2) 100% FDI under the automatic route in construction, operation and maintenance of the following in Rail Infrastructure through Domestic and Foreign Direct Investment has been permitted:-

(i) Suburban corridor projects through PPP, (ii) High speed train projects, (iii) Dedicated freight lines, (iv) Rolling stock including train sets, and locomotives/coaches manufacturing and maintenance facilities, (v) Railway Electrification, (vi) Signalling systems, (vii) Freight terminals, (viii) Passenger terminals, (ix) Infrastructure in industrial park pertaining to railway line/sidings including electrified railway lines and connectivities to main railway line and (x) Mass Rapid Transport Systems.

In sensitive areas, from security point of view, FDI beyond 49% is allowed subject to approval of Cabinet Committee on Security on a case to case basis.

(3) FDI policy in construction development sector has also been liberalized. The minimum land area restriction has been removed for serviced plots. In case of construction-development projects, minimum built up area of 50,000 sq. meter has now been reduced to floor area of 20,000 sq. meter. Minimum capitalization has been reduced from US $ 10 million to US $ 5 million. Norms relating to repatriation of funds or exit from the project have also been liberalized. Investor can now exit after the completion of the project or after development of trunk infrastructure. Earlier provision to bring in entire FDI within six months of the commencement of the project has been amended to provide that FDI can be brought in till the period of 10 years from the commencement of the project or its completion, whichever is earlier. To encourage investment in affordable housing, it has been provided that minimum area and capitalization norms will not apply to the projects committing 30 percent of the total project cost for low cost affordable housing.

(4) FDI upto 100% on automatic route has been allowed for manufacturing of medical devices.

(5) FDI limit in Insurance sector has been raised from 26% to 49%. Now, FDI upto 26% is permitted under automatic route and beyond 26% and upto 49% under Government approval route in the following activities of Insurance sector:

(i) Insurance Company
(ii) Insurance Brokers
(iii) Third Party Administrators
(iv) Surveyors and Loss Assessors
(v) Other Insurance Intermediaries appointed under the provisions of Insurance Regulatory and Development Authority Act, 1999 (41 of 1999)

It has further been clarified that an Indian insurance company shall ensure that its ownership and control remains at all times in the hands of resident Indian entities.

(6) FDI upto 49% has been permitted in the Pension Sector.

4.1.3 FDI INFLOWS AND OUTFLOWS

4.1.3.1 FDI INFLOWS

In terms of FDI Inflows, the top 5 investing countries are Mauritius, Singapore, UK, Japan and USA and the % inflow of 33.70%, 15.53%, 8.7%, 6.99% and 6.21% respectively. Peru ranks 122 in the list of 149 countries from which India received FDI upto December, 2015. The FDI equity inflow from Peru to India from April,2000 to December,2015 (on a cumulative basis) has been USD 0.14 million, which is a miniscule portion of the total FDI of around USD 277.95 billion, received by India during this period. *(Source: FDI Statistics, DIPP)*

4.1.3.2 FDI Outflows

As per a Federation of Indian Chambers of Commerce & Industry report (FICCI) of 2013, the cumulative outward FDI from India to Peru from July,2007 to March, 2013 was USD 4.16 million. The list of major Indian companies in Peru includes Tata Consultancy Services, Ranbaxy laboratories, Dr Reddy's laboratories, Cipla, NIIT, APTECH, Reliance and Jindal Steels. During last three financial years, sectors which received the FDI to Peru are as under:

Table 34 – Outward FDI from India to Peru, by Sector

(US$ million)

Financial Year	2013-14	2014-15	2015-16 (April to December 2015)
Manufacturing	1.03	6.27	0.43
Financial, Insurance and Business Services	0	0	0
Wholesale, Retail Trade and Restaurants and Hotels	0	0	0
Community, Social and Personal Services	0	0	0
Transport, Storage and Communication	0	0	0
Agriculture and Mining	0.79	0.28	0.04
Construction	0	0	0
Electricity, Gas and Water	0	0	0
Miscellaneous	0	0	0
Total	**1.82**	**6.55**	**0.47**

Source: RBI website.

4.1.4 Bilateral Investment Agreements

Till date, the Government of India has signed Bilateral investment Treaties (BITs)/ Bilateral Investment Promotion and Protection Agreements (BIPPAs), with 83 countries. Out of these 83 BITs, 73 have entered into force.

The Government of India has also concluded five Free Trade Agreements (FTAs)/Comprehensive Economic Partnership Agreements (CECAs) with an investment chapter. These are the India-ASEAN FTA, India - Japan FTA, India - Korea FTA, India - Malaysia FTA and India – Singapore FTA.

In 2012, a revision of the Indian Model text of BIPA or BITs had been initiated. Recently, the revised Model BIT text was approved by the Cabinet on 16th December, 2015. The new Model BIT aims to balance investor protection within the overall framework of laws and policies regulating foreign investment in India. The revised Model BIT is to be taken as the starting point for negotiation of future BITs and investment chapters in CECAs/CEPAs/FTAs.

4.2 PERSPECTIVE OF PERU

4.2.1 INVESTMENT POLICY REGIME

The Ministry of Economy and Finance (MEF) is responsible for formulating foreign investment policy, while the Private Investment Promotion Agency (PROINVERSION) is in charge of implementing national policies for the promotion of private investment according to the guidelines established by the MEF.

The legal framework related to foreign investment includes:

- ✓ Article 63 of the Constitution
- ✓ The Foreign Investment Law (Legislative Decree 622)
- ✓ The Framework Law for the Growth of Private Investment (Legislative Decree 757)
- ✓ The Law on the Promotion of Private Investment in Public Infrastructure Works and Public Services (Supreme Decree 059-96-PCM)
- ✓ The Framework Law on Public-Private Partnerships for the Generation of Productive Employment (Legislative Decree 1012). The purpose of this Decree is to promote private-sector participation in the development of public infrastructure and the provision of public services.

Additionally, in 2008 Legislative Decree 1035 was approved in order to harmonize national legislation to the WTO Agreement on Trade-Related Investment Procedures (TRIMs). Peru guarantees legal stability to investors through contracts with force of law. These agreements are valid for ten years and provide stability with respect to the income tax regime, the right to use the most favorable exchange rate available, the right to transfer profits, dividends and royalties, among others.

Foreign investment is restricted in the following cases[47]:

- ✓ Foreign investors are not allowed to acquire or possess mines, land, forests, bodies of water, fuels or energy sources located within 50 km of the country's borders, either directly or indirectly, as individuals or as corporations.
- ✓ At the beginning of operations, the share of foreign ownership of air transport companies is limited to 49%; however, after six months the share may be increased to as much as 70%.
- ✓ Commercial cabotage is allowed only to Peruvian flagged vessels owned by a national ship owner or national enterprise or leased under a financial lease or a bareboat charter with an obligatory purchase option. The owner of a national vessel or shipping company must be an individual of Peruvian nationality or a corporate body in which at least 51% of the equity is held by Peruvian citizens.
- ✓ Additionally, private investment (foreign or national) is not permitted in protected nature reserves, although the regulated development of such areas may be allowed subject to the applicable laws.

There are certain caps on foreign investment as indicated below:

[47] Source: WT/TPR/S/289/Rev.1

- ✓ Free-to-Air Radio Communications: Only Peruvian nationals or juridical persons organized under Peruvian law and domiciled in Peru may be authorized or licensed to offer free-to-air radio communications.
  Foreign nationals may not own more than 40 percent of the total shares or equity interest in such a juridical person and must be owners or shareholders or hold an equity interest in a radio or television broadcast enterprise in the country of origin.
- ✓ Air Transport: National commercial aviation sevice is reserved to a Peruvian natural juridical person. National Commercial Aviation Service includes specialty air services. For these purposes, a Peruvian juridical person is an enterprise where at least 51% of the capital must be owned by Peruvian nationals and be under the real and effective control of Peruvian shareholders or partners permanently domiciled in Peru. (This limitation shall not apply to enterprises constituted under Law N° 24882, which may maintain the ownership percentages set in such law). Six months after the date of authorization of the enterprise to provide commercial air transportation services, foreign nationals or foreign citizens may own up to 70 percent of the capital of the enterprise.
- ✓ Merchant Marine: Only a National shipowner or National Ship Enterprise may supply maritime cabotage services. At least 51% of the paid-in capital must be owned by Peruvian citizens.

4.2.2 BILATERAL INVESTMENT AGREEMENTS

Peru has signed 33 reciprocal investment promotion and protection agreements (with Argentina, Australia, Belgium, Bolivia, Canada, Chile, China, Colombia, Cuba, the Czech Republic, Denmark, Ecuador, El Salvador, Finland, France, Germany, Italy, Japan, the Republic of Korea, Luxembourg, Malaysia, the Netherlands, Norway, Paraguay, Portugal, Romania, Spain, Singapore, Sweden, Switzerland, Thailand, the United Kingdom and Venezuela[48]).

Peru includes basic principles in terms of promotion and protection of investments in its bilateral investment agreements.

Peru has also included an investment chapter in most of its preferential trade agreements: Canada, Chile, China, Costa Rica, the Republic of Korea, Mexico, Panama, Singapore and the United States. In addition, under Decision 291 of the CAN, Peru guarantees national treatment to intra-regional investments.

Peru has agreements in force for the avoidance of double taxation and the prevention of tax evasion with Brazil, Canada, Chile and with the CAN (Bolivia, Colombia and Ecuador - Decision 578).

Peru is a member of the International Centre for Settlement of Investment Disputes (ICSID) and the Multilateral Investment Guarantee Agency (MIGA).

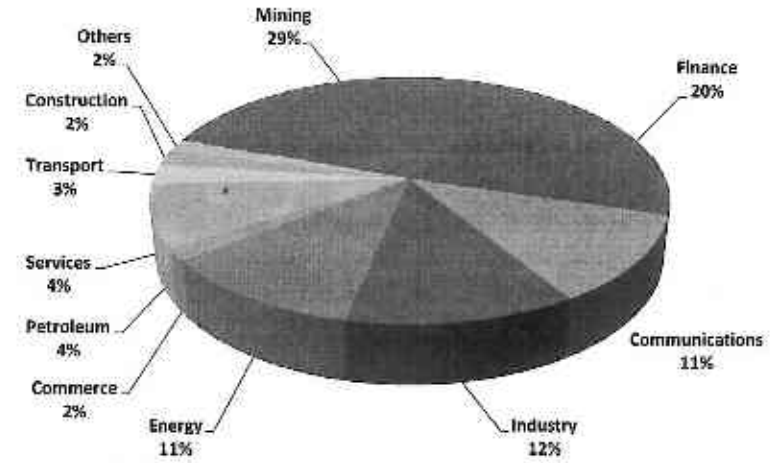
[48] Only the agreement with Singapore is not in force.

4.2.3 FOREIGN DIRECT INVESTMENT (FDI) PROFILE

According to the Central Bank of Peru, the total stock of FDI reached US$ 92,922 million between 1980 and 2014. The main country sources of capital investment in Peru were Spain (19%), United Kingdom (17%), United States (14%), the Netherlands (7%), Chile (6%) and Brazil (5%).

During 2000-2014, the Mining and Finance sectors were the main recipients of FDI flows, concentrating 29% and 20%, respectively, of total FDI. The remaining FDI flows were distributed in industry (12%), communications (11%), energy (11%), petroleum (4%) and other services (4%), among others.

Figure 33 - Inward FDI Stock by economic sector, 2000-2014



Source: PROINVERSION

CHAPTER 5 TRADE POLICY

5.1 PERSPECTIVE OF INDIA

5.1.1 INTRODUCTION

The chapter[49] will dwells into issues that are directly related to Trade policy of India. These are issues like the approach towards multilateralism (WTO) verses regionalism; tariff, tariff quotas and other charge; quantitative restrictions, controls and licenses; customs procedures; antidumping, subsidy and safeguard measures; technical regulations and standards and sanitary and phytosanitary regulations.

5.1.2 WTO MATTERS AND INDIA

India is an original Member of the WTO and provides MFN treatment to all Members and other trading partners. It accepted the Fourth and Fifth Protocols of the GATS. India is a strong advocate of the multilateral trading system and has historically been party to few regional trade agreements. However, despite India's reservations, regionalism has increasingly become an element of its overall trade policy objective of enhanced market access for its exports. This is evidenced by the 15 agreements currently in force and its involvement in the negotiation of other agreements. The recent Foreign Trade Policy 2015 to 2020 emphasised that signing an FTA is the beginning, not the end of the process. Recognising that it is important to review whether the concessions under these agreements are being gainfully utilised and have resulted in meaningful market access gains, an 'Impact Analysis' of FTAs has been instituted. India has always stood for a transparent, equitable, inclusive, predictable, non-discriminatory and rules based international trading system. In this context, India's trade agreements may be seen as a measured and calibrated exposure of the Indian economy to international competition.[50]

5.1.3 INDIA'S PREFERENTIAL TRADE AGREEMENTS (PTAS)/FREE TRADE AGREEMENTS (FTAS)

a) ASEAN – India FTA
b) Asia Pacific Trade Agreement (APTA)
c) Chile – India - PTA
d) Global System of Trade Preferences (GSTP)
e) India – Afghanistan PTA
f) India – Bhutan Trade Agreement
g) India – Japan CEPA
h) India – Malaysia CECA
i) India – Nepal Trade Treaty

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[49] The author has drawn substantial portions of the chapter from the Trade policy Review of India prepared by the WTO Secretariat. These have been further substantiated with inputs by the author from Indian ministries and Centre for WTO Studies databases.

[50] 2015, Government of India, 'HANDBOOK OF PROCEDURES [1st April, 2015 – 31st March, 2020]', Ministry of Commerce and Industry Department of Commerce, p.66, April.

j) India – Singapore CECA
k) India - Sri Lanka FTA
l) India-Korea CEPA
m) India-Thailand Early Harvest Scheme (EHS)
n) India- MERCOSUR PTA
o) Agreement on South Asian Free Trade Area (SAFTA)
p) South Asian Preferential Trade Arrangement (SAPTA)

5.1.4 TARIFF, TARIFF QUOTAS AND OTHER CHARGES

During the period of 1995 to 2014, India continued its efforts to liberalise and facilitate trade, such as through the introduction of self-assessment in customs procedures and the elimination of state-trading requirements for some agricultural products. Nonetheless, the tariff structure remained simple when compared to other developed countries but the simple average MFN tariff rate were comparably higher than that of Peru.

India is maintaining ad valorem tariff across all the agricultural tariff lines with the exception of two tariff lines. Further, it has some non-ad valorem tariff largely concentrated in textiles and clothing sector which is under the industrial tariff lines.

Table 35 - India's tariffs and imports: Summary and duty ranges

Summary		Total	Ag	Non-Ag	WTO member since	1995	
Simple average final bound		48.6	113.5	34.6	Binding coverage:	Total	74.4
Simple average MFN Applied#	2015	14.9	n.a	n.a		Non-Ag	70.5
Simple average MFN applied	2013	13.5	33.5	10.2			
Trade weighted average	2012	7	51.6	5	Ag: Tariff quotas (%)	0.9	
Imports in billion US$	2012	479.5	20.5	459	Ag: Special safeguards (%)	0	

Source: Author based on TAO India's Tariff Profile of 2014.
Note: # calculated based on the August 01 2015 updated file.

Imports faced an average simple applied tariff of 13.5 percent in 2013 and weighted average tariff was 7 percent[51]. Agricultural goods faced a higher tariff in terms of simple average tariff of 33.5 percent and weighted average at 52 percent. On the other hand, industrial goods had lower average applied rate of 10.2 percent and weighted applied tariff of 5 percent. Across all the tariff lines, India's total binding coverage is 74.4 percent, with non-agricultural lines having coverage of 70.5 percent of NAMA lines- 100 percent of the agricultural lines are bound in the Uruguay Round. Agricultural tariff lines had some application of tariff quota suggesting a coverage of 0.9 percent tariff lines – the products were like, skimmed milk and creams, maize, crude sunflower, rape, colza or mustard oils, natural rubber and butter and other fats.

India bound and applied tariff on imports by products groups are shown in Table 36 and Figure 34.

[51] The weighted applied tariff was for the year 2012.

Table 36 - India's Tariffs and imports by product groups

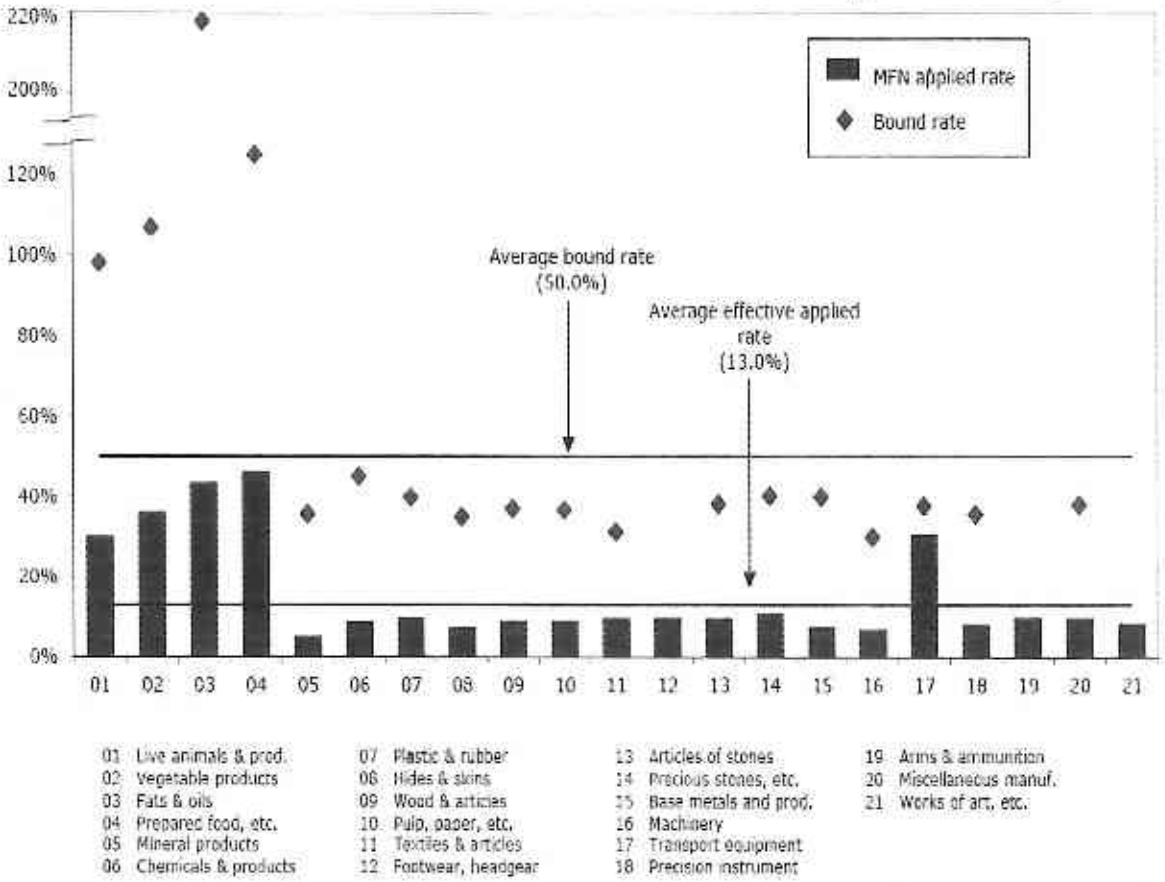
Product groups	Final bound duties				MFN applied duties			Imports	
	AVG	Duty-free in %	Max	Binding in %	AVG	Duty-free in %	Max	Share in %	Duty-free in %
Animal products	106.1	0.0	150	100	31.1	0.0	100	0.0	0.0
Dairy products	65.0	0.0	150	100	33.5	0.0	60	0.0	0.0
Fruit, vegetables, plants	100.1	0.0	150	100	30.8	1.0	100	1.0	19.9
Coffee, tea	133.1	0.0	150	100	56.3	0.0	100	0.1	0.0
Cereals & preparations	115.3	0.0	150	100	31.3	15.4	150	0.0	7.0
Oilseeds, fats & oils	169.7	0.0	300	100	37.4	0.0	100	2.4	23.9
Sugars and confectionery	124.7	0.0	150	100	35.9	0.0	60	0.1	0.0
Beverages & tobacco	120.5	0.0	150	100	69.1	0.0	150	0.1	0.0
Cotton	110.0	0.0	150	100	6.0	80.0	30	0.1	99.9
Other agricultural products	104.8	0.0	150	100	22.5	13.2	70	0.4	5.8
Fish & fish products	100.7	0.0	150	11.1	29.9	0.1	30	0.0	2.8
Minerals & metals	38.3	0.4	55	61.3	7.6	0.5	10	34.1	10.3
Petroleum	-	-	-	0.0	4.9	18.5	10	31.2	96.8
Chemicals	39.6	0.1	150	89.0	7.8	0.5	10	8.0	2.5
Wood, paper, etc.	36.4	0.0	40	64.2	9.0	4.0	10	1.6	2.7
Textiles	27.8	0.0	129	69.9	12.2	0.0	118	0.9	0.0
Clothing	37.5	0.0	58	58.4	13.0	0.0	65	0.1	0.0
Leather, footwear, etc.	34.6	0.0	40	51.6	10.2	2.5	70	0.9	0.1
Non-electrical machinery	28.6	6.3	40	95.4	7.1	4.7	10	7.5	20.3
Electrical machinery	27.8	24.6	40	93.5	7.3	16.7	10	5.9	50.0
Transport equipment	35.7	0.0	40	70.0	21.7	3.7	100	3.6	1.9
Manufactures, n.e.s.	34.0	13.5	40	43.9	8.8	5.7	10	2.0	19.3

Source: Author based on WTOs Tariff Profile.

India highest bound rates were above 100 percent in agricultural sector (sections 1 to 4), however, the applied rates for the same category were not above 50 percent. While in the case of non-agriculture sector it was high in chemical and textiles, see Table 34.

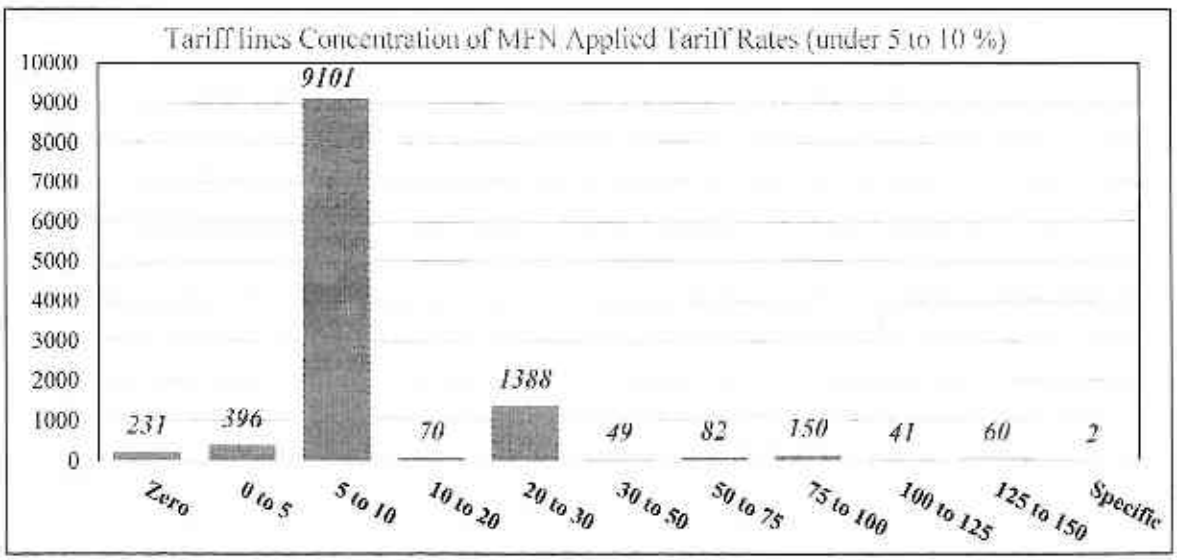
Over all India has been maintaining an average bound rate of 50 percent see Figure 34. However, the average effective applied rate is 13 percent. The chapters live animals, vegetable products, oil and fats and prepared food stuffs have been highly protected by the use of applied tariffs (nearly all Ad Valorem). In the non-agricultural sector it was transport equipment in which India is maintaining high protection in terms of both the bound and applied tariffs.

Figure 34 - India's Section-wise Bound, Average bound Rates and Effective Applied Rates for Imports



Note: Calculations exclude specific rates and include the ad valorem part of alternate rates. Only section 2 is fully bound; sections 12, 19 and 21 are fully unbound.
Source: TPR of India prepared by the WTO Secretariat Report. Data- Indian authorities.

Figure 35 - India's MFN Applied Rates Tariff Profile (Range–wise) on Imports, 2014-15

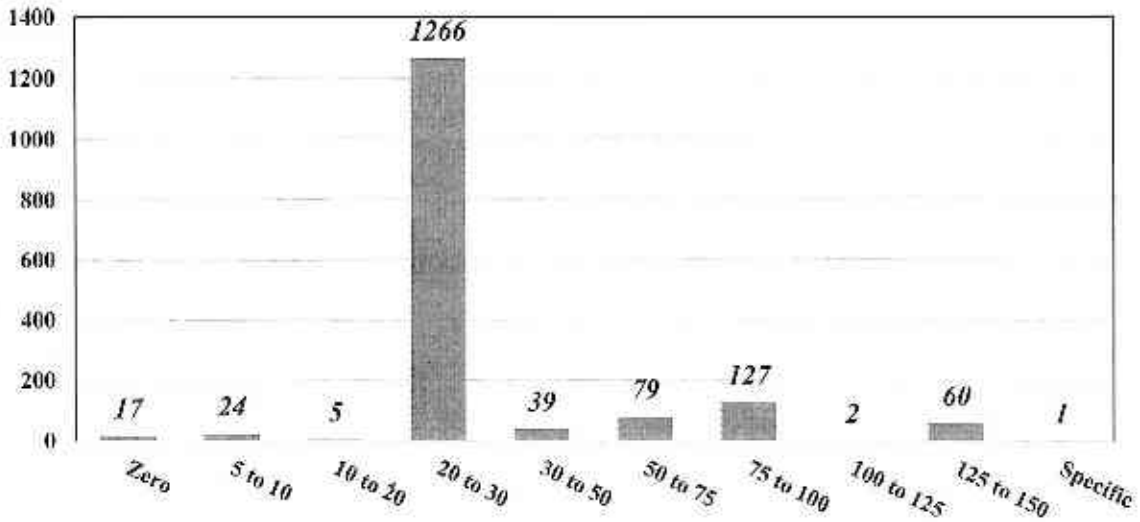


Source: Calculated by Author based on India's Custdata.

Out of the total tariff lines of 11,570 tariff lines under HS 2012 nomenclature, India has the largest concentration of 9,101 tariff lines within a range of 5 to 10 percent tariff. This range accounted for nearly 79 percent of the total tariff lines. The second important MFN applied tariff range is 20 to 30 percent which has nearly 12 percent shares and with 1,388 tariff lines. Nearly 92 percent of this category is accounted by the agricultural products, see Figure 36.

Figure 36: Applied MFN Tariff in terms of Agricultural (2014-15)

Concentration of applied tariff rates (20 to 30%)



Source: Calculated by Author based on India's Custom data

In the agricultural Sector (chapter 01 to 24) the largest concentration of tariff lines at eight digit can be seen in the category of 20 to 30 percent MFN applied tariff range.

5.1.5 TRQs UNDER THE WTO AND FTAs/CECAs

Government of India from time to time, undertakes commitments for import under Tariff Rate Quota (TRQ) under the WTO and its various FTA/CECA. Accordingly, DGFT notifies the procedure for administration of TRQ from time to time. The TRQs as they exist under these are:

Table 37 - TRQ under the Multilateral and Preferential Agreements

WTO/FTA/CECA	S.N.	Products
WTO (Multilateral)[1]	1	Skimmed Milk Powder
	2	Maize
	3	Crude Sunflower seed oil
	4	Rape, Colza or Mustard oil
	5	Butter and other fats
Sri Lanka[1]	1	Vanaspati, bakery shortening and margarine
	2	Pepper
	3	Desiccated coconut
	4	Articles of apparels and clothing's
	5	Tea
Nepal[1]	1	Vegetable fats
	2	Acrylic yarn

	3	Copper products
	4	Zinc oxide
ASEAN[2,3]	1	No TRQs
Korea[3]	1	No TRQs
Japan[3]	1	No TRQs

Sources:
1) Handbook of Procedures, (1st April 2015 – 31st March 2020), GoI, Ministry of Commerce and Industry, Department of Commerce, pp. 45-46 & 69-71.
2) web based news paper articles like: a) http://www.business-standard.com/article/economy-policy/asean-india-fta-hits-roadblock-106042601026_1.html; b) http://articles.economictimes.indiatimes.com/2006-04-07/news/27423155_1_asean-india-fta-asean-india-free-trade-agreement-sensitive-farm-products; c) http://www.indiainfoline.com/article/news-sector-others/economics-for-everyone-going-global-india-asean-fta-113111401606_1.html
3) Based on the original text of preferential agreement.

TRQs on these products were imposed by India after a renegotiation with the bilateral partners as there was a surge observed in imports during the post FTA period and most of these products were mainly non-originating products of the bilateral partners (for example Sri Lanka and Nepal).

5.1.6 QUANTITATIVE RESTRICTIONS, CONTROLS AND LICENSES

In 1997, India maintained quantitative restrictions on imports of products falling in 2,714 tariff lines at the eight-digit level of HS96 for which it claimed balance-of-payments justification. These restrictions had been notified to the Committee on Balance-of-Payments Restrictions in May 1997 in the course of consultations being held with India. During the simplified consultations held on 15 November 1994, the Committee appreciated the courage and sagacity with which India had carried out its economic reform program. It encouraged India to continue implementing its import liberalization programme. The Committee noted that, if the balance of payments showed sustained improvement, India's aim was to move to a regime by 1996-1997, in which import licensing restrictions would only be maintained for environmental and safety reasons. Members of the Committee welcomed the significant improvement in India's balance-of-payments situation since the last consultation but recognized that it remained volatile[52].

Table 38 - Import Prohibitions as per the Foreign trade Act 1992[53]

Chapter	Count of HS Codes (Eight Digit Codes)
2	3
4	1
5	21
15	23
35	4
43	3
85	1
96	1
Total Products Under Import Restrictions	**57**

Note: Tariff line code(s) affected, based on HS (2012)
Source: Author based on the WTO submission by India G/MA/QR/N/IND/1.

[52] WTO, 1999, 'India – Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products', **Report of the Panel**, WT/DS90/R, 6 April, p.2.

[53] WTO, 2014, 'Notification Pursuant to the Decision on Notification Procedures for Quantitative Restrictions (G/L/59/REV.1)', Committee on Market Access, G/MA/QR/N/IND/1, 10 June.

As per the latest Foreign Trade Policy Section 5 of the Foreign Trade (Development & Regulation) Act, 1992 is the relevant national legislation and the latest supplement of the Foreign Trade Policy has come into force w.e.f. 5th June, 2012. There are 58 products at HS eight digit level which are under import prohibition/restricted.

India has liberalised it regime from 2714 to 57 products at eight digits over a period of two decades (1996 to 2015).

5.1.7 CUSTOMS PROCEDURES

India's customs procedures have been streamlined to meet utmost standards existing today across different countries, to achieve this level of standards in the customs procedures some of main changes have been to include the adoption (2011) of self-assessment with a view to facilitating trade.54 In accordance with Sections 17, 18 and 50 of the Customs Act 1962 and the Bill of Entry (Electronic Declaration) Regulations 2011, and Shipping Bill (Electronic Declaration) Regulations 2011, importers/exporters are required to declare the correct description, value, classification, notification number (if any), and assess the Customs duty leviable (if any) on imports/exports themselves. The declaration may be reassessed or examined by Customs officers. Non-compliant importers/exporters may face penal action on account of wrong self-assessment made with intent to evade duty or avoid compliance of conditions of relevant legal and administrative provisions.

With a few exceptions, importers- Indian or foreign nationals- must obtain an importer-exporter code (IEC) number by registering with the Directorate General of Foreign Trade (DGFT) in order to be able to import commercially. Online registration is available. Imports into India can be classified as: imports for home consumption, warehousing, transhipment, transit, re-importation, and imports for special economic zones (SEZs). All imports for home consumption require clearance of goods after payment of the duties and charges. Importers must file a bill of entry, which may be processed manually or through the electronic data interchange system. As at end October 2014, 126 customs offices out of the total of 377 offices had electronic data interchange (EDI) facilities; about 98% of declaration documents were processed electronically.[55] The bill of entry may be filed prior to the arrival of the goods to allow for faster clearance, but no earlier than 30 days before the arrival date of the vessel or aircraft carrying the goods.

India uses a risk management system (RMS) as a trade facilitation measure to selectively screen only high and medium-risk cargo for customs examination. As at end October 2014, about 97.6% of India's imports were processed via RMS.[56] The authorities indicate that RMS for processing imports is operational at almost all customs offices.

Importers with a good track record and complying with qualifying criteria are entitled to be accredited for special clearance procedures under the Accredited Client's Programme (ACP). As at 31 October 2014, 251 ACP importers were allowed to self-assess their consignments with no need for examination, with a view to meeting India's commitments to simplify and harmonize Customs' procedures under the revised Kyoto Convention.

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54 Central Board of Excise & Customs, "Customs Manual on Self-assessment 2011". Viewed at: http://www.cbec.gov.in/deptt_offcr/cs-self-assesmt2011-manual.pdf.

55 As indicated in the Trade policy Review of India 2015.

56 In 2011, RMS was available at 60 customs offices covering 99.6% of the total imports. WTO document WT/TPR/M/249/Add.1, 14 October 2011.

To import specific goods, in certain instances, certificates of registration and import permits (e.g. certificates of origin and sanitary and phytosanitary certificates) issued by different agencies are required. These certificates must be submitted at the time of filing the bill of entry.

Regarding time required for customs clearance, the mean evacuation time for import consignments at Chennai Port was 8 days and 19 hours, according to a study conducted by the Central Board of Excise and Customs. The authorities consider that the introduction of EDI, RMS, e-Payment, the ACP as well as direct delivery of containers at the port rather than clearing them after being brought to the container freight stations, and a provision for self-assessment contributed to the reduction of customs clearance time.

If the importer is not satisfied with the assessment (i.e. the classification, rate of duty or valuation) by the customs officer, the importer may appeal against a decision made in writing by an officer ("assessment order") to the Appeals Commissioner or the Customs, Excise, and Service Tax Appellate Tribunal (Customs Act 12962, Sections 128-129). In 2013-14, 11,649 and 1,992 appeals were submitted to the Commissioner and the Tribunal, respectively (compared with 8,286 and 2,518 appeals, respectively, in 2012-13).

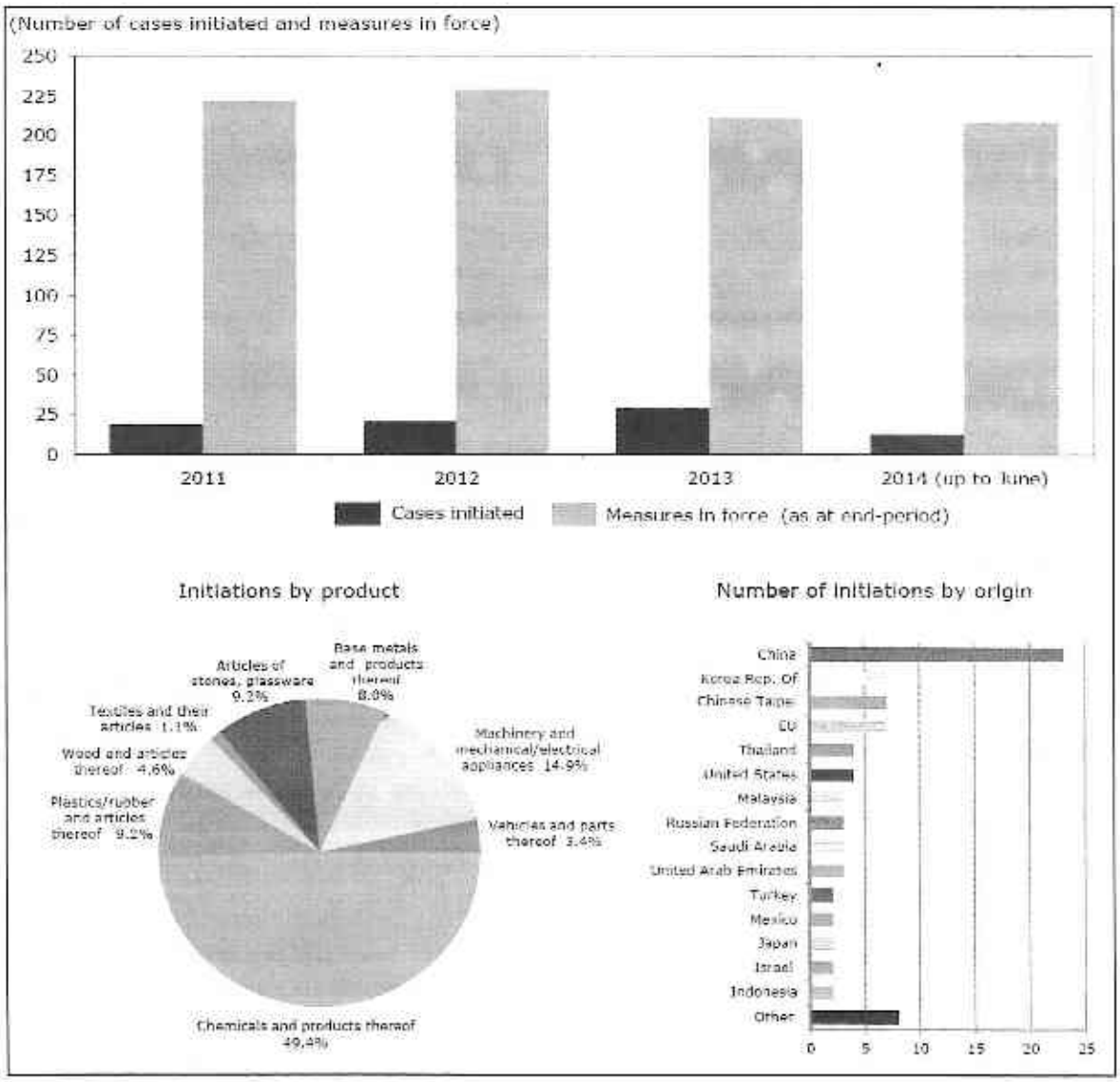
5.1.8 ANTIDUMPING, SUBSIDY AND SAFEGUARD MEASURES

In terms of anti-dumping measures (2011 and 2014) India initiated 82 anti-dumping investigations against 23 trading partners (Figure 37). The authorities state that anti-dumping investigations are initiated and conducted in accordance with the established rules under relevant legislation. India's anti-dumping legislation is contained in the Customs Tariff Act 1975, as amended by the Customs Tariff (Amendment) Act 1995, and the Customs Tariff (Identification, Assessment and Collection of Anti-Dumping Duty on Dumped Articles and for Determination of Injury) Rules 1995.[57]

Some significant changes were made to India's anti-dumping legislation. These changes include: (i) adjustments to the rules governing mid-term and sunset reviews; (ii) changes to the definition of domestic industry to bring in flexibility[58]; (iii) new rules defining situations that are considered to represent the circumvention of anti-dumping duties, and providing for anti-circumvention investigations to address such circumvention; and (iv) elaboration of a refund procedure applicable where an importer considers that the amount the duty paid is in excess of actual margin of dumping. The authorities state that these changes were adopted mainly to bring clarity and to align them with provisions of the WTO Agreement. These involved amendments to the Customs Tariff (Identification, Assessment and Collection of Anti-Dumping Duty on Dumped Articles and for Determination of Injury) Rules 1995 in March 2011[59] and in January 201260.

[57] WTO documents G/ADP/N/1/IND/1, 15 August 1995; G/ADP/N/1/IND/2/Corr.1, 9 January 1996; and G/ADP/N/1/IND/2/Suppl.1, 23 December 1996.
[58] Customs Notification (non-tariff) No. 86/2011, 1 December 2011.
[59] WTO document G/ADP/N/1/IND/3, 19 October 2011.
[60] WTO document G/ADP/N/1/IND/4, 1 March 2012.

Figure 37 - Anti Dumping Measures, 2011 to June 2014



Source: As cited in the WTO Secretariat Report of Trade policy Review of India, 2015.

On 1 March 2011, rules regarding the principles for determination of non-injurious price as well as mid-term and sunset reviews were notified.[61] On non-injurious price, the rules stipulate, inter alia, that to work out the non-injurious price, utilisation of raw materials, utilities, and production capacities by the constituents of domestic industry over a certain period of time must be considered, and the cost of production must not include any extra-ordinary or non-recurring expenses and salary and wages paid per employee and per month must be reconciled with the financial and cost records of the company.

On mid-term and sunset reviews, the rules stipulate that: (1) the authority must review the need for the continued imposition of anti-dumping duty on its own initiative or upon request by any

[61] Customs Notification (non-tariff) No. 15/2011, 1 March 2011.

interested party who submits positive information substantiating the need for such review, and a reasonable period of time has elapsed since the imposition of the definitive anti-dumping duty and upon such review, the authority must recommend to the central Government for its withdrawal, where it comes to a conclusion that the injury to the domestic industry is not likely to continue or recur, if the anti-dumping duty is removed or varied and is therefore no longer warranted; and (2) any definitive anti-dumping duty must be effective for a period not exceeding five years from the date of its imposition, unless the designated authority comes to a conclusion on a review initiated before the end of that period that the expiry of the anti-dumping duty is likely to lead to continuation or recurrence of dumping and injury to the domestic industry.

On 19 January 2012, rules regarding the determination of the amount paid in excess of the actual margin of dumping and circumvention of anti-dumping duty were issued.The rules stipulate inter alia that if an importer considers that he/she has paid any anti-dumping duty imposed in excess of the actual margin of dumping, he/she may file an application for determination of the actual margin of dumping before the authority; various specific procedural rules and principles concerning the calculation of such margin are also stipulated. The rules also provide definitions of circumvention of anti-dumping duty. In addition, rules regarding refund of anti-dumping duties paid in excess of actual margin of dumping were issued on the same date. Under the rules, an importer who has paid any anti-dumping duty in excess of the actual margin of dumping in relation to any imported goods may submit an application to the authorities to claim refund. The application will be scrutinized by the authorities for a refund, which must be made within 90 days of the receipt of the application if the authorities find the application satisfactory.[62]

Under Article 5 of the Customs Tariff Rules, anti-dumping investigations can be initiated by the Directorate General of Anti-Dumping and Allied Duties (DGAD), in the Department of Commerce, upon a written application by or on behalf of domestic industry, or on its own initiative if there is justification to launch an investigation. The authorities state that, during the review period, no anti-dumping investigations were initiated by the DGAD *suo moto*; all investigations were initiated based on applications by or on behalf of domestic industries. An application is scrutinized by the DGAD to ensure it is adequately documented and provides sufficient evidence for initiation. If the evidence is not adequate, a "deficiency letter" is issued. For an investigation to be initiated the petitioners must account for at least 25% of total domestic production of the like article; and the domestic producers expressly supporting the application must account for more than 50% of the total production of the like article by those expressly supporting and opposing the application. Dumping per se is not actionable. For a petition to proceed, the DGAD must examine the accuracy and adequacy of the evidence provided and determine that there is sufficient evidence of dumping, injury, and causal link between the dumped imports and alleged injury, before initiating an investigation. In addition, other injury causes have to be investigated so that they are not attributed to dumping.

The DGAD informs the government of the exporting country, and issues a public notice with details of the initiation and the time-limits for interested parties to provide comments. The public notice is usually issued within 45 days of receipt of documentation, and the time limit for interested parties to express their views is a further 40 days. A preliminary finding regarding export price, normal value, and margin of dumping is normally issued in a public notice within 150 days of initiation, following which the Department of Revenue in the Ministry of Finance may

[62] Customs Notification (non-tariff), No. 5/2012, 19 January 2012.

decide to impose a provisional duty not exceeding the margin of dumping. The provisional duty may be imposed after the expiry of 60 days from the date of initiation of the investigation. It may remain in force for a period not exceeding six months, extendable to nine months upon the request of exporters representing a significant percentage of trade. The final determination is normally made within 150 days of the date of the preliminary determination, and within one year from the initiation of the investigation. This period may be extended by the central Government by a maximum of six months under special circumstances, which include the complexity of the case and judicial intervention by courts.

The dumping margin for each exporter or producer is determined by the DGAD. Following this, the Department of Revenue may, within three months of publication of the final findings, impose the anti-dumping duty by notifying it in the Official Gazette. Under the law, the Government is obliged to restrict the anti-dumping duty to the lower of the margin of dumping or the margin of injury.

Indian legislation provides for levying anti-dumping duty retrospectively, where it is deemed that there is a history of dumping that caused the injury or when the injury is caused by massive dumping, in a relatively short time. The retrospective application may not go beyond 90 days of the date of imposition of a provisional duty. No retrospective application prior to the date of initiation of an investigation is allowed. The authorities state that no retrospective application of duties took place during the period under review.

An investigation may be terminated by the DGAD at any time if: there is a written request from or on behalf of the domestic industry;[63]; there is insufficient evidence of dumping or injury; the injury is negligible; the margin of dumping is less than 2% of the export price; or the volume of the dumped imports is less than 3% of imports of the like product, unless the countries accounting for less than 3% individually account for over 7% collectively of imports of the like product.

Rules to initiate and conduct a sunset review (SSR) are contained in Trade Notice No.1/2008 of 10 March 2008 as modified by Customs (non-tariff) Notification No. 15/2011 of 1 March 2011. An SSR may be initiated upon petition of the domestic industry or may be self-initiated by the DGAD. Under the new rules of 1 March 2011, an SSR must be initiated within a "reasonable period of time" prior to the expiry of the five-year period from the date of its imposition. In accordance with trade notice No. 2/2011 of 6 June 2011, the domestic industry must submit an application on the need to keep the anti-dumping measures in force; the application must be received by the DGAD at least 90 days before the date of expiry of the anti-dumping measures. The DGAD may then initiate the SSR on the basis of the domestic industry's application. If the DGAD decides to self-initiate the investigation, it must issue a questionnaire to the domestic industry; comments must be received by the DGAD within the following 40 days substantiating the need for the continued imposition of the anti-dumping measures. After receipt of the questionnaire, the DGAD may issue a letter to other interested parties regarding the need to continue or otherwise the AD measures; comments must be received by the DGAD within 40 days of the date of issuance of the letter. If there is sufficient ground for continuation of the anti-dumping measures (with or without modification) after receipt of information from various parties, the DGAD may recommend this to the central Government. The investigation is closed if there is insufficient ground for continuation

[63] Rule 14 of the Customs Tariff (Identification, Assessment and Collection of Antidumping Duty on Dumped Articles and for Determination of Injury) Rules, 1995 contains provisions regarding termination of anti-dumping investigations. Department of Commerce online information. Viewed at: http://commerce.nic.in/traderemedies/compendium/comp2.pdf.

of the measure in force. The new procedures superseded all previous instructions or trade notices issued by the DGAD with regard to sunset reviews.

The DGAD conducts mid-term reviews in accordance with Section 9A of the Customs Tariff Act and Rule 23 of the Customs Tariff (Identification, Assessment and Collection of Anti-Dumping Duty on Dumped Articles and for Determination of Injury) Rules, 1995, as modified by Customs (non-tariff) Notification No. 15/2011 of 1 March 2011, to assess the need for continued imposition of anti-dumping duties. These reviews may be self-initiated or on request from an interested party who submits positive information substantiating the need for such review, and a reasonable period of time has elapsed since the imposition of the definitive anti-dumping duty. The review follows the same procedures prescribed for an investigation to the extent that they are applicable. An application for initiation of a mid-term review of an anti-dumping duty in force may be made to the DGAD by an interested party including exporters, importers, domestic producers, trade representative bodies, firms or institutions, which are representative of the domestic industry.[64] The applicant must submit positive information substantiating the need for a review. The application for a mid-term review may be accepted by the DGAD provided that a reasonable period of time, i.e. at least one year, has elapsed since the imposition of the definitive anti-dumping duty. However, the DGAD may review the need for the continued imposition of the duty, where warranted, on its own initiative.

The DGAD is required to carry out a review for determining margins of dumping for any new exporter or producer from a country that is subject to anti-dumping, provided that exporters or producers are new and not related to any of the other exporters.

The authorities may suspend or terminate an investigation if the exporter concerned accepts an undertaking to revise prices in order to remove the dumping or the injurious effect of dumping. No undertaking is accepted before a preliminary determination is made. The authorities indicate that no request for price undertaking was accepted by Designated Authority during the period under review.

Anti-dumping duty is not payable on products imported by units in special economic zones (SEZs) or export-oriented units (EOUs), or on products imported under the Advance Authorization Scheme. The final anti-dumping duty paid on imported goods used in the manufacture of export goods may be refunded as brand rate of duty drawback in accordance with the drawback rules.[65]

There has been no change in India's legislation regarding countervailing measures since its previous Review. Countervailing measures may be imposed under the Customs Tariff Act 1975 (Part 9) and the Customs Tariff (Identification, Assessment and Collection of Countervailing Duty on Subsidized Articles and for Determination of Injury) Rules 1995. Investigations can be initiated only after an application is submitted before the authority, and in the event the authority finds prima facie evidence of subsidy, injury and a causal link between the subsidized imports and alleged injury to the domestic industry.

Appeals against anti-dumping and countervailing measures imposed by the central Government can be made under Chapter XV (Section 129) of the Customs Act 1962 to the Customs, Excise and

[64] Department of Commerce, Trade Notice No. 1/2010, 17 May 2010.
[65] WTO, 2011, Trade Policy Review: India, TPR of India Chapter III (2) (viii), Geneva.

Service Tax Appellate Tribunal (CESTAT). To date, 126 appeals have been filed against anti-dumping measures imposed by the Government.

As at 31 December 2014, the average length of an anti-dumping measure applied by India was 73.3 months (out of 208 definitive measures in force).

Between 2011 and 2014, 14 mid-term reviews and 55 sunset reviews were initiated. Out of the 14 mid-term review investigations, measures were eliminated in 3 cases, measures were re-imposed in 9 cases, and measures are still under investigation in 2 cases. Out of the 55 sunset reviews, measures were eliminated in 5 cases, measures were re-imposed in 24 cases, measures are still under investigation in 23 cases, and imposition of measures recommended is awaited in 3 cases.

No definitive countervailing measure is currently in place (December 2014). During the period under review, one countervailing investigation was initiated on casting of wind operated electricity generators from China[66].

Table 39 - Latin American Countries and Anti-Dumping Measures (1995 to 2014)

Exporter	Region (LAC)	India
Argentina	Latin American countries	
Brazil	Latin American countries	8
Chile	Latin American countries	
Colombia	Latin American countries	
Cuba	Latin American countries	
Dominican Republic	Latin American countries	
Ecuador	Latin American countries	
Guatemala	Latin American countries	
Honduras	Latin American countries	
Mexico	Latin American countries	3
Paraguay	Latin American countries	
Peru	Latin American countries	
Uruguay	Latin American countries	
Venezuela, Bolivarian Republic of	Latin American countries	
LAC Total		***11***
Rest of the World		***523***

Source: WTOs anti dumping database, https://www.wto.org/english/tratop_e/adp_e/adp_statindex_e.htm

It can be observed that India's antidumping measures were targeted at other countries which did not fall in the category of LAC. Within the LAC only two countries faced Indian anti-dumping measures and they are Mexico and Brazil.

5.1.8.1 SAFEGUARDS

The main changes brought into India's legislation regarding safeguard measures included clarification concerning the application of safeguard duties when goods with injurious prices are brought into the domestic area from SEZs or EOUs.[67]

Safeguard legislation is contained in Section 8B of the Customs Tariff Act 1975. The Customs Tariff (Identification and Assessment of Safeguard Duty) Rules 1997, and the Customs Tariff (Transitional

[66] WTO document G/SCM/N/274/IND, 10 September 2014.
[67] WTO document G/SCM/N/274/IND, 10 September 2014.

Products Specific Safeguard Duty) Rules 2002 describe the procedures for the application of safeguard measures.

The Director General (Safeguards) in the Department of Revenue is responsible for hearing the petitions and conducting investigations on safeguards.[68] A request for a safeguard investigation must be made in writing to the Director General, by or on behalf of the domestic industry. The Director General may also self-initiate an investigation upon information received from any Commissioner of Customs. If the safeguard measures are requested to be imposed for more than a year, details of efforts made or planned in order to adjust positively to import competition, including details of progressive liberalization, must be provided, under the Customs Tariff (Identification and Assessment of Safeguard Duty) Rules 1997. Thereafter, the Director General may initiate an investigation to determine the existence of serious injury or threat thereof to the domestic industry, caused by the import of an article in such increased quantities, absolute or relative to domestic production. A safeguard investigation must be completed and notified publicly within eight months of initiation of the investigation (or within the period allowed by the central Government). Recommendations of the Director General (Safeguards) are examined by an inter-ministerial body (i.e. Standing Board on Safeguards) chaired by the Commerce Secretary.

The proceedings of the Standing Board on Safeguards are not open to the public. Its views are placed before the Finance Minister for approval in respect of safeguard duties and before the Commerce Minister for imposition of quantitative restrictions. If the central Government, after conducting a safeguard investigation, is satisfied that any article is imported into India in such increased quantities and under such conditions as to cause or threaten to cause serious injury to domestic industry, it may, by notification in the Official Gazette, impose a safeguard duty on that article. The central Government may exempt any article from payment of the whole or part of the safeguard duty upon notification in the Official Gazette. The notification must include the article exempted, the quantity exempted, and the article's origin. Matters related to quantitative restrictions are conducted by the authorized officer in the DGFT in accordance with the Safeguard Measures (Quantitative Restrictions) Rules 2012.[69]

If a request is made for provisional safeguard measures, full and detailed information regarding the existence of critical circumstances and how a delay in applying the measures would cause damage difficult to repair needs to be considered. The Director General may record preliminary findings in such cases and issue a public notice. These preliminary findings are placed before the central Government through the Standing Board on Safeguards. Provisional measures may be imposed by the central Government for up to 200 days.

The duty is levied only during the period necessary to prevent or remedy serious injury and to facilitate positive adjustment. It ceases to have effect four years after the date of imposition, or for a lesser time-period as recommended. However, if the central Government is of the opinion that the domestic industry has taken measures to adjust to the injury or threat thereof and that the safeguard duty remains necessary, it may extend the period of imposition, up to a maximum of ten years from first imposition of the duty. A safeguard measure in place for more than one year must be liberalized progressively at regular intervals.

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[68] The Director General is also responsible for carrying out recommendations under the Indo-Singapore Trade Agreement (Safeguard Measures) Rules 2009.

[69] WTO document G/SG/N/1/IND/3/Suppl.1, 25 September 2012.

In accordance with the Foreign Trade (Development and Regulation) Amendment Act 2010 (No. 25 of 2010), safeguard measures can take the form of duty surcharges or quantitative restrictions[70] Such quantitative restrictions may not be applied on imports of goods originating from a developing country if the share of imports does not exceed 3%, or on imports of goods originating from more than one developing country so long as the aggregate of imports from all countries does not exceed 9% of the total imports of such goods into India. The public notice recording the final findings under Rule 9(3) of the Act is published in the Official Gazette.

The authorities state that India notifies the WTO Committee on Safeguards as per Article 12.1 of the WTO Agreement on Safeguards regarding the initiation of safeguard investigation, making a finding of serious injury or threat thereof and of taking a decision to apply or extend a safeguard quantitative measure under the 2012 Rules[71]

The Director General's (Safeguards) and Directorate General of Foreign Trade's decisions on safeguards cannot be appealed under the legislation, but appeals may be made to the High Court and the Supreme Court. If the period of imposition of a safeguard duty exceeds three years, the Director General must review the situation not later than the mid-term of such imposition[72].

Over 2011-14, 18 safeguard investigations were initiated. In nine of these cases, the Director General (Safeguards) recommended the application of measures. Of the nine cases, final decisions were made to impose safeguard measures consisting of an increase in tariffs at the same or lower rates than those recommended by the Director General; no safeguard measures were applied in the remaining one case.

5.1.9. STANDARDS AND TECHNICAL REGULATIONS

5.1.9.1 STANDARDS

The legal framework for standardization in India has remained largely unchanged except for the full implementation of the Food Safety and Standards Act 2006 on 5 August 2011 by way of the adoption of 6 regulations i.e. Food Safety and Standards (Licensing and Registration of Food Businesses) Regulation 2011, Food Safety and standards (Packaging and Labelling) Regulation 2011, Food Safety and Standards (Food Products Standards and Food Additives) Regulation 2011, Food Safety and Standards (Prohibition and Restriction on Sales) Regulation 2011, Food Safety and Standards (Contaminants, Toxins and Residues) Regulation 2011, and Food Safety and Standards (Laboratory and Sampling Analysis) Regulation 2011.

Standards in India are established based on the provisions of the Bureau of Indian Standards (BIS) Act 1986 and BIS Rules 1987. The BIS is responsible for formulating and enforcing standards for 14 sectors[73], and development of activities relating to certification of product and quality systems,

[70] WTO document G/SG/N/1/IND/3, 23 September 2011.
[71] WTO document G/SG/Q1/IND/12, 24 April 2013.
[72] WTO Secretariat, 2011, Trade Policy Review of India.
[73] These are: production and general engineering; civil engineering; chemicals; electro-technical; food and agriculture; electronics and information technology; mechanical engineering; management and systems; metallurgical

testing and calibration, enforcement, international cooperation, and creating awareness among consumers; other agencies are responsible for enforcement of standards (and technical regulations) in other areas. Sectoral coordination committees have been established for food processing, power, steel, automotives, textiles, and information technology, in order to develop harmonised standards at the national level. International standards are often adopted as Indian standards under the numbering system of ISO/IEC, or are harmonized with international standards in areas of India's trade interests.

There were around 19,313 Indian standards as at 25 December 2014 (compared with 18,592 as at 31 March 2010). According to the authorities, for 5,862 standards that have corresponding international standards, 5,238 (approximately 89.4%) were harmonized (i.e. aligned or identical) with corresponding international standards (compared with 84% as at 31 March 2010).

The BIS is a member of the International Organization for Standardization (ISO) and participates in ISO technical and policy-making committees. It is also a member of the International Electrotechnical Commission (IEC) and participates in IEC technical and policy-making committees. The BIS has bilateral cooperation memoranda of understanding with the national standards bodies of Afghanistan, Bangladesh, Brazil, Egypt, France, Fiji, Germany, Ghana, Greece, Iran, Japan, Mauritius, Nigeria, Oman, the Russian Federation, Slovenia, South Africa, Suriname, the United Arab Emirates, the United States, Ukraine, and Uzbekistan. It also has bilateral cooperation agreements (BCAs) on conformity assessment with the national standards body of Israel, Pakistan and Sri Lanka. BIS is a member of the South Asian Regional Standards Organization (SARSO), which was established in order to strengthen cooperation in areas of standardization and conformity assessment among the members of the South Asian Association for Regional Cooperation (SAARC). BIS is also a member of Pacific Area Standards Congress (PASC), which aims at improving the quality and capacity of standardization in economies of the pacific region and to support development of the region through the promotion of standardization.

Indian standards are formulated according to the procedures stipulated in the BIS Rules 1987 under the BIS Act 1986. A preliminary draft standard prepared by committee members is considered by the respective technical committee. Once the draft is approved by the technical committee, it is circulated among the various stakeholders and posted on the BIS website for comments. Comments should be provided within sixty days. The technical committee finalizes the draft standard taking into account these comments. The finalized standard, its revisions, amendments, and cancellation are published in the Official Gazette.

There is a scope for Peru to trade with other SAARC countries under the SARSO standards.

5.1.9.2 TECHNICAL REGULATIONS

Various laws and regulations stipulate technical regulations in India. Responsibility for the formulation of technical regulations is with the agency in charge of the respective area. The formulation of a technical regulation follows a similar process to the formulation of a standard. A draft technical regulation is sent out for comments prior to its adoption by the concerned ministry/department/organization and publication in the Official Gazette. Comments must be

engineering; petroleum, coal and related products; transport engineering; textile; water resources; and medical equipment and hospital planning.

provided within 60 days of the publication of the notice. The draft technical regulations are also notified to WTO Members for comments. Comments received on the draft are examined by the ministry concerned. If divergent comments are received, an expert group examines and considers the comments and their incorporation in the final version. The process of finalisation of draft regulations takes 6 to 12 months, including approval of the competent authority, vetting, and translation into Hindi. The final regulation (via a notification) is published in the Official Gazette giving its date of implementation; according to the authorities, it is simultaneously notified to the WTO. Amendments to technical regulations are made through a similar process, from time to time, based on industry needs or due to new scientific developments, new sanitary and environmental circumstances, and harmonization with international standards.

Under the WTO Agreement on Technical Barriers to Trade, the International Relations and Technical Information Services Department of the BIS is the national WTO-TBT enquiry point for disseminating information on standards, technical regulations, and certification. The Ministry of Commerce and Industry is responsible for implementing the Agreement.

Between 2011 and 2014, India made 11 notifications to the WTO TBT Committee.74 In the TBT Committee concerns were raised regarding, inter alia, food labelling requirements, toys and toy products, e-waste, electronics and information technology goods, and hazardous waste, and labelling requirements for Canola oil.[75]

5.1.9.3 CONFORMITY ASSESSMENT

Conformity assessment procedures in India have largely remained unchanged since its previous Review; a major exception is the adoption of a new set of rules stipulating a compulsory registration scheme under the BIS for various electronic and information technology goods under Electronics and Information Technology Goods (Requirements for Compulsory Registration) Order 2012, dated 7 September 2012 (Department of Electronics and Information Technology, Ministry of Communication and Information Technology). In addition, regulations stipulating mandatory BIS certification on various products have been introduced; these included the Steel and Steel Products (Quality Control) Order 2012 (Ministry of Steel), Pneumatic Tyres and Tubes for Automotive Vehicles (Quality Control) Order 200976 (Department of Industrial Policy and Promotion, Ministry of Commerce and Industry), and Food Safety and Standards (Licensing and Registration on Food Business) Regulation 2011 (Department of Health, Ministry of Health and Family Welfare).77

The BIS is the national certifying body. Conformity assessment procedures are regulated by the BIS Act 1986, the BIS Rules 1987, and BIS (Certification) Regulations 1988. The central Government, on grounds of public interest, notifies which articles or processes should conform to an Indian standard and should bear the BIS certification mark under a licence from BIS.78 Some 92 products

74 WTO documents G/TBT/N/IND/32/Add.2, Add.3 and G/TBT/N/IND/42-46.
75 WTO documents G/TBT/M/ series since 20 September 2011.
76 Implemented since May 2011.
77 Electronics and Information Technology Goods (Requirements for Compulsory Registration) Order, 2012, S.O. 2357 (E). Viewed at: http://deity.gov.in/content/gazattes.
78 BIS Act, Section 14.

are subject to the mandatory BIS certification mark.[79] As at 1 January 2015, there were 842 products under voluntary certification.80 According to the authorities, the requirements for the use of the BIS certification mark are the same for domestic and imported products. Besides the normal product certification scheme, the BIS also grants licences to environment-friendly products under a special scheme and awards the ECO mark to such products.

Foreign producers who wish to export products subject to mandatory certification must obtain a licence from the BIS.[81] Foreign manufacturers must set up a liaison/branch office in India to obtain a licence if the BIS has not signed a MOU with the country where the manufactured goods originate. Otherwise, foreign manufacturers may nominate an authorised representative in India responsible for checking compliance with the provisions of the BIS Act 1986, and its Rules and Regulations.[82] The applicant needs to supply the prescribed BIS application along with the application fees. Fees may be charged under the Foreign Manufacturers Certification Scheme, in place since 1999; the authorities' state that fees are fixed based on the cost of operations, and locally-manufactured products are subject to the same application fee, annual fee and unit rates as imports. Since April 2014, the renewal application fee to be paid after one year of the grant of the licence has been increased to Rs 1,000 (from Rs 500). The BIS licence is granted to the factory address at which the manufacturing takes place and the final product is tested to assess compliance with the relevant Indian standards. At the time of the grant of the licence, the user must pay an annual fee of Rs 1,000, as well as an advance minimum marking fee for the production likely to be marked. The minimum marking fee is fixed according to the product.

Licences are initially valid for one year. They can be renewed for one or two years upon application to the BIS and payment of the required fees. Products are not required to be tested at the time of renewing a licence. However, regular surveillance through random sampling is undertaken during the operation of the licence. The products are tested in BIS laboratories and in accredited laboratories, recognized by BIS, to ensure standard conformity of certified products to relevant Indian standards. If the product is found to be in non-compliance, a penalty is imposed, which may include stop-marking, deferment of licence or cancellation of licence. Once manufacturers (domestic or foreign) obtain a licence, they are allowed to self-mark their products. Products for which the BIS certification mark is mandatory may not be sold during the approval process for granting of the BIS licence.

In order to implement its certification schemes, the BIS conducts conformity testing through its central laboratory at Sahibabad (near Delhi), and four regional and three branch laboratories.[83] The major areas covered at the central laboratory are electrical, mechanical, microbiological, and chemical (testing), and electrical calibration. BIS laboratories have test facilities for most products

[79] This system is different from a new set of rules stipulating a compulsory registration scheme, mentioned in the previous paragraph. Compulsory registration scheme is for 30 electronic and information technology goods whereas the mandatory BIS certification is for 92 various other products. For items subject to mandatory certification, see BIS online information. Viewed at: http://www.bis.org.in/. The criteria for determining which products should carry the mandatory certification is based on an internal assessment of the central Government (WTO document WT/TPR/M/249/Add.1, 14 October 2011).

[80] Information provided by the authorities.

[81] Procedures for Grant and Operation of BIS Licence under Foreign Manufacturers Certification Scheme (FMCS). BIS online information. Viewed at: http://www.bis.org.in/cert/fm.htm.

[82] BIS online information, Viewed at: http://www.bis.org.in/cert/saarcfee.pdf.

[83] Except for two of the branch laboratories, all laboratories are accredited by NABL.

under the Certification Marks Scheme. In addition to the BIS laboratories, services of 145 external laboratories recognized under the BIS Laboratory Recognition Scheme are utilised.

5.1.9.4 ACCREDITATION

There have been no major changes to India's system of accreditation since its previous Review. The National Accreditation Board for Testing and Calibration Laboratories (NABL), an autonomous body under the Department of Science and Technology, is the sole accreditation body for testing and calibration laboratories in India.[84] NABL is a partner of the Asia Pacific Laboratory Accreditation Cooperation (APLAC) Mutual Recognition Arrangement and is signatory to the International Laboratory Accreditation Cooperation (ILAC). NABL's accreditation system is in accordance with ISO/IEC 17011:2004 (general requirements for accreditation of bodies accrediting conformity assessment bodies). NABL accredits laboratories that are performing tests/calibrations in accordance with ISO/IEC 17025:2005 (general requirements for the competence of testing and calibration laboratories), and ISO 15189:2007 (particular requirements for quality and competence of medical laboratories) in the case of medical laboratories. These services are accessible to all testing and calibration laboratories in India and abroad, regardless of their ownership, legal status, size, and degree of independence.

Laboratories seeking accreditation must comply with the relevant standards of accreditation as well as with NABL's specific requirements, such as successfully completing a proficiency testing programme.[85] The accreditation process consists of five stages86; and accreditation is valid for two years. NABL conducts annual surveillance visits of the accredited laboratories to verify their continued compliance with the requirements. As at December 2014, the NABL had granted 4,615 accreditation certificates; a different certificate is issued for each type of accreditation service or category. NABL accreditation covers accreditation of all branches of science, engineering and medical fields. Laboratories must apply for renewal of accreditation at least six months prior to the certificates' expiration date. Decision on accreditation may be appealed to the NABL, and may lead to an investigation; the NABL's decision is final.

5.1.9.5 CERTIFICATION

The BIS runs a Laboratory Recognition Scheme for BIS product-testing needs for certification purposes in line with IS/ISO/IEC 17025:2005 (general requirements for the Competence of Testing and Calibration Laboratories). Once laboratories are recognized under this scheme, they are subject to audits to ensure continued compliance with requirements of IS/ISO/IEC 17025 and other terms and conditions. Recognition is granted for three years, renewable for similar periods, and there are two surveillance visits during this period. As of 22 January 2015, 14,570 laboratories had been recognised under this scheme. In addition, specialized test facilities available with 46 laboratories of national eminence are also utilized as and when required.

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[84] National Accreditation Board for Testing and Calibration Laboratories online information, "Introduction". Viewed at: http://www.nabl-india.org/nabl/html/about-intro.asp.

[85] Information provided by the authorities.

[86] For more information, see National Accreditation Board for Testing and Calibration Laboratories online information, "Laboratory Accreditation". Viewed at: http://www.nabl-india.org/nabl/html/about-lab-acc.asp.

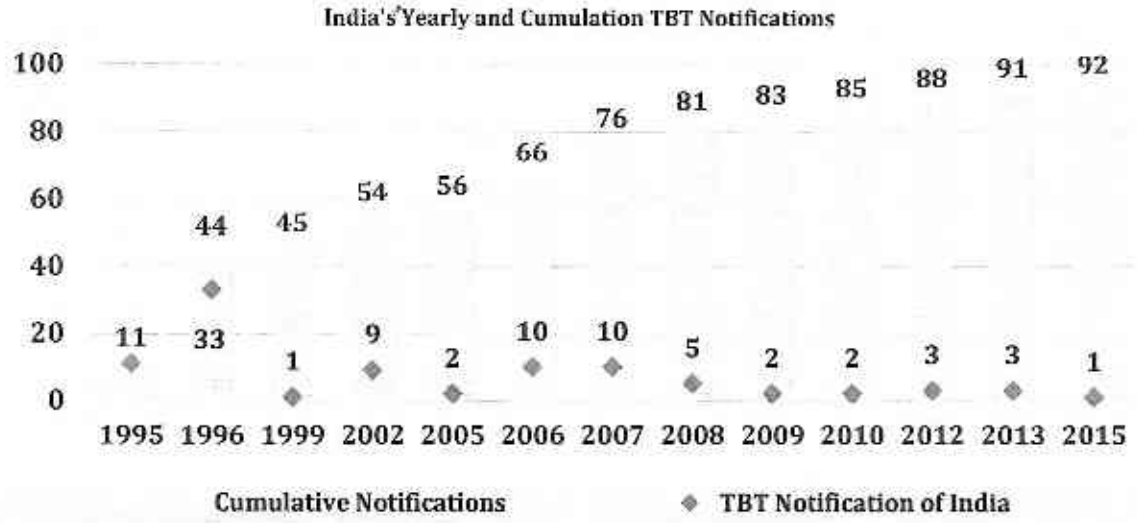
5.1.9.6 LABELING

The Legal Metrology Act 2009, the Legal Metrology (Packing Commodities) Rules 2011, and Food Safety and Standards (Packaging and Labelling) Regulations 2011 regulate labelling requirements in India.[87] There is no mandatory labelling requirement for genetically modified products. The Food Safety and Standards (Packaging and Labelling) Regulation 2011, notified on 10 July 2013, stipulates that domestic manufacturers are obliged to display the licence number and the FSSAI logo on the label from 1 January 2015. The authorities state that the Regulations are not notified to the WTO since they are not intended to be applied to India's trading partners. If relevant products are imported, importers are allowed to affix labels with respect to the licence number and FSSAI logo on the products.

Under the TBT committee, India notified to the WTO 11 notifications in the year 1995 to 3 notification on an yearly basis up to 2014 subsequently up to April of 2015 only one notification. India has shown a decrease in the number of notifications under the TBT committee.

The cumulative notifications by 2014 only stand at 91 measures which is very low for a country like India. Compared to a total TBT measures notified to the WTO by 132 members who accounted for approximately 20,000 notifications from 1995 to 2015, India's 99 notifications is relatively insignificant.

Figure 38 - TBT notification by India January 1995 to April 2015



Source: Compiled by the author based on the CWS web portal.

5.1.10 SANITARY AND PHYTOSANITARY REGULATIONS

The main changes to SPS measures in India since 2011 included the full implementation of the Food Safety and Standards Act 2006 on 5 August 2011 by way of, inter alia, adoption of four regulations related, for example, to Food Safety and Standards (Food Product Standards and Food Additives) Regulation 2011, Food Safety and Standards (Prohibition and Restriction on Sales)

[87] http://www.fssai.gov.in/GazettedNotifications.aspx

Regulation 2011, Food Safety and Standards (Contaminants, Toxins and Residues) Regulation 2011, and Food Safety and Standards (Laboratory and Sampling Analysis) Regulation 2011. In 2013, new standards on titanium dioxide in chewing gum, olive oil, and trans-fat acids in partially-hydrogenated vegetables oils were issued.[88]

The Food Safety and Standards Act (FSSA) covers, inter alia, food standards, general procedures for sampling, analysis of food, powers of authorized officers, nature of penalties and other parameters related to food. It also deals with parameters relating to food additives, preservatives, colouring matters, packing and labelling of foods, prohibition and regulations of sales. In addition to FSSA, SPS matters are governed and enforced through the Livestock Importation Act 1898, Destructive Insects and Pests Act 1914, Plant Quarantine (Regulation of Import into India) Order 2003, and Standards on Weights and Measures (Packaged Commodities) Rules 1977.

The FSSAI is intended to increase transparency of the scientific basis upon which India's SPS measures are adopted through, inter alia, harmonization with international standards. As Sections 16 and 18 of the Act prescribe, draft standards compiled by the FSSAI need to be reviewed by scientific panels. Currently, nine such panels are established, including panels on pesticide residues, contaminants, labelling, and fish and fish products, comprising experts not employed by the FSSAI. They review drafts and give opinions, which will then be reviewed by a scientific committee established under Section 8 of the Act, comprising chairs of the nine panels and other experts. The scientific committee is chaired by an eminent scientist (the current Chair is the ex-Director General of the Indian Council of Medical Research). After the scientific committee has given recommendations on the draft, the FSSAI authority (i.e. its board) gives approval to be sent to the Ministry of Health and Family Welfare for approval by the Minister. Then the draft will be sent for legal vetting by the legislative department to seek consistency with existing legislation and constitutional requirements. After the legal vetting, the draft will be sent for translation into English and Hindi. Then the draft will be notified for comments by the general public (and also notified to the Committee on SPS Measures of the WTO). Comments are considered by the FSSAI and if any changes based on scientific considerations are made, the draft will be returned to the panels and the scientific committee. Otherwise, the draft will go through ministerial approval and legislative vetting to be finalized and notified. The authorities state that, with the aim of aligning India's SPS-related standards with the Codex, the scientific review has been conducted and the formal adoption procedure of standards is continuing. In the Committee on SPS Measures, concerns were raised regarding, inter alia, import restrictions on apples, pears and citrus, import conditions for pork and pork products, and import requirements for blueberries and avocados during the period under review.[89]

The Food Safety and Standards Authority of India (FSSAI), established under FSSAI, is mandated to establish standards for articles of food and to regulate their manufacture, storage, distribution, sale and import with a view to ensuring availability of safe and wholesome food for human consumption, and contributing to the development of international technical standards for food, sanitary and phytosanitary standards. Other main institutions involved in the establishment and implementation of SPS measures are the Ministry of Health and Family Welfare, the Department of Animal Husbandry, Dairying, and Fisheries in the Ministry of Agriculture; the Directorate of Plant Protection, Quarantine and Storage in the Ministry of Agriculture and the BIS. India's national

[88] FSSAI Notifications Nos. 4/15015/30/2011, 7 June 2013; 5/15015/30/2012, 12 July 2013; and P.15014/1/2011, 27 June 2013.

[89] WTO documents G/SPS/R/ series since 8 May 2013.

enquiry points under the WTO SPS Agreement are: the Department of Animal Husbandry, Dairying, and Fisheries for animal health and related issues; the Ministry of Health and Family Welfare for food safety related issues; and the Department of Agriculture and Cooperation for plant health or phytosanitary issues. Between 2011 and 2014, India made 23 notifications to the Committee on SPS Measures.90

When FSSAI is framing standards and procedures of an SPS nature, all regulations notified under FSS regulations are sent to the WTO and also published. A total of 60 days is provided to the WTO Members and all stakeholders for comments on draft notifications. After having considered comments and after having received the approval of the Food Authority, the Ministry of Health, and the Ministry of Law, the final notification is issued to the public.

Imports of animal products into India require sanitary import permits (SIPs) issued by the Department of Animal Husbandry, Dairying and Fisheries; permits must be obtained prior to shipping from the country of origin. The Department issues SIPs for livestock products based on an import risk analysis. Permits are valid for one year or six months depending on the nature of the products, and may be used for multiple consignments. A SIP is not a licence, but a certificate verifying that India's sanitary requirements are fulfilled. Imports of live animals and animal products falling under the restricted items as per Export-Import Policy require an import licence issued by the Director General of Foreign Trade after an import risk analysis is conducted by the Department of Animal Husbandry, Dairying and Fisheries for such import. Imports of animal products are only allowed through designated ports where animal quarantine and certification services are available (Amritsar, Bangalore, Chennai, Delhi, Hyderabad, Kolkata, and Mumbai). Imports of fish products are allowed through the sea port of Vishakhapatnam (in the State of Andhra Pradesh), the sea port and airport of Kochi, and the land customs station at Petrapole (for imports from Bangladesh only).
Imports of plants and plant materials are regulated under the Destructive Insects and Pests Act 1914, the Plant Quarantine (PQ) (Regulation of Import into India) Order 2003, and international conventions. During the period under review, Plant Quarantine (Regulations of Import into India) (Second Amendment) Order 2014 and Plant Quarantine (Regulation of Import into India) (Third Amendment) Order 2014 were issued. The Directorate of Plant Protection, Quarantine & Storage is entrusted with the implementation of Plant Quarantine Regulations issued under the Act.

The authorities consider it imperative to conduct all plant quarantine inspections as per international standards/guidelines. Accordingly, the National Standards for Phytosanitary Measures for Important Activities have been developed and adopted to facilitate the export and import of agricultural commodities. To streamline plant quarantine activities, efforts have been made to fully computerize plant quarantine stations for speedy and transparent functioning. The web-based Plant Quarantine Information System (PQIS) is operational and providing online plant quarantine services.[91] Plants and plant products may only enter Indian territory through designated ports and other border points, including 39 seaports, 15 airports, 11 post offices, and 14 land frontier stations. In addition, 63 inland container depots and container freight stations are designated for import of plants and plant products.

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[90] WTO documents G/SPS/N/IND/71-93.

[91] With a view to disseminating information on plant quarantine regulations, procedures and practices, a website (http//www.plantquarantineIndia.nic.in) has been set up. All plant quarantine stations dealing with phytosanitary issues, have been linked through the website and relevant PQIS (Plant Quarantine Information System software) has been developed.

Inspection of agricultural commodities for exportation is carried out to meet the requirements of importing countries under the International Plant Protection Convention (IPPC) of FAO. As per the revised text of IPPC and the model certificate prescribed there under, phytosanitary certificates are issued. The Directorate has been working to develop the system of e-certification for phytosanitary requirements.

Plants and seeds that require post-entry quarantine are listed in Schedules V and VI of the PQ Order 2003. These plants and seeds must be grown in post-entry quarantine facilities established by and at the cost of the importer, and approved and certified by the inspection authority. The quarantine period is determined based on the type of plant material and time taken by the plant material to grow to the stage where symptoms of disease appear.

Sampling and testing of consignments to prevent the risk of exotic pests is undertaken according to the International Standards for Phytosanitary Measures No. 23 and 31.[92] If commodities are found free from pests, they are cleared for import. If not, they must undergo fumigation with the accredited fumigation operators according to Schedules V, VI, and VII of PQ Order 2003.[93] Fumigation is done at the importer's cost.[94]

Imports of GM food, feed, and organisms, and living modified organisms for R&D, food, feed, processing in bulk are governed by the Environment Protection Act 1986 and Rules 1989, unchanged since India's previous Review. India regularly participates in the activities of Codex Alimentarius. The authorities state that India intends to recognize equivalence of its trading partners' SPS measures based on Codex Guidelines, provided that it receives proposals from them; no such proposals have been received by India upto February 2015.

Under the SPS committee, India notified 6 notifications in the year 1995 to 12 notification on a yearly basis up to 2014 subsequently it notified 12 additional notifications up to April 2015. India has shown an increased activity in term of number of notifications under the SPS committee. In cumulative term the total notifications by 2014 stands at 106 measures and additionally 118 up to April 2015, however compared to similar stage of developed countries among the Asian countries the number are no match – as they are very low.

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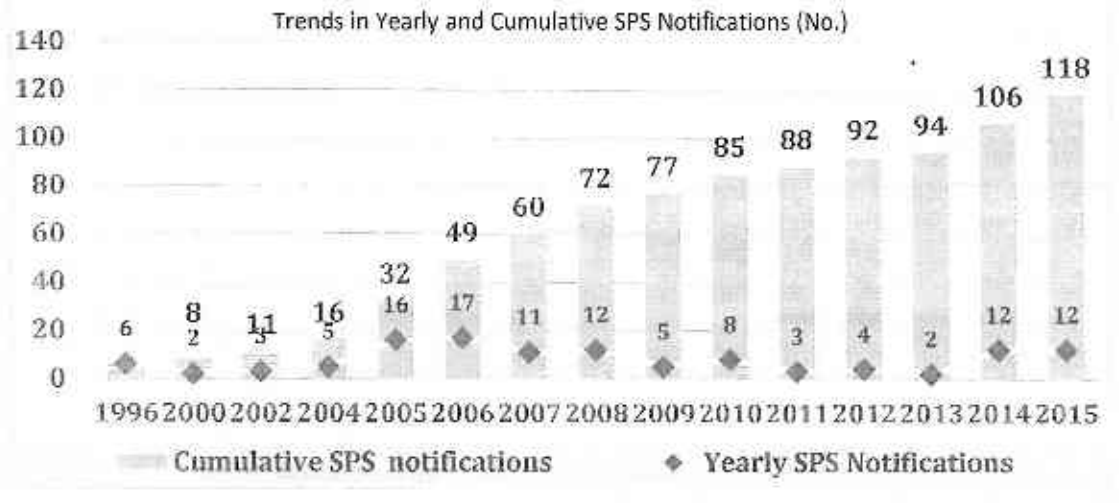
[92] Guidelines for Inspection (ISPM23)2005, and Methodologies for Sampling of Consignments (ISPM31)2009, International Plant Protection Convention. Viewed at: https://www.ippc.net/en/coreactivities/standards/ispms/#588.

[93] There are 357 registered fumigation agencies for methyl bromide fumigation and 157 for aluminium phosphide fumigation.

[94] Fumigation generally takes 24 hours with methyl bromide, and 7 to 10 days with aluminium phosphide.

Figure 39 - SPS notification by India January 1995 to April 2015



Source: Compiled by the author based on the CWS web portal.

The cumulative notifications by 2014 only stands at 118 measures which is very low for a country like India. Compared to a total TBT measures notified to the WTO by 132 members which accounted for approximately 19,500 notifications from 1995 to 2015, India's 118 notification is relatively insignificant.

Table 40 - Mutual Recognition Agreements/Conformity Assessment Procedures

PTAs	Article/Sectors
Singapore (Sep. 2007)	Chapter 5 – Standards & Sectoral MRAs in **Annex 5 A**: Telecommunications Equipment; **Annex 5B**: Food Products; **Annex 5C**: Conformity Assessment Procedures in Electrical and electronic equipment
ASEAN (Aug.2009)	None
Malaysia (Oct. 2010)	TBT – Article 7.9 -Mutual Recognition Agreements (Annex 7-2)
	SPS – Article 6.8- Certification; Article 6.9-Verification
Korea	Section C: Technical Regulations and SPS Measures ARTICLE 2.28: TECHNICAL REGULATIONS AND SPS MEASURES 1.Telecommunication equipment 2. Electrical and Electronic equipment
Japan	Chapter 5 Technical Regulations, Standards and Conformity Assessment Procedures, and Sanitary and Phytosanitary Measures Article 53 Sub-Committee on Technical Regulations, Standards and Conformity Assessment Procedures, and SPS Measures

Source: Based on original texts of various agreements.

Mutual recognition agreements (MRAs) have existed in nearly all the major preferential trade agreement which India has signed, some of these bilateral agreements had sectoral level understanding between bilateral partners.

5.1.11 RULES OF ORIGIN

Changes in India's rules of origin since 2011 include the adoption of preferential rules of origin with regard to imports from Malaysia and Japan under bilateral FTAs, which entered into force on 1 July 2011 and 1 August 2011, respectively. India does not apply non-preferential rules of origin. Preferential rules of origin are applied under regional and bilateral trade agreements (Table 39). Maximum foreign-content requirements range from 30% to 70%; other criteria to determine origin are sufficient transformation and change in tariff classification.

Table 41 - General Rules of Origin under Trade Agreements, 2015 [a]

Regional	Maximum Foreign Content Requirement	Minimum cumulative Local Content Requirement
Asia-Pacific Trade Agreement (APTA)	55% of the f.o.b. value (LDCs: 65%)	60% of the f.o.b. value (LDCs: 50%)
Global System of Trade Preferences (GSTP)	50% of the f.o.b. value (LDCs: 60%)	60% of the f.o.b. value (LDCs: 50%)
South Asian Free-Trade Area (SAFTA) [b]	60% of the f.o.b. value (LDCs: 70%; Sri Lanka: 65%) and change in tariff heading [c]	50% of the f.o.b. value (20% of the f.o.b. value as domestic value content in the exporting country) and change in tariff heading
South Asia Preferential Trade Arrangement (SAPTA)	60% of the f.o.b. value (LDCs: 70%)	50% of the f.o.b. value (LDCs: 40%)
Bilateral Afghanistan	50% of the f.o.b. value and change in tariff heading	40% of the f.o.b. value (30% of the f.o.b. value as domestic value content in the exporting country) and change in tariff heading
ASEAN [a]	65% of the f.o.b. value and change in tariff sub-heading [d]	35% of the f.o.b. value and change in tariff sub-heading
Chile	60% of the f.o.b. valued and change in tariff heading	40% of the f.o.b. value and change in tariff heading
Bhutan	n.a.	n.a.
Korea, Rep. of [b]	65% of the f.o.b. value and change in tariff sub-heading	35% of the f.o.b. value and change in tariff sub-heading
MERCOSUR	40% of the f.o.b. value	60% of the f.o.b. value
Nepal	70% of the f.o.b. value and change in tariff heading	30% of the f.o.b. value and change in tariff heading
Singapore [b]	60% of the f.o.b. value and change in tariff heading	40% of the f.o.b. value and change in tariff heading
Sri Lanka	65% of the f.o.b. value and change in tariff heading	35% of the f.o.b. value (25% of the f.o.b. value as domestic value content in the exporting country) and change in tariff heading
Thailand [e]	60% of the f.o.b. value and change in tariff heading	40% of the f.o.b. value and change in tariff heading
Japan	65% of the f.o.b. value and change in tariff sub-heading	35% of the f.o.b. value and change in tariff sub-heading
Malaysia	65% of the f.o.b. value and change in tariff sub-heading	35% of the f.o.b. value and change in tariff sub-heading
Other Preferential areas Least-developed countries	70% of the f.o.b. value and change in tariff heading	30% of the f.o.b. value and change in tariff heading

Note: a) Applicable to goods not wholly originating and subject to compliance with other conditions specified in the rules of origin chapter) Product-specific rules of origin apply, c) "Change in tariff heading" denotes change at the HS 4 digit level, d) "Change in tariff sub heading" denotes change at the HS 6 digit level, and e) Rules of origin are not covered under the India-Bhutan preferential trade agreement.

Source: Department of Commerce online information, "International Trade: Trade Agreements". Viewed at: http://www.commerce.nic.in/trade/international_ta.asp?id=2&trade=I; Customs General Exemption Nos. 70 and 71. Viewed at: http://www.cbec.gov.in/customs/cs-t-809/cs-gen66-90.pdf; and information provided by the Indian authorities.

The general rules of origin in India's FTAs have a dual criteria of value addition (VA) and change in tariff classification (CTC). The change in tariff classification (CTC) includes both the change in tariff heading (CTH) which is change at the HS 4 digit level and change in tariff sub heading (CTSH) which is change at the HS 6 digit level. However, in India's PTAs, the general rule is largely only value addition. The exception to this rule is the India Chile PTA where the rule is CTH + 40% VA.

5.1.12 CONCLUSION

India has liberalised it regime from 2714 to 57 products at eight digits over a period of two decades (1996 to 2015). Therefore, it is clear that India has been providing relatively transparent market access when compared to other WTO members, who have been maintaining applied tariff low while maintaining many other WTO compatible and non-compatible measures like subsidies, and technical measure which deviate from international standards. On the other hand, India has been maintaining transparent measures like the tariff (ad-valorem) which when compared with other developing countries in similar size and stage of development can be categorised as moderate level of effective protection. India's average applied MFN tariff rate has been relatively on the higher side, however it does not use any other measures- like NTMs, TRQs etc. Therefore, it provides market access more transparently when compared to any other developing country. Its application of behind the border measure also has been on the lower side.

There is a scope for Peru to expand it trade with SAARC countries. India has moderately high tariff (Avg. MFN applied 13.3 percent) but at the same time India has maintained a lower number of non-tariff measures like SPS and TBT measures, which can be measured in terms of total notifications made to the WTO. Further most of the existing technical regulations and standards are harmonised with international standards.

5.2 PERSPECTIVE OF PERU

5.2.1 INTRODUCTION

The main objectives of Peru's trade policy are to achieve sustained trade growth with an emphasis on value-added goods, to consolidate Peru as an exporter of competitive goods and services, and to increase trade and investment flows between Peru and the rest of the world.

The Ministry of Foreign Trade and Tourism (MINCETUR) is responsible for setting, directing, implementing, coordinating and supervising foreign trade and tourism policy. MINCETUR conducts international trade negotiations in coordination with the Ministry of Foreign Affairs, the Ministry of the Economy and Finance (MEF). The MEF directs and controls tariff and customs policy.

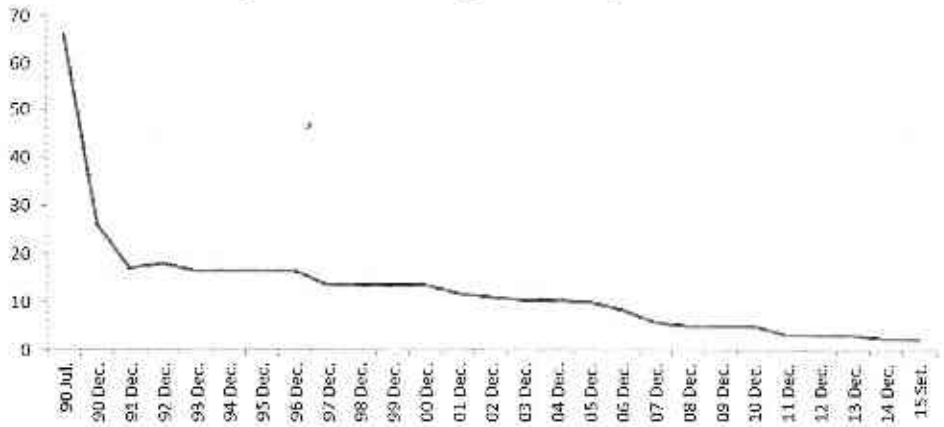
In the last ten years, Peru´s international trade strategy was composed of two elements: i) the deepening of the liberalization process through trade agreements, and, ii) the development of our

foreign trade basket, with guidelines established in the National Strategic Export Plan (PENX) 2003-2013. The objectives of the PENX were:

i) to achieve a strategically diversified range of products, with significant added value, quality and amounts,
ii) to diversify and consolidate the presence of Peruvian firms, products and services in prioritized target markets,
iii) to have a legal framework that allows the application of efficient mechanisms for foreign trade simplification, encourages the development of infrastructure, and enables the access and the provision of physical and financial distribution services in better quality and price conditions, and,
iv) to develop an export culture with global and strategic vision that fosters the enterprising capacities and good value-based commercial practices.

From the mid-1990's onwards, Peru has made good progress in reducing its tariff average and dispersion. From 1990, Peru's average tariff rate has declined from 66% to 2.2% in September 2015.

Figure 40 – Peru: Average Tariff Rate, 1990-2015



Source: MEF, SUNAT

Peru currently has 17 trade agreements in force with 52 countries, including: a) FTAs with the United States, China, Chile, Canada, Singapore, the EFTA countries, the Republic of Korea, Japan, Mexico, Panama, Costa Rica and the European Union countries; b) Economic Complementation Agreements with MERCOSUR and Cuba; c) an Early Harvest Protocol with Thailand; d) a Partial Scope Agreement with Venezuela; and, e) a Free Trade Area of the CAN with Ecuador, Colombia and Bolivia.

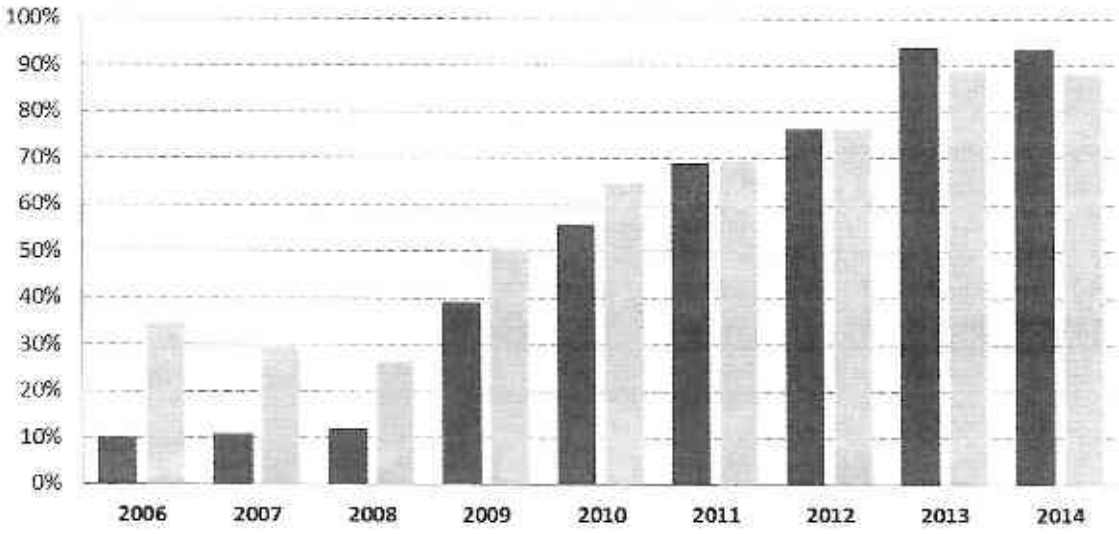
Peru has also signed trade agreements (not yet in force) with Guatemala and Honduras, the Trans-Pacific Partnership members (Australia, Brunei, Canada, Chile, Malaysia, Japan, Mexico, New Zealand, Singapore, the United States, Viet Nam) and the Pacific Alliance members (Chile, Mexico, Colombia)[95]. In addition, Peru maintains negotiations with El Salvador, Turkey, Thailand (for an

[95] The Pacific Alliance (PA) is a sub-regional integration initiative comprised by Chile, Colombia, Mexico and Peru. It was officially established on April 28th, 2011, in Lima, Peru, when the Heads of State of these countries signed the Lima Declaration. On June 6th, 2012, the Framework Agreement was signed (Declaration of Paranal). This agreement

FTA) and Brasil. In 2014, 94% of Peru´s total exports and 88% of Peru´s total imports were covered by the preferential access offered by trade agreements in force.

Figure 41 – Peru´s trade flow shares covered by trade agreements in force

(%)



Source: SUNAT

5.2.2 WTO MATTERS

At the multilateral level, Peru is supporting the WTO and Doha Round negotiations and several initiatives in fields such as special and differential treatment; agriculture; fisheries subsidies; market access; biodiversity, traditional knowledge and generic resources; trade facilitation; environmental goods and services[96]; and services.

Peru took part in the negotiations on telecommunications and financial services subsequent to the Uruguay Round. Its commitments in the area of telecommunications are set out in the Fourth Protocol to the General Agreement on Trade in Services; its commitments concerning financial services are contained in the Fifth Protocol. Peru has been a participant in the WTO Information Technology Agreement since 18 February 2009.

5.2.3 TARIFF, TARIFF QUOTAS AND OTHER CHARGES

5.2.3.1 TARIFFS

establishes the institutional basis of this regional initiative and defines its objectives: i) build, in a participatory and consensual manner, an area of deep integration in order to progressively advance towards the free movement of goods, services, resources and people; ii) promote increase of growth, development and competitiveness in the economies of its members, focused on achieving greater well-being, overcoming socioeconomic inequality and promoting social inclusion of its inhabitants; iii) become a platform of political articulation, of economic and commercial integration and of projection to the world, with emphasis on the Asia-Pacific region.

[96] WTO documents JOB (07)/161 of 30 October 2007 and JOB (09)/177 of 27 November 2009.

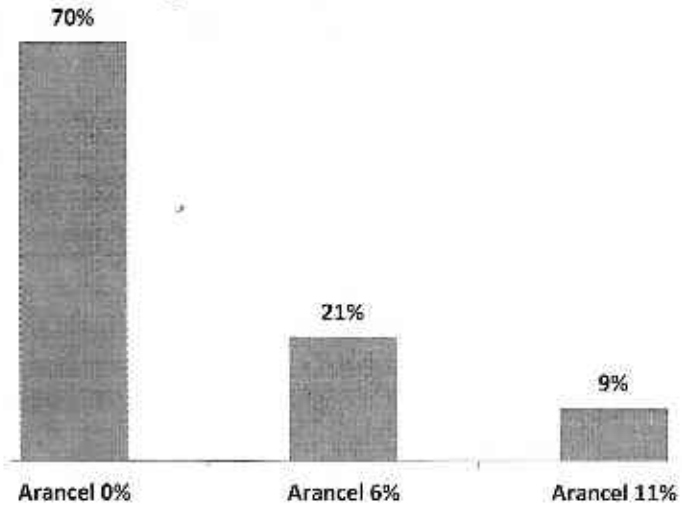
The tariff custom schedule is defined according to the Harmonized Commodity Description and Coding System (HS).

Currently, Peru's tariff schedule contains 7 554 lines at the ten-digit level of the HS 2012. Peru usually applies ad-valorem tariffs that are calculated according to the CIF value of the goods. However, there are 47 tariff lines (rice, sugar, maize and dairy products) in the tariff schedule (0.6 of the tariff universe) with compound tariffs derived from the application of the Peruvian Price Band System. .

Peru's custom schedule comprises three levels: 0%, 6% and 11% (excluding the 47 tariff lines mentioned above). The average MFN applied is 2.2%; the average tariff for agricultural products is 3.9, while the average tariff on non-agricultural products is 3.1.

Peru grants preferential treatment to all imports from CAN Members (Bolivia, Colombia and Ecuador) and countries with which it has signed Trade Agreements.

Figure 42 – Peru: MFN tariff structure



Source: SUNAT

Table 42 - Peru's Tariffs and imports by product groups

Product groups	Final bound duties				MFN applied duties			Imports	
	AVG	Duty-free in %	Max	Binding in %	AVG	Duty-free in %	Max	Share in %	Duty-free in %
Animal products	30	0	30	100	5	25.7	11	0.3	33
Dairy products	36.7	0	68	100	0	100	0	0.6	100
Fruit, vegetables, plants	30	0	30	100	5	22.1	11	0.6	6.3
Coffee, tea	30	0	30	100	5.9	16.7	11	0.2	44.9
Cereals & preparations	34.6	0	68	100	2.6	58.8	11	4.2	90.5
Oilseeds, fats & oils	30	0	30	100	2.4	59.4	6	2.8	92.3
Sugars and confectionery	34.8	0	68	100	0.7	88.2	6	0.6	82.8

Beverages & tobacco	30	0	30	100	6.1	1	11	0.5	0
Cotton	30	0	30	100	6	0	6	0.3	0
Other agricultural products	30	0	30	100	3.3	45.2	6	0.5	80.1
Fish & fish products	30	0	30	100	0.3	94.8	6	0.3	97
Minerals & metals	30	0.1	30	100	1.5	74.6	6	12.2	89.2
Petroleum	30	0	30	100	0	100	0	14.2	100
Chemicals	30	0.1	30	100	2	66.9	6	12.6	62.4
Wood, paper, etc.	30	0	30	100	4.4	27	6	3.2	24
Textiles	30	0	30	100	8.4	8	11	3	15.9
Clothing	30	0	30	100	11	0	11	1.2	0
Leather, footwear, etc.	30	0	30	100	4.4	38.9	11	2.7	57.2
Non-electrical machinery	28.3	5.6	30	100	0.5	94.3	11	15.5	93.9
Electrical machinery	24.1	19.7	30	100	2.1	64.2	6	9.1	76.4
Transport equipment	30	0	30	100	1	83.6	6	12	59.6
Manufactures, n.e.s.	28.5	5	30	100	3.7	38.6	6	3.5	49.4

Source: WTOs Tariff Profile 2014

5.2.3.2 TARIFF QUOTAS

Peru established preferential tariff quotas in its trade agreements with Canada, Costa Rica, the European Free Trade Association (EFTA-only Switzerland), the European Union, Mexico, Panama and the United States.

Table 43 – Peru's Tariff Quotas

Country	Product Groups	Tariff Line
UNITED STATES	STANDARD QUALITY MEAT OF BOVINE ANIMALS	0201300010
		0201300090
		0202200000
		0202300010
		0202300090
UNITED STATES	OFFAL OF BOVINE ANIMALS	0206210000
		0206220000
		0206290000
		0504001000
UNITED STATES	CHICKEN LEG QUARTERS (WITH BONE IN)	0207130011
		0207140021
		1602321011
		1602329011
UNITED STATES	YELLOW MAIZE	1005901100
UNITED STATES	RICE	1006109000
		1006200000
		1006300000

		1006400000
UNITED STATES	REFINED SOYA--BEAN OIL	1507901000
		1507909000
UNITED STATES	POWDERED MILK	0402101000
		0402109000
		0402211100
		0402211900
		0402219100
		0402219900
		0402291100
		0402291900
		0402299100
		0402299900
		0402911000
		0402919000
		0402991000
		0402999000
UNITED STATES	YOGURT	0403100020
		0403100090
UNITED STATES	BUTTER	0405100000
		0405200000
		0405902000
		0405909000
UNITED STATES	CHEESE	0406100000
		0406200000
		0406300000
		0406400000
		0406904000
		0406905000
		0406906000
		0406909000
UNITED STATES	ICE CREAM	2105001000
		2105009000
UNITED STATES	PROCESSED DAIRY PRODUCTS	0403901000
		0403909010
		0403909090
		1901101000
		1901109100
		1901109900
CANADA	MEAT OF SWINE	0203110000
		0203120000
		0203191000
		0203192000
		0203193000
		0203199000
		0203210000
		0203220000
		0203291000
		0203292000

		0203293000
		0203299000
		0206300000
		0206410000
		0206490000
		0209101000
		0209109000
		0209900000
		0210110000
		0210120000
		0210190000
CANADA	MEAT, BONELESS, RIB CUT	0201300090
		0202300090
CANADA	OFFAL OF BOVINE ANIMALS	0206100000
		0206210000
		0206220000
		0206290000
SWITZERLAND	MEAT OF BOVINE ANIMALS	0210200000
SWITZERLAND	CHEESE	0406100000
		0406200000
		0406300000
		0406400000
		0406901000
		0406905000
		0406906000
		0406909000
MEXICO	EVAPORATED MILK AND DULCE DE LECHE	0402911000
		1901902000
MEXICO	BEANS	0713339100
		0713339200
		0713339900
MEXICO	BANANAS	0803901100
MEXICO	AVOCADOS	0804400000
MEXICO	ORANGES	0805100000
MEXICO	GRAPEFRUITS AND LEMONS	0805400000
		0805501000
		0805502100
		0805502200
MEXICO	DRIED CHILLIES	0904211010
		0904211090
		0904219000
		0904221000
		0904229000
MEXICO	MAIZE	1005901100
		1005901200

		1005902000
		1005903000
		1005904000
		1005909000
MEXICO	COCOA BEANS	1801001100
		1801001900
		1801002000
MEXICO	COCOA PASTE, BUTTER, FAT, OIL AND POWDER	1803100000
		1803200000
		1804001100
		1804001200
		1804001300
		1804002000
		1805000000
MEXICO	DAIRY PREPARATIONS	1901101000
		1901109100
		1901109900
MEXICO	FOOTWEAR	6402190000
		6402200000
		6402910000
		6402991000
		6402999000
		6404200000
		6405200000
PANAMA	MEAT OF BOVINE ANIMALS	0201100000
		0201200000
		0201300010
		0201300090
		0202100000
		0202200000
		0202300010
		0202300090
PANAMA	HAM	0210110000
PANAMA	CONDENSED MILK	0402991000
PANAMA	MAIZE AND POTATO STARCH	1103130000
		1108120000
		1108130000
PANAMA	*DULCE DE LECHE*	1901902000
PANAMA	FOOD FOR ANIMALS	2309909000
UE	MEAT OF BOVINE ANIMALS	0201100000
		0201200000
		0201300010
		0201300090
		0202100000
		0202200000

		0202300010
		0202300090
		0206100000
		0206290000
		0210200000
		1602500000
		1602900000
UE	BUTTER	0405100000
		0405200000
		0405902000
		0405909000
UE	CHEESE	0406100000
		0406200000
		0406300000
		0406400000
		0406904000
		0406905000
		0406906000
		0406909000
UE	ICE CREAM	2105001000
		2105009000
UE	MAIZE	1005901100
		1005901200
		1005902000
		1005903000
		1005904000
		1005909000
UE	MUSHROOMS OF THE GENUS AGARICUS	0711510000
		2003100000
UE	MILK	0402101000
		0402109000
		0402211100
		0402211900
		0402219100
		0402219900
		0402291100
		0402291900
		0402299100
		0402299900
		0402911000
		0402919000
		0402991000
		0402999000
UE	PREPARATIONS FOR INFANT USE	1901101000
		1901109100
		1901109900
UE	MEAT OF SWINE	0203110000
		0203120000
		0203191000

		0203192000
		0203193000
		0203199000
		0203210000
		0203220000
		0203291000
		0203292000
		0203293000
		0203299000
UE	MEAT AND EDIBLE OFFAL OF POULTRY AND OTHER ANIMALS	0207110000
		0207120000
		0207130011
		0207130012
		0207130090
		0207140010
		0207140021
		0207140022
		0207140090
		0207240000
		0207250000
		0207260000
		0207270000
		0207410000
		0207420000
		0207430000
		0207440000
		0207450000
		0207510000
		0207520000
		0207530000
		0207540000
		0207550000
		0207600000
		0210920090
		0210991000
		0210999000
		1602200000
		1602311000
		1602319000
		1602321011
		1602321012
		1602321090
		1602329011
		1602329012
		1602329090
		1602391000
		1602399000
UF	RICE	1006101000
		1006109000

		1006200000
		1006300000
		1006400000
UE	SWEET MAIZE	0710400000
		0711900000
		2001909000
		2004900000
		2005800000
		2008999000
UE	PRODUCTS HIGH IN SUGAR	2009896000
		2009899000
		2009900000
		2101120000
		2101200000
		2106901000
		2106902100
		2106902900
		2106903000
		2106904000
		2106905000
		2106906000
		2106907100
		2106907200
		2106907300
		2106907400
		2106907900
		2106908000
		2106909100
		2106909900
		3302101000
		3302109000
		1704901000
		1704909000
		1806100000
		1806201000
		1806209000
		1806310000
		1806320000
		1806900000
		1901901000
		1901902000
		1901909000
		2006000000
		2007100000
		2007911000
		2007912000
		2007991100
		2007991200
		2007999100

		2007999200
		2009110000
		2009120000
		2009190000
		2009210000
		2009290000
		2009310000
		2009390000
		2009399000
		2009410000
		2009490000
		2009500000
		2009610000
		2009690000
		2009710000
		2009790000
		2009810000
		2009891000
		2009892000
		2009893000
		2009894000
		2009895000
UF	SUGAR	1702600000
		1702901000
		1702902000
		1702903000
		1702904000
		1702909000
		1701120000
		1701130000
		1701140000
		1701910000
		1701991000
		1701999000
		1702110000
		1702191000
		1702192000
		1702200000
		1702301000
		1702302000
		1702309000
		1702401000
		1702402000
		1702500000
UE	COCOA POWDER	1805000000
UE	GARLIC	0703201000
		0703209000
UE	RUM	2208400000

Source: Ministry of Foreign Trade and Tourism (MINCETUR) – Peru

5.2.3.3 OTHER CHARGES

Both national and imported products are subject to the VAT or General Sales tax rate (16%), except some agricultural products and fertilizers; wool, cotton and other fibres, gold, some used vehicles or vehicles for diplomatic use. The Municipal Promotion Tax (IPM) is also applied to all imports and its rate is 2%.

The Selective Consumption Tax (ISC) is applied to the import of fuels, spirits, new and used vehicles, aerated beverages and cigarettes. Alcoholic beverages are classified according to their degree of alcohol and the ISC is calculated alternatively using three methods: specific (fixed amount), on the value, or on the value according to the retail selling price. The ISC payable is the highest amount obtained by applying the three methods.

Peru, also applies an ad-valorem tax of 4% on the first sale of pounded rice and other types of rice (including imports)[97].

[97] For more information about the types of rice subject to the tax: http://www.guiatributaria.sunat.gob.pe/index.php?option=com_content&view=article&id=185:01-ivapimpuesto-a-la-renta-del-arroz-pilado&catid=47:ivap-impuesto-a-la-venta-del-arroz-pilado&Itemid=75.

Table 44 - Import taxes

Tax	Type of tax	Rate	Tax base	Products
General sales tax (IGV)	*Ad valorem*	16%	Customs value plus tariffs and other import taxes.	Tax exemptions: http://www.sunat.gob.pe/legislacion/igv/ley/apendice.htm#acla1
Municipal promotion tax (IPM)	*Ad valorem*	2%	Customs value plus tariffs and other import taxes, except for the IGV.	Tax exemptions: http://www.sunat.gob.pe/legislacion/igv/ley/apendice.htm#acla1
Selective Consumption Tax (ISC)				
Products subject to the value system				
	Ad valorem	0%	Customs value plus the applicable import taxes.	New or used motor vehicles
		10%		New motor vehicles
		17%		Mineral waters (HS 2202100000), other drinks (HS 2202900000)*
		20%		Ethyl Alcohol (HS 2207100000, 2207200010, 2208901000)
		30%		Used motor vehicles /wine and other spirits
		50%		Tobacco and cigarettes; cigars and cheroots (HS 2402100000, 2402900000, 2403100000, 2403910000)
Products subject to application of a fixed amount				
	Specific	Amount in nuevos soles: from S/.0.07 to S/.2.30	Per unit, litre, tonne, gallon or kilogram.	Pisco, cigarettes of dark or blond tobacco, gasoline for engines, kerosene, gasoil, and liquefied petroleum gas are taxed.

Source: SUNAT

5.2.4 QUANTITATIVE RESTRICTIONS, CONTROLS AND LICENCES

Peru prohibits the importation of certain goods for reasons of public health or morals, environmental protection and national security, and to fulfil commitments under the international agreements to which Peru is a signatory.

Table 45 – Prohibited and Restricted goods

N°	Item Description
1	Used clothing and footwear pursuant to Law No. 28514 of May 23, 2005;
2	Used vehicles and used automotive engines, parts and replacements pursuant to Legislative Decree No. 843 of August 30, 1996, Urgent Decree No. 079-2000 of September 20, 2000, Urgent Decree No. 050-2008 of December 18, 2008;
3	Used goods, machinery and equipment which utilize radioactive energy sources pursuant to Law No. 27757 of June 19, 2002.

Source: SUNAT

5.2.5 CUSTOMS PROCEDURES

The National Customs and Tax Administration Supervisory Authority (SUNAT) is the institution responsible for customs administration in Peru.

Customs procedures are regulated by the General Customs Law[98], where regulations and general procedures are published.

As a rule, importers need to get a valid single taxpayers' registration number (RUC) before they can import. According to the authorities, the following documents are required to be submitted to the SUNAT in order to process the imports: the bill of lading, the air waybill or freight bill; the invoice or equivalent document and/or the sworn declaration of value; a proof of payment; a power of attorney for streamlined clearance if this is to be done by a third person acting on behalf of the importer, owner or consignee. In addition to these documents, an import declaration has to be submitted: a customs declaration of goods (DAM) or a simplified import declaration (DSI). A DSI is applicable only when the imports are samples of no commercial value, gifts whose value does not exceed US$ 1,000 or goods not exceeding US$ 2,000.

Restricted goods require authorization from the competent bodies according to the nature of the goods[99].

SUNAT may authorize foreign trade operators as Authorized Economic Operator (OEA) after checking that they have a proper accounting and logistics system, a financial solvency and a satisfactory level of security. OEAs are eligible for streamlined customs procedures and controls.

The services of a customs broker are required for clearance of goods under the import for consumption regime, and this may be the owner, the consignee, an official broker or a customs agent.

In addition to the import for consumption regime, Peru has other regimes: re-import in the same state; temporary admission for re-export in the same state; customs transit; transhipment; and special or exceptional customs regimes.

The release of goods could be authorized from the port and within 48 hours (subject to compliance requirements, e.g. the prior transmission of the cargo manifest, the use of a prior guarantee, others).

Under normal circumstances, to release of express shipments could be authorized within six hours after submission of the necessary customs documents, provided the shipment has arrived. In addition, express shipments valued at US$200 or less don't pay customs duties or taxes and will not require formal entry documents.

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[98] http://www.sunat.gob.pe/legislacion/procedim/normasadua/gia-03/ctrlCambios/anexos/DLeg.1053.pdf

[99] Depending of the type of good, the authorizations may be issued for the following institutions: the National Agrarian Health Service and the National Institute of Natural Resources (Ministry of Agriculture); the Directorate of Chemical Inputs and Controlled Products and the Vice-Ministry of Fisheries (Ministry of Production); the Directorate-General of Medicines, Input Materials and Drugs (Ministry of Health), the Directorate-General for Control of Security Services, Control of Firearms, Ammunition and Explosives for Civilian Use (Ministry of the Interior), the National Cultural Institute (INC), the National Library or the General Archives of the Nation (Ministry of Education).

Peru created a single window for foreign trade (VUCE) in order to facilitate the submission of the foreign trade documents required by national authorities. The VUCE allows parties engaged in foreign trade and international transport to submit electronically the documents for the transit, entry or exit of goods in Peru. The VUCE has three components: restricted goods, port services, and origin.

In Peru, imported goods are valued according to the methods established in the WTO Agreement on Customs Valuation. SUNAT is in charge of verifying and determining the customs value of goods imported into Peru.

The importer must provide the necessary information to ensure that the value declared corresponds to the transaction value; otherwise, SUNAT employs the other valuation methods determined in the WTO Agreement.

5.2.6 ANTIDUMPING, SUBSIDY AND SAFEGUARD MEASURES

The Dumping and Subsidies Commission (CFD) of the National Institute for the Defence of Competition and the Protection of Intellectual Property (INDECOPI) is the administrative authority with the responsibility to conduct dumping and subsidies investigations. The main legislation aimed at regulating the application of antidumping and countervailing measures is included in Supreme Decree 006-2003-PCM and Supreme Decree 004-2009-PCM[100].

Peru's legal framework on WTO safeguards is contained in Supreme Decree 020-1998-ITINCI. In addition, Peru has legislation that establishes the procedures for implementing the bilateral safeguards in their trade agreements (Supreme Decree 006-2009-MINCETUR and Supreme Decree 008-2009-MINCETUR).

The CFD decides whether to initiate a safeguard investigation within the WTO framework. The investigation must be conducted within six months from the date of publication of the notice of initiation in the Official Journal (*El Peruano*).

When an investigation is concluded, the CFD presents a technical report with recommendations on whether or not the safeguard measure requested needs to be applied. The decision on whether or not to apply the safeguard measure corresponds to a multisectoral commission composed of the Ministries of Foreign Trade and Tourism (MINCETUR), of Economy and Finance (MEF), and the sector to which the domestic industry affected belongs.

Table 46 – Peru: Trade Remedies (1995 – 2015)

Type	Exporter	Product	In force	Withdrawn
Anti-dumping	Argentina	Refined soya and sunflower vegetable oil and mixtures thereof	30/11/02	15/02/12
		Cups made of polypaper	05/04/06	01/04/11
	Brazil	Denim fabrics	20/06/06	07/06/09

[100] For more details: http://www.indecopi.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&PFL=5&JER=78

		Woven fabrics of cotton and polyester/cotton mixes	11/11/05	13/11/10
	Chile	Woven labels	23/04/97	08/05/02
		Aluminium rods and tubes	08/06/02	09/06/07
		Cups made of paperboard with polyethylene	26/09/02	14/03/12
		Gypsum board	17/06/04	17/06/09
		Powdered soft drinks	17/07/03	18/07/08
	China	Cotton fabrics - Woven fabrics, printed	02/08/95	22/01/15
		Water meters	24/11/95	12/08/04
		Electric meters	20/02/99	06/10/05
		Footwear	31/01/00	
		Bodyboards and kickboards	25/06/00	28/07/12
		Tyres for motor cars, vans and lorries	09/05/02	18/01/12
		Stainless steel cutlery	19/02/02	
		Metal fasteners, other fasteners, zip fasteners and zip sliders	30/08/02	04/05/15
		Polyester/cotton poplin fabrics	22/05/04	
		Iron hinges	26/04/04	12/05/09
		Ceramic dishware, loose articles and accessories	23/10/04	18/10/09
		Stainless steel articles: pots, frying pans, teapots and saucepans	04/12/04	06/12/09
		Woven fabrics of cotton and polyester/cotton mixes	11/11/05	05/03/15
		Denim fabrics	26/07/06	28/07/11
		Articles of apparel and other made-up textile articles	22/12/13	06/06/15
		Tubes and pipes made from hot-rolled steel coils	21/04/15	
	India	Stainless steel articles: pots, frying pans and saucepans	04/12/04	06/12/09
		Woven fabrics of polyester staple fibres, mixed mainly or solely with viscose rayon staple fibres	01/04/11	
	Indonesia	Footwear	18/04/02	19/04/07

	Kazakhstan	Hot-rolled steels	12/04/03	09/10/11
		Cold-rolled steels	14/05/03	29/07/11
		Galvanized steels	05/07/03	29/07/11
	Mexico	Glucose syrup	21/12/96	11/09/05
		Corn starch	21/12/96	11/09/05
		Cups made of paperboard	05/04/06	01/02/11
		White cement	05/06/07	12/07/08
		White cement	15/10/09	29/11/10
	Pakistan	Poplin fabrics	06/03/04	
	Russian Federation	Hot and cold rolled steel coils/sheets/strips/plates	07/12/99	07/02/11
		Cold-rolled steels	14/05/03	29/07/11
		Galvanized steels	05/07/03	29/07/11
	Chinese Taipei	Footwear: except sandals and flip-flops	31/01/00	30/11/11
		Bodyboards	25/06/00	17/07/09
		Stainless steel articles: frying pans only	04/12/04	06/12/09
	Ukraine	Hot and cold rolled steel coils/sheets/strips/plates	07/12/99	07/02/11
	United States	Pure biodiesel	25/06/10	
	Viet Nam	Boards for Recreation	20/06/05	24/04/06
		Flip-flops/thongs, sandals, slippers and mules, espadrilles and clog-style shoes with uppers of textile materials	07/11/09	12/10/14
Countervailing Duties	European Union	Olive oil virgin and refined	25/05/03	26/06/08
		Olive oil (Italy,Spain)	04/12/10	26/03/13
	United States	Pure biodiesel (B100) and blends containing more than 50% biodiesel (B50)	22/08/10	

Source: WTO Integrated Trade Intelligence Portal

As of June 2015, eleven (7) anti-dumping and one (1) countervailing duties were in force, which were applied on imports of textiles (3), footwear (1), biodiesel (2), tubes and pipes (1) and cutlery (1).

With regards to the trade remedies applied to India, on 8 November 2009, the CFD initiated an anti-dumping investigation of Imports of Woven fabrics of polyester staple fibres, mixed mainly or solely with viscose rayon staple fibres[101] from India. The investigation procedure concluded on 1 April 2011, with the imposition of anti-dumping measures on the subject imports:

Table 47 - Anti-dumping Duties

Company	Duty (USD/Kg)
BSL	1.12
Sangam	2.06
Donear (Balaji Industries)	1.14
Siddharth	2.57
Galundia	2.05
Rest (except Shomer)	2.76

Source: BSL, SANGAM, CUSTOMS, ST-CFD/INDECOPI

The Resolution also indicates the application of retroactive dumping duties from 1 to 14 October 2010. The anti-dumping measures applied are expected to be ended by 1 April 2016.

5.2.7 TECHNICAL REGULATIONS AND STANDARDS

Peru's legislation related to technical regulations and standards is composed of domestic legislation, international and supranational rules.

Technical regulations (RTs) are formulated by various ministries according to their competence and they are mandatory. Currently, there are 82 RTs, which are published on the Peruvian Technical Regulations website created in 2009[102]. The majority of them are related to pharmaceuticals, medical devices, sanitary products, food and beverages.

RTs must be approved by a Supreme Decree. Producers of goods subject to RTs must have a certificate issued by public or private institutions authorized by the ministries. In some cases, they must request the ministries a "Statement of Compliance", which is valid for one year (renewed for one-year periods), and required for customs clearance procedures.

By Law Nº 30224 in July 2014, it was created the Quality National System and National Institute of Quality – INACAL. From July 2014 to June 2015 was carried out a transference process.

INACAL is a governing entity and technical high authority of Quality National System, in charge of Standardization, Accreditation and Metrology activities.

Directorate of Standardization

In 2015, was approved 766 Peruvian Technical Standards, 41% of them correspond to adoption of international standards: ISO, IEC and Codex Alimentarius.
All Peruvian standards are submitted to a public discussion process:

[101] The subject imports are classified in subheading 5515.11.00.00.
[102] Online information available here:
http://www.mincetur.gob.pe/webRT/puMostrarResultados.aspx?int_reguladora=0&int_tipodispositivo=0&int_numero=&int_anio=0&str_titulo=&int_vigilancia=0&str_producto=&int_partida=&int_ciiu=&strFechaDesde=01/01/1990&strFechaHasta=29/09/2014

http://www.inacal.gob.pe/inacal/index.php/servicios/pntp-en-discusion-publica

INACAL has also developed a website which contains Peruvian Catalogue of Standards. This website is:
http://sistemavisitas.inacal.gob.pe:8081/buscador/normas.php

INACAL has been participated in 52 International Technical Committes according to the following detail:

- International Organization for Standardization (ISO): in 2015 INACAL participated in 43 TC, 35 as P-member and 8 as O-member.
- International Electrotechnical Commission (IEC): INACAL is participating in the Affiliate Country Program in 4 technical committees.
- FAO/WHO Codex Alimentarius Commission: Peru is represented by the National Directorate of Environmental Health (DIGESA) at the Ministry of Health (MINSA). Further, INACAL has the technical coordination of 5 national technical committees.

Directorate of Accreditation

With the 3022's Creation Law of INACAL (National Institute of Quality), the National Accreditation Service turn in to Accreditation Directorate remaining theirs areas such as accreditation of laboratories, accreditation of inspection bodies, product certification, personnel certification and certification of management systems.

INACAL has 81 laboratories, 40 inspection bodies and 07 certification bodies accredited.

Directorate of Metrology

The National Institute of Quality, through its Metrology Directorate (DM), represents Peru in the Metrology field at the international level. DM governs Metrology in scientific, industrial and legal fields nationwide.

In addition DM conserves the National Measurement Standards; it diffuses the Peruvian Legal System of Measurement Units and issues Metrologic Certifications with traceability to the International System of Units - SI

Peru, through DM, is member of the International Organization of Legal Metrology (OIML), Inter-American Metrology System (SIM) and it is an associated state of the General Conference on Weights and Measures (CIPM).

Up to now DM has international recognition for its Calibration and Measurement Capabilities (CMCs), in Electricity (Energy and AC / DC), Density, Length, Chemical Metrology, Volume, Time and Frequency, Pressure, Mass and Temperature. Force, Mass (extension of scope), Liquid Flow and Gas Flow are in process.

The Metrology Directorate of INACAL has 99 CMCs recognized by BIPM.

The Metrology Directorate also provides calibration services for equipment and measuring instruments to the calibration laboratories and the industry when they are required due to the accuracy level and/or indication interval. About 7000 calibrations per year.

The DM offers training courses, interships, and Metrology's Diploma, having up to now 23 graduates.

In Legal Metrology has:

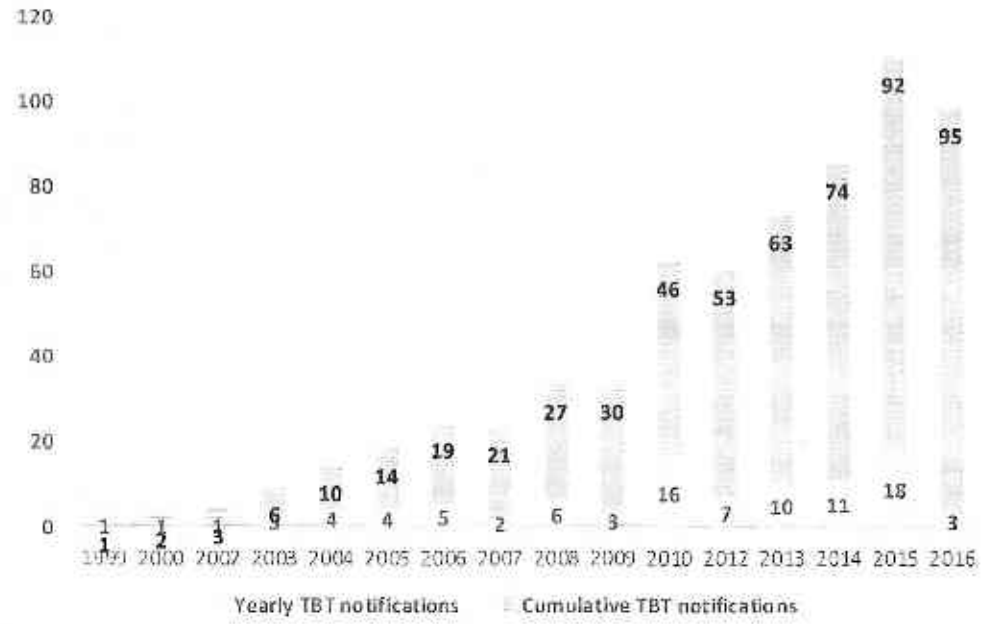
- 31 published Peruvian Metrological Standards (NMPs).
- 17 Type Approvals for Water Meters, Electrical Energy Meters and Gas Meters.
- 32 Type Approvals through homologations
- 12 recognized companies for performing initial verification of Water Meters, Gas Meters and Electrical Energy Meters.
- Declared National Standards in the following 7 quantities: Temperature, Pressure, Chemistry, Volume, Gas Flow, Time and Relative Humidity

In Chemical Metrology has:

- Several Certified Reference Materials (CRMs) for pH, electrolytic conductivity, metals in water, chemical oxygen demand.

The Vice-Ministry of Foreign Trade in MINCETUR is the National Enquiry Point for mandatory technical regulations and conformity assessment procedures. This is in charge to make the notification of technical regulations and mandatory conformity assessment procedures at their project phase to the WTO in order to receive comments from interested parties.

Figure 43 - Trends in Yearly and Cumulative TBT Notifications (No.)



Source: WTO
Elaboration: Ministry of Foreign Trade and Tourism (MINCETUR) - Peru

5.2.8 SANITARY AND PHYTOSANITARY REGULATIONS

The national institutions responsible for sanitary and phytosanitary regulations are:

a) The National Agrarian Health Service (SENASA) at the Ministry of Agriculture (MINAG):
   - Responsible for animal and plant health and the safety of agricultural and livestock food products at the production and primary processing stages.
   - Establishes animal health requirements for imports (RZI)[103].
   - Approves any facility dedicated to the elaboration of products of animal origin to be exported to Peru.
   - Determines phytosanitary requirements according to the products, its origin and its proposed use, after a pest risk analysis.

b) The National Fisheries Health Service/Production Technology Institute (SANIPES/ITP) at the Ministry of Production (PRODUCE):
   - In charge of monitoring fishing and aquaculture, and the processing of fisheries products.

c) The Directorate-General of Environmental Health (DIGESA) at the Ministry of Health (MINSA):
   - Responsible for sanitary monitoring of industrially processed foods.
   - Certifies sanitary registration for food and beverages. Imported processed foods must have been produced in a facility with sanitary approval.
   - Monitors the storage and distribution of food for human consumption.

- In addition, there is a Standing Multisectoral Commission of Food and Safety (COMPIAL) managed by the MINSA and composed of SENASA, DIGESA and SANIPES/ITP.

- The domestic legislation related to sanitary and phytosanitary measures are based on international standards by the International Plant Protection Convention (IPPC), the World Organization for Animal Health (OIE) and the Codex Alimentarius.

Table 48 - Peru's legal framework for sanitary and phytosanitary regulations

Institution	Legal Text	Description	Date of publication	Summary of the regulation
SENASA	L.D. No. 1059	General Law on Agrarian Health	28/06/2008	These regulations state the general provisions of Peruvian agrarian health and give the competences to SENASA in terms of animal and plant health and the safety of agricultural and livestock food products at the production and primary processing stages. In addition, SENASA is designated
	S.D. No. 018-2008-AG	Regulations implementing the General Law on Agrarian Health	31/08/2008	

[103] http://www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&PFL=1&JER=4

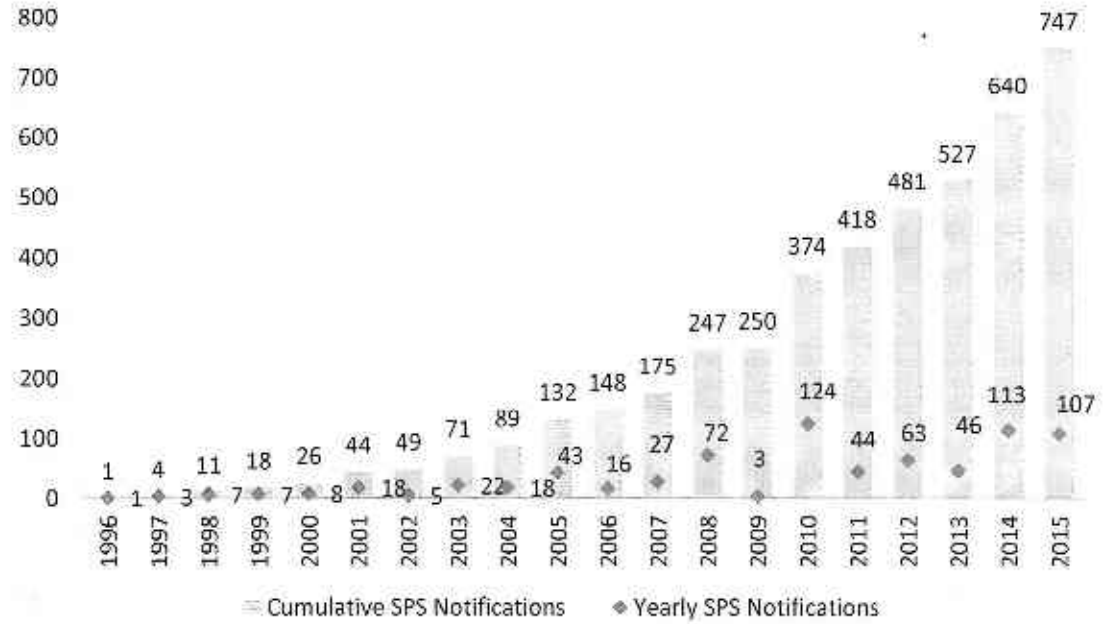
				as Peru's national enquiry point under the WTO SPS Agreement
	L.D. No. 1080	Amends the General Law on Seeds (Law No. 27262), the amendment is implemented by Supreme Decree No. 006-2012-AG	28/06/2008	This regulation establishes the rules for promotion, supervision and regulation of activities relating to research, production, certification and marketing of quality seeds.
	Law No. 29196	Law on the Promotion of Organic or Ecological Production	29/01/2008	These regulations are intended to promote sustainable and competitive development of organic production in Peru. In that sense, they create the National Council of Organic Production as an advisory body in terms of organic production. In addition, SENASA is designated as a supervisor of the certifying bodies in organic production
	S.D. No. 010-2012-AG	Approves the regulations implementing Law No. 29196 - Law on the Promotion of Organic or Ecological Production	24/07/2012	
	.D. No. 015-2015-MINAGRI	Amends and supplements regulations framework to strengthen National Agrarian Health Service	19/09/2015	This regulation amends and supplements the competences of SENASA on animal and plant health
SANIPES	Law No. 28559	Law on the National Fisheries Health Service	26/06/2005	These regulations state the general provisions of Peruvian fisheries health and give the competences to SANIPES in terms of monitoring fishing and aquaculture, and the processing of fisheries products.
	S.D No. 025-2005-PRODUCE	Approves the regulations implementing the Law on the National Fisheries Health Service	30/09/2005	
	S.D. No. 010-2008-PRODUCE	Maximum permissible limits (MLP) for the fish meal and oil industry and supplementary rules	30/04/2008	This regulation establishes the mandatory MLP for industrial fishing establishments or processing establishments

	S.D. No. 027-2009-PRODUCE	Extends the scope of the "Programme for Monitoring and Control of Fishing and Unloading in the Maritime Sphere"	24/07/2009	This regulation establishes the sanitary regulations to be met by owners of artisanal fishing vessels in order that the resources extracted for human consumption would be safe for health
DIGESA	Law No. 26842	General Health Law	20/07/1997	This regulation state the general dispositions of Peruvian health
	L.D. No. 1062*	Approves the Law on Food Safety	28/06/2008	This regulation establishes the legal regime applicable to guarantee the safety of food for human consumption. It also creates a Standing Multisectoral Commission of Food and Safety (COMPIAL) in order to have a multisectoral coordination to develop new strategies and actions to improve the food safety in Peru
	S.D. No. 034-2008-AG*	Approves the regulations implementing the Law on Food Safety	17/12/2008	
	S.D. No. 007-98 SA	Regulation on sanitary surveillance and control of food and beverages	25/09/1998	This regulation establishes the conditions, health and hygiene requirements and procedures to be supported production, transportation, manufacturing, storage, fractionation, processing and sale of food and beverages for human consumption as well as the procedures for health registration, health certification of food products for export and health monitoring of food and beverages
	M.R. No. 449-2006/MINSA	Sanitary standard for application of the HACCP system in the production of food and beverages	27/08/2008	This regulation establishes the procedures for the implementation of HACCP system in order to ensure the sanitary quality and safety of food and beverages for human consumption. Also, it establishes the

				criteria for the formulation and implementation of HACCP plans in the food industry.
	M.R. No. 591-2008/MINSA	Sanitary standard establishing microbiological criteria for the sanitary quality and safety of food and beverages for human consumption	29/08/2008	This regulation establishes the microbiological criteria for 29 food groups
	L.D. 1222 **	Optimize administrative procedures and strengthens health and safety control for manufactured food and fishery and aquaculture products	25/09/2015	This regulation establishes that all food produced industrially for human consumption, domestic or foreign production, can only be manufactured, imported, split, stored, dispensed to, or sold, prior certification of General Principles of Food Hygiene and Technical Validation Official HACCP Plan, by establishment and / or line of production

*Also for SENASA and SANIPES
**And SANIPES
Source: WTO. Trade Policy Review of Peru (2013)

Figure 44 - Trends in Yearly and Cumulative SPS Notifications (No.)



Source: WTO
Elaboration: Ministry of Foreign Trade and Tourism (MINCETUR) - Peru

5.2.9 RULES OF ORIGIN

Peru uses non-preferential rules of origin in order to determine the origin of imported products subject to anti-dumping and/or countervailing measures. MINCETUR defines the non-preferential criteria of origin (approved by ministerial resolution) and specifies the format of the certificates of origin.

On the other hand, in the Free Trade Agreements (FTAs) negotiated by Peru a good is originating if it is wholly obtained or produced entirely in the Parties, produced entirely in the Parties exclusively from originating materials; or produced entirely in the Parties using non-originating materials provided the good satisfies all applicable requirements in the Product Specific Rules of Origin.

The Product Specific Rules of Origin could be a tariff classification requirement, production process requirement, regional value content requirement, or a combination of them.

Regarding the regional value content, Peru has negotiated build-up, build-down, net cost and focused value methods. Among those methods the most used by Peru is the build down formula with a threshold of 50%.

For Textiles and Apparel Sector, taking into consideration the characteristics of its domestic industry, Peru always proposes to have a yarn forward rule.

In the case of cumulation, generally Peru has negotiated bilateral cumulation by materials and in some cases by process. As an exception, in some specific FTAs there is a possibility to have cumulation with third countries. Peru´s strong preference is to avoid this kind of cumulation.

Regarding the certificates of origin, Peru has negotiated different types of certification but prefers to have certification by authorized entities rather than self-certification. Peru has three types of certifications: Certification by authorized bodies, approved exporter and self-certification. Depending on the agreement there could be the coexistence of more than two systems (for example certification by authorized entities and approved exporter). In Table 49, the different types of certification are summarized.

Table 49 – Peru: Types of Certifications of Origin

Types of Certifications	Free Trade Agreements
Certification by Authorized Bodies	Andean Community, Chile, China, European Union, Korea, Japan, MERCOSUR, Mexico, Thailand and Singapore
Approved Exporter	Costa Rica, EFTA, European Union, Korea, Japan and Panama
Self-certification	Canada (producer and exporter) and United States (producer, exporter and importer)

Anita Praveen

CHAPTER 6 TRADE FACILITATION AND OTHER MEASURES AFFECTING TRADE

6.1 PERSPECTIVE OF INDIA

6.1.1 INTRODUCTION

Chapter 6 will dwell into select issues that indirectly effect trade, for example, measures like the availability of reliable infrastructure and the regulatory policies that influence it in India. Measures addressed in the chapter are transport and logistics matters; mining and manufacturing policies; export incentives; special treatment zones and trade related property rights. Although this is not a comprehensive list of measures, but they do offer a detailed account the existing endowments and the regulatory direction and offer a fair idea on some of critical issues like openness and competitive environment within a global framework.

6.1.2 TRANSPORT AND LOGISTIC MATTERS

Infrastructure is a major sector that propels overall development of the Indian economy. This section focuses on port infrastructure, power and road infrastructure development. Details of the projects, organizations, policies, schemes, spending on infrastructure are provided.

6.1.2.1 ROAD NETWORK

Road transport is vital for a country of the size India - the seventh-largest country in the world, with a total area of 3,166,414 square kilometers (1,222,559 sq. mi). India measures 3,214 km (1,997 mi) from north to south and 2,933 km (1,822 mi) from east to west. In fact, the progress of a nation and progress of its transport industry is complementary to each other. The Road Transport industry has a lion's share in India's economic development. Due to easy accessibility, flexibility of operations, door to door service and reliability. Road Transport in India showed an increase in share of both passenger and freight traffic vis-à-vis other modes of transport. Transport sector accounts for 6.4% share in India's Gross Domestic Product (GDP). However, Road Transport has emerged as a dominant segment in India's transportation sector with a share of 4.8% in India's GDP comparison to railways that has a meagre 1% share of GDP in 2011-12.[104]

With the economic development of infrastructure in India, the country has progressed at a rapid pace and today there is an availability of wide variety of modes of transport by land, water and air. But overall Road Transport is the primary and preferred mode of transport for most of the population and India's Road Transport system is among the most heavily utilized system in the world. It plays a pivotal role in the economic development of a nation by increasing the productivity and competitiveness[105]. Road transport has not gained in importance over the years despite barriers and inefficiencies in inter-state freight and passenger movement compared to railways and air. The government of India considers road network as critical to the country's development, social integration and security needs of the country. India's road network carries

[104] Singh H. M., 2014, "Revenue from Road Transport in India", Journal of Business Management & Social Sciences Research (JBM&SSR) ISSN No: 2319-5614 Volume 3, No.4, April.

[105] Ibid, Singh H.M., 2014, p.1

over 65 percent of its freights about 85 percent of passenger traffic.[106] Indian road network is administered by various government authorities, given India's federal form of government. The table below describes the regulating bodies and the category of roads.

Table 50 - Road Network in India

Road Classification	Authority Responsible	Total Kilometres (as of 2011)
National Highways	Ministry of Road Transport and Highways (Central government)	92,851
State Highways	State government (states public works department)	1,63, 898
Major and other district roads	Local governments, panchayats and municipalities	17, 05, 706
Rural roads	Local governments, panchayats and municipalities	27, 49. 805

Source: "Annual Report 2012-13", Ministry of Road Transport and Highway, Government of India.

6.1.2.2 PORTS AND PORT INFRASTRUCTURE

Trading (exports and Import) in any country is by way of land customs clearance ports, (at the border and hinder land) and wet ports.

India has a coastline spanning 7516.6 km, forming one of the biggest peninsulas in the world. Indian government has a federal structure, and according to its constitution, maritime transport is to be administered by both the Central and the State governments. While the central government's shipping ministry administers the major ports, the minor and intermediate ports are administered by the relevant departments or ministries in the nine coastal states Andhra Pradesh, Odisha, West Bengal, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and Gujarat. Several of the minor and intermediate ports have been identified by the respective governments to be developed, in a phased manner, a good proportion of them involving public–private partnership.

It is serviced by 13 major ports and additional 200 notified minor and intermediate ports. A total of 200 non-major ports are in the following States: Gujarat (42); Maharashtra (48); Tamil Nadu (15); Karnataka (10); Kerala (17); Andhra Pradesh (12); Odisha (13); Goa (5); West Bengal (1); Daman and Diu (2); Lakshadweep (10); Pondicherry (2); and Andaman & Nicobar (23). The ports infrastructure has performed as expected under a liberalised regime. Table 51 clearly shows a marginal increase in cargo handling by growth of 2 percent over the 2012-13, while the picture is not rosy in terms of both vessel traffic and container traffic which suggested a decrease by 7 and 3 percent respectively.

Table 51 - Trends in the Performance of 13 major Ports in India

Name	Cargo Handled (FY2013-14)		Vessel Traffic (FY2012-13)		Container Traffic	
	million tonnes	% Increase (over prev.FY)		% Increase (over previous FY)	'000 TEUs	% Increase (over previous FY)
Kandla	87	-7.06% ↓	2,734	0.74% ↑	29	-75.42% ↓
Paradip	68	20.25% ↑	1,279	-4.96% ↓	9	-30.77% ↓
JNPT	62.37	-3.32% ↓	2,588	-11.25% ↓	4,161	-2.30% ↓

[105] Government of India, 2014, "National Highway Development Project: An Overview", Ministry of Road Transport and Highways, New Delhi.

Mumbai	59.19	1.98% ↑	1,949	-5.25% ↓	41	-14.58% ↓
Visakhapatnam	58.5	-0.91% ↓	2,066	-16.36% ↓	263	6.48% ↑
Chennai	51.11	-4.30% ↓	1,928	-5.63% ↓	1,468	-4.68% ↓
Kolkata	41.39	3.65% ↑	3,155	-0.91% ↓	563	-6.17% ↓
Mangalore	39.37	6.29% ↑	1,096	-5.11% ↓	50	4.17% ↑
Tuticorin	28.64	1.35% ↑	1,292	-13.40% ↓	508	6.72% ↑
Ennore (corporate)	27.34	-52.85% ↓	475	23.38% ↑	--	--
Kochi	20.89	5.25% ↑	1,367	-1.09% ↓	351	4.78% ↑
Mormugao	11.74	-33.65% ↓	473	39.75% ↑	22	10.00% ↑
Port Blair						
All Indian Ports	**555.5**	**1.78% ↑**	**20,402**	**-6.95% ↓**	**7,465**	**-3.10%**

Source: As sourced from Indian Ports Association.

Substantial capacity expansion is scheduled to happen in the next couple of years, the 13 major ports put together capacity addition to the tune of 497.02 million metric tons per annum (MMTPA) will be added at an estimated cost of Rs. 37,394.48 crores (US$ 5,753[107] million). Figure 45 shows the location of the distribution of ports across the Indian coastline in a manner so as to create direct investment activities driven by exports and import in eight states.

Figure 45 - Major and Intermediate Ports of India

Source: http://www.mapsofindia.com/maps/sea-ports/#

[107] US dollar to rupee exchange of Rs. 65 was used to estimate the figure.

6.1.3 TRADE FACILITATION[108]

The border measures or customs procedures these instruments have sprung into importance as a trade policy measure of late across, many countries have seen a reduction/elimination in tariffs as part of the WTO negotiations or Sectoral initiatives taken voluntarily.

Customs procedures are analysed using the world banks ease of doing business indicators. There are a number of indicators and variables for analysing the customs procedures of individual country. The list of indicators and variables are: logistic performance index; cost of exports and imports expressed in US dollars per container; number of documents required for exports and imports; lead time to export and import both in median case of days; and ease of doing business.

India's "logistic performance index" provides an understanding on the efficiency of customs clearance process. The Logistics Performance Index surveys conducted by the World Bank in partnership with academic and international institutions and private companies and individuals engaged in international logistics. The round of 2009 was based on the survey covering more than 5,000 country assessments by nearly 1,000 international freight forwarders. The markets were chosen based on the most important export and import markets of the respondent's country, random selection, and, for landlocked countries, neighbouring countries that connect them with international markets. These individual respondents evaluated efficiency of customs clearance processes (i.e. speed, simplicity and predictability of formalities), on a rating ranging from 1 (very low) to 5 (very high). Scores are averaged across all respondents of the survey.

The international score uses six key dimensions to benchmark countries' performance and also displays the derived overall LPI index. The scorecard allows comparisons with the world (with the option to display world's best performer) and with the region or income group (with the option to display the region's or income group's best performer) on the six indicators and the overall LPI index. The logistics performance (LPI) is the weighted average of the country scores on the six key dimensions: 1) efficiency of the clearance process (i.e., speed, simplicity and predictability of formalities) by border control agencies, including customs; 2) quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology); 3) ease of arranging competitively priced shipments; 4) competence and quality of logistics services (e.g., transport operators, customs brokers); 5) ability to track and trace consignments; 6) timeliness of shipments in reaching destination within the scheduled or expected delivery time. The scorecards demonstrate comparative performance—the dimensions show on a scale (lowest score to highest score) from 1 to 5 relevant to the possible comparison groups—of all countries (world), region and income groups.[109]

A longer time series analysis of the performance of six critical dimensions of member countries like: Customs, International shipments, Logistics quality and competence, Tracking and tracing and Timeliness. We have made two assessments: first one the individual countries performance over the period from 2007 to 2014 this will address how much of indigenous has gone into facilitating trade and Secondly a comparison is drawn to rank one country in the world – this analysis is conducted using the distance in terms of the LPI score from the rank one country (Germany) – this will provide a comparative assessment on the indigenous efforts.

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[108] This sub-section was analysed by the Author.

[109]

Table 52 - Logistic Performance Index of India and selected WTO Members

Countries	2007	2010	2012	2014	Difference of 2014 upon 2007	Comments based on the Column 6
1	2	3	4	5	6 =(5-2)	7
Germany	4.10	4.11	4.03	4.12	0.02	Marginal Improvement
Chile	3.25	3.09	3.17	3.26	0.01	Marginal Improvement
China	3.32	3.49	3.52	3.53	0.21	Improvement
India	3.07	3.12	3.08	3.08	0.01	Marginal Improvement
Indonesia	3.01	2.76	2.94	3.08	0.07	Marginal Improvement
Malaysia	3.48	3.44	3.49	3.59	0.11	Improvement
Thailand	3.31	3.29	3.18	3.43	0.12	Improvement
Vietnam	2.89	2.96	3.00	3.15	0.27	Improvement
Singapore	4.19	4.09	4.13	4.00	-0.19	Deterioration
Distance from Germany (in Scales of Indices)						
Germany	0.00	0.00	0.00	0.00	0.00	Ideal Score
Chile	-0.85	-1.02	-0.86	-0.87	-0.02	Marginal Deterioration
China	-0.78	-0.63	-0.52	-0.59	0.19	Improvement
India	-1.03	-1.00	-0.96	-1.04	-0.01	Marginal Deterioration
Indonesia	-1.09	-1.35	-1.09	-1.04	0.05	Marginal Improvement
Malaysia	-0.62	-0.67	-0.54	-0.53	0.09	Marginal Improvement
Thailand	-0.79	-0.82	-0.86	-0.69	0.09	Marginal Improvement
Vietnam	-1.21	-1.15	-1.03	-0.97	0.24	Improvement

Source: http://data.worldbank.org/indicator last accessed on 23-09-2015.

Table 52 reveals the logistic performance index (LPI) for India ad selected WTO members, and for a realistic approach a comparison is drawn to the LPI of Germany[110]. This analysis of individual countries LPI are explained under three categorisation based on trends in the movement of LPI over the year 2007 to 2014. All the countries with LPI having positive indices, which indicates an improvement over the years are categorised under 'Improvement'[111], and those with negative indices are categorised as 'Deterioration' and finally those with no movement are categorised as 'No Change'.

The analysis of the distribution of the selected countries suggests, close to five countries of ten countries belonged to the category of marginal improvement (less than the Score of 0.1) and the rest four countries belonged the category of Improvement with time series change score of more than 0.1 and one country belonged to the category of deterioration with a negative score of 0.19. India was in the category of marginal improvement with scores of 0.01 and 0.07 respectively. The change in scores observed in the case of India was encouragingly positive for the period of 2007 to 2010. At an average of 3.09 India's LPI score was higher than the Peru's average score of 2.84, suggesting that I terms of LPI India had a better score in comparison to that Peru.

Another approach to understand the LPI scores, were to use a comparison of the scores with that of Germany - as the achievable. The distance from Germany was calculated and then an assessment was made. Finally, an assessment was made on the calculated distance scores of different countries for the period of 2007 to 2014. Assessment is done on the basis of Column 6

[110] In terms of easy of doing business Germany is ranked first.

[111] The categorisation is further refined by providing distinctions which are like 'improvement' and 'marginal improvements' similarly in the case of 'deterioration' also there are two distinctions like deterioration and 'marginal deterioration' based on the range of score.

which further provides performance over the time period in terms of the four distances calculated for 10 countries.
A country having positive value would be categories as 'Improvement' and all the values less than 0 would be categorised as broadly 'Deterioration'[112]. Countries like China and Vietnam fall in the category of improvement. In the category of marginal deterioration two countries namely Chile and India fell. In the category of marginal improvement four countries fall these are Indonesia, Malaysia, Peru and Thailand.

In summary, based on LPI index, both in terms of differences in the index values over the period of 2007 to 2014 and based on trends in the distance from Germany, India's LPI's were marginal improvement and deterioration respectively.

Table 53 provides details on the six indicators of customs procedures for judging a countries performance. In terms of cost of export (US$ per container) and import (US$ per container), with US$ 1,332 cost and US$ 1462 in 2014, India's cost on account of exports and imports have been increasing over years this can observed in the trend from 2005 to 2014. On the other hand the per container growth rates in India and World were 1.8 and 3.3 percent respectively.

Table 53 - Summary of 6 Variables of Analysis of Trade Facilitation and Ease of Trade

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Growth Rate / Distance*
Cost to export (US$ per container)											
India	814	814	770	895	895	1005	1045	1070	1332	1332	6.3
World	1232	1225	1198	1336	1362	1390	1412	1484	1530	1560	3.0
Cost to import (US$ per container)											
India	1324	1324	990	1040	1040	1105	1150	1200	1462	1462	1.8
World	1456	1448	1413	1569	1594	1657	1683	1781	1839	1877	3.3
Documents to export (number)											
India	7	7	7	7	7	7	7	7	7	7	0.0
World	7	7	6	6	6	6	6	6	6	6	-0.7
Documents to import (number)											
India	10	10	10	10	10	10	10	10	10	10	0.0
World	8	8	8	7	7	7	7	7	7	7	-1.1
Lead time to export, median case (days)*											
India	--	--	4.0	--	--	2.3	--	3.0	--	2.0	2.0
World	--	--	4.0	--	--	3.8	--	4.2	--	2.6	1.4
Lead time to import, median case (days)*											
India	--	--	4.7	--	--	5.31	--	3	--	2	2.7
World	--	--	5.5	--	--	4.62	--	5.89	--	3.1	2.4

Note: Cost in US$ per container, (--) data not available.
Source: online database of World Bank.

In term of documents required for exports and imports, India's requirements of 7 for exports and 10 for imports put India on the back foot compared to average global performance. India will have

[112] *Ibid*, footnote 3.

to cut these documents by nearly half the present level. However, this exercise should be done after diligent study of the nature of the exports and imports, as some stage of products would require more documentation when compared to certain other stage of products, such difference are also applicable to cost per container.

Lead time taken for exports and imports has shown considerable decrease in the case of India. In the case of exports from India it dropped from 4 days in 2005 to 2 days by 2014, similarly the lead time for imports dropped 4.7 days in 2007 to 2 days in 2014. Therefore, India has brought about considerable streamlining of the customs procedures and processes in the last couple of years.

The positive side of India's performance is that while it had 3 additional documents as requirement for exports and in terms of lead time India relatively better performance. Similar assessment can also be made of import documentation requirements and the lead time for imports. India has achieved a much better performance on account of trade facilitation.

Table 54 - Summary Table on Business Environment in Selected Countries

	Ease of Doing Business Rank	Starting a Business	Dealing with Construction Permits	Getting Electricity	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Resolving Insolvency
Malaysia	6	16	43	21	35	1	4	36	5	30	42
Thailand	18	91	14	12	29	73	12	70	24	22	58
Chile	34	22	101	43	55	55	34	38	40	64	102
China	96	158	185	119	48	73	98	120	74	19	78
Vietnam	99	109	29	156	51	42	157	149	65	46	149
Philippines	108	170	99	33	121	86	128	131	42	114	100
Indonesia	120	175	88	121	101	86	52	137	54	147	144
India	134	179	182	111	92	28	34	158	132	186	121

Source: Compiled by the author based on the online database of World Bank.

Table 54 indicate the ranking of ease of doing business in India and clearly India has to do considerable streamlining of the various issues related to it, India is working on these issues which could be reflected in the future improvements of the ranking.

6.1.4 POWER

The power sector in India is mainly governed by the Ministry of Power. There are three major pillars of power sector these are Generation, Transmission, and Distribution. As far as generation is concerned it is mainly divided into three sectors these are Central Sector, State Sector, and Private Sector[113]. The Ministry of Power started functioning independently with effect from 2nd July, 1992. Earlier it was known as the Ministry of Energy sources. Electricity is a concurrent subject at Entry 38 in List III of the seventh Schedule of the Constitution of India. What this The Ministry of Power is primarily responsible for the development of electrical energy in the country.

[113] See http://indianpowersector.com/home/about/

Central Sector or Public Sector Undertakings (PSUs), constitute 29.78 percent (62826.63MW) of total installed capacity i.e, 210951.72 MW (as on 31/12/2012) in India. Major PSUs involved in the generation of electricity include NHPC Ltd., NTPC Ltd.,, and Nuclear Power Corporation of India (NPCIL). Besides PSUs, several state-level corporations are there which accounts for about 41.10 percent of overall generation, such as Jharkhand State Electricity Board (JSEB), Maharashtra State Electricity Board (MSEB), Kerala State Electricity Board (KSEB), in Gujarat (MGVCL, PGVCL, DGVCL, UGVCL four distribution Companies and one controlling body GUVNL, and one generation company GSEC), are also involved in the generation and intra-state distribution of electricity. Other than PSUs and state level corporations, private sector enterprises also play a major role in generation, transmission and distribution, about 29.1 percent (61409.24MW) of total installed capacity is generated by private sector.

Power and Energy are two essential inputs for economic development and improving the quality of life in India. Development of conventional forms of energy for meeting the growing energy needs of society at a reasonable cost is the responsibility of the Government. This section focuses on the growth of both conventional and non-conventional form of energy in the country. Details of the schemes, policies, reports, statistics related to the sector are available. Special initiatives by the Union and state governments to promote the non-conventional/alternate/new and renewable sources of energy such as solar, wind and bio-energy, etc., are also mentioned.

6.1.5 Mining and Manufacturing Policies

6.1.5.1 Mining Policies

Minerals are valuable natural resources being finite and non-renewable. They constitute the vital raw materials for many basic industries and are a major resource for development. The history of mineral extraction in India dates back to the days of the Harappan civilization. The wide availability of the minerals in the form of abundant rich reserves made it very conducive for the growth and development of the mining sector in India. Minerals are a valuable natural resource being the vital raw material for infrastructure, capital goods and basic industries. As a major resource for development the extraction and management of minerals has to be integrated into the overall strategy of the country's economic development. The exploitation of minerals has to be guided by long-term national goals and perspectives. Just as these goals and perspectives are dynamic and responsive to the changing global economic scenario so also the national mineral policy has to be dynamic taking into consideration the changing needs of industry in the context of the domestic and global economic environment.

India is endowed with huge resources of many metallic and non-metallic minerals. Mining sector is an important segment of the Indian economy. Since independence, there has been a pronounced growth in the mineral production both in terms of quantity and value. India produces as many as 87 minerals, which includes 4 fuel, 10 metallic, 47 non-metallic, 3 atomic and 23 minor minerals (including building and other materials). India has an export interest some of the mineral products.

Management of mineral resources is the responsibility of both the Central Government and the State Governments in terms of Entry 54 of the Union List (List I) and Entry 23 of the State List (List II) of the Seventh Schedule of the Constitution of India. The Mines and Minerals

(Development and Regulation) Act, 1957 (MMDR Act) , lays down the legal frame - work for the regulation of mines and development of all minerals other than petroleum and natural gas. The Central Government has framed the Mineral Concession Rules, 1960 (MCR) for regulating grant of reconnaissance permits (RP), prospecting licenses (PL) and mining leases (ML) in respect of all minerals other than atomic minerals and minor minerals. The State Governments have framed the rules in regard to minor minerals.

The Central Government have also framed the Mineral Conservation and Development Rules, 1988 (MCDR), for conservation and systematic development of minerals. These are applicable to all minerals except coal, atomic minerals and minor minerals. The Central Government in consultation with State Governments shall formulate the legal measures necessary for giving effect to the new National Mineral Policy, 2008, to ensure basic uniformity in mineral administration across the country and to ensure that the development of mineral resources keeps pace, and is in consonance with the national policy goals. The MMDR Act, the MCR and the MCDR will be amended in line with the policy. The regulation of mines and development of mineral resources in accordance with the national goals and priorities as spelt out in the policy and the legal framework shall be the responsibility of both the Central and the State Governments. In order to make the regulatory environment conducive to private investment the procedures for grant of mineral concessions of all types, such as Reconnaissance Permits, Prospecting Licenses and Mining Leases, shall be transparent and seamless and security of tenure shall be guaranteed to the concessionaries. The first - in - time principle in the case of sole applicants and the selection criteria in the case of multiple applicants will be appropriately elaborated. Prospecting and mining shall be recognized as independent activities with transferability of concessions playing a key role in mineral sector development[114].

6.1.5.2 MANUFACTURING POLICIES

The share of manufacturing in gross value added at factor cost has declined from 17.7% in 2012-13 to 17.1% in 2013-14 and 16.8% in 2014-15 (advance estimates)[115]. Productivity in the sector is low partly because of the relatively small size of firms in the sector, which makes it difficult to gain from economies of scale[116].

The Government notified a new manufacturing policy in 2011, which aims at increasing manufacturing's share in GDP to 25%[117]. To implement the policy, national investment and manufacturing zones (NIMZs) have been created. In September 2014, the Government launched a "Make in India" campaign to strengthen the sector and attract investment.

Government of India decided to bring out the National Manufacturing Policy to bring about a quantitative and qualitative change with the following six objectives:

i. Increase manufacturing sector growth to 12 - 14% over the medium term to make it the engine of growth for the economy. The 2 to 4 % differential over the medium term growth

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[114] Government of India, 2009, 'National Mineral Policy- (For non-fuel and non-coal minerals)', Ministry of Mines.

[115] Ministry of Statistics and Programme Implementation, Central Statistical Organization, Press Release dated 9 February 2015. Viewed at: http://mospi.nic.in/Mospi_New/upload/nad_press_release_9feb15.pdf.

[116] OECD (2014), OECD Economic Surveys, India. Viewed at: http://www.keepeek.com/Digital-Asset-Management/oecd/economics/oecd-economic-surveys-india-2014_eco_surveys-ind-2014-en#page2..

[117] Department of Industrial Policy and Promotion (2011), "National Manufacturing Policy", Press Note No. 2 (2011 series), November. Viewed at http://commerce.nic.in/ann/National_Manfacturing_Policy2011.pdf?id=10.

rate of the overall economy will enable manufacturing to contribute at least 25% of the National GDP by 2022.

ii. Increase the rate of job creation in manufacturing to create 100 million additional jobs by 2022.

iii. Creation of appropriate skill sets among the rural migrant and urban poor to make growth inclusive.

iv. Increase domestic value addition and technological 'depth' in manufacturing.

v. Enhance global competitiveness of Indian manufacturing through appropriate policy support.

vi. Ensure sustainability of growth, particularly with regard to the environment including energy efficiency, optimal utilization of natural resources and restoration of damaged/degraded ecosystems.

In order to achieve these goals:

i. Foreign investments and technologies will be welcomed while leveraging the country's expanding market for manufactured goods to induce the building of more manufacturing capabilities and technologies within the country;

ii. Competitiveness of enterprises in the country will be the guiding principle in the design and implementation of policies and programmes;

iii. Compliance burden on industry arising out of procedural and regulatory formalities will be reduced through rationalization of business regulations.

iv. Innovation will be encouraged for augmenting productivity, quality, and growth of enterprises; and

v. Effective consultative mechanism with all stake holders will be instituted to ensure mid - course corrections.

Specific policy instruments have been conceptualized to achieve the objectives stated above. These instruments which are outlined in greater detail in Part - B of the Policy document broadly cover the following areas:

i. Rationalization and simplification of business regulations;

ii. Simple and expeditious exit mechanism for closure of sick units while protecting labour interests;

iii. Financial and institutional mechanisms for technology development, including green technologies;

iv. Industrial training and skill up gradation measures; v. Incentives for SMEs;

v. Special Focus Sectors;

vi. Leveraging infrastructure deficit and government pro curement - including defence;

vii. Clustering and aggregation : National Investment and Manufacturing Zones (NIMZs);

viii. Trade Policy[118]

These are some general initiatives taken from the overall developmental of the manufacturing sector further sector specific details are elaborated in this section.

6.1.5.2.1 TEXTILE AND CLOTHING

[118] Government of India, 2011, 'National Manufacturing Policy'. Ministry of Commerce & Industry Department of Industrial Policy & Promotion (Manufacturing Policy Section) PRESS NOTE N° 2 (2011 SERIES).

In textiles and clothing, the Government provides interest rate subsidies under the Technology Up gradation Scheme with a view to upgrading technology in machinery.[119] The Government has also been trying to promote industrial and textile clusters through, inter alia, the Integrated Textile Parks Scheme (40% of which is funded by the Government while 60% is private), which aims to provide infrastructure facilities to the textile industry; subsidies are provided through a selection process based on budget limitations. In addition, there exists Hank Yarn Obligation, a mechanism instituted in 2013 with a view to protecting handloom weavers and ensuring sufficient availability of hank yarn for the handloom sector.[120] MSPs apply to cotton. Every year, before the commencement of the cotton season, the Commission for Agricultural Costs and Prices (CACP) fixes the MSPs for the medium staple length and long staple length cotton. For the cotton season 2014-15, the Government fixed the MSP for medium staple length cotton at Rs 3,750 and Rs 4,050 per quintal for the long staple length cotton. The Government has nominated the CCI and NAFED to purchase at the MSPs. In textiles and clothing, 100% foreign-ownership is allowed under the automatic route subject to all applicable regulations and laws.

6.1.5.2.2 IRON AND STEEL

In the iron and steel sector, 100% foreign investment is allowed. The Government has substantial shares in public sector enterprises, holding for example, around 75% of total shares of the Steel Authority of India. The authorities maintain that most of these companies, where the Government may have a substantial shareholding, are listed on the stock exchanges and their operations are on a purely commercial basis. To promote the industry's competitiveness and improve efficiency and productivity, the National Steel Policy, issued in 2005, is aimed at increasing steel output to 110 million tonnes per annum by 2019-20 (from 38 million tonnes in 2004-05); in 2013-14, steel production amounted to 87.7 million tonnes. The authorities are in the process of revising the Policy. In March 2014, a Steel and Steel Products (Quality Control) Second (Amendment) Order 2014 was issued to provide for mandatory BIS certification for various steel products covering 93 tariff lines.[121]

6.1.5.2.3 FOOD PROCESSING

The Ministry of Food Processing Industries has various schemes to provide assistance to food processing industries in India, which face major infrastructure constraints. One of its main schemes is the Mega Food Park Scheme, which aims to provide an infrastructure for farmers, processors and retailers particularly in rural sectors.[122] The scheme is proposed to be entrepreneur driven and implemented on a PPP (public private partnership) basis. Under the scheme, a one-time capital grant of 50% of the project cost can be accorded subject to a maximum of Rs 500 million in general areas and 75% of the project cost subject to a ceiling of Rs 500 million in difficult

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[119] Ministry of Textiles online information. Viewed at: http://www.texmin.nic.in/policy/Anx%20CCategory%20wise%20Subsidy%20Approved%20as%20on%205.3.2014.pdf.

[120] Government of India, 2012, Press Information Bureau online information, web link http://pib.nic.in/newsite/PrintRelease.aspx?relid=83745.

[121] Ministry of Steel Order S.O.979 (3), 31 March 2014.

[122] The scheme is aimed at providing modern infrastructure facilities along the value chain from farm gate to the market with backward and forward linkages. It includes creation of infrastructure for primary processing and storage near the farm in the form of primary processing centres (PPCs) and collection centres (CCs) and common facilities and enabling infrastructure at Central Processing Centre (CPC).

and hilly areas.[123] Other facilities being provided include cold chain infrastructure. A minimum of 50 acres of land is required to set up a mega food park. 21 mega food parks have been accorded final approval; they are at various stages of implementation. There are around 370 technical regulations that affect food processing in India which are mostly aligned with Codex.

6.1.5.2.4 AUTOMOBILE

The turnover of automotive industry was more than 45% of the manufacturing GDP of India during 2014-15. The importance of this industry to the national economy can be seen by way of the size of its turnover compared to India's GDP and contribution across several other parameters: 7.1% of India's GDP; 27% of India's industrial GDP; 4.3% of overall exports (second only to textiles & handicrafts); 13% of excise revenues; Incremental employment generation in excess of 19 million since 2005-06; • Total investment in excess of US$ 35 billion of which US$ 24 billion is contributed by automobile; companies while US$ 11 billion is contributed by automotive component companies; 8% of the country's R&D expenditure, and Improvement in fuel efficiency of passenger vehicles resulting in fuel savings of 8.6 billion litres between 2006-07 and 2014-15.[124]

India's automotive industry is protected by high import duties and port restrictions for import of vehicles. The average applied MFN tariff for motor vehicles (HS 8703) in 2006-07 was 100%; it was reduced to 60% in 2010-11 but increased to 100% in 2014-15. Given such high tariffs and that 100% foreign ownership is allowed, it is likely that some portions of the FDI in the industry is for "tariff-jumping" purposes. Although there are no licensing requirements for imports of new vehicles, licences need to be obtained for imports of automobiles more than three-years old, once safety and environmental requirements are met. In addition to a tariff of 100%, imports of vehicles may enter only through the three main ports (Chennai, Kolkata, and Mumbai for new vehicles and Mumbai for second-hand cars). In December 2006, the Department of Heavy Industry issued an Automobile Mission Plan 2006-2016 as a road map for future development of the industry. The Plan has various suggestions for policy interventions. Automobile manufacturing is subject to various technical regulations.

6.1.6 FOREIGN INVESTMENT IN THE SMALL SCALE SECTOR

Under the small scale policy, equity holding by other units including foreign equity in a small scale undertaking is permissible up to 24 per cent. However there is no bar on higher equity holding for foreign investment if the unit is willing to give up its small scale status. In case of foreign investment beyond 24 per cent in a small scale unit which manufactures small scale reserved item(s), an industrial license carrying a mandatory export obligation of 50 per cent would need to be obtained.

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[123] These are the north east regions including Sikkim, J&K, Himachal Pradesh, Uttarakhand and ITDP notified areas of the States.

[124] Government of India, 2007 'Review of Automotive Mission Plan 2006 – 2016', Ministry of Heavy Industries and Public Enterprises, January.

6.1.7 Foreign Trade Policy schemes

The Government of India has framed several schemes to promote exports and to obtain foreign exchange. These schemes grant incentives and other benefits. The few important export incentives, from the point of view of indirect taxes are briefed below.

6.1.7.1: Duty Exemption and Remission Schemes

The scheme permits duty free imports of inputs for exports and has been categorized into the following:

a) Advance Authorisation (AA) Scheme
b) Duty Free Import Authorisation (DFIA)

6.1.7.2: Export Promotion Capital Goods (EPCG) Scheme

The objective of the EPCG scheme is to facilitate import of capital goods for producing quality goods and services to enhance India's export competiveness. The scheme permits duty free import of capital goods for pre-production, production and post production at zero custom duty.

6.1.7.3: Exports from India Scheme:

There are two forms of exports schemes namely (i) the Merchandise Exports from India Scheme (MEIS) for export of specified goods to specified markets and (ii) Services Exports from India Scheme (SEIS) for increasing exports of notified services

6.1.7.4 Deemed Exports

The Indian suppliers are entitled for the following benefits in respect of deemed exports subject to certain conditions:

a) Advance Authorisation /Advance Authorisation for annual requirement/DFIA.
b) Deemed Export Drawback.
c) Refund of terminal excise duty, if exemption is not available

6.1.7.5 Manufacture under Bond

This scheme furnishes a bond with the manufacturer of adequate amount to undertake the export of his production. Against this the manufacturer is allowed to import goods without paying any customs duty, even if he obtains it from the domestic market without excise duty. The production is made under the supervision of customs or excise authority.

6.1.7.6 Duty Drawback

It means the rebate of duty chargeable on imported material or excisable material used in the manufacturing of goods in and is exported. The exporter may claim drawback or refund of excise

and customs duties being paid by his suppliers. The final exporter can claim the drawback on material used for the manufacture of export products. In case of re-import of goods the drawback can be claimed.

The following are Drawbacks:

- Customs paid on imported inputs plus excise duty paid on indigenous imports.
- Duty paid on packing material.

Drawback is not allowed on inputs obtained without payment of customs or excise duty. In part payment of customs and excise duty, rebate or refund can be claimed only on the paid part.

In case of re-export of goods, it should be done within 2 years from the date of payment of duty when they were imported. 98% of the duty is allowable as drawback, only after inspection. If the goods imported are used before its re-export, the drawback will be allowed as at reduced percent.

6.1.8 SPECIAL ECONOMIC ZONES (SEZ)

Special treatment zones are known as Special Economic Zones/Free Trade Zones in India. India was one of the first in Asia to recognise the effectiveness of the Export Processing Zones (EPZ) model for export promotion, with Asia's first EPZ set up in Kandla in 1965. To overcome the shortcomings on account of multiplicity of controls and clearances; absence of world class infrastructure and unstable fiscal regime and with a view to attract larger foreign investments in India, the Special Economic Zones (SEZs) Policy was announced in April 2000.[125]

Seven EPZs set up by the central government at Kandle (Gujarat), Santa Cruz (Maharashtra), Cochin (Kerala), Noida (UP), Chennai (Tamil Nadu), Falta (West Bengal) and Visakhapatnam (Andhra Pradesh), were converted to SEZs on announcement of the SEZ policy. Another EPZ set up in the private sector in Surat was also converted to SEZ. In addition, 11 more SEZs were set up by the state governments/private sector during the period 2000-1005. After the coming into force of the SEZ ACT 2005, 491 formal approvals have been granted for setting up of SEZs, out of which 352 SEZs have been notified and are in various stages of operation and out of which a total of 199 SEZs are already exporting.

No excise duties are payable on goods manufactured in these zones provided they are made for export purpose. Goods being brought in these zones from different parts of the country are brought without the payment of any excise duty. Moreover, no customs duties are payable on imported raw material and components used in the manufacture of such goods being exported. If entire production is not sold outside the country, the unit has the provision of selling 25% of their production in India. On such sale, the excise duty is payable at 50% of basic plus additional customs or normal excise duty payable if the goods were produced elsewhere in India, whichever is higher.

While correcting the shortcomings of the EPZ model, some new features were incorporated in the Special Economic Zones (SEZs) Policy announced in April 2000. This policy intended to make SEZs

[125] Government of India, 2015, "Annual Report 2014-15", Department of Commerce, Ministry of Commerce and Industry.

an engine for economic growth supported by quality infrastructure complemented by an attractive fiscal package, both at the Centre and the State level, with the minimum possible regulations.

The salient features of the SEZ Scheme are:

- A designated duty free enclave to be treated as foreign territory only for trade operations and duties and tariffs.
- No license required for import.
- Manufacturing or service activities allowed.
- SEZ units to be positive net foreign exchange earner within three years.
- Domestic sales subject to full customs duty and import policy in force.
- Full freedom for subcontracting.
- No routine examination by customs authorities of export/import cargo.

In order to impart stability to SEZ regime and to achieve generation of greater economic activity and employment through the establishment of SEZs, a Special Economic Zone Act has been enacted. The SEZ Act, 2005, supported by SEZ Rules, has come into effect on 10th February 2006. Incentives and facilities offered to units in SEZs under the Act, for promotion of investment, including foreign investment include: duty free import/domestic procurement of goods for development, operation and maintenance of SEZ units, 100% Income Tax exemption on export income for SEZ units under Section 10AA of the Income Tax Act for first 5 years, 50% for next 5 years thereafter and 50% of the ploughed back export profit for next 5 years, exemption from Central Sales Tax, exemption from Service Tax and single window clearance mechanism for establishment of units.

All the 8 Export Processing Zones (EPZs) located at Kandla and Surat (Gujarat), Santa Cruz (Maharashtra), Cochin (Kerala), Chennai (Tamil Nadu), Visakhapatnam (Andhra Pradesh), Falta (West Bengal) and Noida (U.P.) have been converted into Special Economic Zones. In short span of about three years, SEZs Act and rules were notified in February, 2006. So far formal approvals have been granted for setting up of 576 SEZs out of which 319 have been notified. Out of the total employment provided to 387 thousand persons in SEZs as a whole, 253 thousand persons is incremental employment generated after February, 2006 when the SEZ Act came into force. This is apart from the millions of man-days of employment created by the developer of infrastructure activities. Physical exports from SEZs have increased from US$ 1,614 million in 2007-08 to US$ Rs 8,427 million in 2013-14, registering a growth of nearly 55%. These trends establish beyond doubt that the response to SEZ policy of the central government has been overwhelming and the scheme has been able to achieve the envisaged objectives- as there has been overall growth of export of 54% over past five years (2004-09) see Table 53.

Table 55 - Exports from the functioning SEZs during the last decade

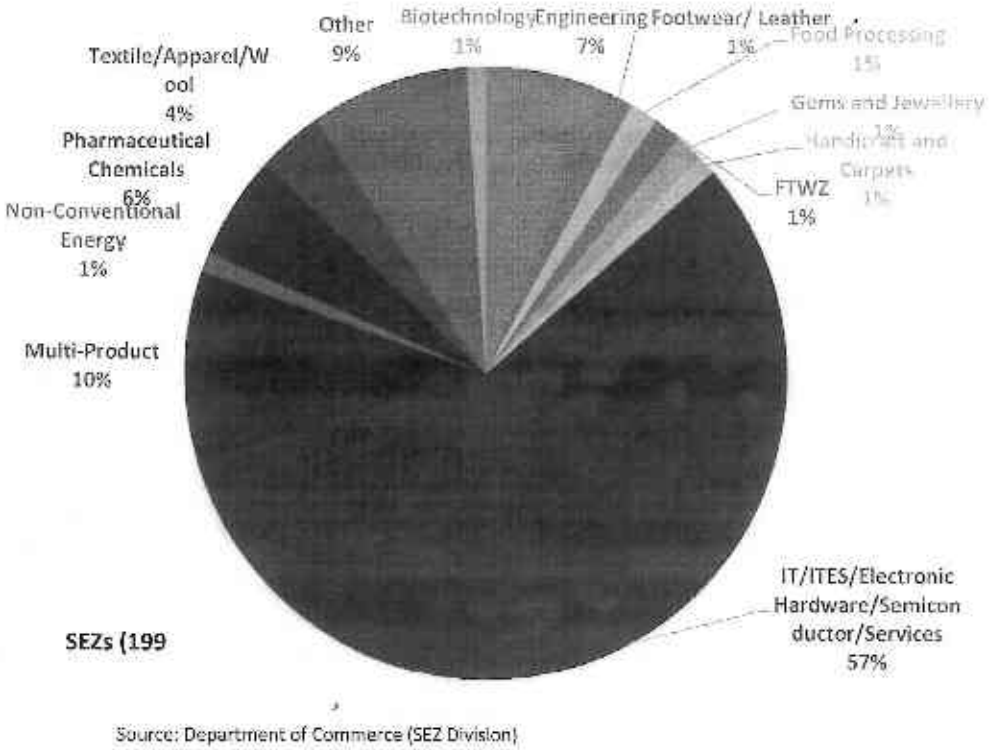
Year	Value (US$ Million)	Growth Rate (over previous Year)
2003-2004	298	39
2004-2005	404	32
2005-2006	518	24.7
2006-2007	764	52
2007-2008	1,614	92
2008-2009	2,296	50
2009-2010	4,565	121.4
2010-2011	6,906	43.1
2011-2012	7,809	15.4
2012-2013	8,901	31
2013-2014	8,427	4
2014-2015	5711.3 (up to December 2014)	-7.6

Note: Values in rupees crores converted using the RBI exchange rate to US Dollar.
Source: Compiled by the author from various Chapters on SEZ from the Annual Reports of DoC.

Total investment in the SEZs is 322.5 billion. The incremental investment in the SEZs notified under the SEZ Act 2005 is 318.566.04 billons since the coming into force of the SEZ act in February 2006.

A total of 91 SEZs are making exports. Out of this 43 are IT/ITES, 13 Multi product and 35 other sector specific SEZs. The total number of units in these SEZs is 2263. The overwhelming response to the SEZ scheme is evident from the flow of investment and creation of additional employment in the country. The SEZ scheme has generated tremendous response amongst the investors, both in India and abroad.

Figure 46 - Sector-wise Distribution of Operational SEZ in India
(no. and % of operational SEZs (199) as on 31-21-2015)



Source: Department of Commerce (SEZ Division)

6.1.9 TRADE RELATED PROPERTY RIGHTS

India is a signatory to the Agreement on Trade related Aspects of Intellectual Property Rights of the WTO is commonly known as the TRIPS Agreement. This Agreement was negotiated as part of the eighth round of multilateral trade negotiations in the period 1986-94 under General Agreement on Tariffs and Trade (GATT) commonly referred to as the Uruguay Round extending from 1986 to 1994.

6.1.9.1 RELATION BETWEEN TRIPS, WTO AND WIPO

Intellectual Property Rights (IPRs) at a multilateral level have their genesis in the Paris Convention for the Protection of Industrial Property in 1883, which protected industrial property i.e. Patents and trademarks and the Berne Convention for the Protection of Literary and Artistic Works in 1886 for copyrights and related rights. World Intellectual Property Organization (WIPO), which began its work in 1967 taking over from the Bureau for the Protection of Intellectual Property that had been working since 1893, is the international agency under the United Nations that administers the work of these conventions. The WIPO administers many other international conventions on IPRs also. While the IPR Conventions and treaties create the international standards in protection of IPRs which are to be followed by the member countries, substantive trade related disciplines on IPRs under these international conventions have been adopted by reference into the WTO through the TRIPS Agreement. The WTO provides that "intellectual property" should be protected when trade is involved. Thus, through the TRIPS, the WTO makes it mandatory for all its member

countries to follow basic minimum standards of IPR provided for under TRIPS and bring about a degree of harmonization of domestic laws in this field.

The IPR framework in India is stable and well established from a legal, judicial and administrative point of view and is fully compliant with the Agreement on TRIPS. Not only India is committed to wide range of international treaties and conventions but also number of awareness programmes are being conducted by Indian government in order to protect Intellectual property rights.

During the last few years, Indian IP offices have undergone major improvements in terms of up gradation of IP legislation, infrastructure facilities, human resources, the processing of IP applications, computerization, databases, quality services to stakeholders, transparency in functioning and free access to IP-data through a dynamic website.

State of the art, integrated and IT- enabled office buildings have been created during the last few years in New Delhi, Kolkata, Chennai and Mumbai and Ahmedabad, housing central wings for Patents and Designs and Trademarks and Geographical Indications. The Patent Office is headquartered at Kolkata with branches at New Delhi, Chennai and Mumbai. The Trade Mark Registry, headquartered at Mumbai has branches in Ahmedabad, Chennai, New Delhi and Kolkata. The Design Office is located in Kolkata and the GI Registry is at Chennai. Separate facilities house the ISA/IPEA in New Delhi and additionally, there is an Intellectual Property Office Archives is at Ahmadabad.

Simplified procedure for filing, E-filing facilities and incentives for SMEs are some of the other initiatives in the area of intellectual property rights in India.

6.1.9.2 INTERNATIONAL TREATIES

India is a member of the World Trade Organization and committed to the Agreement on Trade Related Aspects of Intellectual Property. India is also a member of World Intellectual Property Organization, a body responsible for the promotion of protection of intellectual property rights throughout the world. India is also a member of the following important WIPO-administered International Treaties and Conventions relating to IPRs:

- Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure.
- Paris Convention for the Protection of Industrial Property.
- Convention Establishing the World Intellectual Property Organization.
- Berne Convention for the Protection of Literary and Artistic Works.
- Patent Cooperation Treaty.
- Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks- Madrid Protocol.
- Washington Treaty on Intellectual Property in respect of Integrated Circuits.
- Nairobi Treaty on the Protection of the Olympic Symbol.
- Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms.

6.1.9.3 INTELLECTUAL PROPERTY ADMINISTRATION

Patents: India has taken strong steps in strengthening the patent system in the country. The Government aims at establishing a patent regime that is conducive to technological advances and is in line with its global commitments.

Patent application filing at Indian Patent Office has been increasing consistently over the years which demonstrate the confidence of the global industry in the Indian patent ecosystem.

Filing and processing of patent applications viz., examination, grant and post–grant proceedings are carried out at all the four Patent Office locations independently through a virtual network system which links all four Patent Offices; however, there is only one virtual Patent Office for the purpose of grant of patents. A patent is granted for a uniform period of 20 years from the filing date of the patent application for inventions in all fields of technology and it is a territorial right.

The Indian Patent Office has been recognized as an International Searching Authority and an International Preliminary Examining Authority (ISA/IPEA) by World Intellectual Property Organization in October, 2007 under the Patent Cooperation Treaty, and has operationalized the status since 15th October, 2013, thus joining an elite group of 17 countries.

6.1.9.4 IT ENABLED PROCESSING AND COMPUTERIZED WORKFLOW

All the records are digitized and freely available through the official website <www.ipindia.nic.in>. Every document received in the office is scanned and digitised before taking any action on the document and is made available through the official website to the public. The entire processing of patent applications is electronic and information relating to processing is made available on the website in real time, thereby providing valuable information to the applicants.

6.1.9.4.1 INSTANT ELECTRONIC COMMUNICATIONS WITH THE APPLICANTS

Consequent to filing of a document, instant e-mail is sent to the applicant at the mail IDs and numbers registered with the office. Such messages are QR coded to preserve their authenticity.

Dynamic utilities are available on the website which provides useful real-time information such as issue of examination reports in a given month, disposal of applications, information about lapsed and ceased patents etc.

The entire records in all matters, which are not prohibited from publication by the statute are made available to the public on the website. All the documents are digitized as soon as they are received in the Office to enable computerized processing of applications and are made available to the public in real time through the official website.

The Patent Office has a strong pool of experts for processing of patent applications. At present it has strength of 192 Examiners and 89 Supervising Officers. Among them, 42 have Doctorate degree, 75 are Post-Graduates in different branches of science, 25 have Post-Graduate degree in Engineering and 139 have Degree in Engineering/ Technology.

6.1.9.5 INDUSTRIAL DESIGN

Every design to be registrable must pass the universal test of novelty. A registered design is valid for 10 years and can be further extended by another 5 years. A design cannot be registered if it is not new or original or has been disclosed to the public in India or anywhere in the world by publication.

6.1.9.6 TRADEMARKS

A trademark is used or proposed to be used to distinguish the goods or services of one person from those of others in the course of trade. Though the registration of trademark is not compulsory, registration is a prima facie proof of the title and it gives the registered proprietor an exclusive right to use the trademark and take legal action in case of infringement. If a trademark is not registered and if someone not having the right in the trademark uses that trademark, the proprietor of the trademark can take the common law action of passing off. The initial registration is valid for a period of 10 years which is renewable for an indefinite period of time.

India also acceded to the Madrid Protocol which allows applicants to file in other countries that are members of the Protocol through a simple form and by payment in one currency foreign applicants can also file indicating India as the designated country in forms. This also enables time-bound processing of Trade Marks applications.

6.1.9.8 MADRID PROTOCOL

Indian office is receiving applications for protection of trademarks under the Madrid Protocol and making all correspondence relating thereto online through the gateway provided by this office, similarly all communications from the International Bureau regarding international applications or registration under the Madrid Protocol are made by Indian office through electronic means only.

6.1.9.9 AUTOMATED AND TRANSPARENT FUNCTIONING OF THE TRADEMARKS INDUSTRY

All the functions of the TMR are performed through a Trade Marks System (TMS). The Data Entry of all vital information relation to trademark application or a registered trademark has been done and all available paper records relating to trademark applications or registered trademarks have been digitised and these are linked with the relevant application or registered trademarks, in the system.

6.1.9.10 OTHER INFORMATION

The IPO website contains separate Gateway for E- Filing of trademark applications and free online public search facilities for search of identical or similar trademarks. Trade Mark E-Journal is published every Monday giving the details of accepted applications for registration of trademarks & other information. Details of all trademark applications or registered trademarks, status of applications/registered trademarks, public notices, copies of important office orders, circulars and other useful information are available on the website of the Office of the Controller General of

Patens, Designs and Trade Marks. The complete stock and flow information is also available on the website.

Public can see on real time basis the details of examination of trademark applications, show cause hearings, publication in the trademark journal, registration of trademarks, disposal of applications by way of abandonment, refusal etc.

6.1.9.11 GEOGRAPHICAL INDICATIONS

The Geographical Indications Registry is a statutory organization set up at Chennai for administration of the GI Act with the objective of providing registration and protection of geographical indications (GI) relating to goods. Applications for registration of Geographical Indications can also be filed by foreign entities for registration of their GI in India in accordance with the provisions of TRIPS. A Manual of Practice and Procedure is in place to ensure uniformity and consistency in practice.

6.1.10 CONCLUSION

Indian institutions are one of the most transparent and stable in the world and they are on the path of becoming more and more transparent progressively. The size of Indian economy measured by its GDP size is the ninth biggest economy in the world. In terms of geographic size, port capacities and trade facilitation indicators India can be compared with one to top few economies in the world. In terms of IP protection, India offers WTO compatible 'sui generis' protections, which helps the progress of developing countries.

6.2 PERSPECTIVE OF PERU

6.2.1 TRADE FACILITATION

According to the Global Enabling Trade Index 2014, Peru is ranked 51st out of 138 countries (top 38%), demonstrating a considerable improvement when compared to 2008 index, in which Peru was ranked 69th out of 118 countries (top 58%). The graphic below shows that Peru's main strengths are domestic and foreign market access, while their major weaknesses are efficiency and transparency of border administration and quality of transport infrastructure. On the other hand, the areas where have to continue making efforts are logistics costs, technical requirements, and production technology.

Furthermore, according to Doing Business Index 2015, Peru is ranked 35th out of 189 economies overall, but on Trading Across Borders section, Peru is ranked 55th. If 2015 DB index is compared to 2008 DB index, time for export and import have been reduced considerably in the last years. In the case of exportation, in 2008, 22 days were necessary to finish the process and in 2015 only 12 days are requiered. On the importation process, the reduction has been from 29 to 17 days between 2008 and 2015.

Figure 47 - Global Enabling Trade Index 2014 - Peru

Source: World Economic Forum (2014)

Table 56 – Peru: Comparison between Doing Business 2008 and 2015

Trading Across Borders - Peru				
Edition	Time to Export (days)	Export Cost (US$ per container)	Time to Import (days)	Import Cost (US$ per container)
DB2008	22	575	29	670
DB2015	12	890	17	1,010

Source: World Bank (2015)

6.2.2 TRANSPORTATION AND LOGISTICS MATTERS

The quality of transport infrastructure is one of the main factors for a country to acquire adequate levels of competitiveness and internal and external integration. According to the Global Competitiveness Report 2015-2016, Peru is ranked at 105 (from a sample of 144 countries) in terms of the quality of overall infrastructure, 102 with respect to the quality of roads, 87 with respect to port infrastructure, 89 with respect to airport infrastructure and 90 regarding rail road infrastructure.

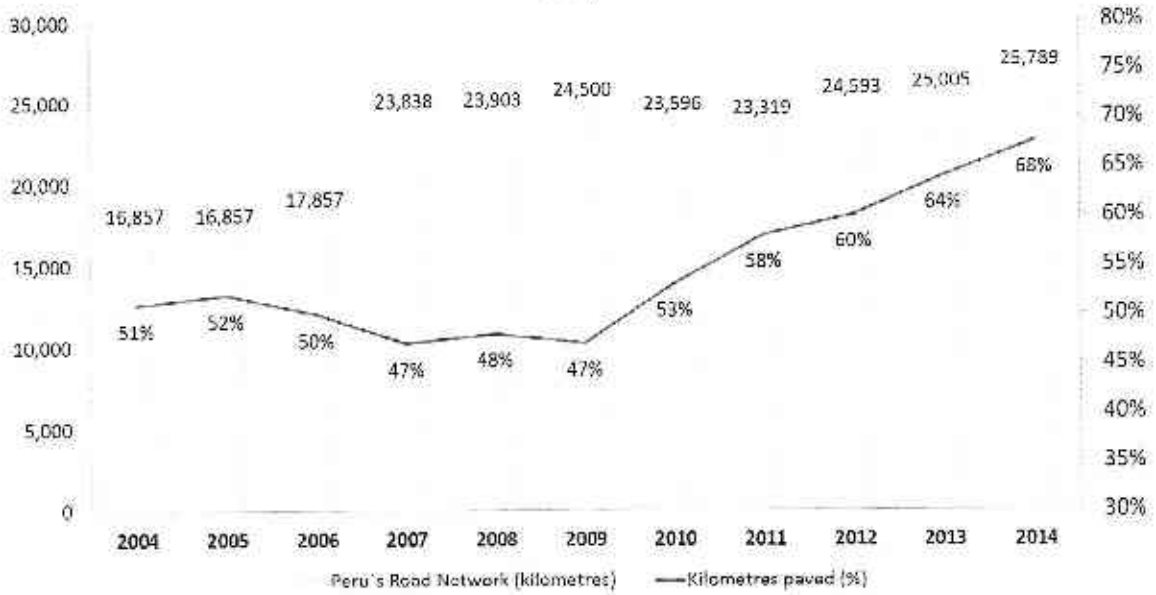
The Ministry of Transportation and Communications (MTC) is responsible for ensuring Peru's internal and external integration by regulating, promoting, building and supervising the transport and communications infrastructure. Additionally, the Supervisory Authority for Investment in Public Transport Infrastructure (OSITRAN) monitors investment in the transport infrastructure for public use.

6.2.2.1 ROAD INFRASTRUCTURE

During the last decade, the extension of the Peru´s road network increased by 53%, from 16,857 km to over 25,700 km in 2014. During this period, the percentage of paved roads increased from

51% to 68% due to important public and private investments. From 2003 onwards, 16 road concessions have been granted, accumulating investments of US$ 3,206 million.

Figure 48 - Peru: Road Network
(Kms.)



Source: MTC

6.2.2.2 PORT INFRASTRUCTURE

Peru has 11 public seaports and a set of private ports used primarily to transport minerals and oil products. The port of Callao is the principal seaport of the country, accounting for 90% of national container port traffic and 71% of total cargo.

Currently, the following ports operate under concessions: Paita, Terminal de Contenedores Muelle Sur Callao, Terminal de Embarque de Concentrados de Minerales Callao, Muelle Norte, Terminal Portuario de Yurimaguas y Puerto General San Martín de Pisco; with accumulated investments of US$ 1,020 million.

With the exception of ports under concession, ports are managed by the national port company *Empresa Nacional de Puertos* (ENAPU), which belongs to the National Fund for the Financing of State Business Activity (FONAFE), a public law entity attached to the MEF. The MTC's Directorate-General of Water Transport (DGTA) is responsible for promoting, regulating and administering the development of maritime, river and lake activities and for the development of waterways and multimodal transport.

According to Law 27942 of 2003, the National Port Authority (APN) is responsible for developing the National Port System (SPN), encouraging private investment in the ports and coordinating the interaction of public and private actors. The Government's competence in relation to port matters is exercised solely by the APN. The fees charged for port services are regulated by OSITRAN.

6.2.2.3 AIRPORT INFRASTRUCTURE

The Directorate-General of Civil Aviation (DGAC), which is part of the MTC,, is responsible for establishing, administering, operating and maintaining navigation aid, radio-communication and air traffic control services and may delegate these activities to another State Agency (Law 27261). OSITRAN is also responsible for regulating airport infrastructure and air navigation services and for supervising concession agreements and non-concession infrastructure managed by the Peruvian Commercial Aviation Corporation (CORPAC), as well as for setting the tariffs for the use of that infrastructure.

CORPAC operates and maintains commercial airports open to air traffic; provides air navigation support, radio-communication and air traffic control services at commercial airfields; and regulates and controls air traffic.

The commercial airport network comprises 23 airports, 19 of which are operated under concessions and 4 are managed by CORPAC. CORPAC also manages 75 airfields[126] and 18 heliports.

The airports under concession are:

- Jorge Chavez International Airport, granted to the company Lima Airport Partners (LAP) for a period of 30 years.
- A group of regional airports (Talara, Tumbes, Chachapoyas, Iquitos, Tarapoto, Pucallpa, Trujillo, Anta-Huaraz, Cajamarca, Pisco, Chiclayo and Piura), granted to the company *Aeropuertos del Perú* (ADP) for a period of 25 years.
- A group of regional airports (Andahuaylas, Ayacucho, Arequipa, Tacna, Juliaca and Puerto Maldonado), granted to the company *Consorcio Aeropuerto Andinos del Perú* (AAP) for a period of 25 years.

Jorge Chavez Int'l Airport is the most important airport in terms of passenger and freight movement. In 2014, 91.3% of total freight traffic (of which 88% was international freight); and 62.5% of passenger traffic was centralized at Jorge Chavez Airport.

Table 57 – Peru: Airport traffic distribution by airport operator, 2013-2014

	2013	Share	2014	Share	2014/2013 (%)
Passenger traffic (thousands)	**23,861**	**100.0**	**25,336**	**100.0**	**6.2**
Lima Airport Partner (LAP)	14,913	62.5	15,659	61.8	5.0
Aeropuertos del Perú (ADP)	4,012	16.8	4,419	17.4	10.1
Consorcio Aeropuerto Andinos del Perú (AAP)	2,303	9.7	2,440	9.6	5.9
CORPAC	2,635	11.0	2,818	11.1	6.9
Cargo Transport (metric tones)	**331,257**	**100.0**	**325,548**	**100.0**	**-1.7**
Lima Airport Partner (LAP)	302,406	91.3	296,517	91.1	-1.9
Aeropuertos del Perú (ADP)	20,972	6.3	20,432	6.3	-2.6
Consorcio Aeropuerto Andinos del Perú (AAP)	5,429	1.6	6,009	1.8	10.7
CORPAC	2,450	0.7	2,589	0.8	5.7

Source: OSITRAN

[126] Public airfields are for public use; other airfields are classified as private (Law 27261).

6.2.3 MINING AND MANUFACTURING POLICIES[127]

6.2.3.1 MINING POLICIES

The mining sector in Peru generates 50% of the income from merchandise exports. The principal markets for Peruvian mineral products are China, the United States, Switzerland, Japan, Canada and the European Union. Copper and gold accounted for about 75% of mineral exports in 2014. The mining sector is also one of Peru's main recipients of investments. During 2009-2014, total investment in the sector amounted to US$ 41 million.

The formulation of mining policy is responsibility of the Ministry of Energy and Mining. Mining policy seeks to: i) update the mining regulations so as to ensure legal stability and improve the conditions for private investment; ii) boost the development of mining activities with better safety conditions for the workers and for the society, while protecting the environment and maintaining harmonious relations with the community; and, iii) reinforce supervision.

The Supervisory Authority for Investment in Energy and Mining (OSINERGMIN) is the public body with national responsibility for supervising and monitoring compliance with the legal and technical provisions relating to mining, electricity and hydrocarbons. It is also responsible for monitoring the safety of the infrastructure associated with these activities. As of 2010, compliance with environmental regulations is monitored and enforced by the Environmental Assessment and Monitoring Service (OEFA), an agency attached to the Ministry of Environmental Issues (MINAM).

Under Article 66 of the Constitution, the State has sovereignty over non-renewable resources. Private-sector operators are allowed to exploit mineral resources under the concession system. The body in charge of granting mining concessions and administering the national mining register and the payments made by all mining concession holders for maintaining their mining rights in force is the Mining and Metallurgical Geological Institute (INGEMMET).

Under the General Law on Mining, there are no limitations on foreign capital participation in mineral exploration, exploitation or processing projects, but exploration and exploitation require a mining concession[128]. A mining concession does not bestow a surface right and a land use permit is required before any kind of mining activity can be carried out[129]. Moreover, environmental impact assessments have to be approved for exploration, exploitation and ore processing activities, among others. Surveying, prospecting and marketing are activities that can be carried out without the need to have a concession.

Foreign companies must establish a domiciled branch or subsidiary in order to engage in exploration and exploitation activities. Concessions are granted for an unlimited period, although a penalty is imposed if by the sixth year after granting of the concession no specific investment has

[127] Sections 6.2, 6.3, 6.4 and 6.5 are based on the Trade Policy Review of Peru (WTO, 2013).

[128] Article 9 of the Single Harmonized Text of the General Law on Mining, approved by Supreme Decree Nº 014-92-EM of 3 June 1992.

[129] Under Article 9 of the General Law on Mining, mining concession and ownership rights are different in nature, the concession right being a real asset distinct and separate from the land to which it relates. To avoid possible social disputes, before commencing mining activities the holder of the concession must reach an agreement with the owner or owners of the land.

been made or production has not yet started. Companies with foreign holdings must have obtained authorization under a supreme decree before starting exploration or exploitation in an area situated within 50 km of the border.

The State levies various fees for mineral exploration and exploitation. Since mid-2004, investors have paid royalties for exploiting minerals. In 2011, the system of royalties was amended in order to collect additional amounts aimed at carrying out social and infrastructure projects in the poorest areas of the country. Under the new scheme, mining companies without tax stability agreements will pay royalties of between 1% and 3% of the value of the concentrate (or its equivalent) extracted and 12% of their operating profits. In addition, these companies will pay a special levy of between 2% and 8.4% on their operating profits.

At the same time, companies with tax stability agreements will pay a special levy on their operating profits at a rate of between 4% and 13%. Small and artisanal producers do not have to pay royalties. The General Law on Mining defines two kinds of producers[130]. Holders of mining concessions must pay an annual fee for the concession, which varies according to the size of the producer[131]. Mining companies must distribute 8% of their profits before tax to their workers.

Law 27623 gives mining concession holders the right to a definitive refund of the VAT and the municipal promotion tax paid on the import and/or local purchase of "goods, supply or utilization of construction services and contracts directly used to carry out exploration" for mineral resources during the exploration phase. This benefit is granted exclusively to companies that invest at least US$ 500,000[132] and will remain in effect up until 31 December 2015.

Holders of mining concessions may enter into tax stability agreements with the State, in addition to the legal stability agreements available to investors in any sector[133]. Tax stability agreements freeze income tax at the rate in effect at the time the agreement was signed plus two percentage points. The tax benefits in effect at the time the agreement was signed are also frozen, but only for the period prescribed in the legal instrument under which the benefits are granted. The term of the agreement varies depending on the production capacity of the company signing it. Companies whose production capacity ranges from 350 to 5,000 tons per day may sign agreements for ten years, while companies with a larger capacity may sign them for 15 years. To sign a ten-year agreement it is necessary to invest at least US$ 2 million in a new project. The minimum amount for 15-year agreements is US$ 20 million invested in new projects or US$ 50 million in existing projects.

6.2.3.2 MANUFACTURING POLICIES

The Ministry of Production (PRODUCE) is responsible for formulating policy for the manufacturing sector. In 2014, PRODUCE announced the National Plan for Productive Diversification, which has three pillars: i) promotion of productive diversification, ii) adequation of regulations and administrative simplification, and, iii) expansion of productivity.

[130] Article 91 of the Single Harmonized Text of the General Law on Mining.
[131] Article 39 of the Single Harmonized Text of the General Law on Mining.
[132] Article 14 of the regulations implementing Law 27623.
[133] Articles 78, 79, 82 and 83 of the Single Harmonized Text of the General Law on Mining.

The main actions of the Plan are:

- ✓ Integration to global value chains
- ✓ Foreign direct investment attraction
- ✓ Implementation of the National Policy for Innovation: working along the private sector in order to obtain 16 sectoral innovation agendas by 2016 and incorporating innovative processes into business strategy.
- ✓ Implementation of the National Policy for Quality: creating the National Quality Institute in 2015.
- ✓ Removal of investment barriers and facilitation of productive activities
- ✓ Adequation of rules to promote competitive and profitable business with the ability to generate formal employment
- ✓ Administrative simplification: introducing new electronic government measures and new tax schemes for MSMEs.
- ✓ Technological extension programme for MSMEs: reinforcing 20 technology innovation centers by 2016, technological diffusion for the agricultural sector.
- ✓ MSME cost-reduction and financing reform: creating a fund for financing MSMEs and mutual guarantee funds.
- ✓ Cluster support programme
- ✓ Regional diagnostic studies: implement work agendas to improve regional productivity

Manufacturers are eligible for the special procedure for advance refund of the VAT on the purchase of new capital and intermediate goods and construction services, whether imported and/or purchased locally, used during the pre-production stage of economic activities subject to the VAT or for exports.

In 2014, PRODUCE created the National Innovation Programme for Competitiveness and Productivity (INNOVATE PERU)[134] as Executive Unit[135] of the Ministry of Production. Its specific objectives are: i) increase innovation in production processes; ii) promote innovative entrepreneurship; and, iii) facilitate the absorption and adaptation of technologies to business.

PRODUCE is also redesigning the project for the construction of industrial parks at national level. The aim of this project is to generate non-polluting industrial centres that promote productivity within the sector. In 2014, the regulations[136] of Law 30078 promoting the development of eco-industrial parks were approved.

6.2.4 EXPORT INCENTIVES

In 2007, Peru established a special procedure for the advance refund of the VAT, applied on the purchase of new capital and intermediate goods and construction services (whether imported and/or purchased locally) used during the pre-production stage of economic activities for export.

Through the National Fisheries Development Fund (FONDEPES), natural or legal persons engaged in aquaculture or small-scale maritime or continental fishing may obtain loans and financial

[134] Supreme Decree 003-2014-PRODUCE.

[135] To achieve its objectives INNOVATE PERU currently manages the following funds: Innovation Project for Competitiveness (FINCyT), Research and Development Fund for Competitiveness (FIDECOM) and Fund for Innovation, Science and Technology (FOMITEC). More information available at: http://www.innovateperu.gob.pe/

[136] Resolution 002-2014-PRODUCE.

support at preferential rates, which range from 3% to 7% depending on the fishing activity and the amount of the loan. Other programmes are the National Programme for Managing Catchment Areas and Soil Conservation (PRONAMACHCS), the Southern Sierra Natural Resources Management Programme (MARENASS) and the Special Project to Promote the Use of Fertilizer from Seabirds (PROABONOS), which were merged into a single programme entitled AGRORURAL in 2008.

Farmers receive a preferential rate for income tax and advance refund of the VAT[137]. Since 2008, tax concessions granted to agricultural producers have no longer been conditional upon the use of products of domestic origin[138].

As a second-tier development bank, COFIDE also offers credit lines and programmes to finance various sectors.

6.2.4.1 SPECIAL TREATMENT ZONES

MINCETUR is responsible for overseeing the special treatment zones. Any foreign trade operation may be carried out from these zones as they include logistics operators and SUNAT offices. In the case of ZOFRATACNA, foreign goods may go to third countries through any national customs post upon presentation of a transfer request. Exports originating in other special zones may go to third countries using a transfer request, but have to proceed through specific customs posts. Goods must be eligible for the transit regime in order to be exported through any customs post.

Special treatment zones known as Export, Processing, Industry, Marketing and Service Centres have been established by a special law which specifies the concessions and the activities that may be conducted in each of them. Currently, there are seven special treatment zones: Ilo[139], Loreto, Matarani, Paita[140] and Tumbes, the ZOFRATACNA[141] and the Puno Economic Zone (ZEEDEPUNO)[142].

The tax concessions[143] given to users of free zones or CETICOS have been extended up until 31 December 2022 in the case of the Ilo, Matarani and Paita CETICOS, until 2042 for the Tumbes CETICOS and up until 2041 for the ZOFRATACNA.

Products exported to Peruvian territory from the special treatment zones pay the lowest tariff negotiated by Peru in a trade agreement and products definitively exported from Peruvian territory to a special zone are eligible for the drawback regime and refund of the VAT.

The activities usually carried out in the special treatment zones include: manufacturing or transformation; maquila or assembly; agricultural industries; storage; services such as

[137] Law 27360 (approving the regulations on promotion of the agricultural sector) of 20 October 2000.
[138] Legislative Decree 1035 of 24 June 2008.
[139] The Ilo CETICOS is a distribution centre for goods and the supply of services for large industries and mining in the south of Peru.
[140] Legislative Decree 864 of 27 October 1996 (Creating the Paita CETICOS).
[141] Law 27688 of 8 February 2002 and Law 29739 of 6 July 2011 (amending Law 27688).
[142] Supreme Decree 050-2007-EF of 27 April 2006 (approving the regulations implementing Law 28864 - Law on the Puno Special Economic Zone).
[143] Exemption from import tax, income tax, general sales tax, municipal promotion tax, selective consumption tax, ad-valorem customs tariff on the entry of goods and any other tax imposed by the Central Government or regional or municipal governments.

packaging, wrapping, labelling, classification of goods and repair of machinery and equipment. The activities that may or may not be conducted in each of the free zones are specifically stipulated in the laws creating each zone.

As of 1999, the programme on the promotion of investment in the Amazon region[144] grants tax concessions to companies located in this area[145] for 50 years. Taxpayers living in the Amazon region are given income tax exemptions or reductions, depending on their activity; exemptions from the VAT on local sales for local consumption; exemptions for services provided in the region and on construction contracts or the first sale of real estate by constructors in the region; and exemptions from the VAT and the ISC on sales to dealers and final consumers of petroleum, natural gas and their byproducts.

As of 2010, Peru has granted waivers and/or exemptions from income tax to natural persons, MSEs, cooperative associations, communal and multicommunal companies which have their tax domicile, place of business and production center in Andean regions at an altitude of 2,500 meters or more above sea level, and companies in general established at an altitude of 3,200 meters or more above sea level and engaged in any from a given list of activities (fish farming, aquaculture, meat processing, forestry plantations for commercial or industrial purposes, milk production, breeding of South American camelids and ovine animals and processing of their fibres and fleeces, agribusiness, crafts and textiles[146]). The concessions, which include exemption from income tax, tariffs and the VAT on imports of capital goods, will remain in effect until 31 December 2021.

6.2.5 TRADE-RELATED PROPERTY RIGHTS

The National Institute for the Defense of Free Competition and the Protection of Intellectual Property (INDECOPI) is responsible for implementing the legal texts designed to protect Intellectual Property Rights. It has three directorates to perform this task: the Copyright Directorate (DDA) for matters relating to copyright and related rights; the Distinctive Signs Directorate (DSD) for matters relating to trademarks, trade names and slogans, collective marks, certification marks and appellations of origin; and the Inventions and New Technologies Directorate (DIN) for matters relating to patents, utility models, industrial designs, protected plant varieties, traditional knowledge and other new technologies.

The DDA, DSD and DIN coordinate the application of, and monitor compliance with, the national and international commitments on intellectual property rights within their spheres of competence. These Directorates are the first administrative instance for dispute or other proceedings brought following a complaint by a party or ex officio.

The Intellectual Property Chamber of INDECOPI is a body independent of the DDA, DSD and DIN, and is the second and final administrative instance of appeal for Intellectual Property matters. The Chamber may establish precedents that must be followed, by means of rulings and administrative decisions, but it is not a judicial authority and appeals against its decisions may be made to the judicial courts.

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[144] Law 27037 of 30 December 2008 and Supreme Decree 103-99-EF and amendments.

[145] The Amazon area comprises the regions of Loreto, Madre de Dios, Ucayali, Amazonas and San Martín, as well as the Amazon provinces and districts in the regions of Ayacucho, Cajamarca, Cuzco, Huánuco, Junín, Pasco, Puno, Huancavelica, La Libertad and Piura.

[146] Law 29482 of 19 December 2009 and Supreme Decree 051-2010-EF.

The Fiscal Police Directorate, through the Division for Investigation of Offences against Intellectual Property Rights, has the task of combating offences against copyright and related rights and against industrial property when goods are produced making unauthorized use of patents or reproduction of industrial designs, or a trademark is imitated or unlawfully used[147]. SUNAT applies border measures such as suspension of clearance of goods allegedly counterfeited, pirated or misleadingly similar, pursuant to the legislation on protection of copyright and related rights and trademark rights.

Peru's legal framework for Intellectual Property comprises its domestic legislation, multilateral and CAN legal texts and the preferential agreements Peru has signed. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), together with other WTO Agreements, has been incorporated into Peru's domestic legislation and may be invoked before its courts. CAN's legal texts are also directly applicable and are supranational in Peru.

Peru's legislation covers all types of Intellectual Property Rights mentioned in the TRIPS Agreement and contains provisions on enforcement. In the last years, several legal texts concerning various types of Intellectual Property Rights and enforcement were adopted or amended[148]. Peru attaches great importance to the protection of traditional knowledge, access to genetic resources and the protection of biological diversity. These requirements have been incorporated into Peru's legislation since 1996, and into CAN legislation, through Decision 391, which establishes a common regime for access to genetic resources, and Decision 486[149]. Peru also has provisions to prevent anti-competitive practices in contractual licenses concerning Intellectual Property Rights.

In the Doha Round, Peru, together with other members, put forward proposals on issues such as the patent system, in order to incorporate the requirement to disclose the origin of genetic resources and traditional knowledge[150]. Peru considers that a legal obligation establishing a mandatory disclosure requirement for patent applications would help to prevent both misappropriation of genetic resources and the wrongful grant of patents and would also enhance transparency regarding the utilization of genetic resources and/or associated traditional knowledge[151]. Peru has also presented proposals on the need to link the patent system to the regime for access to genetic resources and protection of traditional knowledge in the Convention on Biological Diversity (CBD), WIPO and in other forums (including regional processes)[152] as it is already provided by the legislation on patents.

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147 Information on operations, seizures and other action by the Fiscal Police, available on its website, viewed at: http://www.pnp.gob.pe/direcciones/dirgofis/inicio.html.

148 Legislative Decree 1076 of 27 July 2008 (amending Legislative Decree Nº 822), Copyright Law incorporating new definitions; Law 29316 of 13 January 2009, Law amending, incorporating and regulating various matters relating to implementation of the Trade Promotion Agreement between Peru and the United States; Legislative Decree 1072 of 26 June 2008, Protection of test data and other undisclosed data on pharmaceutical products; Supreme Decree 002-2009-SA of 17 January 2009, regulations implementing Legislative Decree 1072, General Health Law; Law 29316 of 13 January 2009 amending provisions in Law 27811; Legislative Decree 1092 approving border measures to protect copyright or related rights and trademark rights and its implementing regulations in Supreme Decree 003-2009-EF.

149 WTO document IP/C/W/493 of 19 September 2007.

150 WTO documents TN/C/W/52 of 19 July 2008, WT/GC/W/590 of 28 May 2008 and TN/C/W/59 of 19 April 2011.

151 WTO document TN/C/W/59 of 19 April 2011.

152 WTO document IP/C/W/493 of 19 September 2007.

Peru has signed 16 of the treaties administered by the World Intellectual Property Organization (WIPO)[153]. Since 2007, Peru has acceded to four of these treaties: the Budapest Treaty (October 2008), the Patent Cooperation Treaty (March 2009), the Trademark Law Treaty (August 2009) and the UPOV Convention (July 2011). In June 2012, Peru signed the Beijing Treaty on Audiovisual Performances and on the Marrakesh Agreement to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled, on 2013.

Peru has also undertaken commitments to protect intellectual property in the regional agreements. One of the most important of these agreements is the Andean Community - CAN, which establishes a common regime for different forms of Intellectual Property Rights and constitutes the framework for the regime on the protection of such rights in Peru. The CAN nonetheless allows its members to adopt additional legislation to complement and facilitate the application of the Andean Legislation on industrial property.

The commitments made by Peru in its Trade Promotion Agreement with the United States included reforms concerning infringement of Intellectual Property Rights, copyright and related rights, trademarks, patents and protection of test data, and the application of border measures.

The trade agreement between Colombia and Peru and the European Union also contains several provisions on Intellectual Property, some of them related to public health. One distinctive feature of this agreement is that it covers geographical indications, traditional knowledge and genetic resources. The agreements with China, Costa Rica, EFTA, Japan, the Republic of Korea, Mexico, Panama and Singapore also include provisions on intellectual property rights. The provisions vary depending on the agreement, but generally include substantive rules for all categories of Intellectual Property and enforcement procedures; they also determine a level of intellectual property protection that is higher than that in the TRIPS Agreement.

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[153] Including the WIPO Convention. The treaties signed by Peru can be viewed at: http://www.wipo.int/treaties/en/ShowResults.jsp?country_id=137C&start_year=ANY&end_year=ANY&search_what=C&treaty_all=ALL.

CHAPTER 7 ASSESSMENT OF THE ECONOMIC IMPACTS OF A PERU-INDIA FTA

7.1 PERSPECTIVE OF INDIA

7.1.1 INTRODUCTION

A detailed analysis of trade indicators is carried out in this Chapter, which would allow to identify potential products, chapters and sectors which have a comparative advantage in terms of bilateral trade. This also allows us to estimate the tariff lines at a disaggregate level (HS 6-digit) in which there lies some potential to increase trade in the immediate future. The chapter also analyses the possibility of investments and other channels of further consolidation of the bilateral trade ties. Therefore, some of the results from the Chapter 2 are more elaborated in this chapter in order to further the direction of trade and cooperation between India and Peru. A Global Trade Analysis Project (GTAP) model has also been used at the end of the chapter to understand the likely impact of possible India-Peru FTA.

7.1.2 TRADE INDICATORS

In order to evaluate the potential effects of a Free Trade Agreement between India and Peru, it is important to estimate the extent to which the two countries trade with each other. It is also important to identify potential sectors for trading mutually which would increase the benefits of a trade agreement.

For this purpose the report estimates some standard trade indices like: bilateral trade intensity index; revealed comparative advantage index; exports specialisation index; trade complementarity index and Finger-Kreinin index. These indices are conventionally used to measure interdependences before any FTA is entered into by the partner countries.

7.1.2.1 TRADE INTENSITY INDEX

The trade intensity index (TII) is used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in world trade. It is defined as the share of one country's exports going to a partner divided by the share of world exports going to the partner. It is calculated as:

$$TII = T^i_j = (x^i_j/X^i_t)/(x^w_j/X^w_t)$$

Where xij and xwj are the values of country i's exports and of world exports to country j and where Xit and Xwt are country i's total exports and total world exports respectively. An index of more or less than 1 indicates a bilateral trade flow that is larger or smaller than expected, given the partner country's importance in world trade.

Trade Intensity Index is based on an actual observation of bilateral trade flow, and it measures that intimacy of the trading relationship between any given two countries. Higher is the Trade Intensity Index, better will be our export possibility and therefore an exporter should choose the

market with high TII values. A high value of TII indicates a better bilateral strength between the trading partners and therefore is an indication of better acceptability of the product in question in that export market. Hence an exporter should choose to export into the market where the TII value is high.

Trade intensity index tells us whether or not a region exports more (as a percentage) to a given destination than the world does on average. It is interpreted in much the same way as an export share. It does not suffer from any 'size' bias, so we can compare the statistic across regions, and over time when exports are growing rapidly.

Table 58 – India: Trade Intensity Index with World, LAC and Peru

Year	TII with World	TII with LAC	TII with Peru
2004	100	53.94	73.82
2005	100	61.21	82.98
2006	100	65.66	76.22
2007	100	63.14	88.62
2008	100	71.62	130.31
2009	100	47.16	78.11
2010	100	59.36	96.86
2011	100	61.83	88.17
2012	100	69.80	98.29
2013	100	67.79	96.85
2014	100	80.52	110.55

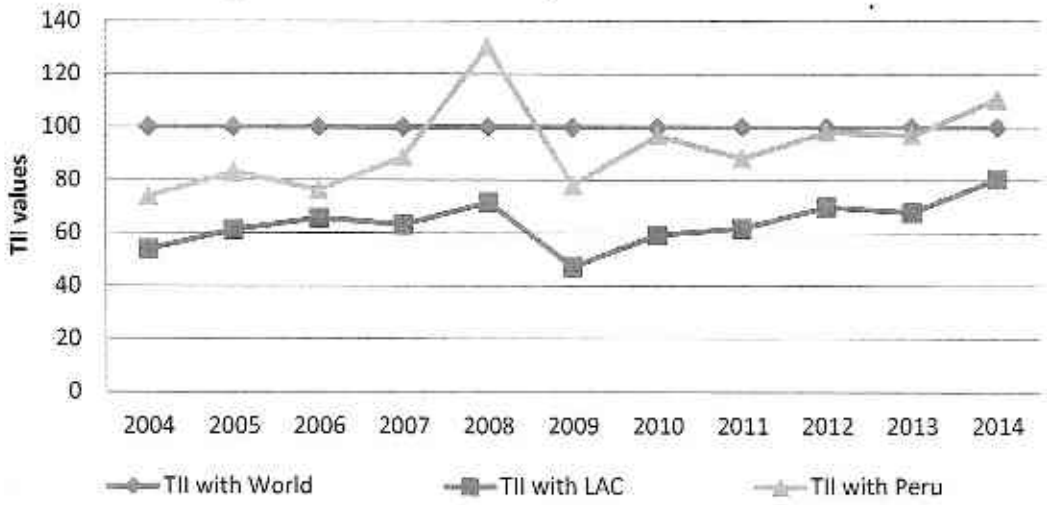
Source: Based on WITS COMTRADE Indicators.

Trade intensity index is calculated for Peru and Latin American Countries (LAC) independently. TII suggested that the trade intensity between the LAC and India increased till 2008, there was a fall in the share of exports following an upward movement in the succeeding years. This indicated towards the kinked trend in trading which has been observed in particular with LAC.

The TII was as high as 81 in 2014 increased from 54 in 2004. Despite this increase in the statistic, India's trade with LACs is not above average of the world's share of exports. Trade between India and Peru shows a similar trend of increasing trade intensity index till 2008 followed by a sharp decline in 2009, which picked up again and increased to a value of 110.5 in 2014. Though the current statistic is not as high as it was in 2008 (130.3), it still indicates that India's exports to Peru are on an average more than world's exports to Peru.

TII clearly indicates the scope for India in the Peruvian market. Despite the low intensity index of the Latin America countries as a group, Peru is a promising market where trade volume needs to be further expanded.

Figure 49 – India: Trade Intensity Index with LAC and Peru



Source: Compiled based on WITS Comtrade online database, last accessed on 12-09-2015

7.1.2.2 REVEALED COMPARATIVE ADVANTAGE INDEX

The concept of Revealed Comparative Advantage (RCA) is similar to that of Economic Base Theory, which is the same calculation, but considers employment rather than exports. The RCA is used in international economics for calculating the relative advantage or disadvantage of a certain country in a certain class of goods or services as evidenced by trade flows. It is based on the Ricardian comparative advantage concept. That is, the RCA is equal to the proportion of the country's exports that are of the class under consideration (E^{ij} / E^{it}) divided by the proportion of world exports that are of that class (E^{nj} / E^{nt}). Under a normalized[154] scenario, comparative advantage is "revealed" if RCA>1. If RCA is less than unity, the country is said to have a comparative disadvantage in the commodity or industry.

The Report analyses the Bilateral RCA to analyse the comparative advantage of tariff lines for India and Peru using index computed in comparison to the world trade. In the case of bilateral RCA, the RCA is calculated by comparing the share of exports of country 'i' to the world, to the share of exports of country 'j' to the world.

Table 59 – India: Summary Table of Bilateral RCA of India and Peru (tariff lines)

Range	Number of Tariff Lines (HS 6 digits)	Share (%)
-1 to -0.5	1891	36.34
-0.5 to 0	897	17.24
0 to 0.5	831	15.97
0.5 to 1	1585	30.46
Total	**5204**	**100**

Source: Compiled based on WITS Comtrade online database, last accessed on 12-09-2015

[154] The formula for normalised RCA is (RCA-1) / (RCA+1).

The average of bilateral RCA values for 5,204 tariff lines at disaggregated level (HS 6 digits) for 2007 to 2014 is summarised in Table 59 – India: Summary Table of Bilateral RCA of India and Peru (tariff lines)The Bilateral RCA estimated for India and Peru suggests that nearly 47 percent of the tariff lines had a positive RCA value above zero. This can be analysed as 0 to 0.5 with 831 tariff lines at 6 digit level followed by 1,585 tariff lines having very high RCA values ranging from 0.5 to 1. It also means that 53 percent of the tariff lines bilaterally traded had low to very low revealed comparative advantage; a significant share of 36.3 percent belonged to the range of RCA values of -1 to -0.5 accounting for 1,891 tariff lines.

This suggests that the FTA negotiations can begin on the listed 1,585 tariff lines (HS 6 digit level) and thereafter the 831 TLs listed.

This chapter analyses section-wise trends of bilateral RCA from 2007 to 2014. This is estimated by averaging the RCA values of most disaggregate level (HS 6 digits) values in the first step to chapter level and thereafter in the second step at section-levels. The results of average RCA for 21 sections under the harmonized system are analysed in Table 60 below which may be read with reference to the table on chapter wise RCA for 2007-2014 provided in the Annexure.

Table 60 - Bilateral RCA for India and Peru Section-wise

Section	Section Description	2007	2008	2009	2010	2011	2012	2013	2014	Average (2007-14)
12	Footwear, Headgear	0.27	0.13	0.32	0.33	0.41	0.41	0.41	0.36	0.33
16	Machinery & Mechanical Appliances	0.24	0.16	0.26	0.27	0.3	0.33	0.36	0.36	0.29
7	Plastics & Rubber	0.17	0.19	0.19	0.28	0.2	0.25	0.24	0.34	0.23
20	Miscellaneous	0.25	0.03	0.15	0.24	0.23	0.33	0.29	0.28	0.23
18	Instruments - Measuring, Musical	0.04	0.06	0.11	0.11	0.2	0.16	0.28	0.25	0.15
13	Articles Of Stone, Plaster, Cement, Asbestos	0.1	0.1	0.06	0.17	0.11	0.14	0.17	0.18	0.13
21	Works Of Art	-0.01	-0.16	-0.02	-0.01	-0.01	-0.06	0.17	0.62	0.07
11	Textiles & Textile Articles	0.05	0.01	0.06	0.12	0.07	0.05	0.07	0.07	0.06
15	Base Metals & Articles Thereof	0.02	0.01	0.03	0.1	0.07	0.08	0.05	0.05	0.05
17	Transportation Equipment	-0.11	-0.13	-0.11	-0.13	0.03	-0.01	0.03	-0.02	-0.06
10	Wood Pulp Products	-0.13	-0.12	-0.15	-0.1	-0.12	-0.18	0.03	-0.19	-0.12
2	Vegetable Products	-0.14	-0.13	-0.1	-0.2	-0.11	-0.17	-0.16	-0.2	-0.15

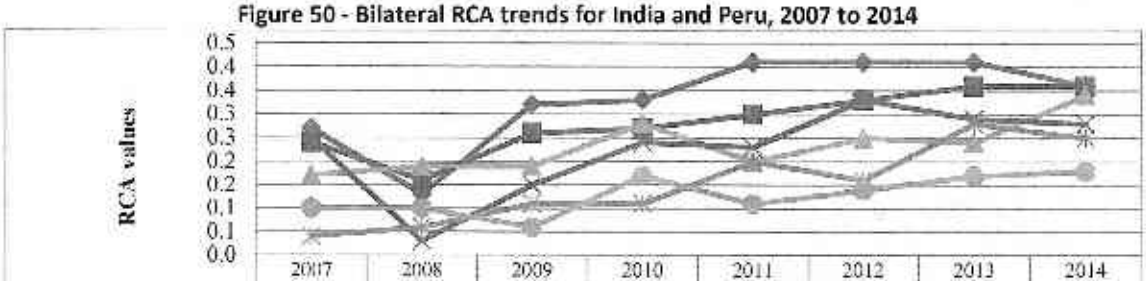
8	Hides & Skins	-0.1	-0.11	-0.16	-0.12	-0.21	-0.29	-0.19	-0.25	-0.18
6	Chemical Products	-0.25	-0.23	-0.17	-0.18	-0.15	-0.16	-0.19	-0.14	-0.18
5	Mineral Products	-0.3	-0.24	-0.25	-0.28	-0.17	-0.17	-0.23	-0.33	-0.25
14	Pearls, Precious Or Semi-Precious Stones, Metals	-0.21	-0.38	-0.3	-0.03	-0.36	-0.39	-0.34	-0.39	-0.30
4	Prepared Foodstuffs	-0.27	-0.31	-0.27	-0.27	-0.28	-0.35	-0.32	-0.37	-0.31
3	Animal Or Vegetable Fats	-0.15	-0.34	-0.33	-0.47	-0.29	-0.34	-0.36	-0.21	-0.31
9	Wood & Wood Products	-0.39	-0.46	-0.31	-0.36	-0.4	-0.19	-0.35	-0.31	-0.35
1	Animals & Animal Products	-0.31	-0.52	-0.54	-0.44	-0.47	-0.45	-0.55	-0.57	-0.48
19	Arms & Ammunition	-0.71	-0.76	-1	-0.83	-0.47	-0.74	-0.59	-0.87	-0.75

Source: WITS Comtrade and TradeSift, last assessed on 12-09-2015.

Out of the 21 sections, in 8 sections BRCA was positive for 2007 to 2014. This does not mean that all of tariff lines under the other 13 sections which registered a negative RCA have revealed disadvantage. It is certain that some individual 6 digit lines under the other 13 sections which registered negative RCA would have recorded positive bilateral RCA.

The top most section with the highest average RCA during 2007-2014 is headgear and footwear which includes chapters 64 to 67. Prepared feathers (Ch. 67) saw a sharp fall in 2011 with the RCA declining from 0.53 in 2010 to -0.13 in 2011. Headgears (Ch. 65) on the other hand had negative RCAs in the beginning of the time period and saw a sharp increase in 2011 to 0.56 from -0.16 in 2010. The increase in the RCA of footwear (Ch. 64) has been sticky since 2009.

Figure 50 - Bilateral RCA trends for India and Peru, 2007 to 2014



	2007	2008	2009	2010	2011	2012	2013	2014
Footwear (12)	0.3	0.1	0.3	0.3	0.4	0.4	0.4	0.4
Machinery (16)	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
Plastics (7)	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.3
Misc. (20)	0.3	0.0	0.2	0.2	0.2	0.3	0.3	0.3
Instruments (18)	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3
Art. of Stone (13)	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2

Source: Compiled by the author based on WITS Comtrade and TradeSift, last assessed on 12-09-2015.

The next section is mechanical appliances which includes chapters 84 and 85. While nuclear reactors, boiler and machinery (chapter 84) saw a steady increase during the period, Electrical machinery and equipment (chapter 85) saw a sharp decline in 2008 followed by a sharp rise of RCA in 2009 and thereby a sticky increase of RCA in the succeeding years. Electrical machinery had a wider range of RCA.

Another section which shows a comparative advantage is Plastics and Rubber, they show a positive RCA throughout 2007 to 2014. While increase in RCA of plastics was sticky in this period, rubber articles saw a fluctuating trend with a sharp increase and decline in 2009-10 and a similar fluctuation in 2013-14.

Section of Textiles and Textile articles which included chapters from 50 to 63 also showed a positive RCA in the period of 2007 to 2014. Chapters like articles of apparel and other articles made up of textiles (Chapters 62 and 63) had the highest RCAs from 2007-14. Out of these 13 chapters on textiles, only 5 chapters had a positive RCA throughout. RCA of carpet textiles has picked up since 2007 but there have been fluctuations between 2010 and 2014. Cotton also showed an increasing trend, however the fluctuations in cotton were not as sharp as most of the other textile chapters.

Section 20 for miscellaneous products including chapters 94 to 96 has the next highest average RCA. While clocks and watches (chapter 91) mostly had a negative RCA in these years, musical instruments kept fluctuating from negative to positive having a range of -0.24 to 0.16.

Articles of stone, ceramic, glass are the next section with a relatively high RCA. This section includes chapters 68, 69 and 70. RCA of Ceramic products (Chapter 69) witnessed a sharp dip in 2009 from 0.24 to 0.02. But there has been a steady increase in the following years with RCA going up to 0.45.

Section 21 which includes chapter 97 (Works of art), though witnessed a negative RCA till 2012, has a high average RCA for these years when compared to the other sections. This strange trend is because of the rapid increase in the RCA in 2014 to 0.62.

7.1.2.3 EXPORT SPECIALISATION INDEX

Export specialisation (ES) index provides product-wise information on revealed specialisation in the export sector of a country. The ES index is a slightly modified RCA index, in which the denominator is usually measured by specific markets or partners. It provides product information on revealed specialisation in the export sector of a country and is calculated as the ratio of the share of a product in a country's total exports to the share of this product in imports to specific markets or partners rather than its share in world exports:

$$ES = (x^k_j/X^k_t) / (m^k_j/M^k_t)$$

Where x^k_j and X^k_t are export values of country k in product j, respectively, and where m^k_j and M^k_t are the import values of product j in market k and total imports in market k. The ES is similar to

the RCA in that the value of the index less than unity indicates a comparative disadvantage and a value above unity represents specialization in this market.

In Table 61, ratios for 5,216 tariff lines at 6 digit levels, i.e., the exports shares of India to the world divided by imports shares of Peru from the world have been analysed. The ratios are divided into six ranges like: zero (no data for India); 0 to 1; 1 to 5; 5 to 10; above 10 and no data (no data for Peru). Further, the ratio were categorised in accordance with the value into these six categories created under the aforementioned Table.

Table 61 - Export Specialisation Index of India in Peruvian Market

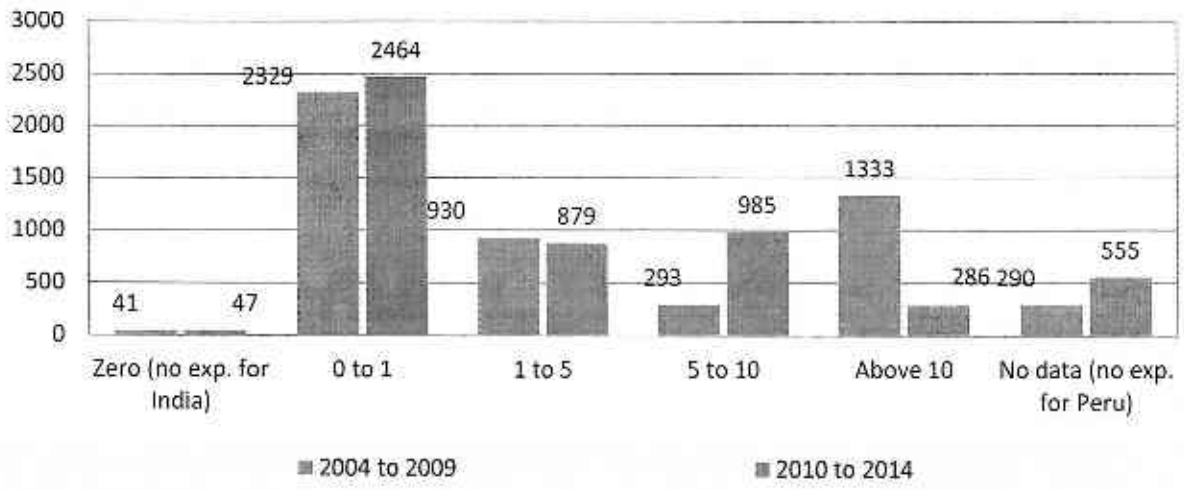
Range	Count of Export Specialisation Indices		
	2004 to 2009	2010 to 2014	2004 to 2014
Zero (no data for India)	41	47	39
0 to 1	2329	2464	2290
1 to 5	930	879	983
5 to 10	293	985	1397
Above 10	1333	286	306
No data (no data for Peru)	290	555	201
Total Tariff lines	**5216**	**5216**	**5216**

Source: Compiled by the author based on WITS Comtrade, last assessed on 12-09-2015.

Total period of 2004 to 2014 was bifurcated into two periods keeping in view the trends observed. The first phase is from 2004 to 2009. During this period it can be seen that categories like 'zero' or no data for India accounted by 41 tariff lines and vast majority of tariff lines belonged to the range of '0 to 1' which was accounted by 2,329 tariff lines. This means that nearly 2,370 tariff lines at HS 6 digit level which accounts for nearly 45 percent of the total tariff lines in the first phase did not have export specialisation in the Peruvian market. This has only increased in the second phase increasing to 2,511 tariff lines accounting for nearly 48 percent share.

The rest of the tariff lines above one were declared as having export specialisation in the Peruvian market. Those with export specialisation in the Peruvian market were 2,846 tariff lines (54.6 percent share) in the first phase and it decreased to 2,705 tariff lines (51.9 percent share) in the second phase. This has been well captured pictorially in Figure 51.

Figure 51 - Export Specialisation Index of India in Peruvian market



Source: Compiled by the author based on WITS Comtrade, last assessed on 12-09-2015.

The above analysis is important as such that it provides an understanding that India's export specialisation in Peruvian market has decreased by nearly 4 percent from 54.6 percent in the first phase to 51.9 percent in the second phase. However, any meaningful comparison is not possible with present tariff lines which are based on 2012 nomenclature.

India's exports to world and Peru's imports from the world were limited to 4,995 tariff lines. Table 62 provides a listing of Indian products with export specialisation in the Peruvian market based on the HS 2012. The trends across the ranges of ratios were almost identical with 0 to 1 range accounting for highest share of 52 percent share (with 2,592 TLs), followed by range of ratios '1 to 5' with 16 percent share. The other category of ratios like the range of 'above 10' recorded nearly 15 percent of the share, followed by the range 'No data (no share for Peru) with 9.7 percent shares and 5 to 10 range with another 5 percent shares. The range of zero (no share for India) had 124 TLs with only 2.5 percent share of total tariff lines.

Table 62 - Identification of products for 2014 HS 6 digits (HS nomenclature 2012)

Range	Count of EPI	Share of TLs
0 to 1	2592	51.9
1 to 5	803	16.1
5 to 10	255	5.1
Above 10	736	14.7
No Data (no share for Peru)	485	9.7
Zero (no share for India)	124	2.5
Total Tariff lines	**4995**	**100**

Source: Compiled by the author based on WITS Comtrade, last assessed on 04-11-2015.

Table 63 suggests with 63 percent of the tariff lines in which India has export specialisation accounting for 1,131 tariff lines at 6 digit level already being offered at zero duty. Rest of 37 percent of tariff lines accounted for as export specialisation products are faced with MFN tariffs with the range of maximum MFN tariff of 6+ price band system (SFP), 11 percent and 6 percent.

Table 63 - The Impact on Indian Products Identified under Export Specialisation Index

Peru's MFN Tariff	Number of HS 6 digit codes with ESI more than 1	Share (%)
0	1131	63
6	322	18
11	335	19
0+ Price Band System (SFP)	5	0
6+ Price Band System (SFP)	1	0
Grand Total	1794	100

Source: Compiled by the author based on WITS Comtrade, last assessed on 04-11-2015.

Annexure 1 provides the detailed list of 1,794 Indian products identified as having export specialisation. Therefore, the analysis of tariff profile and ESI indicates that India-Peru FTA would be truly operational if the agreement is centered on the non-tariff measures, thereby creating a balanced environment for trading in goods; with tariff and non-tariff measures both dealt in effective manner.

Table 64- Trade Values of the 1794 tariff lines and ESI Index

MFN Tariff in PERU	Analysis of 1794 Tariff Lines (Average of 2007 to 2014)				
	India's Exports to Peru ('000 $)	**Share of India's Exports (%)**	**Peru's Imports from World ('000 $)**	**Supply and Demand**	**Meeting the Gap for ROW Supply by Peru (%)**
1	*2*	*3*	*4*	*5=(Col.4 - Col.2)*	*6*
0	126224	26	4672397	4546173	97.3
6	298329	61	1457452	1159122	79.5
11	60725	13	602999	542274	89.9
0+ Price Band System (SFP)		0.0	142508	142508	100.0
6+ Price Band System (SFP)	427	0.1	4412	3985	90.3
1794 Tariff lines (ESI)	**485705**	**100**	**6879767**	**6394062**	**93.0**

Source: WITS online database

India's bilateral exports to Peru in 1,794 tariff lines (TLs) accounted for US$ 0.48 billion compared to Peru's Global import of US$ 6.4 billion. Therefore, the share of India's total export (1,794 TLs) was only 7 % - in other words India was not able to meet 93 % share of Peru's demand, this was met by imports from the Rest of World. There is a huge potential to be tapped by India provided India also enjoys the same preferential access presently being enjoyed by other FTA partners of Peru. This will provide a level playing field to India.

Peru is seen to be having differential tariff rate like: 0%, 6%, 11% and two separate price band system (with 0 and 6 plus) on 1794 tariff lines exported by India with positive ESI. The supply to Peru under the 0% tariff to only 2.7 percent of Peru's demand from the RoW, this highlights two aspects either India is not focusing on these lines or Peru is not providing Zero duty access. In other words they are having some NTMs.

The tariff lines with 0 % MFN tariff accounted for a total 1,131 tariff lines and these TLs account for US$ 126.2 million having only 26 percent shares of India's bilateral exports with Peru. The rest 74 percent of India's bilateral exports to Peru fall in the 6%, 11% and the price band system. **The market access for these lines is very critical for India as there is a positive ESI in these 1,794 tariff lines.**

7.1.2.4 TRADE COMPLEMENTARITY INDEX

The report also analysis the extent to which trade is complementary, using simple trade indicator i.e Trade Complementarity Index (TCI). Trade complementarity index measures one of the key indices which provides an assessment on the nature of trade between two partners.

The trade complementarity (TC) index can provide information on prospects for intra-regional trade and it also shows how well the structures of a country's imports and exports match. It also has the attraction that its values for countries, considering the formation of a regional trade agreement, can be compared with others that have formed or tried to form similar arrangements.

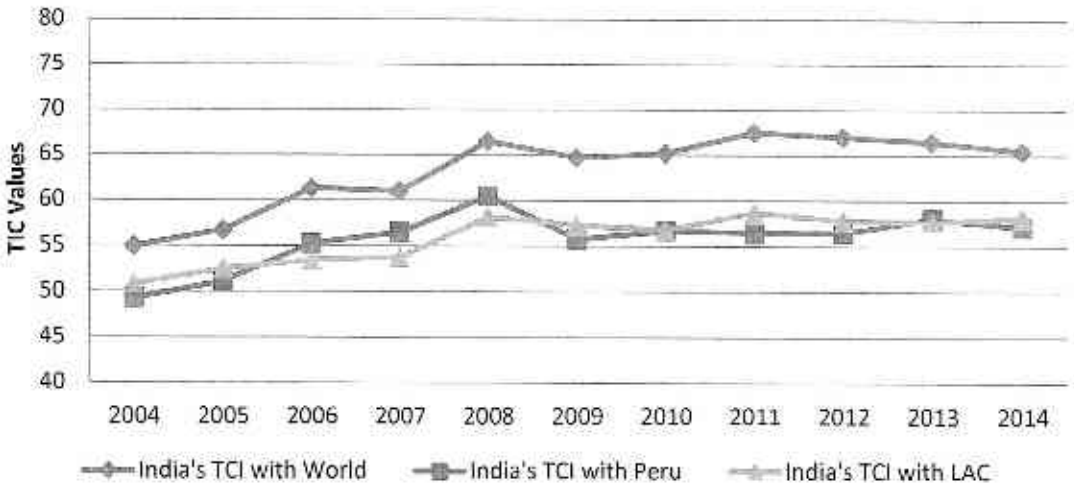
Table 65 – India: Trade Complementarity Index with World, LAC and Peru

Year	India's TCI with World	India's TCI with Peru	India's TCI with LAC
2004	54.96	49.27	50.83
2005	56.71	51.10	52.51
2006	61.28	55.26	53.45
2007	60.97	56.48	53.75
2008	66.49	60.50	58.17
2009	64.72	55.76	57.26
2010	65.23	56.69	56.78
2011	67.50	56.44	58.67
2012	66.99	56.46	57.78
2013	66.44	58.03	57.69
2014	65.47	57.10	58.14

Source: WITS, Comtrade, last assessed on 12-09-2015.

Trade Complementarity Index is the statistic that helps to identify the similarity in the exports of one region and the imports of the other region. The closer the value is to 100, the more complementary the trades of these two regions are. India's complementarity index with both LAC and Peru appears to be following a similar trend and their values are also identical. While the index grew for both till 2008, the increases in this statistic post 2008 were stickier. The complementarity index was maximum in 2008 with a value of 60.5; however the index remained lower in the following years.

Figure 52 - Trade Complementarity Index- Bilateral Partners (2004-2014)

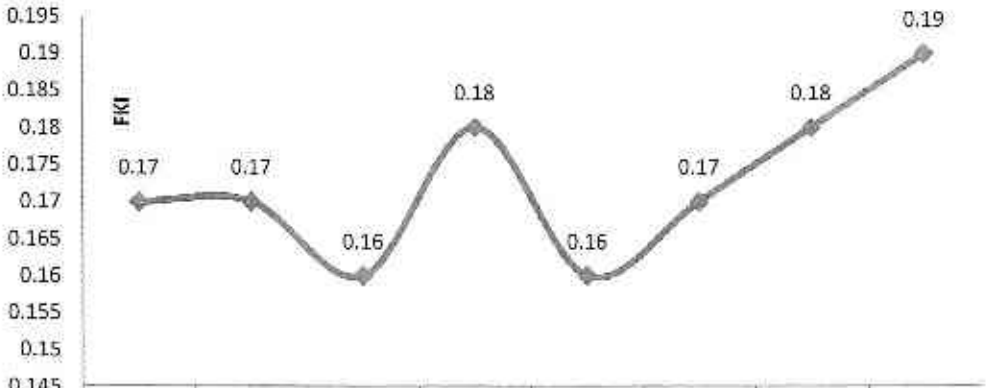


Source: WITS, Comtrade, last assessed on 12-09-2015.

7.1.2.5 FINGER-KREININ INDEX

The Finger-Kreinin (FK) index provides ways 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.

Figure 53 - Finger-Kreinin Index for India and Peru



	2007	2008	2009	2010	2011	2012	2013	2014
Peru-India FKI	0.17	0.17	0.16	0.18	0.16	0.17	0.18	0.19

Source: Based on WITS online database

The Finger-Kreinin Index of India and Peru (by destination to World) provides a way of comparing the similarity between both the structures of imports or exports and the structure of production between any two countries.

Figure 53 above shows that this index has been low over the last eight years which implies India and Peru have different export and import structure which point to the scope of increasing trade between these two economies, as the goods exported by India and Peru to the world are different and hence they can explore each other's market better and expand trade.

7.1.3 ESTIMATION OF POTENTIAL TRADE

For the purpose of identifying the tariff lines with potential of trade between India and Peru we undertook an RCA analysis using standard RCA between India with the world then compared it with the bilateral RCA between India against Peru.

The methodology: the first step involves identifying the products in which India is competitive in the world market. This was done by eliminating the tariff lines with an RCA less than 3 and retaining the competitive lines i.e. with RCA greater than 3. The next step involved (mapping) integrating these competitive lines with the bilateral RCA between India and Peru. Once the BRCA for these lines have been identified, distinguish those lines which have a BRCA above and below 3. Those lines wherein the bilateral trade between India and Peru already exceeds 3 was eliminated as they are the products in which the scope for exports was little and there was no further scope for improvement. The remaining lines are the ones where India is competitive in the world market

but has not exploited the Peruvian market to its full potential. These 6 digit products are the immediate targets for India to focus on and expand its exports in the Peruvian market.

Table 66 - Potential for India's Export Products using the RCA Approach

Steps Undertaken	Total number of Tariff Lines	Tariff Lines Removed	Tariff Lines Remaining
Step 1: Calculate India's Standard RCA	5,203		
Step 2: Identify TL with RCA>3		4,552	651
Step 3: Calculate BRCA of India and Peru	5,086		
Step 4: Match the BRCA with the remaining tariff lines and eliminate TL with BRCA>3	651	389	262

Source: WITS, Comtrade

Table 66 clearly indicates the potential for India in the Peruvian market. The number of tariff lines identified with RCA greater than 3 between India and World were 651. From the 651 tariff lines identified in the initial calculation of standard RCA between India and world, bilateral RCA between India and Peru showed an RCA greater than 3 in 389 lines which were eliminated. The remaining 262 tariff lines with RCA less than 3 were retained and seen as the potential for India in the Peruvian market, India despite being competitive in these tariff lines with world had more scope to expand its trade further with Peru. These products are mainly chemicals products (chapters 28 and 29); textiles and apparel products (chapters 52,53,54,55,61); and machinery and mechanical appliances (chapter 84). Annexure 2 provides a detailed list of the 262 products at HS 6 digit level.

Table 67 - Potential for India Products using RCA Approach, by chapter level

Chapter	Description	Number of potential products	Share
01	Live animals	1	0%
02	Meat and edible meat offal	1	0%
03	Fish and crustaceans, molluscs and other aquatic invertebrates	10	4%
05	Products of animal origin, not elsewhere specified or included	2	1%
07	Edible vegetables and certain roots and tubers	2	1%
08	Edible fruit and nuts; peel of citrus fruit or melons	1	0%
09	Coffee, tea, and spices	6	2%
10	Cereals	4	2%
11	Products of the milling industry; malt; starches; inulin; wheat gluten	1	0%
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	5	2%
13	Lac; gums, resins and other vegetable saps and extracts	1	0%
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	1	0%

Chapter	Description	Number of potential products	Share
20	Preparations of vegetables, fruit, nuts or other parts of plants	1	0%
23	Residues and waste from the food industries; prepared animal fodder	4	2%
24	Tobacco and manufactured tobacco substitutes	1	0%
25	Salt; sulphur; earths and stone; plastering materials, lime and cement	10	4%
26	Ores, slag and ash	3	1%
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	5	2%
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	11	4%
29	Organic chemicals	51	19%
30	Pharmaceutical products	1	0%
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	3	1%
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	1	0%
35	Albuminoidal substances; modified starches; glues; enzymes	1	0%
37	Photographic or cinematographic goods	1	0%
38	Miscellaneous chemical products	1	0%
40	Rubber and articles thereof	2	1%
41	Raw hides and skins and leather	3	1%
44	Wood and articles of wood; wood charcoal	1	0%
47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard	1	0%
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	2	1%
50	Silk	4	2%
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	1	0%
52	Cotton	17	6%
53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	6	2%
54	Man-made filaments; strip and the like of man-made textile materials	11	4%
55	Man-made staple fibres	13	5%
57	Carpets and other textile floor coverings	2	1%
58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	4	2%

Chapter	Description	Number of potential products	Share
59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use	3	1%
60	Knitted or crocheted fabrics	1	0%
61	Articles of apparel and clothing accessories, knitted or crocheted	7	3%
62	Articles of apparel and clothing accessories, not knitted or crocheted	3	1%
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	2	1%
69	Ceramic products	1	0%
70	Glass and glassware	3	1%
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	1	0%
72	Iron and steel	9	3%
73	Articles of iron or steel	2	1%
74	Copper and articles thereof	1	0%
75	Nickel and articles thereof	1	0%
78	Lead and articles thereof	1	0%
81	Other base metals; cermets; articles thereof	2	1%
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	15	6%
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	1	0%
88	Aircraft, spacecraft, and parts thereof	2	1%
89	Ships, boats and floating structures	6	2%
93	Arms and ammunition; parts and accessories thereof	2	1%
95	Toys, games and sports requisites; parts and accessories thereof	1	0%
96	Miscellaneous manufactured articles	2	1%
	TOTAL	**262**	**100%**

Source: WITS, Comtrade

7.1.4 CONCLUSION BASED ON TRADE INDICATORS

The conclusions drawn from various trade indicators reveal India's potential for expanding bilateral trade with Peru. The Trade Intensity Index (TII) clearly indicates the scope for India in the Peruvian market. Despite the low intensity index of the Latin America countries as a group, Peru is a promising market where trade volume needs to be further expanded.

Out of the 21 sections, in 8 sections Bilateral Revealed Comparative Advantage (BRCA) was positive for 2007 to 2014. This does not mean that all of tariff lines under the other 13 sections

which registered a negative RCA have revealed disadvantage. It is certain that some individual 6 digit lines under the other 13 sections which registered negative RCA would have recorded positive bilateral RCA.

The RCA analysis using standard RCA between India with the world after comparing it with the bilateral RCA between India against Peru, also suggests the potential for India's exports in 262 tariff lines which can be seen as products with high potential for India in the Peruvian market. India despite being competitive in these tariff lines with world had more scope to expand its trade further with Peru.

The analysis of the Trade Complementarity Index reveals that both LAC and Peru appear to be following a similar trend and their values are also identical and it was maximum in 2008 with a value of 60.5.

As per the Finger-Kreinin Index, the export and import structure of India and Peru are different which points to the scope of increasing trade between these two economies, as the goods exported by India and Peru to the world are different and hence they can explore each other's market better and expand trade.

As per the analyses of Export Specialization Index, 1794 tariff lines fall across all chapters as having export specialization for India. Any agreement for tariff liberalisation would be truly beneficial if preferential market access for these tariff lines is provided while addressing non tariff measures.

The trade indicators are standard trade analytic tools which have been used to identify potential sectors for trading mutually. As Peru is already having FTAs with many countries including USA Canada and China and provides preferential market access to these countries, India will have a level playing field if it will also get transparent and preferential market access in Peru besides cooperation in minimizing regulatory regime.

7.2 PERSPECTIVE OF PERU

7.2.1 INTRODUCTION

The aim of this chapter is to examine the bilateral trade relationship between Peru and India through a series of trade-related indicators for the period 2004-2014. Here, we will also present the estimated results of the implementation of several trade liberalization scenarios for Peru and India under the Global Trade Analysis Project-GTAP Model and Database, which allow us to project the effects on welfare, GDP, and total and bilateral trade flows in Peru and India.

7.2.2 TRADE INDICATORS

In order to evaluate the potential effects of a Free Trade Agreement between India and Peru, it is important to evaluate first the extent to which these countries already trade with each other. For this purpose, we estimate Bilateral Trade Intensity indexes and Export Specialization indexes, which are the indicators conventionally used to measure this interdependence.

In addition, from the perspective of both parties, we need to identify which sectors are most likely to have export potential and which are most likely to see increased imports. Moreover, we will be interested in the extent to which the trade between Peru and India is complementary. For this analysis, we resort to the analysis of the Revealed Comparative Advantage Index, the Trade Complementarity Index and the Finger-Kreinin Index.

7.2.2.1 TRADE INTENSITY INDEX

The Trade Intensity Index (TII)[155] measures, on the basis of existing trade flows, to what extent a country exports more -as a percentage- to a partner than the rest of the world does. This index was first used by Kojima (Kojima, 1964) and is defined as country i's exports to country j relative to its total exports divided by the world's exports to country j relative to the world's total exports. The formula therefore is:

$$TII = 100 * \left(\frac{x_{ij}}{X_i} \Big/ \frac{X_{wj}}{X_w}\right)$$

Where x_{ij} is the value of exports from origin country i to destination j, and X_i is total exports of country i, while w indicates the world as origin. An index of more (less) than 100 indicates a bilateral trade flow that is larger (smaller) than expected, given the partner country's importance in world trade.

India has become an import market to every trade-seeking country in the last decade; its share in world trade has increased from 1.0% in 2003 to 2.3% in 2014. In particular, India's share in world exports reached 1.9% in 2014, while its share in world imports reached 2.6%. During the period analyzed, India's imports have registered a higher share in world trade than exports.

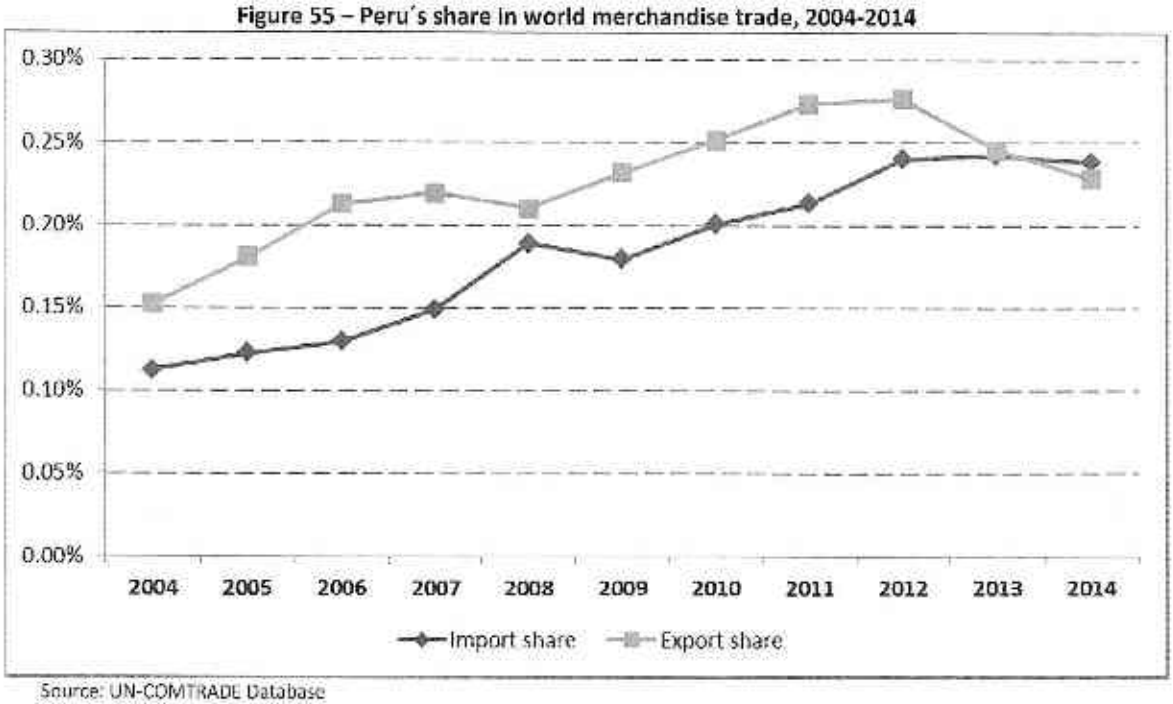
On the other hand, Peru's share in world trade has been below 0.3% during the same period, increasing from 0.13% in 2004 to 0.23% in 2014; its share in world exports was 0.23% in 2014, while its share in world imports was 0.24%.

[155] Farole, T., Reis, J. Trade Competitiveness Diagnostic Toolkit, World Bank, 2012.

Figure 54 – India's share in world merchandise trade, 2004-2014

Source: UN-COMTRADE Database

Figure 55 – Peru's share in world merchandise trade, 2004-2014



Source: UN-COMTRADE Database

Peru-India TII was calculated using data from COMTRADE during the period 2004-2014. As shown in

Table 68 and

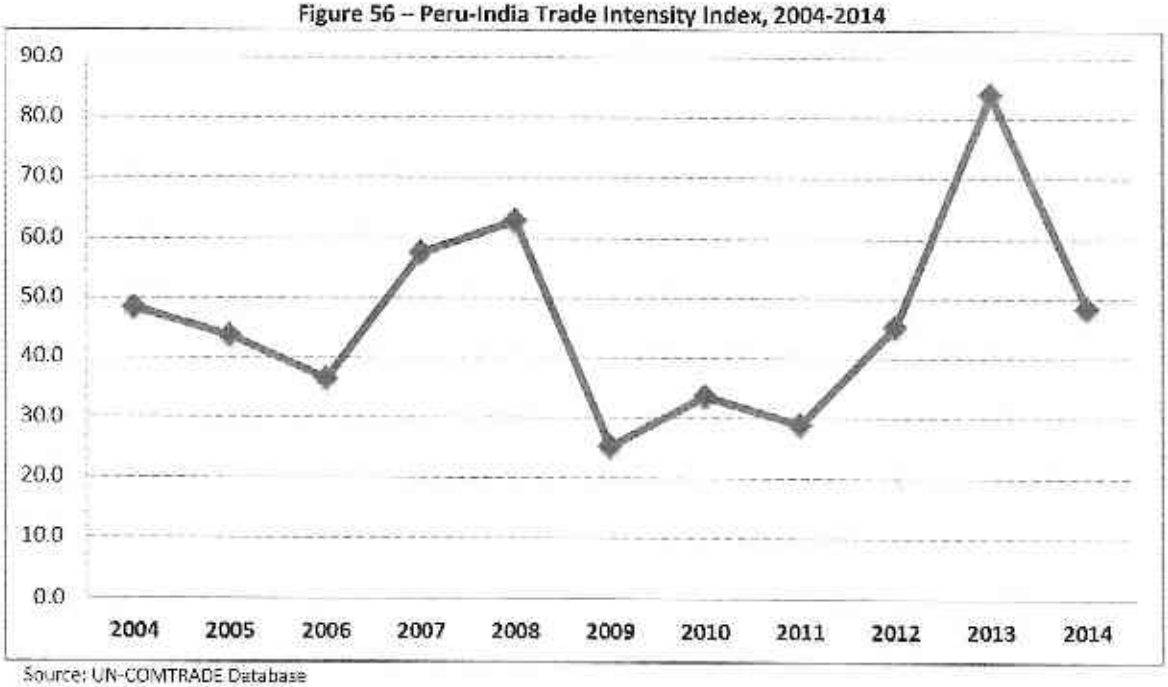
Figure 56, the value of Peru-India´s TII stayed at less than 100 throughout the period, reflecting the fact that Peru has been under-represented in India´s trade. This result also implies that there is scope for the expansion of Peru´s trade with India. However, it might also reflect the fact that Peru has not diversified its export basket to the Indian market over the years. In fact, as we mentioned in Chapter 2, only four products concentrated 94% of Peru´s exports to India during 2014.

Table 68 – Peru-India: Trade Intensity Indexes and Export Values, 2004-2014

Year	Peru´s Exports to India in US$ 1,000	TII Peru-India
2004	49,862	48.4
2005	79,031	43.8
2006	102,280	36.6
2007	211,224	57.6
2008	281,407	62.8
2009	108,017	25.2
2010	218,988	33.6
2011	248,183	28.9
2012	386,544	45.4
2013	592,835	83.8
2014	320,900	48.4

Source: UN-COMTRADE Database

Figure 56 – Peru-India Trade Intensity Index, 2004-2014



Source: UN-COMTRADE Database

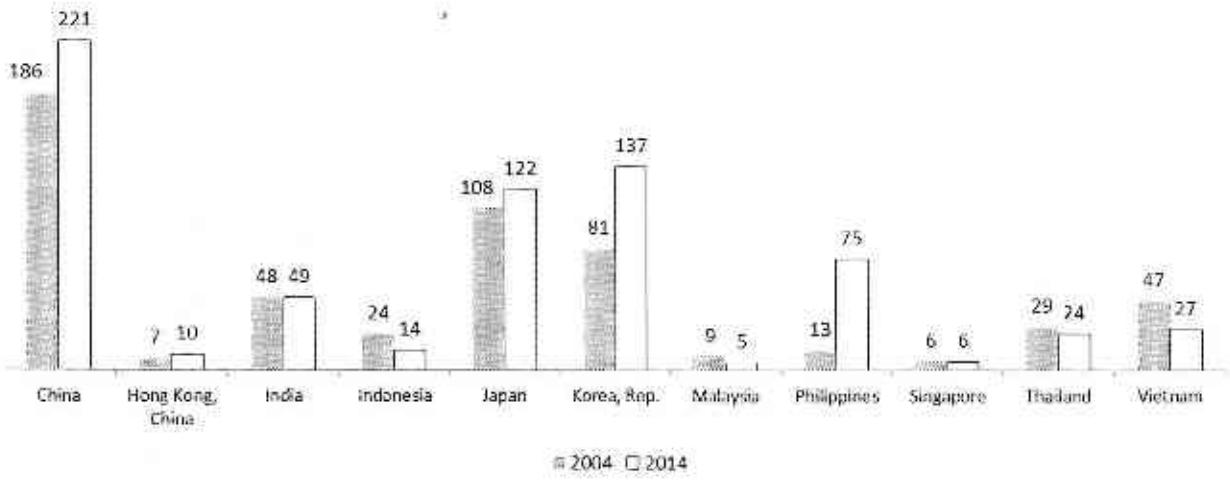
As shown in Table 69, Peru has been trading more intensely with Latin American and Caribbean countries, followed by High-income OECD countries and Low & Middle income East Asian & Pacific countries. Between 2004 and 2014, within the Asian region Peru increased the intensity of its trade with China, Japan, Korea, Hong Kong and the Phillippines, while decreasing the intensity of its trade with Indonesia, Malaysia, Thailand and Vietnam.

Table 69 – Peru Trade Intensity Indexes with different economic groups, 2004-2014

	2004	2006	2008	2010	2012	2014
EU27 members	61.7	51.0	46.2	53.9	55.2	52.6
High-income OECD	***199.6***	***204.6***	***205.9***	***221.6***	***217.8***	***198.1***
Low & Middle income East Asian & Pacific countries	***118.0***	***112.1***	***138.4***	***131.3***	***138.5***	***144.5***
Low & Middle income Latin America and Caribbean	***456.5***	***421.8***	***397.5***	***298.1***	***306.9***	***376.0***
Low and Middle income Middle East and North Africa	16.6	19.0	12.5	12.5	8.2	4.6
Low and Middle income South Asian countries	35.1	28.5	49.0	26.2	36.4	36.6

Source: UN-COMTRADE Database

Figure 57 – Peru Trade Intensity Indexes with Asian countries, 2004-2014



Source: UN-COMTRADE Database

7.2.2.2 REVEALED COMPARATIVE ADVANTAGE INDEX

The Revealed Comparative Advantage Index (RCA)[156] compares the importance of a specific good/ sector within the total exports of a country, in relation to the weight of such sector/good in global trade. It intends to reveal the industries in which a country has comparative advantage in producing goods. Formally, it is the ratio of sector/good h's export share in country i's total exports to sector/good h' share in world exports. The formula therefore is:

[156] Balassa (1967).

$$RCA_{ih} = \left(\frac{\frac{x_i^h}{X_i}}{\frac{x^h}{X_w}}\right)$$

Where: x_i^h is the value of exports of product h from country i, X_i is total value of exports of country i, x^h is the value of world exports of product h and X_w is the value of world exports.

If the RCA is higher than 1, then the country possesses comparative advantage in the production of good h, as it represents a higher percentage in country i's exports than in global trade. The RCA values for goods with revealed comparative advantage are unbounded. In contrast, goods with comparative disadvantage are those with an RCA value less than 1 with a zero lower bound. To solve the latter asymmetry, Laursen[157] proposes a normalized RCA index where 0 is the critical value, with a lower bound of -1 and an upper bound of 1.

$$NRCA_{ih} = \left(\frac{RCA_{ih} - 1}{RCA_{ih} + 1}\right)$$

According to the Ricardian[158] model, when countries trade, they export the goods in which they have comparative advantage and import those in which they have comparative disadvantage. However, it is important to highlight that since RCA indexes are calculated using effective trade data, they might reflect not only natural forces of comparative advantage but also the effects of market distortions incorporated in the trade data, such as tariffs, quotas, export incentives, transport costs, among others[159]. Therefore, the RCA index may distortedly reflect the underlying natural pattern of comparative advantage.

According to

[157] Laursen, K. (2000), Trade Specialisation, Technology and Economic Growth: Theory and Evidence from Advanced Countries.
[158] Ricardo (1817).
[159] Yeats (1991).

Table 70, Peru possesses a strong revealed comparative advantage (at aggregate level) mainly in minerals (chapters 25 and 26 of the Harmonized System-HS), which represent 29% of total Peru´s exports during 2014. Peru also shows revealed comparative advantage in stone and glass products, vegetables, food products, metals[160], textiles and clothing and animal products. It is important to highlight that despite the fact that Peru does not register comparative advantage in fuels, its share in total exports increased from 5% in 2004 to 12% in 2014.

On the other hand, as shown in
Table 71, India has a strong comparative advantage in textiles/clothing and stone/glass products. India also shows comparative advantage in vegetables, animal products, hides and skins, fuels, footwear, metals and chemicals.

[160] At the HS-Chapter level, Peru shows a strong comparative advantage in chapters 71 (Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coins), 74 (Copper and articles thereof), 78 (Lead and articles thereof), 79 (Zinc and articles thereof) and 80 (Tin and articles thereof).

Table 70 – Peru: Normalized Revealed Comparative Advantage Indices, 2004-2014

Description	2004			2014		
	NRCA	Export in US$ 1000	Share	NRCA	Export in US$ 1000	Share
01-05 Animal	0.1	270	2%	0.1	999.8	3%
06-15 Vegetables	**0.5**	**898**	**7%**	**0.5**	**3,939**	**10%**
16-24 Food Products	**0.6**	**1,328**	**10%**	**0.4**	**3,039**	**8%**
25-26 Minerals	**0.9**	**2,560**	**20%**	**0.9**	**10,981**	**29%**
27 Fuels	-0.3	694	5%	-0.03	4,753	12%
28-38 Chemicals	-0.6	262	2%	-0.6	784	2%
39-40 Plastic or Rubber	-0.6	144	1%	-0.4	660	2%
41-43 Hides and Skins	-0.5	33	0%	-0.7	56	0%
44-49 Wood	-0.3	200	2%	-0.4	326	1%
50-63 Textiles and Clothing	0.2	1,106	9%	0.1	1,831	5%
64-67 Footwear	-0.9	7	0%	-0.8	35	0%
68-71 Stone and glass	**0.8**	**2,816**	**22%**	**0.5**	**6,294**	**16%**
72-83 Metals	**0.4**	**2,257**	**18%**	**0.2**	**4,073**	**11%**
84-85 Machinery and Electric Equipment	-0.9	99	1%	-0.9	390	1%
86-89 Transport	-1.0	12	0%	-0.9	108	0%
90-99 Miscellaneous	-0.9	42	0%	-0.9	190	0%
Total		**12,726**	**100%**		**38,459**	**100%**

Source: UN-COMTRADE Database

Table 71 – India: Normalized Revealed Comparative Advantage Indices, 2004-2014

Description	2004			2014		
	NRCA	Export US$ Million	Share	NRCA	Export US$ Million	Share
01-05 Animal	**0.1**	**1,738**	**2%**	**0.3**	**11,046**	**3%**
06-15 Vegetables	**0.5**	**4,898**	**6%**	**0.4**	**21,387**	**7%**
16-24 Food Products	-0.1	1,705	2%	-0.2	6,528	2%
25-26 Minerals	0.7	3,223	4%	-0.1	3,347	1%
27 Fuels	-0.1	6,125	8%	0.2	62,349	20%
28-38 Chemicals	0.1	7,618	10%	0.1	33,724	11%
39-40 Plastic or Rubber	-0.1	2,618	3%	-0.3	8,162	3%
41-43 Hides and Skins	0.5	1,697	2%	0.3	3,914	1%
44-49 Wood	-0.7	497	1%	-0.6	1,794	1%
50-63 Textiles and Clothing	**0.6**	**14,154**	**19%**	**0.5**	**38,598**	**12%**
64-67 Footwear	0.2	932	1%	0.1	3,316	1%
68-71 Stone and glass	**0.7**	**13,365**	**18%**	**0.5**	**43,581**	**14%**
72-83 Metals	0.1	7,391	10%	0.1	25,585	8%
84-85 Machinery and Electric Equipment	-0.6	4,881	6%	-0.6	22,598	7%
86-89 Transport	-0.6	2,669	4%	-0.1	25,900	8%
90-99 Miscellaneous	-0.5	2,393	3%	-0.7	5,718	2%
Total		**75,904**	**100%**		**317,545**	**100%**

Source: UN-COMTRADE Database

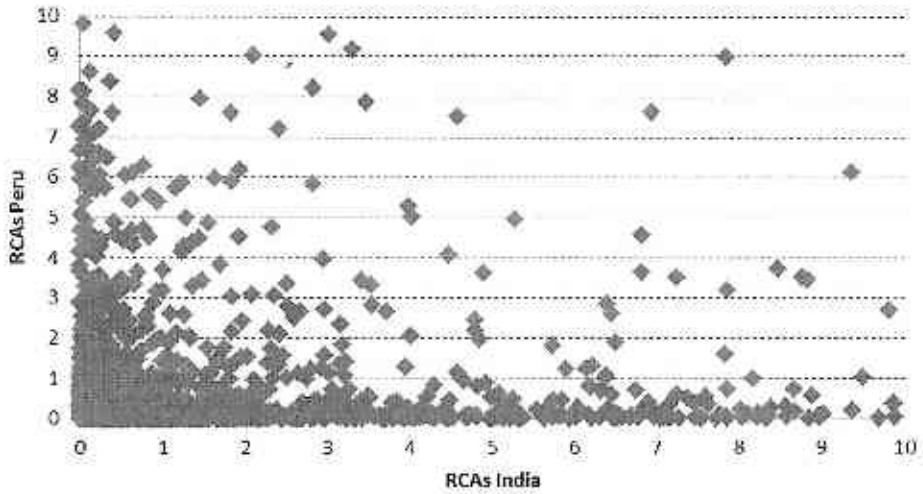
The results obtained, based on calculations at highly aggregated product levels (HS-Chapter groupings), suggest that there are just a few sectors where there is an overlap in the two countries' comparative advantage patterns. Therefore, they mostly do not compete with each other and, consequently, there is ample scope for the expansion of their bilateral trade.

At a more disaggregated level, the calculations also seem to suggest that Peru and India have different comparative advantage patterns[161]. For example, Peru has strong comparative advantage in some HS-Chapters in which India does not have comparative advantage: Chapters 7 (edible vegetables and certain roots and tubers), 8 (edible fruit and nuts; peel of citrus fruit or melons), 16 (preparations of meat of fish or of crustaceans), 20 (preparations of vegetables, fruit, nuts or other parts of plants), 26 (ores, slag and ash), 51 (wool, fine or coarse animal hair; horsehair yarn and woven fabric) and 80 (tin and articles thereof). Then, there is scope for the expansion of bilateral trade flows in those sectors.

In addition, we calculated the RCAs for both Peru and India at the HS-6-digit level and measured the degree of correlation of both series. As shown through a scatter plot in

Figure 58, the correlation coefficient of Peru's and India's RCA turns out to be very low (0.02), which indicates that the patterns of comparative advantage of Peru and India show no overlap.

Figure 58 – Peru's and India's RCAs, 2014



Note: Sample restricted to the products with an RCA<=10
Source: UN COMTRADE Database

7.2.2.3 EXPORT SPECIALISATION INDEX

Similar to the RCA, the Export Specialization Index (ES) is calculated as the ratio of the export share of a product in a country's total exports to the import share of this product into a specific market (rather than its share in world exports). The mathematical formula is as follows:

$$ES = \left(\frac{x_i^h / X_i}{m_j^h / M_j} \right)$$

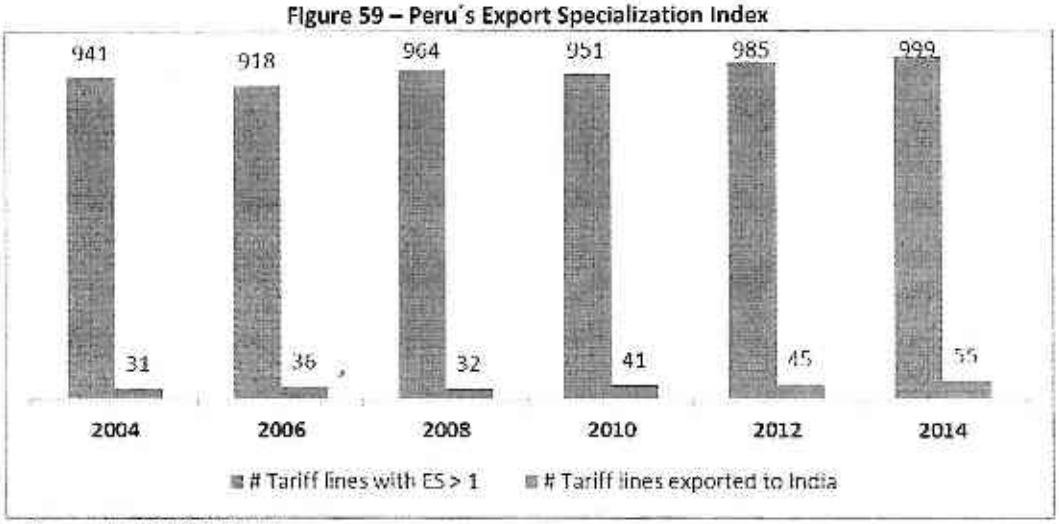
[161] See Annex 4.

Where x_i^h represents the value of exports of product h in country i, X_i represents total exports of country i; m_j^h is the value of imports of product h in country j; M_j is the value of total imports of country j. An index value above 1 reflects specialization in the specified market.

The export specialization index has been constructed for the years 2004, 2006, 2008, 2010, 2012 and 2014, as illustrated in

Figure 59. As it shows, the number of Peruvian tariff lines (at HS 6 digit level) that have export specialization in the Indian market has slightly improved over time. However, only a reduced number of these products were exported to India.

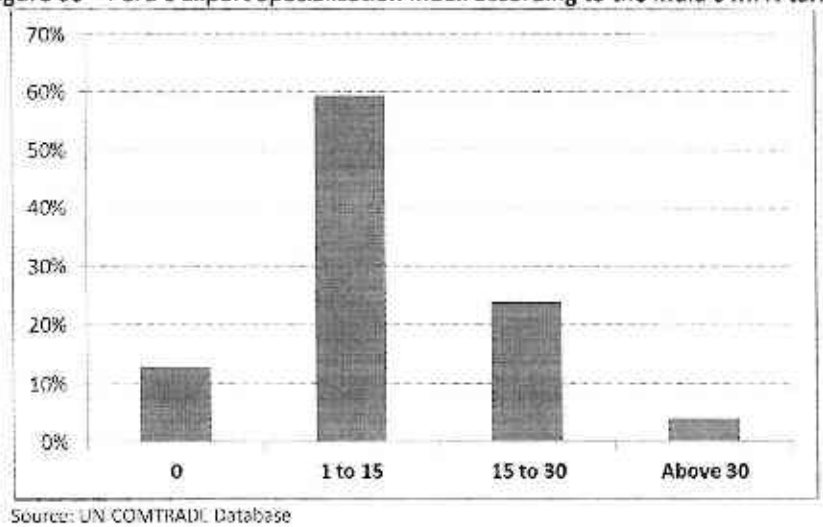
Figure 59 – Peru´s Export Specialization Index



Source: UN-COMTRADE Database

In 2014, 13% of Peruvian products which have export specialization in the Indian market faced a zero MFN tariff in India; while 59% faced tariffs between 1% and 15%.

Figure 60 – Peru´s Export Specialization Index according to the India´s MFN tariff



Source: UN COMTRADE Database

Table 72 – Peru's Export Specialization Index by Chapter

Chapter	Description	Number of tariff lines with ES in the Indian Market	Share
01	Live animals	6	1%
02	Meat and edible meat offal	3	0%
03	Fish and crustaceans, molluscs and other aquatic invertebrates	25	3%
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	9	1%
05	Products of animal origin, not elsewhere specified or included	3	0%
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	7	1%
07	Edible vegetables and certain roots and tubers	23	2%
08	Edible fruit and nuts; peel of citrus fruit or melons	21	2%
09	Coffee, tea and spices	9	1%
10	Cereals	7	1%
11	Products of the milling industry; malt; starches; inulin; wheat gluten	12	1%
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	11	1%
13	Lac; gums, resins and other vegetable saps and extracts	2	0%
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	1	0%
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	8	1%
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	8	1%
17	Sugars and sugar confectionery	6	1%
18	Cocoa and cocoa preparations	8	1%
19	Preparations of cereals, flour, starch or milk; pastry inputs	10	1%
20	Preparations of vegetables, fruit, nuts or other parts of plants	21	2%
21	Miscellaneous edible preparations	8	1%
22	Beverages, spirits and vinegar	10	1%
23	Residues and waste from the food industries; prepared animal fodder	6	1%

Chapter	Description	Number of tariff lines with ES in the Indian Market	Share
24	Tobacco and manufactured tobacco substitutes	3	0%
25	Salt; sulphur; earths and stone; plastering materials, lime and cement	19	2%
26	Ores, slag and ash	11	1%
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	5	1%
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	27	3%
29	Organic chemicals	1	0%
30	Pharmaceutical products	5	1%
31	Fertilisers	4	0%
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	6	1%
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	15	2%
34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modelling pastes, ?dental waxes? And dental preparation	9	1%
35	Albuminoidal substances; modified starches; glues; enzymes	1	0%
36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	6	1%
37	Photographic or cinematographic goods	4	0%
38	Miscellaneous chemical products	4	0%
39	Plastics and articles thereof	24	2%
40	Rubber and articles thereof	7	1%
41	Raw hides and skins and leather	10	1%
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silkworm gut)	7	1%
43	Furskins and artificial fur; manufactures thereof	4	0%
44	Wood and articles of wood; wood charcoal	13	1%

Chapter	Description	Number of tariff lines with ES in the Indian Market	Share
45	Cork and articles of cork	1	0%
46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	1	0%
47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard	2	0%
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	27	3%
49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans	10	1%
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	18	2%
52	Cotton	70	7%
54	Man-made filaments; strip and the like of man-made textile materials	5	1%
55	Man-made staple fibres	25	3%
56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	13	1%
57	Carpets and other textile floor coverings	7	1%
58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	3	0%
60	Knitted or crocheted fabrics	17	2%
61	Articles of apparel and clothing accessories, knitted or crocheted	89	9%
62	Articles of apparel and clothing accessories, not knitted or crocheted	64	6%
63	Other made-up textile articles; sets; worn clothing and worn textile articles; rags	17	2%
64	Footwear, gaiters and the like; parts of such articles	10	1%
65	Headgear and parts thereof	3	0%
67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair	1	0%
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	12	1%
69	Ceramic products	5	1%
70	Glass and glassware	6	1%

Chapter	Description	Number of tariff lines with ES in the Indian Market	Share
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	10	1%
72	Iron and steel	18	2%
73	Articles of iron or steel	23	2%
74	Copper and articles thereof	16	2%
76	Aluminium and articles thereof	3	0%
78	Lead and articles thereof	4	0%
79	Zinc and articles thereof	5	1%
80	Tin and articles thereof	2	0%
81	Other base metals; cermets; articles thereof	4	0%
82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	7	1%
83	Miscellaneous articles of base metal	7	1%
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	26	3%
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	11	1%
86	Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electromechanical) traffic signalling equipment of all kinds	3	0%
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	10	1%
88	Aircraft, spacecraft, and parts thereof	4	0%
89	Ships, boats and floating structures	1	0%
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	1	0%
91	Clocks and watches and parts thereof	2	0%
92	Musical instruments; parts and accessories of such articles	3	0%

Chapter	Description	Number of tariff lines with ES in the Indian Market	Share
93	Arms and ammunition; parts and accessories thereof	2	0%
94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like; prefabricated buildings	5	1%
95	Toys, games and sports requisites; parts and accessories thereof	4	0%
96	Miscellaneous manufactured articles	11	1%
97	Works of art, collectors' pieces and antiques	2	0%
	Total tariffs with ES > 1	**999**	**100%**

Source: UN-COMTRADE Database

7.2.2.4 TRADE COMPLEMENTARITY INDEX

The Trade Complementarity Index (TCI) measures the degree to which the export pattern of one country matches the import pattern of a trade partner[162].

$$TCI = 100 * \left[1 - \sum_k \left|\frac{m_{jk}}{M_j} - \frac{x_{ik}}{X_i}\right| /2\right]$$

Where is x_{ik} the value of exports of product k from reporter country i, and X_i is country i's total exports. Partner country j's import value of product k is given by m_{jk}, and its total imports are denoted by M_j. An index of 100 indicates ideal (complementary) trading partners, while an index of 0 indicates that the two countries are perfect competitors.

The TCI index has been calculated for each year from 2003 to 2014, one series considering Peru as exporter and the other series considering Peru as importer. Overall, as

[162] Farole, T., Reis, J. Trade Competitiveness Diagnostic Toolkit, World Bank, 2012.

Figure 61 shows, the low values of both TCI series (i.e., both below a critical value of 50) seem to indicate that trade between Peru and India does not conform to a pattern of complementarity. In fact, TCI values for Peru as exporter to India have been decreased in the last years. This result reflects the fact that Peru has not been increasing its participation among India's import sources or that Peru shows a narrow export basket than Peru in their bilateral trade relationship.

As calculated so far, the TCI has been obtained as a summary measure, that is, one that incorporates all sectors/products traded by each country in the bilateral relationship. However, to evaluate whether a different pattern of complementarity may emerge if bilateral trade is restricted to some sectors/products, the TCI was calculated again within HS-Chapter groupings. According to our results in Table 73, trade between Peru and India seems to be highly complementary (i.e., above the 50 critical value) within Peru's exports of minerals (chapters 25-26), stone and glass (chapters 68-71) and hides and skins (chapters 41-43).

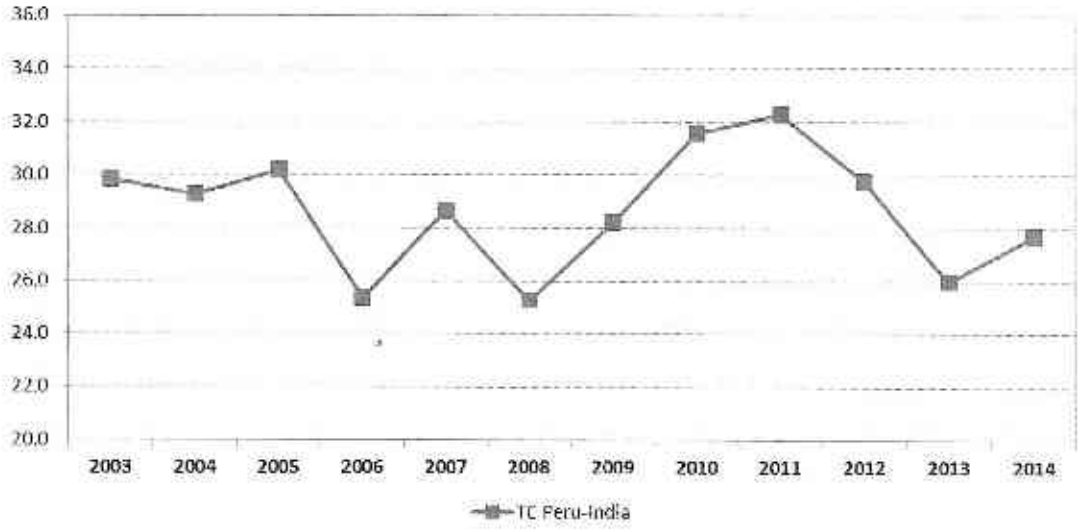
Table 73 – Peru's export perspective: TCI between Peru and India, within HS-Chapter groupings

	01-05 Animal	06-15 Vegetables	16-24 Food Products	25-26 Minerals	27 Fuels	28-38 Chemicals	39-40 Plastic or Rubber	41-43 Hides and Skins
2003	31.5	40.7	38.5	46.5	75.7	29.7	30.0	52.6
2004	32.2	46.2	25.8	58.3	54.5	29.4	27.2	49.9
2005	43.5	36.6	25.1	49.5	50.5	28.6	31.2	53.3
2006	28.4	35.7	21.8	53.3	39.4	25.5	26.0	52.8
2007	27.9	25.4	16.2	60.7	43.4	26.7	23.5	53.6
2008	22.0	18.7	18.8	61.6	36.7	20.9	25.5	48.5
2009	42.3	36.4	14.0	66.1	29.5	29.0	22.9	43.4
2010	19.1	23.4	14.2	67.9	29.4	27.3	21.7	51.5
2011	24.1	32.9	18.1	66.8	27.1	26.9	23.3	54.9
2012	26.6	38.4	15.7	62.3	24.3	28.8	22.5	54.9
2013	34.3	16.7	24.7	69.7	19.9	31.1	21.2	49.8
2014	37.6	23.3	26.1	67.8	26.6	31.2	20.4	54.5

	44-49 Wood	50-63 Textiles and Clothing	64-67 Footwear	68-71 Stone and glass	72-83 Metals	84-85 Machinery and Electric equipment	86-89 Transport	90-99 Miscellaneous
2003	39.4	23.9	24.4	60.8	24.0	39.4	47.2	21.0
2004	27.4	22.0	28.7	65.2	22.4	35.8	45.7	21.8
2005	31.6	19.9	31.0	62.7	19.2	43.7	47.7	18.8
2006	35.7	23.2	26.1	54.7	26.5	36.9	62.6	19.7
2007	35.6	21.5	27.7	67.6	22.9	33.4	57.4	19.6
2008	19.5	18.3	37.6	66.5	22.5	35.1	35.5	22.3
2009	22.6	16.0	37.2	73.3	21.8	35.2	45.0	26.6
2010	22.6	25.1	25.3	75.8	20.7	35.1	50.2	28.8
2011	39.7	21.9	26.9	75.2	21.4	36.2	31.1	27.0
2012	28.4	22.5	37.3	75.8	20.3	38.1	41.9	27.4
2013	36.0	23.2	44.8	74.2	21.8	40.3	40.5	31.1
2014	33.8	24.4	45.7	75.7	21.9	36.7	36.9	28.9

Source: UN-COMTRADE Database

Figure 61 - Trade Complementarity Index between Peru and India



Source: UN-COMTRADE Database

7.2.2.5 FINGER-KREININ INDEX

The Finger Kreinin Index[163] (FK) measures the degree of similarity between the export patterns of two countries *i1* and *i2* in their trade relationship with a third market *j* (the latter can be the world). If the FK index is 1, then the export structures of countries are identical, whereas if the FK index is 0, their export structures are totally different. The mathematical formula is as follows:

$$FK_{i1,i2,j} = \sum_{k} min\left[\left(\frac{x^{k}{}_{i1,j}}{X_{i1,j}}\right),\left(\frac{x^{k}{}_{i2,j}}{X_{i2,j}}\right)\right]$$

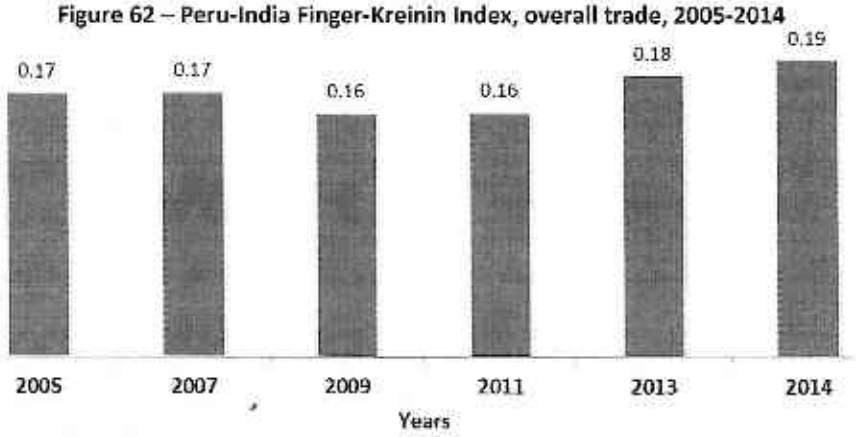
If the countries have very similar export (and production) structures, bilateral trade liberalization between those countries is likely to result in trade creation, whereas if their export structures are very dissimilar, bilateral trade liberalization is likely to result in trade diversion[164].

[163] Finger and Kreinin (1979).

[164] Trade creation occurs when, after a free trade agreement, an importing country reduces its production and instead imports the good from its FTA partner. If there is significant overlap in the countries production structures, then, after bilateral trade liberalization, there is more scope for switching sources of supply to the more efficient country.

We have calculated the FK index between Peru and India for the years 2005, 2007, 2009, 2011, 2013 and 2014. According to Figure 62, between 2005 and 2014 the overall Peru-India's FK index showed almost no variation, fluctuating around values of 0.17 and 0.19. This result indicates that the export structures of Peru and India to the world market are quite dissimilar; therefore, suggesting the possibility that trade liberalization between these countries may result in trade diversion.

Figure 62 – Peru-India Finger-Kreinin Index, overall trade, 2005-2014



Source: Trade Sitt, WITS

As calculated so far, the FK index has been obtained as a summary measure, that is, one that incorporates all sectors/products exported by Peru and India to the world. However, to evaluate whether a different pattern of similarity may emerge if their trade with the world is restricted to some sectors/products, the FK index was calculated again within HS-Chapters. According to our results in Table 74, we can identify a few sectors in which bilateral liberalization can create scope for trade creation gains for Peru and India, namely, minerals, metals, cereals, sugar, pharmaceutical products and textile and clothing products.

Table 74 – Peru-India Finger-Kreinin Index, by HS-Chapter, 2014

Chapter	Description	2014
80	Tin and articles thereof	0.87
17	Sugars and sugar confectionery	0.84
74	Copper and articles thereof	0.79
97	Works of art, collectors' pieces and antiques	0.79
78	Lead and articles thereof	0.73
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	0.71
30	Pharmaceutical products	0.69
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	0.65
43	Furskins and artificial fur; manufactures thereof	0.64

On the other hand, trade diversion occurs when sources of supply switch away from a non-FTA partner (which is a more efficient producer) to the new FTA partner.

Chapter	Description	2014
79	Zinc and articles thereof	0.62
61	Articles of apparel and clothing accessories, knitted or crocheted	0.60
62	Articles of apparel and clothing accessories, not knitted or crocheted	0.55
22	Beverages, spirits and vinegar	0.53
46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	0.53
60	Knitted or crocheted fabrics	0.53
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	0.52
69	Ceramic products	0.51
38	Miscellaneous chemical products	0.49
36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	0.48
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silkworm gut)	0.46
35	Albuminoidal substances; modified starches; glues; enzymes	0.44
31	Fertilisers	0.42
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	0.42
94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like; prefabricated buildings	0.41
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	0.41
65	Headgear and parts thereof	0.41
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	0.41
54	Man-made filaments; strip and the like of man-made textile materials	0.38
73	Articles of iron or steel	0.37
91	Clocks and watches and parts thereof	0.37
21	Miscellaneous edible preparations	0.37
39	Plastics and articles thereof	0.37
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	0.35
92	Musical instruments; parts and accessories of such articles	0.35
40	Rubber and articles thereof	0.33
95	Toys, games and sports requisites; parts and accessories thereof	0.33
03	Fish and crustaceans, molluscs and other aquatic invertebrates	0.33
09	Coffee, tea and spices	0.32
24	Tobacco and manufactured tobacco substitutes	0.32
34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modelling pastes, ?dental waxes? And dental preparation	0.32
11	Products of the milling industry; malt; starches; inulin; wheat gluten	0.31
70	Glass and glassware	0.31
82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	0.30
83	Miscellaneous articles of base metal	0.30

Chapter	Description	2014
58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	0.30
08	Edible fruit and nuts; peel of citrus fruit or melons	0.30
52	Cotton	0.29
64	Footwear, gaiters and the like; parts of such articles	0.29
88	Aircraft, spacecraft, and parts thereof	0.28
57	Carpets and other textile floor coverings	0.28
18	Cocoa and cocoa preparations	0.27
56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	0.27
66	Umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof	0.27
63	Other made-up textile articles; sets; worn clothing and worn textile articles; rags	0.24
96	Miscellaneous manufactured articles	0.24
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	0.23
20	Preparations of vegetables, fruit, nuts or other parts of plants	0.22
55	Man-made staple fibres	0.21
49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans	0.20
25	Salt; sulphur; earths and stone; plastering materials, lime and cement	0.20
76	Aluminium and articles thereof	0.17
37	Photographic or cinematographic goods	0.17
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	0.16
29	Organic chemicals	0.16
07	Edible vegetables and certain roots and tubers	0.16
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	0.16
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	0.16
81	Other base metals; cermets; articles thereof	0.16
86	Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electromechanical) traffic signalling equipment of all kinds	0.16
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	0.14
13	Lac; gums, resins and other vegetable saps and extracts	0.13
75	Nickel and articles thereof	0.13
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	0.12
59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use	0.12
23	Residues and waste from the food industries; prepared animal fodder	0.12
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	0.11
89	Ships, boats and floating structures	0.10
53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	0.09
05	Products of animal origin, not elsewhere specified or included	0.09
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	0.09

Chapter	Description	2014
44	Wood and articles of wood; wood charcoal	0.09
50	Silk	0.09
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	0.08
26	Ores, slag and ash	0.08
10	Cereals	0.07
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	0.07
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	0.06
72	Iron and steel	0.06
45	Cork and articles of cork	0.06
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	0.06
01	Live animals	0.05
67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair	0.05
93	Arms and ammunition; parts and accessories thereof	0.03
47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard	0.03
02	Meat and edible meat offal	0.02
41	Raw hides and skins and leather	0.01

Source: Trade Sift, WITS

7.2.3 Estimation of Potential Trade

In the case of Peru, we will follow the same methodology developed by India in section 7.1.3. The first step involves identifying the products in which Peru is competitive in the world market. This is done by eliminating the tariff lines with an RCA less than 3 and retaining the competitive lines i.e. with RCA greater than 3. The next step involved (mapping) integrating these competitive lines with the bilateral RCA between Peru and India. Once the BRCA for these lines have been identified, distinguish those lines which have a BRCA above and below 3. Those lines where the bilateral trade between India and Peru already exceeds 3 can be eliminated as they are the products in which Peru has already achieved the potential exports and there is little scope for improvement. The remaining lines are the ones where Peru is competitive in the world market but has not exploited the Indian market to its full potential. These products are the immediate targets for Peru to focus on and expand its exports in the Indian market.

Table 75 - Potential for Peru's Export Products using the RCA Approach

Steps Undertaken	Total number of Tariff Lines	Tariff Lines Removed	Tariff Lines Remaining
Step 1: Calculate Peru's Standard RCA	5,203		
Step 2: Identify TL with RCA>3		4,949	254
Step 3: Calculate BRCA of Peru and India	5,086		
Step 4: Match the BRCA with the remaining tariff lines and eliminate TL with BRCA>3	254	3	251

Source: WITS, Comtrade

In Peru's case out of the total 5,203 tariff lines, 254 lines were identified as having RCA greater than three; and among these 254 lines Peru had a bilateral RCA with India less than 3 in 251 products. These 251 products[165] would be the broad group of goods on which Peru could focus to expand their exports in India. They are mainly fish and crustaceans (chapter 3 and 16); fruits and vegetables (chapters 7, 8, 12, 20); chemical products (chapter28); and textiles and apparel products (chapters 52, 55, 56, 60, 61).

[165] See Annexure 3

Table 76 - Potential for Peru´s Export Products using the RCA Approach, by Chapter

Chapter	Description	Number of potential products	Share
01	Live animals	2	1%
02	Meat and edible meat offal	2	1%
03	Fish and crustaceans, molluscs and other aquatic invertebrates	21	8%
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	3	1%
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	1	0%
07	Edible vegetables and certain roots and tubers	14	6%
08	Edible fruit and nuts; peel of citrus fruit or melons	11	4%
09	Coffee, tea, and spices	5	2%
10	Cereals	2	1%
11	Products of the milling industry; malt; starches; inulin; wheat gluten	3	1%
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	9	4%
13	Lac; gums, resins and other vegetable saps and extracts	1	0%
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	1	0%
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	4	2%
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	7	3%
18	Cocoa and cocoa preparations	3	1%
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	1	0%
20	Preparations of vegetables, fruit, nuts or other parts of plants	9	4%
22	Beverages, spirits and vinegar	1	0%
23	Residues and waste from the food industries; prepared animal fodder	3	1%
25	Salt; sulphur; earths and stone; plastering materials, lime and cement	8	3%
26	Ores, slag and ash	8	3%
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	1	0%
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	14	6%
31	Fertilisers	1	0%
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	3	1%
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	1	0%

Chapter	Description	Number of potential products	Share
35	Albuminoidal substances; modified starches; glues; enzymes	1	0%
36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	2	1%
39	Plastics and articles thereof	1	0%
41	Raw hides and skins and leather	3	1%
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silkworm gut)	1	0%
43	Furskins and artificial fur; manufactures thereof	1	0%
44	Wood and articles of wood; wood charcoal	6	2%
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	1	0%
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	8	3%
52	Cotton	13	5%
55	Man-made staple fibres	7	3%
56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	4	2%
58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	1	0%
60	Knitted or crocheted fabrics	6	2%
61	Articles of apparel and clothing accessories, knitted or crocheted	14	6%
63	Other made-up textile articles; sets; worn clothing and worn textile articles; rags	1	0%
64	Footwear, gaiters and the like; parts of such articles	1	0%
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	3	1%
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	2	1%
72	Iron and steel	3	1%
73	Articles of iron or steel	4	2%
74	Copper and articles thereof	7	3%
76	Aluminium and articles thereof	1	0%
78	Lead and articles thereof	2	1%
79	Zinc and articles thereof	4	2%
80	Tin and articles thereof	2	1%
81	Other base metals; cermets; articles thereof	4	2%
83	Miscellaneous articles of base metal	3	1%
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	2	1%
86	Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electromechanical) traffic signalling equipment of all kinds	1	0%

Chapter	Description	Number of potential products	Share
89	Ships, boats and floating structures	2	1%
96	Miscellaneous manufactured articles	1	0%
	TOTAL	251	100%

Source: WITS, Comtrade

7.2.4 Conclusion Based on Trade Indicators

Despite significant growth in bilateral trade between Peru and India during the last ten years, the value of their bilateral trade flows remained at low levels compared to the total trade flows of both countries. This result would imply that there is a great scope to expand trade with India. However, it would also suggest that Peru has not sufficiently diversified its export basket to the Indian market over the period. Between 2004 and 2014, the number of products at the HS 6-digit level exported by Peru to India increased in only 70. All the while, India´s position as an input supplier to Peru has increased in the textile and apparel sectors.

In addition to this, differences in the revealed comparative advantage patterns of both countries suggest the possibility to expand bilateral trade between Peru and India in certain sectors. For instance, Peru has strong comparative advantage in some sectors in which India does not have any advantage, namely: edible vegetables and fruits (Chapters 7-8), preparations of meat of fish or of crustaceans (Chapter 16), wool, fine or coarse animal hair (Chapter 51), among others. To complement this analysis, we would also need to check whether there is overlap between Peru´s and India´s production patterns along their potential trade basket. So far we know, as captured in the previous section by the interpretation of the Finger-Kreinin or export similarity index results, that there are certain sectors that offer potential for trade creation between Peru and India, particularly, minerals, metals, cereals, sugar, pharmaceutical products and textile/clothing.

7.3 Perspective of India and Peru

7.3.1 Estimation of the Potential Economic effects with a Computable General Equilibrium Model

7.3.1.1 Methodology

In this study, the economic impact of a Free Trade Agreement between Peru and India has been assessed through the empirical implementation of a Computable General Equilibrium (CGE) Model. For this purpose, the Database and the Model offered by the Global Trade Analysis Project (GTAP)[166] has been used. The GTAP Database incorporates bilateral trade, transport and protection data that characterizes the economic linkages among world regions, together with individual country input-output databases that account for inter-sectoral linkages within each

[166] The GTAP version 9 Database and Model have been chosen for this study.

world region. On the other hand, the GTAP Model[157] is a static, multi-region, multi-sector, CGE model with perfect competition and constant returns to scale.

On the production side, the GTAP model assumes that labor and capital are fully employed, mobile across all uses within a country but immobile internationally. On the demand side, there is a regional representative household whose expenditure is allocated across private consumption, government spending, and saving. Bilateral international trade flows are modelled based on the Armington assumption that goods and services are differentiated by region of origin and are imperfect substitutes.

The GTAP model structure allows policy makers to estimate the impact of trade policy changes on relevant economic variables such as trade flows, gross domestic product and employment. However, considering the static nature of the GTAP, it can only measure the effects based on actual bilateral trade between two partners, and cannot estimate the creation of trade in new products or sectors. Additionally, the static GTAP model cannot measure gains from investment and gains in productivity derived from increases in bilateral trade.

7.3.1.2 AGGREGATION STRATEGY

The GTAP 9 database provides a representation of the global economy in 2011 and identifies 140 regions, 57 sectors and 5 factors of production (land, natural resources[158], unskilled labor, skilled labor, and capital). Aggregation of the database is necessary for computational convenience, hence, the database in 11 regions and 57 sectors have been chosen for the purpose of the analysis (see
Table 77 and Table 78).

Table 77 - Regional Aggregation

#	Region	#	Region
1	India	7	Colombia
2	Peru	8	EU_27
3	USA	9	Japan
4	Argentina	10	Korea
5	Brazil	11	Rest of World
6	China		

Source: GTAP 9 database

Table 78 - Sectoral Aggregation

NO.	Code	Description	NO.	Code	Description
1	**PDR**	Paddy rice	30	**LUM**	Wood products
2	**WHT**	Wheat	31	**PPP**	Paper products, publishing
3	**GRO**	Cereal grains nec	32	**P_C**	Petroleum, coal products
4	**V_F**	Vegetables, fruit, nuts	33	**CRP**	Chemical, rubber, plastic products
5	**OSD**	Oil seeds	34	**NMM**	Mineral products nec
6	**C_B**	Sugar cane, sugar beet	35	**I_S**	Ferrous metals

[157] *Global Trade Analysis: Modeling and Applications*, T.W. Hertel (ed.), published in 1997 by Cambridge University Press.
[158] Land and natural resources are assumed to be not mobile between sectors, whereas unskilled labor, skilled labor, and capital are perfectly mobile within sectors (not regions).

7	**PFB**	Plant-based fibers	36	**NFM**	Metals nec
8	**OCR**	Crops nec	37	**FMP**	Metal products
9	**CTL**	Bovine cattle, sheep and goats, horses	38	**MVH**	Motor vehicles and parts
10	**OAP**	Animal products nec	39	**OTN**	Transport equipment nec
11	**RMK**	Raw milk	40	**ELE**	Electronic equipment
12	**WOL**	Wool, silk-worm cocoons	41	**OME**	Machinery and equipment nec
13	**FRS**	Forestry	42	**OMF**	Manufactures nec
14	**FSH**	Fishing	43	**ELY**	Electricity
15	**COA**	Coal	44	**GDT**	Gas manufacture, distribution
16	**OIL**	Oil	45	**WTR**	Water
17	**GAS**	Gas	46	**CNS**	Construction
18	**OMN**	Minerals nec	47	**TRD**	Trade
19	**CMT**	Bovine meat products	48	**OTP**	Transport nec
20	**OMT**	Meat products nec	49	**WTP**	Water transport
21	**VOL**	Vegetable oils and fats	50	**ATP**	Air transport
22	**MIL**	Dairy products	51	**CMN**	Communication
23	**PCR**	Processed rice	52	**OFI**	Financial services nec
24	**SGR**	Sugar	53	**ISR**	Insurance
25	**OFD**	Food products nec	54	**OBS**	Business services nec
26	**B_T**	Beverages and tobacco products	55	**ROS**	Recreational and other services
27	**TEX**	Textiles	56	**OSG**	Public Administration, Defense, Education, Health
28	**WAP**	Wearing apparel	57	**DWE**	Dwellings
29	**LEA**	Leather products			

Source: GTAP 9 database

7.3.1.3 EXPERIMENT DESIGN

Under the GTAP model's default microeconomic closure, the total supply of capital and labor are fixed. However, given the unstable economic environment, unemployment is a general phenomenon around the world. Therefore, to make this study more realistic, the standard microeconomic closure has been altered by turning off the assumption of full employment in the labor market (for both skilled and unskilled labor). Considering this, bilateral tariff reductions of 100%, 90% and 80% between Peru and India have been simulated. As mentioned before, the GTAP model can only measure the impact based on actual bilateral trade flows between India and Peru, it is very important to identify which sectors are the most important for this estimation in terms of their current import protection levels, in each country.

Table 79 reports the aggregated ad-valorem tariffs considered as the pre-simulation levels.

Table 79 – Ad-Valorem Import Tariffs between India and Peru, by Commodities sectors, 2011
(%)

Description	India-Peru	Peru-India
Paddy rice	-	-
Wheat	-	-
Cereal grains nec	-	-
Vegetables, fruit, nuts	30,0	-
Oil seeds	-	3,0
Sugar cane, sugar beet	-	-
Plant based fibers	-	-
Crops nec	44,1	6,1
Bovine cattle, sheep and goats, horses	-	-
Animal products nec	-	-
Raw milk	-	-
Wool, silk-worm cocoons	-	-
Forestry	5,0	4,5
Fishing	-	-
Coal	-	-
Oil	-	-
Gas	-	-
Minerals nec	3,1	2,7
Bovine meat products	-	-
Meat products nec	-	-
Vegetable oils and fats	-	2,0

Description	India-Peru	Peru-India
Dairy products	-	-
Processed rice	-	-
Sugar	-	-
Food products nec	12,6	2,5
Beverages and tobacco products	-	6,0
Textiles	10,5	6,9
Wearing apparel	14,2	10,7
Leather products	9,5	10,7
Wood products	10,0	5,7
Paper products, publishing	10,0	3,1
Petroleum, coal products	5,0	-
Chemical, rubber, plastic products	8,2	1,8
Mineral products nec	10,0	0,7
Ferrous metals	5,0	-
Metals nec	9,9	0,1
Metal products	8,8	0,9
Motor vehicles and parts	-	5,0
Transport equipment nec	-	5,5
Electronic equipment	1,4	0,1
Machinery and equipment nec	6,8	0,5
Manufactures nec	9,7	4,8

Source: GTAP database

7.3.1.4 SIMULATION RESULTS

7.3.1.4.1 WELFARE EFFECTS

The GTAP model also computes a measure of the change in each region's welfare. The change in welfare is the variation in income that would produce the same effect on the region´s utility as the policy shock. The GTAP model allows a decomposition of welfare changes into seven sources: i) allocative efficiency, ii) endowment effects, iii) technical changes, iv) terms of trade effects, v) investment–saving effects, vi) population changes, and, vii) parameter changes in the household´s utility function.

In the three simulation scenarios, the welfare changes obtained as a result of a 100% / 90% / 80% reduction of bilateral tariffs between Peru and India are only due to changes in allocative efficiency, changes in endowment usage, changes in terms of trade (the change in the relative price of exports to imports) and changes in investment-saving effects.

As Table 80 shows, India receives more welfare gains than Peru from the 100% liberalization shock. India´s welfare gains come mainly from increased labor employment and positive terms of trade effects. In addition, India registered the largest change in allocative efficiency effects. This reflects the fact that India had the highest levels of tariff protection before the simulation. The removal of tariffs has therefore shifted resources from protected but inefficient sectors to more

efficient ones. On the other hand, Peru's welfare gains are derived mainly (80% of total welfare changes) from increased labor employment.

Table 80 - Simulated effects on Welfare
(Value changes in US$ million)

WELFARE	Allocative Efficiency	Endowment effects	Terms of Trade Effects	Investment Savings Effects	Total
Scenario: Bilateral tariff reduction of 100%					
India	20.0	57.2	31.6	9.2	117.9
Peru	1.4	41.1	4.1	1.5	48.1
Scenario: Bilateral tariff reduction of 90%					
India	17.8	50.3	27.9	8.1	104.1
Peru	1.8	36.6	3.6	1.3	43.3
Scenario: Bilateral tariff reduction of 80%					
India	15.7	43.7	24.4	7.0	90.8
Peru	2.1	32.1	3.2	1.1	38.5

Source: Estimations with GTAP database/model

7.3.1.4.2 IMPACTS ON GDP AND OVERALL TRADE BALANCE

According to estimations in the scenario of total trade liberalization, bilateral trade between Peru and India real GDP would grow at the rate of 0.02% in Peru. In the same scenario, Peru would face increase in exports by US$ 22 million (0.05%), and an increase of US$ 70 million in imports (0.18%), leading to a small deterioration of US$ 48 million in its overall trade balance (Table 81).

Table 81 – Simulated effects on GDP (Nominal and Real) for Peru
(Value changes in US$ million / % change)

	Base Year 2011 US$ million	Change in US$ million		
		Scenario: -100%	Scenario: -90%	Scenario: -80%
Consumption	102,593	18	16	15
Investment	41,026	49	44	39
Government	17,520	4.3	3.9	3.5
Trade Balance (A) - (B)	9,425	-48	-42	-37
A. Export (FOB)	49,297	22	19	16
B. Imports (CIF)	39,872	70	61	53
Total GDP (US$ million)	170,564	24	22	20
Real GDP (% change)		0.02	0.02	0.02

Source: Estimations with GTAP database/model

In the scenario of total trade liberalization between India and Peru (100 % tariff reduction), India's GDP would increase by US$297 million. As a result, real GDP would increase by 0.004% after the 100% reduction of tariff between India and Peru (Table 82).

Table 82 - Simulated effects on GDP (Nominal and Real) for India
(Value changes in US$ million / % change)

	Base Year 2011 US$ million	Change in US$ million		
		Scenario: -100%	Scenario: -90%	Scenario: -80%
Consumption	1,171,620	193	170	149
Investment	635,209	107	95	83
Government	227,768	40	35	31
Trade Balance (A) - (B)	-154,496	-43	-37	-33
A. Export (FOB)	374,161	48	42	36
B. Imports (CIF)	528,657	91	80	69
Total GDP (US$ million)	1,880,100	297	262	229
Real GDP (% change)		0.004	0.003	0.003

Source: Estimations with GTAP database/model

7.3.1.4.3 IMPACTS ON BILATERAL EXPORTS AND IMPORTS

The simulation results show that Peru-India bilateral trade as measured by exports of goods and services could potentially expand by over 22%, or nearly US$ 207 million (*scenario: -100%*).

Table 83 - Simulated effects on bilateral trade Peru – India

Flows	Exports Peru-India	Imports Peru-India	Exports India-Peru	Imports India-Peru	Trade Balance FOB-FOB		Total Trade FOB-FOB	
GTAP Variables:	VXWD (FOB)	VIWS (CIF)	VXWD (FOB)	VIWS (CIF)	Peru-India	India-Peru	Peru-India	India-Peru
Base year (2011)	**270**	**718**	**684**	**467**	**-414**	**414**	**954**	**954**
Estimated Results								
Scenario 1: -100%	**302**	**903**	**859**	**510**	**-557**	**557**	**1,161**	**1,161**
Change in US$ million	*32*	*186*	*175*	*44*	*-143*	*143*	*207*	*207*
% change	*12*	*26*	*26*	*9*	*35*	*35*	*22*	*22*
Scenario 2: -90%	**298**	**881**	**838**	**505**	**-540**	**540**	**1,135**	**1,135**
Change in US$ million	*28*	*164*	*154*	*38*	*-127*	*127*	*182*	*182*
% change	*10*	*23*	*23*	*8*	*31*	*31*	*19*	*19*
Scenario 3: -80%	**294**	**860**	**818**	**499**	**-524**	**524**	**1,111**	**1,111**
Change in US$ million	*24*	*142*	*134*	*33*	*-111*	*111*	*158*	*158*
% change	*9*	*20*	*20*	*7*	*27*	*27*	*17*	*17*

Source: Estimations with GTAP database/model
Note: Columns A and D are mirror statistics to each other: A corresponds to the variable VXWD (in FOB terms) and D corresponds to the variable VIWS (in CIF terms). B and C are mirror statistics to each other; B corresponds to the variable VIWS (in CIF terms) and C corresponds to the variable VXWD (in FOB terms).

Peru's leading bilateral export gains are concentrated on minerals (copper ores and natural calcium phosphates), which account for more than 30% of Peru´s gains in exports to India. Among manufacturing sectors, the sectors that concentrate Peru's gains are textiles, wearing apparel, vegetables (fruits and nuts) and chemical products (rubber and plastic) (Table 84). On the other hand, in terms of bilateral exports, India would gain mainly from exports of textiles, wearing apparel, chemical rubber, motor vehicles and other transport equipment (

Table 85).

Table 84 – Exports Peru–India by GTAP sectors
(Values/Value changes in US$ million)

GTAP sector	Base year 2011	Scenario 1: -100%		Scenario 2:-90%		Scenario 3: -80%	
		US$ Million	Change in US$ million	US$ Million	Change in US$ million	US$ Million	Change in US$ million
1 pdr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 wht	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 gro	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 v_f	2.2	5.7	3.5	5.1	3.0	4.6	2.4
5 osd	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 c_b	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 pfb	1.2	1.2	0.0	1.2	0.0	1.2	0.0
8 ocr	0.2	2.0	1.8	1.6	1.4	1.2	1.0
9 ctl	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 oap	0.1	0.1	0.0	0.1	0.0	0.1	0.0
11 rmk	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12 wol	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 frs	0.5	0.6	0.1	0.6	0.1	0.6	0.1
14 fsh	0.1	0.1	0.0	0.1	0.0	0.1	0.0
15 coa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16 oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17 gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18 omn	200.1	211.2	11.1	210.0	10.0	208.9	8.8
19 cmt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 omt	0.1	0.1	0.0	0.1	0.0	0.1	0.0
21 vol	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22 mil	0.1	0.1	0.0	0.1	0.0	0.1	0.0
23 pcr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24 sgr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 ofd	2.1	3.4	1.3	3.2	1.1	3.0	0.9
26 b_t	0.1	0.1	0.0	0.1	0.0	0.1	0.0
27 tex	3.5	7.4	3.9	6.8	3.3	6.3	2.8
28 wap	0.9	2.5	1.6	2.3	1.3	2.1	1.1
29 lea	1.6	3.4	1.7	3.1	1.5	2.9	1.3
30 lum	0.5	0.9	0.4	0.9	0.4	0.8	0.3
31 ppp	0.3	0.5	0.2	0.5	0.2	0.5	0.2
32 p_c	0.2	0.2	0.0	0.2	0.0	0.2	0.0
33 crp	2.5	4.2	1.7	4.0	1.5	3.8	1.3
34 nmm	0.1	0.1	0.1	0.1	0.0	0.1	0.0
35 i_s	0.2	0.3	0.1	0.3	0.1	0.3	0.1

GTAP sector	Base year 2011	Scenario 1: -100%		Scenario 2:-90%		Scenario 3: -80%	
		US$ Million	Change in US$ million	US$ Million	Change in US$ million	US$ Milllon	Change in US$ million
36 nfm	2.2	5.0	2.7	4.6	2.3	4.2	2.0
37 fmp	0.1	0.2	0.1	0.2	0.1	0.2	0.1
38 mvh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39 otn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40 ele	0.6	0.6	0.1	0.6	0.1	0.6	0.1
41 ome	1.1	1.8	0.7	1.7	0.6	1.6	0.6
42 omf	0.5	1.1	0.6	1.0	0.5	1.0	0.4
43 ely	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 gdt	0.2	0.2	0.0	0.2	0.0	0.2	0.0
45 wtr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46 cns	0.1	0.1	0.0	0.1	0.0	0.1	0.0
47 trd	1.4	1.4	0.0	1.4	0.0	1.4	0.0
48 otp	10.1	10.1	0.0	10.1	0.0	10.1	0.0
49 wtp	6.0	6.0	0.0	6.0	0.0	6.0	0.0
50 atp	9.2	9.2	0.0	9.2	0.0	9.2	0.0
51 cmn	1.5	1.5	0.0	1.5	0.0	1.5	0.0
52 ofi	0.9	0.9	0.0	0.9	0.0	0.9	0.0
53 isr	7.3	7.3	0.0	7.3	0.0	7.3	0.0
54 obs	7.9	7.9	0.0	7.9	0.0	7.9	0.0
55 ros	3.6	3.6	0.0	3.6	0.0	3.6	0.0
56 osg	0.7	0.7	0.0	0.7	0.0	0.7	0.0
57 dwe	-	-	0.0	-	0.0	-	0.0
Total	**270.0**	**301.9**	**31.9**	**297.5**	**27.5**	**293.6**	**23.5**

Source: Estimations with GTAP database/model

Table 85 – Exports India–Peru by GTAP sectors
(Values/Value changes in US$ million)

	Base Year 2011	Scenario 1: 100%		Scenario 1: 90%		Scenario 1: 80%	
		US$ Million	Change in US$ million	US$ Million	Change in US$ million	US$ Million	Change in US$ million
1 pdr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 wht	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 gro	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 v_f	0.1	0.1	0.0	0.1	0.0	0.1	0.0
5 osd	0.1	0.1	0.0	0.1	0.0	0.1	0.0
6 c_b	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 pfb	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 ocr	2.0	2.8	0.9	2.7	0.8	2.6	0.7
9 ctl	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 oap	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11 rmk	0.1	0.1	0.0	0.1	0.0	0.1	0.0
12 wol	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 frs	0.1	0.2	0.0	0.2	0.0	0.2	0.0
14 fsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 coa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16 oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17 gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18 omn	0.2	0.3	0.0	0.3	0.0	0.3	0.0
19 cmt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 omt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21 vol	0.2	0.2	0.0	0.2	0.0	0.2	0.0
22 mil	0.1	0.1	0.0	0.1	0.0	0.1	0.0
23 pcr	0.1	0.1	0.0	0.1	0.0	0.1	0.0
24 sgr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 ofd	1.6	1.8	0.2	1.8	0.2	1.8	0.1
26 b_t	0.1	0.1	0.0	0.1	0.0	0.1	0.0
27 tex	171.2	261.1	89.8	250.3	79.0	239.9	68.7
28 wap	6.8	14.3	7.4	13.2	6.4	12.2	5.4
29 lea	2.4	5.4	3.0	5.0	2.6	4.6	2.2
30 lum	0.2	0.3	0.1	0.3	0.1	0.3	0.1
31 ppp	0.5	0.5	0.1	0.5	0.1	0.5	0.1
32 p_c	1.3	1.3	0.0	1.3	0.0	1.3	0.0
33 crp	126.9	142.2	15.3	140.6	13.7	139.0	12.1
34 nmm	2.9	3.1	0.1	3.1	0.1	3.0	0.1
35 i_s	73.0	73.0	0.0	73.0	0.0	73.0	0.0
36 nfm	1.8	1.9	0.0	1.9	0.0	1.9	0.0
37 fmp	7.2	7.7	0.5	7.7	0.4	7.6	0.4

	Base Year 2011	Scenario 1: 100%		Scenario 1: 90%		Scenario 1: 80%	
		US$ Million	Change in US$ million	US$ Million	Change in US$ million	US$ Million	Change in US$ million
38 mvh	70.4	91.8	21.5	89.4	19.0	87.0	16.6
39 otn	68.3	101.3	33.1	97.4	29.1	93.6	25.4
40 ele	3.6	3.6	0.0	3.6	0.0	3.6	0.0
41 ome	44.0	45.8	1.8	45.6	1.6	45.4	1.4
42 omf	2.5	3.5	1.0	3.4	0.9	3.3	0.8
43 ely	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 gdt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45 wtr	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46 cns	1.4	1.4	0.0	1.4	0.0	1.4	0.0
47 trd	1.6	1.6	0.0	1.6	0.0	1.6	0.0
48 otp	9.8	9.8	0.0	9.8	0.0	9.8	0.0
49 wtp	1.2	1.2	0.0	1.2	0.0	1.2	0.0
50 atp	1.9	1.9	0.0	1.9	0.0	1.9	0.0
51 cmn	4.0	4.0	0.0	4.0	0.0	4.0	0.0
52 ofi	1.0	1.0	0.0	1.0	0.0	1.0	0.0
53 isr	4.6	4.6	0.0	4.6	0.0	4.6	0.0
54 obs	67.4	67.5	0.0	67.5	0.0	67.5	0.0
55 ros	0.6	0.6	0.0	0.6	0.0	0.6	0.0
56 osg	2.2	2.2	0.0	2.2	0.0	2.2	0.0
57 dwe	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**684**	**859**	**175**	**838**	**154**	**818**	**134**

Source: Estimations with GTAP database/model

7.3.1.4.4 IMPACTS ON EMPLOYMENT

According to estimations in the scenario of total trade liberalization, labor demand in Peru will increase by 0.05% (Table 86). In case of India, demand for labor would increase by 0.01% (Table 87).

Table 86 - Peru's Demand for Labor under different scenarios

(% change)

	Skilled			Unskilled		
	Scenario 1: 100%	Scenario 2: 90%	Scenario 3: 80%	Scenario 1: 100%	Scenario 2: 90%	Scenario 3: 80%
PERU	0.05	0.04	0.04	0.04	0.04	0.03

Source: Estimations with GTAP database/model

Table 87 - India's Demand for Labor under different scenarios
(% change)

	Skilled			Unskilled		
	Scenario 1: 100%	Scenario 2: 100%	Scenario 3: 100%	Scenario 1: 100%	Scenario 2: 100%	Scenario 3: 100%
INDIA	0.01	0.00	0.00	0.01	0.01	0.01

Source: Estimations with GTAP database/model

7.3.2 CONCLUSION BASED ON GTAP MODEL ESTIMATION[169]

This study used the GTAP model on 57 tradable commodities and 11 regions of the world to understand the likely impact of possible India-Peru FTA. The data in the GTAP model is available for 2011 reference year. Three scenarios of FTA between India and Peru are simulated by using the GTAP model. The result of simulation shows that:

1. FTA between India and Peru will lead to an increase in welfare for both countries.
2. GTAP result shows that both countries would gain in terms of GDP.
3. Demand for labor would increase after the tariff elimination for both countries.
4. About the bilateral trade, export and import of both countries to each other would increase.

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[169] By using the SMART model (Partial Equilibrium Model) on WITS database for year 2013, Indian team estimated bilateral trade balance. Result shows that India export to Peru would increase by US$ 56.93 million whereas Peru export to India would increase by around US$102.50 million. In other words, result based on SMART model shows negative bilateral trade balance for India. Therefore, this model shows opposite results in terms of bilateral trade balance in comparison to results based on GTAP analysis. However, it is important to note that both models are completely different. GTAP model takes into account interaction between different sectors and different regions. As a partial equilibrium model, SMART ignores the interaction and adjustment between different sectors and regions. Smart model consider only trade in goods but ignore service sectors which are covered by GTAP model.

CHAPTER 8 ECONOMIC COOPERATION

8.1 GENERAL FRAMEWORK

In the framework of Peru's trade policy, Cooperation and Capacity Building chapters have been included in most free trade agreements. Such chapters are included in Peru's FTAs with the United States, European Union, Canada, China, Japan, South Korea and Chile.

These chapters seek to develop cooperation and capacity-building activities in support of the implementation of the agreements, as well as to enhance Parties' ability to take advantage of the economic opportunities created by such agreements, and to promote and facilitate trade and investment.

In many of its FTAs, Peru has included provisions on specific areas of cooperation in other chapters, such as labor, environment, customs, trade remedies, intellectual property and government procurement, among others.

In addition, Peru is an active member of the Pacific Alliance and APEC, as well as the WTO, forums in which economic and trade-related cooperation play a fundamental role.

In the case of India, specific areas of cooperation are included in the FTAs entered into by India with various countries. India is also an active member in the WTO, where cooperation is of central relevance.

India and Peru share similar developmental challenges and economic aspirations. The complementarities in their economic structures are also notable. The synergies inherent in these complementarities can be exploited for mutual benefit by public institutions, businesses and industries of the two countries.

There is immense scope for further expansion and augmentation of the economic relations between the two countries for promoting trade in goods, trade in services, mutual investments and wide-ranging cooperation in areas such as trade and investment promotion, services, mining, automotive industry, intellectual property, science, technology and research, healthcare, clothing and textiles, jewellery, agriculture and food, tourism and SMEs, among others.

The goal of both the parties should be to liberalize and facilitate trade and investment between the countries, furthering their market shares with each other. It is important to recognize that economic cooperation between India and Peru is not and should not be limited to conventional trade relations. The bilateral cooperation in the above-mentioned areas mentioned is of critical significance to the future of their economic partnership.

8.2 AREAS OF POTENTIAL INTEREST

While in-depth discussion must take place in the course of negotiations to define specific areas of interest for bilateral cooperation under the FTA, some areas stand out as potentially beneficial for India and Peru.

8.1.1 TRADE AND INVESTMENT PROMOTION

In order to promote and facilitate trade and investment upon entry into force of the agreement, so as to ensure that the opportunities created by the FTA are taken advantage of by businesses of both countries.

8.1.2 SERVICES

India has experienced important development of its services industry, rising as a relevant reference in trade in services. On its part, Peru seeks to generate an appropriate framework and opportunities for the rapid development of its trade in services. In addition to learning from the Indian experience in developing trade in services, there is potential for specific cooperation on services in areas such as Banking, Insurance, Education Services, Tourism & Travel Related Services, Health Care Services, Computer & IT Services, Professional Services, Skill Development, Yoga and Medical Value Services, Cultural Services, among others.

8.1.3 MINING AND HYDROCARBONS

There are considerable opportunities in the emerging markets of both countries for cooperation in the sector of mining and hydrocarbons. Peru is among the leading mining countries of the world and is a leading producer of minerals such as copper, silver, zinc and gold. On the other side, India imports minerals from Peru and it is also one of the world's largest consumers of gold and a producer of mining machinery and equipment. Both countries can cooperate in the field of mining and promote investment in this sector. In particular, both countries could exchange information on issues such as managing environmental liabilities and formalization of the mining sector. There are also opportunities for cooperation in the hydrocarbon sector such as the exchange of information on regulatory issues and mechanisms for the promotion of investment in this sector.

8.1.4 INTELLECTUAL PROPERTY, TRADITIONAL KNOWLEDGE, GENETIC RESOURCES AND BIODIVERSITY

Considering that Peru and India share similar positions in the multilateral level regarding certain topics on intellectual property such as traditional knowledge, genetic resources and biodiversity, cooperation in such areas would be highly beneficial for both Parties. In addition, cooperation regarding automation of procedures for management of Intellectual Property and access to Traditional Knowledge data bases found in public domain, as well as exchange of information and sharing of best practices with regard to management of Intellectual Property, including promotion of Geographical Indications, could be of interest to both Countries.

8.1.5 JEWELLERY

India is one of the main consumers of gold jewellery in the world. Peru has a developing jewellery industry and raw materials such as gold and silver. However, Peru faces difficulties in the development of this sector due to the atomization of its producers and the lack of experience in

design. India has developed its jewellery industry setting trends worldwide with innovative designs, especially in Asia.

8.1.6 INFRASTRUCTURE

Infrastructure sector is an important driver of both the Indian and Peruvian economies. The sector is highly responsible for propelling the overall development of these economies and includes power, bridges, dams, ports, roads and urban infrastructure development, among others. Both countries are witnessing interest from investors in this sector. Keeping in view the infrastructure being developed by both countries, there is a scope for cooperation in this sector.

8.1.7 SMALL AND MEDIUM ENTERPRISES (SMEs)

Strengthening cooperation and exchange in the area of development experiences vis-à-vis SMEs could be of great significance to the two countries, where these enterprises play a major role in GDP and especially employment. Both sides could play an active role in pushing forward bilateral cooperation and exchange in this area. Both countries could explore the possibility of sharing successful experiences in the development of SMEs, including government policies, management system, laws and regulations. In addition, favourable conditions may be created by both sides to increase and facilitate trade with each other; for example, by holding exhibitions and information briefing for SME products so as to encourage enterprises to communicate and cooperate with each other, improving productivity by forming alliances with each other.

8.1.8 AUTOMOTIVE INDUSTRY

The automotive industry is one of the largest industries globally. Owing to its deep forward and backward linkages with several key segments of industry, the automotive industry has a strong multiplier effect in the economy. The Indian automotive industry produces a wide variety of vehicles such as passenger cars, light, medium and heavy commercial vehicles, multi-utility vehicles, scooters, motor-cycles, mopeds, three wheelers etc. Peru has potential for further developing its industry, currently producing parts and pieces as well as assembling certain products in this sector, and to integrate global value chains alongside Indian companies.

8.1.9 AGRICULTURAL PRODUCTS AND FOOD

Agriculture plays a considerable role in both economies. Agriculture, along with fisheries and forestry, is one of the largest contributors to the GDP of India. . Agriculture export constitutes 10% of country's exports and is the fourth largest exported principal commodity. On the other hand, Peru has emerged as a relevant exporter of fruits and vegetables over the past two decades, owing to favorable climatic conditions and preferential trading agreements with major countries, among others. Valuable cooperation initiatives could be carried out between both countries in the development of agriculture and in the expansion of trade in agricultural and food products.

8.1.10 SINGLE WINDOW

Both India and Peru have developed Single Window systems for trade operations. Both countries could benefit greatly by undertaking cooperative activities with India regarding this trade facilitation tool.

8.1.11 TOURISM

Enhanced people-to-people exchanges contribute to improving bilateral trade and investment. Both India and Peru continue to be favoured tourist destinations for leisure as well as business travel. There is scope for cooperation between both countries regarding a diverse portfolio of niche tourism products, such as cruises, adventure, medical, wellness, sports, Meetings, Incentives, Conferences and Events (MICE), eco-tourism and spiritual tourism for the domestic and international tourist.

There is also a scope for cooperation that attracts investment for establishing hotels, other lodging and travel related services.

8.1.12 CREATIVE INDUSTRIES

The development of creative industries in India is globally recognized. There is much potential for cooperation between the countries in this area, including as an element to attract tourism and to develop cultural initiatives.

As India possesses one of the world's largest entertainment and media industry, both in terms of output and global popularity, cooperation and collaboration in media and entertainment industries of the two countries could foster a shared interest.

8.1.13 HEALTHCARE AND PHARMACEUTICALS

The Indian pharmaceutical industry has grown and transformed itself significantly over the last decade, from a processing industry into a sophisticated one. The Indian pharmaceutical industry has today become a net exporter of pharmaceutical products.

Given India's experience in areas such as generic drug manufacturing, technology, R&D facilities and trained human capital, and the interest of the Peruvian Government on extended healthcare coverage and services, Peru can take advantage of India's strength in this sector as an area that offers rich opportunities for bilateral cooperation.

There is also scope for cooperation with regard to the exchange of information on regulatory requirements regarding issues such as clinical trials and regulatory control for pharmaceuticals, vaccines, blood products and biotechnology products; cooperation in technology transfer and innovation of natural products and experts exchange in traditional medicine.

There is also a potential scope for cooperation in traditional and complementary medicine, considering the rich ancestry both countries enjoy. Both countries can cooperate in capacity building in healthcare. Telehealth includes different services that potentially allow eliminate a

number of other costs, including travel expenses for specialists and patient transfers. Both countries can cooperate in mutual recognition of qualifications of providers of services for success of telemedicine.

8.1.14 CLOTHING AND TEXTILES

India is an important supplier of textiles and ready-made garments to the world. Peru also has a relevant textile industry with potential in niche markets and it is important for it to continue developing its industrial design and production techniques. Participation of both countries in each other's textile fairs and exhibitions would help increase awareness about each other's strengths and capabilities in the sector that would help in identifying new areas of cooperation in the textile sector.

8.1.15 INSERTION IN GLOBAL VALUE CHAINS

The changing global economic structure leads to the expansion and proliferation of global value chains. Both countries could benefit and generate multiplier effects in their economies from an adequate insertion into these chains. There is much scope for cooperation in this new area, in which Peru and India could benefit from exchanges and the promotion of partnerships between relevant actors in the public and private fields.

8.1.16 SCIENCE, TECHNOLOGY AND RESEARCH

Recognizing the importance that science, technology and research have for the development of their economies, there is potential for beneficial cooperation initiatives between both countries, especially considering the rapid growth this sector has had in India and the Peruvian interest to expand this sector as a means to increasing its competitiveness.

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CHAPTER 9 CONCLUSIONS AND RECOMMENDATIONS

This Joint Feasibility Study (JFS) has identified estimated impacts and benefits of negotiating and implementing a Trade Agreement between India and Peru, including areas of potential interest for enhancing bilateral economic cooperation and relevant measures to promote trade and investment flows.

India and Peru, despite being economies of very different size, have both experienced in recent years a significant growth of their GDP. In this context, Indian and Peruvian Governments have taken important public policy initiatives and wide-ranging economic reforms aimed at diversifying and harnessing the competitiveness of their product structures. India has taken up such strategies like 'Make in India', 'Start-up India', 'Skill India' and 'Digital India' while Peru has taken up 'National strategic Export Plan 2025' and 'The National Plan of Productive Diversification'. For India, Peru represents a stable, attractive and profitable market due to its macro-economic stability. For Peru, the importance of India has been highlighted due to its increasing interest in the Asian region coupled with India's image as a faster growing economy.

Even though bilateral trade flows between Peru and India have shown an increase during the last decade, they are still at very low levels in relation to the global trade profiles of both countries and thereby their trade relationship is still at an initial stage. Their bilateral trade has been so far confined to a narrow range of products. In fact, Peru's exports to India have consisted mainly of mineral and metallic products, while India's exports to Peru have included cotton yarn, motor vehicles, iron/steel, aluminium and pharmaceutical products.

With the trade policy reforms undertaken by both countries in recent times it is clear that there is considerable potential to increase and diversify their trade and take advantage of the complementarities that exist between the production structures of the two countries. In fact, as shown in the analysis offered in Chapter 7 of this JFS, the level of trade intensity indicators between Peru and India suggest that there is ample scope for the expansion of their export baskets. Moreover, as shown by the Finger-Kreinin indicators, India and Peru have different production and export patterns, which provide opportunities for both countries to strengthen their trade linkages and to take advantage of those complementarities. The goods exported by India and Peru to the world are different and hence they can explore each other's market better for expanding trade. Both countries mostly do not compete with each other in most of the sectors and consequently, there is ample scope for the expansion of the range of products and their bilateral trade.

The economic impact analysis undertaken in Chapter 7 of this JFS through the empirical implementation of a Computable General Equilibrium (CGE) model reveals that all the trade liberalization scenarios simulated between India and Peru would lead to increases in welfare, GDP and demand for labor in both countries. These welfare gains would be expected to continue to accrue as investment decisions impact positively on levels of trade. India's main export sectors in which the modelling showed an increase include textiles, wearing apparel, chemical, rubber, motor vehicles and other transport equipment. Peru's main export sectors in which the modelling showed

an increase included minerals (copper ores and natural calcium phosphates), textiles, wearing apparel, vegetables (fruits and nuts) and chemical products (rubber and plastic).

Given the limitations of such estimates from the simulations carried out in a static CGE model, this JFS also includes a section where a bilateral revealed comparative advantage analysis was undertaken with a view to identifying potential sectors of export interest to both countries. The results suggest that there are several export sectors where bilateral revealed comparative advantage is positive, such as: Vegetables, Food Products, Minerals, Footwear, Headgear; Machinery & Mechanical Appliances; Plastics & Rubber; Instruments-Measuring, Musical; Articles of Stone, Plaster, Cement, Asbestos; Textiles & Textile articles and Base Metals, among others.

This JFS also intends to highlight that the trade linkages between Peru and India could be intensified not only through tariff liberalization, but also by adopting various trade facilitation measures. Both countries need to deal with the issues of Technical Barriers to Trade (TBT), Sanitary and Phytosanitary measures (SPS); customs cooperation; quantitative restrictions, controls and licenses; rules of origin and anti-dumping and safeguard measures, so that trade between them can be effectively enhanced.

Moreover, it is expected that trade liberalization between Peru and India would increase investment flows and cooperation efforts in strategic sectors that have shown complementarities between both parties. This would also encourage the creation of business associations between Indian and Peruvian firms in order to gain access to global value chains, with an emphasis on sophisticated and value-added products and services. At the same time, bilateral cooperation in innovation, human capital and strategic services sectors would improve competitiveness and increase investment flows between both countries.

In respect of trade in services and Investment, Peru and India need to enhance their capacities to exploit synergies across different policy areas such as Environment, Information Technology, Mining, Education, Telecommunications, Tourism, and Financial Services to create an environment conducive to development. Both countries stand to gain through liberalization and binding commitments in services, particularly in these areas.

Along the side of trade agreement, there are several other modalities for bilateral cooperation in various sectors. Some of these include, inter alia, sharing of successful developmental experiences, capacity building and enhancing people to people contact. Areas of economic cooperation of mutual interest in which India and Peru can foster closer collaboration include Trade & Investment Promotion, Services, Mining & Hydrocarbons; Intellectual Property, Traditional Knowledge, Genetic Resources and Biodiversity, Jewellery, Infrastructure, SMEs, Automotive Industry, Agricultural Products & Food, Single Window, Tourism, Creative Industries, Healthcare & Pharmaceuticals, Clothing & Textiles, Insertion in Global Value Chains, and Science, Technology & Research.

To secure the additional trade flows, economic gains and strengthen the bilateral relationship between India and Peru, this study recommends negotiations for concluding a Trade Agreement based on a single undertaking and an overall balance in goods, services and investment.

The recommendations and findings presented in the report are without prejudice to the final outcome of negotiations for any future trade agreement.

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Annexure 1

India's Identified Products based on Export Specialisation Index in Peruvian Market

HS code	Chapter	Description	MFN Tariff in Peru
10639	1	-- Other	6
20230	2	- Boneless	11
20442	2	-- Other cuts with bone in	6
20621	2	-- Tongues	0
30119	3	-- Other	6
30199	3	-- Other	0
30223	3	-- Sole (Solea spp.)	0
30233	3	-- Skipjack or stripe-bellied bonit	0
30247	3	-- Swordfish (Xiphias gladius)	0
30333	3	-- Sole (Solea spp.)	0
30353	3	-- Sardines (Sardina pilchardus, Sa	0
30354	3	-- Mackerel (Scomber scombrus, Scom	0
30357	3	-- Swordfish (Xiphias gladius)	0
30363	3	-- Cod (Gadus morhua, Gadus ogac, G	0
30369	3	-- Other	0
30389	3	-- Other	0
30449	3	-- Other	0
30499	3	-- Other	0
30539	3	-- Other	0
30549	3	-- Other	0
30559	3	-- Other	0
30572	3	-- fish heads, tails and maws	0
30611	3	-- Rock lobster and Other sea crawf	0
30614	3	-- Crabs	0
30617	3	-- Other shrimps and prawns	0
30626	3	-- Cold-water shrimps and prawns (P	0
30629	3	-- Other, including Flours, meals a	0
30719	3	-- Other	0
30721	3	-- Live, fresh or chilled	0
30739	3	-- Other	0
30741	3	-- Live, fresh or chilled	0
30749	3	-- Other	0
30759	3	-- Other	0
30799	3	-- Other	0
40110	4	- of a fat content, by weight, Not	0+ Price Band System (SFP)
40711	4	-- of Fowls of the species Gallus d	0
40721	4	-- of Fowls of the species Gallus d	6
40811	4	-- dried	0
40891	4	-- dried	0
40899	4	-- Other	0
40900	4	Natural honey.	6
50590	5	- Other	0
50790	5	- Other	0
50800	5	Coral and similar materials, unwork	0
60390	6	- Other	6
60490	6	- Other	6
70190	7	- Other	6
70310	7	- Onions and shallots	6
70610	7	- Carrots and turnips	0
70820	7	- Beans (Vigna spp., Phaseolus spp.	6
70959	7	-- Other	0

71010	7	- Potatoes	6
71021	7	-- Peas (Pisum sativum)	6
71022	7	-- Beans (Vigna spp., Phaseolus spp	6
71029	7	-- Other	6
71030	7	- Spinach, New Zealand Spinach and	6
71040	7	- Sweet corn	0
71080	7	- Other vegetables	6
71090	7	- Mixtures of vegetables	6
71140	7	- Cucumbers and gherkins	0
71190	7	- Other vegetables; mixtures of veg	0
71220	7	- Onions	6
71231	7	-- Mushrooms of the genus Agaricus	6
71239	7	-- Other	6
71290	7	- Other vegetables; mixtures of veg	6
71320	7	- Chickpeas (garbanzos)	0
71339	7	-- Other	0
71410	7	- Manioc (cassava)	6
80119	8	-- Other	6
80122	8	-- Shelled	6
80132	8	-- Shelled	6
80232	8	-- Shelled	6
80252	8	-- Shelled	6
80290	8	- Other	6
80410	8	- Dates	6
80430	8	- Pineapples	6
80450	8	- Guavas, mangoes and mangosteens	6
80550	8	- Lemons (Citrus limon, Citrus limo	6
80610	8	- fresh	6
80720	8	- Papaws (papayas)	6
81040	8	- Cranberries, bilberries and Other	6
81090	8	- Other	6
81110	8	- Strawberries	0
81190	8	- Other	11
81340	8	- Other fruit	6
81350	8	- Mixtures of nuts or dried Fruits	6
81400	8	Peel of citrus fruit or melons (inc	0
90111	9	-- Not decaffeinated	11
90210	9	- Green tea (Not fermented) in imme	6
90220	9	- Other Green tea (Not fermented)	6
90230	9	- Black tea (fermented) and partly	6
90240	9	- Other Black tea (fermented) and o	6
90411	9	-- Neither crushed nor ground	0
90412	9	-- crushed or ground	0
90421	9	-- dried, Neither crushed nor groun	0
90422	9	-- crushed or ground	0
90520	9	- crushed or ground	0
90720	9	- crushed or ground	0
90811	9	-- Neither crushed nor ground	0
90812	9	-- crushed or ground	0
90822	9	-- crushed or ground	0
90921	9	-- Neither crushed nor ground	0
90922	9	-- crushed or ground	0
90931	9	-- Neither crushed nor ground	0
90932	9	-- crushed or ground	0
90961	9	-- Neither crushed nor ground	0

90962	9	-- crushed or ground	0
91012	9	-- crushed or ground	0
91020	9	- Saffron	0
91030	9	- Turmeric (curcuma)	0
91091	9	-- Mixtures referred to in Note 1 (	0
91099	9	-- Other	0
100191	10	-- Seed	0
100630	10	- Semi-milled or wholly milled Rice	0+ Price Band System (SFP)
100640	10	- Broken Rice	0+ Price Band System (SFP)
100710	10	- Seed	0
100829	10	-- Other	0
100890	10	- Other cereals	6
110100	11	Wheat or meslin flour.	0
110220	11	- Maize (corn) flour	6
110290	11	- Other	0
110313	11	-- of Maize (corn)	0+ Price Band System (SFP)
110412	11	-- of oats	6
110419	11	-- of Other cereals	6
110430	11	- Germ of cereals, whole, rolled, f	6
110510	11	- flour, meal and powder	0
110620	11	- of sago or of roots or tubers of	6
110630	11	- Of the products of Chapter 8	0
110812	11	-- Maize (corn) starch	6+ Price Band System (SFP)
120242	12	-- Shelled, whether or Not Broken	0
120740	12	- Sesamum seeds	0
120750	12	- Mustard seeds	0
121190	12	- Other	0
121229	12	-- Other	6
121299	12	-- Other	6
130190	13	- Other	0
130211	13	-- Opium	0
130219	13	-- Other	6
130231	13	-- Agar-Agar	0
130232	13	-- Mucilages and thickeners, whethe	0
140420	14	- Cotton linters	0
140490	14	- Other	0
150810	15	- Crude oil	0
150890	15	- Other	0
151229	15	-- Other	0
151319	15	-- Other	0
151499	15	-- Other	0
151519	15	-- Other	0
151530	15	- Castor oil and its fractions	0
151550	15	- Sesame oil and its fractions	0
151590	15	- Other	0
152190	15	- Other	6
152200	15	Degras; residues resulting from the	0
160412	16	-- Herrings	0
160510	16	- Crab	0
160529	16	-- Other	0
160540	16	- Other crustaceans	0
160554	16	-- Cuttle fish and squid	0
160555	16	-- Octopus	0
170114	17	-- Other cane sugar	0+ Price Band System (SFP)
170191	17	-- Containing added flavouring or c	0

170199	17	-- Other	0
170230	17	- Glucose and Glucose syrup, Not co	0
170390	17	- Other	0
190230	19	- Other pasta	0
190240	19	- Couscous	0
190300	19	Tapioca and substitutes therefor pr	0
190420	19	- prepared foods obtained from unro	6
190510	19	- Crispbread	0
190531	19	-- Sweet biscuits	0
190540	19	- Rusks, toasted bread and similar	0
190590	19	- Other	0
200110	20	- Cucumbers and gherkins	6
200190	20	- Other	6
200210	20	- Tomatoes, whole or in pieces	6
200490	20	- Other vegetables and Mixtures of	6
200510	20	- Homogenised vegetables	6
200559	20	-- Other	6
200599	20	-- Other	6
200600	20	Vegetables, fruit, nuts, fruit-peel	6
200799	20	-- Other	6
200819	20	-- Other, including Mixtures	6
200899	20	-- Other	6
200919	20	-- Other	6
200929	20	-- Other	6
210111	21	-- Extracts, essences and concentra	0
210420	21	- Homogenised composite food prepar	0
220430	22	- Other grape must	0
220590	22	- Other	6
220710	22	- Undenatured ethyl alcohol of an a	6
220820	22	- spirits obtained by distilling gr	6
220850	22	- Gin and Geneva	6
230120	23	- Flours, meals and pellets, of fis	0
230240	23	- of Other cereals	0
230500	23	Oil-cake and other solid residues,	0
230641	23	-- of Low erucic acid rape or colza	0
230690	23	- Other	0
240110	24	- Tobacco, Not stemmed/stripped	0
240311	24	-- water pipe Tobacco specified in	6
240319	24	-- Other	6
240399	24	-- Other	6
250100	25	Salt (including table salt and dena	6
250300	25	Sulphur of all kinds, other than su	0
250490	25	- Other	0
250590	25	- Other	0
250610	25	- quartz	0
250810	25	- Bentonite	6
250840	25	- Other clays	0
251110	25	- Natural barium sulphate (barytes)	0
251200	25	Siliceous fossil meals (for example	0
251320	25	- Emery, Natural corundum, Natural	0
251400	25	Slate, whether or not roughly trimm	0
251511	25	-- Crude or roughly trimmed	0
251512	25	-- Merely cut, by sawing or otherwi	0
251620	25	- Sandstone	0
251690	25	- Other monumental or building ston	0

251710	25	- Pebbles, gravel, Broken or crushe	0
251749	25	-- Other	0
251810	25	- Dolomite, Not calcined or sintere	0
251820	25	- calcined or sintered Dolomite	0
251830	25	- Dolomite ramming mix	0
252510	25	- Crude mica and mica rifted into s	0
252520	25	- mica powder	6
252620	25	- crushed or powdered	0
252910	25	- Feldspar	0
260111	26	-- Non-agglomerated	0
260200	26	Manganese ores and concentrates, in	0
260400	26	Nickel ores and concentrates.	0
260600	26	Aluminium ores and concentrates.	0
261000	26	Chromium ores and concentrates.	0
261390	26	- Other	0
261400	26	Titanium ores and concentrates.	0
261510	26	- Zirconium ores and concentrates	0
261590	26	- Other	0
261900	26	Slag, dross (other than granulated	0
262040	26	- containing mainly aluminium	0
262099	26	-- Other	0
262190	26	- Other	0
270111	27	-- Anthracite	0
270600	27	Tar distilled from coal, from ligni	0
270710	27	- Benzol (benzene)	0
270730	27	- Xylol (xylenes)	0
270799	27	-- Other	0
270810	27	- Pitch	0
271012	27	-- Light oils and preparations	0
271019	27	-- Other	0
271099	27	-- Other	0
271119	27	-- Other	0
271121	27	-- Natural gas	0
271129	27	-- Other	0
271210	27	- Petroleum Jelly	0
271312	27	-- calcined	0
271320	27	- Petroleum bitumen	0
271390	27	- Other Residues of Petroleum oils	0
271490	27	- Other	0
280120	28	- Iodine	0
280130	28	- Fluorine; bromine	0
280200	28	Sulphur, sublimed or precipitated;	0
280440	28	- Oxygen	0
280490	28	- Selenium	6
280512	28	-- Calcium	0
280519	28	-- Other	0
280610	28	- Hydrogen chloride (hydrochloric a	6
280700	28	Sulphuric acid; oleum.	6
280910	28	- Diphosphorus pentaoxide	0
281111	28	-- Hydrogen fluoride (hydrofluoric	0
281121	28	-- Carbon dioxide	0
281210	28	- Chlorides and chloride oxides	0
281420	28	- ammonia in aqueous solution	6
281700	28	Zinc oxide; zinc peroxide.	0
281820	28	- aluminium oxide, Other than artif	0

281830	28	- aluminium hydroxide	0
281910	28	- Chromium trioxide	0
281990	28	- Other	6
282090	28	- Other	0
282120	28	- earth colours	0
282300	28	Titanium oxides.	0
282410	28	- Lead monoxide (litharge, massicot	0
282490	28	- Other	0
282530	28	- Vanadium oxides and hydroxides	0
282560	28	- Germanium oxides and Zirconium di	0
282590	28	- Other	0
282612	28	-- of aluminium	0
282619	28	-- Other	0
282732	28	-- of aluminium	0
282739	28	-- Other	0
282749	28	-- Other	0
282751	28	-- Bromides of Sodium or of potassi	0
282759	28	-- Other	0
282760	28	- Iodides and iodide oxides	0
282810	28	- Commercial Calcium hypochlorite a	0
282990	28	- Other	0
283090	28	- Other	0
283110	28	- of Sodium	0
283190	28	- Other	0
283220	28	- Other sulphites	0
283319	28	-- Other	0
283340	28	- Peroxosulphates (persulphates)	0
283410	28	- Nitrites	0
283510	28	- Phosphinates (hypophosphites) and	0
283691	28	-- Lithium carbonates	0
283919	28	-- Other	6
283990	28	- Other	0
284030	28	- Peroxoborates (perborates)	0
284150	28	- Other chromates and dichromates;	0
284161	28	-- Potassium permanganate	0
284169	28	-- Other	0
284170	28	- Molybdates	0
284180	28	- Tungstates (wolframates)	0
284310	28	- Colloidal precious metals	0
284330	28	- Gold compounds	0
284430	28	- Uranium depleted in U 235 and its	0
284450	28	- Spent (irradiated) fuel elements	0
284510	28	- Heavy water (deuterium oxide)	0
284590	28	- Other	0
284690	28	- Other	0
284920	28	- of Silicon	0
285000	28	Hydrides, nitrides, azides, silicid	0
285290	28	- Other	0
285300	28	Other inorganic compounds (includin	0
290129	29	-- Other	0
290211	29	-- Cyclohexane	0
290219	29	-- Other	0
290220	29	- benzene	0
290241	29	-- o-Xylene	0
290243	29	-- P-Xylene	0

290244	29	-- Mixed Xylene isomers	0
290290	29	- Other	0
290311	29	-- Chloromethane (methyl chloride)	0
290315	29	-- Ethylene dichloride (ISO) (1,2-d	0
290319	29	-- Other	0
290329	29	-- Other	0
290339	29	-- Other	0
290371	29	-- Chlorodifluoromethane	0
290389	29	-- Other	0
290391	29	-- Chlorobenzene, o-dichlorobenzene	0
290399	29	-- Other	0
290410	29	- derivatives containing only sulph	0
290420	29	- derivatives containing only nitro	0
290490	29	- Other	0
290514	29	-- Other butanols	0
290517	29	-- Dodecan-1-ol (lauryl alcohol), h	0
290522	29	-- Acyclic terpene alcohols	0
290529	29	-- Other	0
290531	29	-- Ethylene glycol (ethanediol)	0
290539	29	-- Other	0
290544	29	-- d-glucitol (sorbitol)	0
290559	29	-- Other	0
290611	29	-- Menthol	0
290612	29	-- Cyclohexanol, methylcyclohexanol	0
290619	29	-- Other	0
290621	29	-- Benzyl alcohol	0
290629	29	-- Other	0
290712	29	-- Cresols and their salts	0
290713	29	-- Octylphenol, nonylphenol and the	0
290715	29	-- Naphthols and their salts	0
290719	29	-- Other	0
290721	29	-- Resorcinol and its salts	0
290722	29	-- Hydroquinone (quinol) and its Sa	0
290729	29	-- Other	0
290819	29	-- Other	0
290899	29	-- Other	0
290911	29	-- Diethyl ether	0
290919	29	-- Other	0
290920	29	- Cyclanic, cyclenic or cycloterpen	0
290930	29	- aromatic ethers and their halogen	0
290941	29	-- 2,2'-Oxydiethanol (diethylene gl	0
290944	29	-- Other monoalkylethers of ethylen	0
290949	29	-- Other	0
290950	29	- ether-phenols, ether-alcohol-phen	0
291010	29	- Oxirane (Ethylene oxide)	0
291090	29	- Other	0
291100	29	Acetals and hemiacetals, whether or	0
291212	29	-- Ethanal (acetaldehyde)	0
291219	29	-- Other	0
291221	29	-- Benzaldehyde	0
291229	29	-- Other	0
291249	29	-- Other	0
291300	29	Halogenated, sulphonated, nitrated	0
291419	29	-- Other	0
291422	29	-- Cyclohexanone and methylcyclohex	0

291423	29	-- Ionones and methylionones	0
291429	29	-- Other	0
291439	29	-- Other	0
291440	29	- ketone-alcohols and ketone-aldehy	0
291450	29	- ketone-phenols and ketones with o	0
291461	29	-- Anthraquinone	0
291469	29	-- Other	0
291470	29	- Halogenated, sulphonated, nitrate	0
291513	29	-- Esters of Formic acid	0
291524	29	-- Acetic anhydride	0
291529	29	-- Other	0
291531	29	-- ethyl acetate	0
291539	29	-- Other	0
291540	29	- Mono-, di- or trichloroacetic aci	0
291550	29	- Propionic acid, its salts and est	0
291560	29	- Butanoic acids, pentanoic acids,	0
291570	29	- Palmitic acid, stearic acid, thei	6
291590	29	- Other	0
291615	29	-- Oleic, linoleic or linolenic aci	0
291619	29	-- Other	0
291631	29	-- Benzoic acid, its salts and este	0
291634	29	-- Phenylacetic acid and its salts	0
291639	29	-- Other	0
291711	29	-- Oxalic acid, its salts and ester	0
291713	29	-- Azelaic acid, sebacic acid, thei	0
291719	29	-- Other	0
291720	29	- Cyclanic, cyclenic or cycloterpen	0
291733	29	-- Dinonyl or didecyl orthophthalat	0
291735	29	-- Phthalic anhydride	0
291736	29	-- Terephthalic acid and its salts	0
291739	29	-- Other	0
291811	29	-- Lactic acid, its salts and ester	0
291813	29	-- salts and Esters of Tartaric aci	0
291815	29	-- salts and Esters of Citric acid	0
291816	29	-- Gluconic acid, its salts and est	0
291821	29	-- Salicylic acid and its salts	0
291822	29	-- o-Acetylsalicylic acid, its salt	0
291823	29	-- Other Esters of Salicylic acid a	0
291829	29	-- Other	0
291830	29	- Carboxylic acids with aldehyde or	0
291899	29	-- Other	0
291990	29	- Other	0
292019	29	-- Other	0
292090	29	- Other	0
292111	29	-- Methylamine, di- or trimethylaml	0
292121	29	-- Ethylenediamine and its salts	0
292129	29	-- Other	0
292130	29	- Cyclanic, cyclenic or cycloterpen	0
292141	29	-- Aniline and its salts	0
292142	29	-- Aniline derivatives and their Sa	0
292143	29	-- Toluidines and their derivatives	0
292144	29	-- Diphenylamine and its derivative	0
292145	29	-- 1-Naphthylamine (alpha-naphthyla	0
292149	29	-- Other	0
292151	29	-- o-, m-, p-Phenylenediamine, diam	0

292159	29	-- Other	0
292211	29	-- Monoethanolamine and its salts	0
292214	29	-- Dextropropoxyphene (INN) and its	0
292219	29	-- Other	0
292221	29	-- Aminohydroxynaphthalenesulphonic	0
292229	29	-- Other	0
292239	29	-- Other	0
292249	29	-- Other	0
292250	29	- Amino-alcohol-phenols, Amino-acid	0
292320	29	- Lecithins and Other phosphoaminol	0
292390	29	- Other	0
292419	29	-- Other	0
292421	29	-- Ureines and their derivatives; s	0
292429	29	-- Other	0
292519	29	-- Other	0
292529	29	-- Other	0
292690	29	- Other	0
292700	29	Diazo-, azo- or azoxy-compounds.	0
292800	29	Organic derivatives of hydrazine or	0
292990	29	- Other	0
293030	29	- Thiuram mono-, di- or tetrasulphi	0
293110	29	-Tetramethyl lead and tetraethyl le	0
293190	29	- Other	0
293211	29	-- Tetrahydrofuran	0
293219	29	-- Other	0
293220	29	- Lactones	0
293293	29	-- Piperonal	0
293299	29	-- Other	0
293311	29	-- Phenazone (antipyrin) and its de	0
293319	29	-- Other	0
293329	29	-- Other	0
293331	29	-- Pyridine and its salts	0
293332	29	-- Piperidine and its salts	0
293339	29	-- Other	0
293341	29	-- Levorphanol (INN) and its salts	0
293349	29	-- Other	0
293352	29	-- Malonylurea (barbituric acid) an	0
293353	29	-- Allobarbital (INN), amobarbital	0
293354	29	-- Other derivatives of Malonylurea	0
293359	29	-- Other	0
293369	29	-- Other	0
293372	29	-- Clobazam (INN) and methyprylon (	0
293379	29	-- Other lactams	0
293391	29	-- Alprazolam (INN), camazepam (INN	0
293399	29	-- Other	0
293410	29	- compounds containing an unfused t	0
293430	29	- compounds containing in the struc	0
293491	29	-- Aminorex (INN), brotizolam (INN)	0
293499	29	-- Other	0
293500	29	Sulphonamides.	0
293622	29	-- Vitamin B1 and its derivatives	0
293629	29	-- Other Vitamins and their derivat	0
293690	29	- Other, including Natural concentr	0
293712	29	-- Insulin and its salts	0
293719	29	-- Other	0

293721	29	-- Cortisone, hydrocortisone, predn	0
293722	29	-- Halogenated derivatives of corti	0
293729	29	-- Other	0
293790	29	- Other	0
293810	29	- Rutoside (rutin) and its derivati	0
293890	29	- Other	0
293920	29	- Alkaloids of cinchona and their d	0
293930	29	- Caffeine and its salts	0
293941	29	-- Ephedrine and its salts	0
293942	29	-- Pseudoephedrine (INN) and its Sa	0
293959	29	-- Other	0
293969	29	-- Other	0
293999	29	-- Other	0
294110	29	- Penicillins and their derivatives	0
294150	29	- Erythromycin and its derivatives;	0
294190	29	- Other	0
294200	29	Other organic compounds.	0
300120	30	- Extracts of glands or Other organ	0
300190	30	- Other	0
300310	30	- containing Penicillins or derivat	0
300331	30	-- containing Insulin	0
300339	30	-- Other	0
300340	30	- containing Alkaloids or derivativ	0
300390	30	- Other	0
300410	30	- containing Penicillins or derivat	6
300420	30	- containing Other antibiotics	6
300431	30	-- containing Insulin	6
300450	30	- Other medicaments containing vita	6
300490	30	- Other	6
300590	30	- Other	6
300610	30	- Sterile surgical catgut, similar	0
300650	30	- First-aid boxes and kits	6
300660	30	- Chemical contraceptive preparatio	6
300691	30	-- Appliances identifiable for osto	6
320210	32	- Synthetic organic tanning substan	0
320411	32	-- Disperse dyes and preparations b	0
320412	32	-- acid dyes, whether or Not premet	0
320413	32	-- Basic dyes and preparations base	0
320414	32	-- Direct dyes and preparations bas	0
320415	32	-- Vat dyes (including those usable	0
320416	32	-- Reactive dyes and preparations b	0
320417	32	-- Pigments and preparations based	0
320419	32	-- Other, including Mixtures of col	0
320420	32	- Synthetic organic Products of a k	0
320490	32	- Other	0
320500	32	Colour lakes; preparations as speci	6
320619	32	-- Other	0
320620	32	- Pigments and preparations based o	6
320641	32	-- Ultramarine and preparations bas	0
321100	32	Prepared driers.	6
321290	32	- Other	0
321390	32	- Other	6
321590	32	- Other	6
330119	33	-- Other	0
330124	33	-- of peppermint (Mentha piperita)	0

330125	33	-- of Other mints	0
330129	33	-- Other	0
330130	33	- Resinoids	0
330190	33	- Other	0
330741	33	-- "Agarbatti" and Other odoriferou	6
340211	34	-- Anionic	6
340219	34	-- Other	6
340600	34	Candles, tapers and the like.	6
350110	35	- Casein	0
350211	35	-- dried	6
360500	36	Matches, other than pyrotechnic art	6
360690	36	- Other	0
370390	37	- Other	0
370400	37	Photographic plates, film, paper, p	0
370610	37	- Of a width of 35 mm or more	6
370690	37	- Other	6
380110	38	- Artificial graphite	0
380130	38	- Carbonaceous pastes for electrode	0
380210	38	- Activated Carbon	0
380891	38	-- Insecticides	0
380899	38	-- Other	0
381010	38	- Pickling preparations for metal s	0
381129	38	-- Other	0
381210	38	- prepared rubber accelerators	0
381511	38	-- with Nickel or Nickel compounds	0
381512	38	-- with precious metal or precious	0
381519	38	-- Other	0
381590	38	- Other	0
381800	38	Chemical elements doped for use in	0
382312	38	-- Oleic acid	0
382319	38	-- Other	0
382370	38	- Industrial Fatty alcohols	0
382410	38	- prepared binders for foundry moul	0
382481	38	-- Containing oxirane (ethylene oxi	0
382590	38	- Other	0
390220	39	- Polyisobutylene	0
390290	39	- Other	0
390390	39	- Other	0
390461	39	-- Polytetrafluoroethylene	0
390490	39	- Other	0
390512	39	-- In aqueous dispersion	6
390519	39	-- Other	0
390521	39	-- In aqueous dispersion	6
390610	39	- poly(methyl methacrylate)	0
390750	39	- Alkyd resins	6
390791	39	-- Unsaturated	0
390810	39	- Polyamide-6, -11, -12, -6,6, -6,9	0
390890	39	- Other	6
390920	39	- Melamine resins	0
390940	39	- Phenolic resins	0
391212	39	-- plasticised	0
391400	39	Ion-exchangers based on polymers of	0
391530	39	- of polymers of Vinyl chloride	6
391690	39	- of Other plastics	6
391731	39	-- Flexible tubes, pipes and hoses,	0

391890	39	- of Other plastics	0
392020	39	- of polymers of propylene	6
392059	39	-- Other	6
392062	39	-- of poly(Ethylene terephthalate)	0
392063	39	-- of Unsaturated polyesters	6
392069	39	-- of Other polyesters	0
392071	39	-- of regenerated Cellulose	0
392094	39	-- of Phenolic resins	0
392099	39	-- of Other plastics	0
392321	39	-- of polymers of Ethylene	6
392329	39	-- of Other plastics	6
392340	39	- Spools, cops, bobbins and similar	6
400211	40	-- latex	0
400231	40	-- Isobutene-isoprene (butyl) rubbe	0
400270	40	- Ethylene-propylene-Non-conjugated	0
400291	40	-- latex	0
400300	40	Reclaimed rubber in primary forms o	0
400510	40	- Compounded with Carbon Black or s	0
400821	40	-- plates, sheets and strip	0
400829	40	-- Other	0
401130	40	- of a kind used on aircraft	0
401150	40	- of a kind used on bicycles	0
401161	40	-- of a kind used on agricultural o	0
401192	40	-- of a kind used on agricultural o	0
401199	40	-- Other	0
401213	40	-- of a kind used on aircraft	0
401219	40	-- Other	0
401220	40	- used pneumatic tyres	0
401310	40	- Of a kind used on motor cars (inc	0
401320	40	- of a kind used on bicycles	0
401691	40	-- Floor coverings and mats	6
401700	40	Hard rubber (for example, ebonite)	0
410150	41	whole hides and skins, of a weight	0
410419	41	-- Other	0
410622	41	-- in the dry state (crust)	0
410711	41	-- Full grains, unsplit	0
410712	41	-- Grain splits	0
410719	41	-- Other	0
410791	41	-- Full grains, unsplit	0
410799	41	-- Other	0
411200	41	Leather further prepared after tann	0
411310	41	- of Goats or kids	0
411390	41	- Other	0
411410	41	- Chamois (including combination ch	0
411420	41	- Patent leather and Patent laminat	0
420100	42	Saddlery and harness for any animal	0
420211	42	-- with outer surface of leather or	6
420219	42	-- Other	6
420221	42	-- with outer surface of leather or	6
420229	42	-- Other	6
420231	42	-- with outer surface of leather or	6
420291	42	-- with outer surface of leather or	6
420310	42	- Articles of apparel	6
420321	42	-- Specially designed for use in sp	6
420329	42	-- Other	6

420330	42	- belts and bandoliers	6
420340	42	- Other clothing accessories	6
420500	42	Other articles of leather or of com	0
430230	43	- whole skins and pieces or cutting	0
430310	43	- Articles of apparel and clothing	6
430390	43	- Other	6
430400	43	Artificial fur and articles thereof	6
440290	44	- Other	0
440410	44	- Coniferous	0
440420	44	- Non-Coniferous	0
440799	44	-- Other	0
440839	44	-- Other	0
440929	44	-- Other	0
441194	44	-- Of a density not exceeding 0.5 g	6
441300	44	Densified wood, in blocks, plates,	6
441400	44	Wooden frames for paintings, photog	6
442090	44	- Other	6
442190	44	- Other	6
450200	45	Natural cork, debacked or roughly s	0
460199	46	-- Other	6
470630	47	- Other, of Bamboo	0
470691	47	-- Mechanical	0
480210	48	- Hand-made paper and paperboard	0
480254	48	-- Weighing less than 40 g/m²	0
480262	48	-- in sheets with one side Not exce	0
480269	48	-- Other	0
480431	48	-- Unbleached	0
480459	48	-- Other	0
481099	48	-- Other	0
481149	48	-- Other	6
481159	48	-- Other	0
481320	48	- in rolls of a width Not exceeding	0
481390	48	- Other	0
481710	48	- Envelopes	6
481720	48	- Letter cards, plain postcards and	6
481730	48	- boxes, pouches, wallets and writi	6
481950	48	- Other packing containers, includi	6
482010	48	- Registers, account books, Note bo	6
482020	48	- Exercise books	6
482090	48	- Other	6
482190	48	- Other	6
482290	48	- Other	6
482361	48	-- of Bamboo	6
482390	48	- Other	0
490110	49	- in single sheets, whether or Not	0
490210	49	- Appearing at least four times a w	0
490510	49	- Globes	6
490599	49	-- Other	6
490900	49	Printed or illustrated postcards; p	6
491000	49	Calendars of any kind, printed, inc	6
500500	50	Yarn spun from silk waste, not put	0
500600	50	Silk yarn and yarn spun from silk w	6
500710	50	- Fabrics of noil silk	0
500720	50	- Other fabrics, containing 85 % or	0
500790	50	- Other Fabrics	0

510320	51	- Other waste of wool or of fine an	0
510610	51	- Containing 85 % or more by weight	6
510620	51	- Containing less than 85 % by weig	6
510710	51	- Containing 85 % or more by weight	6
510720	51	- Containing less than 85 % by weig	6
510910	51	- Containing 85 % or more by weight	11
510990	51	- Other	11
511111	51	-- Of a weight not exceeding 300 g/	11
511119	51	-- Other	11
511120	51	- Other, Mixed mainly or solely wit	11
511190	51	- Other	0
511211	51	-- Of a weight not exceeding 200 g/	11
511219	51	-- Other	11
511220	51	- Other, Mixed mainly or solely wit	11
511230	51	- Other, Mixed mainly or solely wit	11
511290	51	- Other	11
520100	52	Cotton, not carded or combed.	6
520299	52	-- Other	0
520300	52	Cotton, carded or combed.	6
520411	52	-- Containing 85 % or more by weigh	6
520419	52	-- Other	0
520420	52	- put up for retail sale	11
520511	52	-- Measuring 714.29 decitex or more	6
520512	52	-- Measuring less than 714.29 decit	6
520514	52	-- Measuring less than 192.31 decit	6
520515	52	-- Measuring less than 125 decitex	6
520522	52	-- Measuring less than 714.29 decit	6
520523	52	-- Measuring less than 232.56 decit	6
520524	52	-- Measuring less than 192.31 decit	6
520527	52	-- Measuring less than 106.38 decit	6
520532	52	-- Measuring per single Yarn less t	6
520543	52	-- Measuring per single Yarn less t	6
520611	52	-- Measuring 714.29 decitex or more	6
520613	52	-- Measuring less than 232.56 decit	6
520622	52	-- Measuring less than 714.29 decit	6
520623	52	-- Measuring less than 232.56 decit	6
520624	52	-- Measuring less than 192.31 decit	6
520642	52	-- Measuring per single Yarn less t	6
520643	52	-- Measuring per single Yarn less t	6
520710	52	- Containing 85 % or more by weight	11
520790	52	- Other	11
520811	52	-- plain weave, Weighing Not more t	11
520812	52	-- plain weave, Weighing more than	11
520819	52	-- Other Fabrics	11
520821	52	-- plain weave, Weighing Not more t	11
520822	52	-- plain weave, Weighing more than	11
520823	52	-- 3-thread or 4-thread twill, incl	11
520829	52	-- Other Fabrics	11
520831	52	-- plain weave, Weighing Not more t	11
520832	52	-- plain weave, Weighing more than	11
520833	52	-- 3-thread or 4-thread twill, incl	11
520841	52	-- plain weave, Weighing Not more t	11
520842	52	-- plain weave, Weighing more than	11
520851	52	-- plain weave, Weighing Not more t	11
520852	52	-- plain weave, Weighing more than	11

520859	52	-- Other Fabrics	11
520911	52	-- plain weave	11
520912	52	-- 3-thread or 4-thread twill, incl	11
520919	52	-- Other Fabrics	11
520921	52	-- plain weave	11
520929	52	-- Other Fabrics	11
520931	52	-- plain weave	11
520932	52	-- 3-thread or 4-thread twill, incl	11
520939	52	-- Other Fabrics	11
520941	52	-- plain weave	11
520942	52	-- Denim	11
520943	52	-- Other fabrics of 3-thread or 4-t	11
520951	52	-- plain weave	11
520952	52	-- 3-thread or 4-thread twill, incl	11
520959	52	-- Other Fabrics	11
521021	52	-- plain weave	11
521029	52	-- Other Fabrics	11
521031	52	-- plain weave	11
521032	52	-- 3-thread or 4-thread twill, incl	11
521120	52	- Bleached	11
521131	52	-- plain weave	11
521132	52	-- 3-thread or 4-thread twill, incl	11
521142	52	-- Denim	11
521151	52	-- plain weave	11
521159	52	-- Other Fabrics	11
521211	52	-- Unbleached	11
521212	52	-- Bleached	11
521213	52	-- Dyed	11
521214	52	-- of yarns of different colours	11
521215	52	-- Printed	11
521223	52	-- Dyed	11
521224	52	-- of yarns of different colours	11
521225	52	-- Printed	11
530500	53	Coconut, abaca (Manila hemp or Musa	0
530610	53	- single	0
530620	53	- Multiple (folded) or cabled	11
530720	53	- Multiple (folded) or cabled	6
530890	53	- Other	0
530911	53	-- Unbleached or Bleached	0
530919	53	-- Other	0
530921	53	-- Unbleached or Bleached	0
530929	53	-- Other	0
531010	53	- Unbleached	0
531090	53	- Other	0
531100	53	Woven fabrics of other vegetable te	0
540120	54	- of Artificial filaments	11
540211	54	-- of aramids	0
540233	54	-- of polyesters	6
540239	54	-- Other	6
540246	54	-- Other, of polyesters, partially	6
540247	54	-- Other, of polyesters	6
540251	54	-- of nylon or Other polyamides	0
540252	54	-- of polyesters	0
540259	54	-- Other	6
540261	54	-- of nylon or Other polyamides	0

540262	54	-- of polyesters	6
540269	54	-- Other	0
540310	54	- High tenacity Yarn of viscose ray	0
540331	54	-- of viscose rayon, untwisted or w	0
540341	54	-- of viscose rayon	0
540349	54	-- Other	0
540600	54	Man-made filament yarn (other than	11
540710	54	- Woven Fabrics obtained from High	0
540720	54	- Woven Fabrics obtained from strip	11
540730	54	- Fabrics specified in Note 9 to Se	0
540741	54	-- Unbleached or Bleached	11
540752	54	-- Dyed	11
540771	54	-- Unbleached or Bleached	0
540772	54	-- Dyed	11
540774	54	-- Printed	11
540781	54	-- Unbleached or Bleached	11
540782	54	-- Dyed	11
540784	54	-- Printed	11
540792	54	-- Dyed	11
540794	54	-- Printed	0
540810	54	- Woven Fabrics obtained from High	0
540822	54	-- Dyed	11
540823	54	-- of yarns of different colours	0
540824	54	-- Printed	0
540832	54	-- Dyed	0
540834	54	-- Printed	0
550110	55	- of nylon or Other polyamides	0
550330	55	- Acrylic or modacrylic	0
550340	55	- of Polypropylene	6
550410	55	- of viscose rayon	0
550510	55	- of Synthetic fibres	0
550630	55	- Acrylic or modacrylic	0
550690	55	- Other	0
550820	55	- of Artificial staple fibres	11
550911	55	-- single Yarn	6
550912	55	-- Multiple (folded) or cabled Yarn	6
550921	55	-- single Yarn	6
550922	55	-- Multiple (folded) or cabled Yarn	6
550931	55	-- single Yarn	6
550932	55	-- Multiple (folded) or cabled Yarn	6
550941	55	-- single Yarn	6
550942	55	-- Multiple (folded) or cabled Yarn	6
550951	55	-- Mixed mainly or solely with arti	6
550953	55	-- Mixed mainly or solely with cott	6
550959	55	-- Other	6
550962	55	-- Mixed mainly or solely with cott	6
550969	55	-- Other	6
550991	55	-- Mixed mainly or solely with wool	6
551011	55	-- single Yarn	0
551020	55	- Other Yarn, Mixed mainly or solel	0
551030	55	- Other Yarn, Mixed mainly or solel	0
551090	55	- Other Yarn	0
551110	55	- of Synthetic staple fibres, conta	11
551120	55	- of Synthetic staple fibres, conta	11
551130	55	- of Artificial staple fibres	11

551219	55	-- Other	11
551229	55	-- Other	11
551291	55	-- Unbleached or Bleached	11
551323	55	-- Other Woven Fabrics of polyester	11
551329	55	-- Other Woven Fabrics	11
551339	55	-- Other Woven Fabrics	11
551349	55	-- Other Woven Fabrics	11
551411	55	-- of polyester staple fibres, plai	11
551412	55	-- 3-thread or 4-thread twill, incl	11
551419	55	-- Other Woven Fabrics	11
551421	55	-- of polyester staple fibres, plai	11
551429	55	-- Other Woven Fabrics	11
551511	55	-- Mixed mainly or solely with visc	11
551512	55	-- Mixed mainly or solely with man-	11
551513	55	-- Mixed mainly or solely with wool	11
551519	55	-- Other	11
551521	55	-- Mixed mainly or solely with man-	11
551522	55	-- Mixed mainly or solely with wool	11
551591	55	-- Mixed mainly or solely with man-	11
551599	55	-- Other	11
551622	55	-- Dyed	11
551641	55	-- Unbleached or Bleached	11
551642	55	-- Dyed	11
551692	55	-- Dyed	11
560121	56	-- of Cotton	0
560122	56	-- of man-made fibres	6
560221	56	-- of wool or fine Animal Hair	0
560500	56	Metallised yarn, whether or not gim	0
560721	56	-- Binder or baler twine	0
560729	56	-- Other	0
560749	56	-- Other	0
560790	56	- Other	6
560890	56	- Other	0
560900	56	Articles of yarn, strip or the like	0
570110	57	- of wool or fine Animal Hair	6
570190	57	- of Other textile materials	6
570210	57	- "Kelem", "Schumacks", "Karamanie"	6
570220	57	- Floor coverings of coconut fibres	6
570231	57	-- of wool or fine Animal Hair	6
570232	57	-- of man-made textile materials	6
570239	57	-- of Other textile materials	6
570241	57	-- of wool or fine Animal Hair	6
570242	57	-- of man-made textile materials	6
570249	57	-- of Other textile materials	6
570250	57	- Other, not of pile construction,	6
570291	57	-- of wool or fine Animal Hair	6
570292	57	-- of man-made textile materials	6
570299	57	-- of Other textile materials	6
570310	57	- of wool or fine Animal Hair	6
570390	57	- of Other textile materials	6
570490	57	- Other	6
570500	57	Other carpets and other textile flo	6
580121	58	-- Uncut weft pile Fabrics	11
580123	58	-- Other weft pile Fabrics	11
580126	58	-- Chenille Fabrics	11

580127	58	-- Warp pile Fabrics	11
580137	58	-- Warp pile Fabrics	0
580190	58	- of Other textile materials	0
580220	58	- Terry towelling and similar Woven	11
580300	58	Gauze, other than narrow fabrics of	11
580429	58	-- of Other textile materials	0
580430	58	- Hand-made lace	0
580500	58	Hand-woven tapestries of the type G	11
580620	58	- Other Woven Fabrics, containing b	11
580790	58	- Other	11
580810	58	- Braids in the piece	0
580890	58	- Other	11
580900	58	Woven fabrics of metal thread and w	0
581010	58	- Embroidery Without visible ground	0
581091	58	-- of Cotton	11
581092	58	-- of man-made fibres	11
581099	58	-- of Other textile materials	0
590110	59	- textile Fabrics coated with Gum o	0
590190	59	- Other	0
590310	59	- with poly(Vinyl chloride)	11
590500	59	Textile wall coverings.	11
590699	59	-- Other	0
590800	59	Textile wicks, woven, plaited or kn	0
600121	60	-- of Cotton	11
600129	60	-- of Other textile materials	11
600191	60	-- of Cotton	11
600290	60	- Other	11
600320	60	- of Cotton	11
600390	60	- Other	0
600490	60	- Other	11
600590	60	- Other	0
600621	60	-- Unbleached or Bleached	11
600622	60	-- Dyed	11
600623	60	-- of yarns of different colours	11
600624	60	-- Printed	11
600690	60	- Other	11
610190	61	- of Other textile materials	11
610290	61	- of Other textile materials	11
610310	61	- Suits	11
610322	61	-- of Cotton	11
610323	61	-- of Synthetic fibres	11
610329	61	-- of Other textile materials	11
610332	61	-- of Cotton	11
610333	61	-- of Synthetic fibres	11
610339	61	-- of Other textile materials	11
610342	61	-- of Cotton	11
610343	61	-- of Synthetic fibres	11
610349	61	-- of Other textile materials	11
610413	61	-- of Synthetic fibres	11
610419	61	-- of Other textile materials	11
610422	61	-- of Cotton	11
610423	61	-- of Synthetic fibres	11
610429	61	-- of Other textile materials	11
610431	61	-- of wool or fine Animal Hair	11
610432	61	-- of Cotton	11

610433	61	-- of Synthetic fibres	11
610439	61	-- of Other textile materials	11
610441	61	-- of wool or fine Animal Hair	11
610442	61	-- of Cotton	11
610443	61	-- of Synthetic fibres	11
610449	61	-- of Other textile materials	11
610451	61	-- of wool or fine Animal Hair	11
610452	61	-- of Cotton	11
610453	61	-- of Synthetic fibres	11
610459	61	-- of Other textile materials	11
610461	61	-- of wool or fine Animal Hair	11
610462	61	-- of Cotton	11
610469	61	-- of Other textile materials	11
610510	61	- of Cotton	11
610520	61	- of man-made fibres	11
610590	61	- of Other textile materials	11
610610	61	- of Cotton	11
610690	61	- of Other textile materials	11
610711	61	-- of Cotton	11
610719	61	-- of Other textile materials	11
610721	61	-- of Cotton	11
610722	61	-- of man-made fibres	11
610729	61	-- of Other textile materials	11
610791	61	-- of Cotton	11
610799	61	-- of Other textile materials	11
610811	61	-- of man-made fibres	11
610819	61	-- of Other textile materials	11
610821	61	-- of Cotton	11
610829	61	-- of Other textile materials	11
610831	61	-- of Cotton	11
610839	61	-- of Other textile materials	11
610891	61	-- of Cotton	11
610899	61	-- of Other textile materials	11
610910	61	- of Cotton	11
610990	61	- of Other textile materials	11
611011	61	-- of wool	11
611019	61	-- Other	11
611090	61	- of Other textile materials	11
611120	61	- of Cotton	11
611190	61	- of Other textile materials	11
611219	61	-- of Other textile materials	11
611249	61	-- of Other textile materials	11
611420	61	- of Cotton	11
611490	61	- of Other textile materials	11
611594	61	-- of wool or fine Animal Hair	11
611599	61	-- of Other textile materials	11
611692	61	-- of Cotton	11
611693	61	-- of Synthetic fibres	11
611699	61	-- of Other textile materials	11
611710	61	- Shawls, scarves, mufflers, mantil	11
611790	61	- Parts	11
620111	62	-- of wool or fine Animal Hair	11
620199	62	-- of Other textile materials	11
620219	62	-- of Other textile materials	11
620299	62	-- of Other textile materials	11

620319	62	-- of Other textile materials	11
620322	62	-- of Cotton	11
620323	62	-- of Synthetic fibres	11
620329	62	-- of Other textile materials	11
620331	62	-- of wool or fine Animal Hair	11
620332	62	-- of Cotton	11
620333	62	-- of Synthetic fibres	11
620339	62	-- of Other textile materials	11
620341	62	-- of wool or fine Animal Hair	11
620342	62	-- of Cotton	11
620343	62	-- of Synthetic fibres	11
620349	62	-- of Other textile materials	11
620411	62	-- of wool or fine Animal Hair	11
620412	62	-- of Cotton	11
620413	62	-- of Synthetic fibres	11
620419	62	-- of Other textile materials	11
620421	62	-- of wool or fine Animal Hair	11
620422	62	-- of Cotton	11
620423	62	-- of Synthetic fibres	11
620429	62	-- of Other textile materials	11
620431	62	-- of wool or fine Animal Hair	11
620432	62	-- of Cotton	11
620433	62	-- of Synthetic fibres	11
620439	62	-- of Other textile materials	11
620441	62	-- of wool or fine Animal Hair	11
620442	62	-- of Cotton	11
620443	62	-- of Synthetic fibres	11
620444	62	-- of Artificial fibres	11
620449	62	-- of Other textile materials	11
620451	62	-- of wool or fine Animal Hair	11
620452	62	-- of Cotton	11
620453	62	-- of Synthetic fibres	11
620459	62	-- of Other textile materials	11
620461	62	-- of wool or fine Animal Hair	11
620462	62	-- of Cotton	11
620463	62	-- of Synthetic fibres	11
620469	62	-- of Other textile materials	11
620520	62	- of Cotton	11
620530	62	- of man-made fibres	11
620590	62	- of Other textile materials	11
620610	62	- of silk or silk waste	11
620620	62	- of wool or fine Animal Hair	11
620630	62	- of Cotton	11
620640	62	- of man-made fibres	11
620690	62	- of Other textile materials	11
620711	62	-- of Cotton	11
620719	62	-- of Other textile materials	11
620721	62	-- of Cotton	11
620722	62	-- of man-made fibres	11
620729	62	-- of Other textile materials	11
620791	62	-- of Cotton	11
620799	62	-- of Other textile materials	11
620811	62	-- of man-made fibres	11
620819	62	-- of Other textile materials	11
620821	62	-- of Cotton	11

620822	62	-- of man-made fibres	11
620829	62	-- of Other textile materials	11
620891	62	-- of Cotton	11
620892	62	-- of man-made fibres	11
620899	62	-- of Other textile materials	11
620920	62	- of Cotton	11
620930	62	- of Synthetic fibres	11
620990	62	- of Other textile materials	11
621020	62	- Other garments, of the type DESCR	11
621112	62	-- Women's or girls'	11
621132	62	-- of Cotton	11
621133	62	-- of man-made fibres	11
621139	62	-- of Other textile materials	11
621142	62	-- of Cotton	11
621143	62	-- of man-made fibres	11
621149	62	-- of Other textile materials	11
621320	62	- of Cotton	11
621390	62	- of Other textile materials	11
621410	62	- of silk or silk waste	11
621420	62	- of wool or fine Animal Hair	11
621430	62	- of Synthetic fibres	11
621440	62	- of Artificial fibres	11
621490	62	- of Other textile materials	11
621590	62	- of Other textile materials	11
621600	62	Gloves, mittens and mitts.	6
621710	62	- accessories	11
621790	62	- Parts	11
630120	63	- Blankets (other than electric bla	11
630130	63	- Blankets (other than electric bla	11
630190	63	- Other blankets and travelling rug	11
630210	63	- Bed linen, Knitted or crocheted	11
630221	63	-- of Cotton	11
630229	63	-- of Other textile materials	11
630231	63	-- of Cotton	11
630239	63	-- of Other textile materials	11
630240	63	- Table linen, Knitted or crocheted	11
630251	63	-- of Cotton	11
630259	63	-- of Other textile materials	11
630260	63	- toilet linen and kitchen linen, o	11
630291	63	-- of Cotton	11
630299	63	-- of Other textile materials	11
630319	63	-- of Other textile materials	11
630391	63	-- of Cotton	11
630399	63	-- of Other textile materials	11
630411	63	-- Knitted or crocheted	11
630419	63	-- Other	11
630491	63	-- Knitted or crocheted	11
630492	63	-- Not Knitted or crocheted, of cot	11
630493	63	-- Not Knitted or crocheted, of syn	11
630499	63	-- Not Knitted or crocheted, of oth	11
630510	63	- of Jute or of Other textile bast	11
630520	63	- of Cotton	11
630532	63	-- Flexible intermediate bulk conta	11
630539	63	-- Other	11
630590	63	- of Other textile materials	11

630619	63	-- of Other textile materials	11
630629	63	-- of Other textile materials	11
630690	63	- Other	11
630710	63	- Floor-cloths, dish-cloths, duster	11
630720	63	- Life-jackets and Life-belts	6
630790	63	- Other	11
630800	63	Sets consisting of woven fabric and	11
630900	63	Worn clothing and other worn articl	11
631010	63	- Sorted	0
631090	63	- Other	0
640199	64	-- Other	11
640219	64	-- Other	11
640319	64	-- Other	11
640320	64	- Footwear with outer soles of leat	11
640351	64	-- Covering the ankle	11
640359	64	-- Other	11
640391	64	-- Covering the ankle	11
640411	64	-- Sports footwear; tennis shoes, b	11
640420	64	- Footwear with outer soles of leat	11
640510	64	- with uppers of leather or composi	11
640590	64	- Other	11
640610	64	- uppers and Parts thereof, Other t	11
650200	65	Hat-shapes, plaited or made by asse	0
650700	65	Head-bands, linings, covers, hat fo	0
660320	66	- Umbrella frames, including frames	0
660390	66	- Other	0
670100	67	Skins and other parts of birds with	0
670300	67	Human hair, dressed, thinned, bleac	0
680100	68	Setts, curbstones and flagstones, o	0
680210	68	- Tiles, cubes and similar Articles	0
680221	68	-- marble, travertine and alabaster	0
680223	68	-- Granite	0
680229	68	-- Other stone	0
680292	68	-- Other calcareous stone	0
680293	68	-- Granite	0
680299	68	-- Other stone	0
680300	68	Worked slate and articles of slate	0
680410	68	- Millstones and grindstones for mi	0
680423	68	-- of Natural stone	0
680990	68	- Other Articles	6
681011	68	-- building blocks and bricks	0
681019	68	-- Other	0
681099	68	-- Other	0
681140	68	- containing asbestos	0
681181	68	-- Corrugated sheets	0
681182	68	-- Other sheets, panels, Tiles and	0
681189	68	-- Other Articles	0
681293	68	-- Compressed asbestos fibre jointi	0
681381	68	-- Brake linings and pads	6
681389	68	-- Other	6
681410	68	- plates, sheets and strips of aggl	0
681490	68	- Other	0
681599	68	-- Other	0
690100	69	Bricks, blocks, tiles and other cer	0
690220	69	- Containing by weight more than 50	0

690290	69	- Other	0
690320	69	- Containing by weight more than 50	0
690390	69	- Other	0
690710	69	- Tiles, cubes and similar Articles	0
690810	69	- Tiles, cubes and similar Articles	0
690990	69	- Other	6
691410	69	- of porcelain or china	6
691490	69	- Other	6
700220	70	- Rods	0
700231	70	-- of fused quartz or Other fused s	0
700232	70	-- Of other glass having a linear c	0
700420	70	- Glass, Coloured throughout the ma	0
700530	70	- Wired Glass	0
700800	70	Multiple-walled insulating units of	0
701010	70	- Ampoules	6
701090	70	- Other	6
701110	70	- for Electric lighting	6
701190	70	- Other	6
701400	70	Signalling glassware and optical el	6
701590	70	- Other	0
701912	70	-- Rovings	0
701919	70	-- Other	0
701952	70	-- Of a width exceeding 30 cm, plai	0
702000	70	Other articles of glass.	0
710110	71	- Natural pearls	0
710121	71	-- Unworked	0
710122	71	-- Worked	0
710229	71	-- Other	0
710239	71	-- Other	0
710310	71	- Unworked or simply sawn or roughl	0
710399	71	-- Other	0
710420	71	- Other, Unworked or simply sawn or	0
710490	71	- Other	0
710510	71	- of diamonds	0
710590	71	- Other	0
710692	71	-- Semi-manufactured	0
710700	71	Base metals clad with silver, not f	0
710812	71	-- Other Unwrought forms	0
710813	71	-- Other Semi-manufactured forms	0
711019	71	-- Other	0
711311	71	-- of Silver, whether or Not plated	6
711319	71	-- of Other precious metal, whether	6
711411	71	-- of Silver, whether or Not plated	6
711419	71	-- of Other precious metal, whether	6
711590	71	- Other	0
711620	71	- of precious or Semi-precious ston	6
711790	71	- Other	6
711810	71	- Coin (Other than Gold Coin), Not	6
720150	72	- Alloy pig iron; spiegeleisen	0
720211	72	-- Containing by weight more than 2	0
720219	72	-- Other	0
720221	72	-- Containing by weight more than 5	0
720230	72	- Ferro-silico-Manganese	0
720241	72	-- Containing by weight more than 4	0
720291	72	-- Ferro-titanium and ferro-silico-	0

720299	72	-- Other	0
720390	72	- Other	0
720441	72	-- Turnings, shavings, chips, milli	0
720610	72	- Ingots	0
720690	72	- Other	0
720711	72	-- Of rectangular (including square	0
720719	72	-- Other	0
720810	72	- In coils, Not further Worked than	0
720825	72	-- Of a thickness of 4.75 mm or mor	0
720826	72	-- Of a thickness of 3 mm or more b	0
720827	72	-- Of a thickness of less than 3 mm	0
720836	72	-- Of a thickness exceeding 10 mm	0
720837	72	-- Of a thickness of 4.75 mm or mor	0
720838	72	-- Of a thickness of 3 mm or more b	0
720851	72	-- Of a thickness exceeding 10 mm	0
720890	72	- Other	0
720915	72	-- Of a thickness of 3 mm or more	0
720918	72	-- Of a thickness of less than 0.5	0
720928	72	-- Of a thickness of less than 0.5	0
720990	72	- Other	0
721049	72	-- Other	0
721061	72	-- Plated or coated with aluminium-	0
721069	72	-- Other	0
721070	72	- Painted, varnished or coated with	0
721090	72	- Other	0
721114	72	-- Other, of a thickness of 4.75 mm	0
721123	72	-- Containing by weight less than 0	0
721129	72	-- Other	0
721230	72	- Otherwise plated or coated with z	0
721250	72	- Otherwise plated or coated	0
721410	72	- Forged	0
721550	72	- Other, Not further Worked than co	0
721590	72	- Other	0
721632	72	-- I sections	0
721699	72	-- Other	0
721810	72	- Ingots and Other primary forms	0
721891	72	-- Of rectangular (other than squar	0
721899	72	-- Other	0
721911	72	-- Of a thickness exceeding 10 mm	0
721912	72	-- Of a thickness of 4.75 mm or mor	0
721913	72	-- Of a thickness of 3 mm or more b	0
721914	72	-- Of a thickness of less than 3 mm	0
721921	72	-- Of a thickness exceeding 10 mm	0
721922	72	-- Of a thickness of 4.75 mm or mor	0
721990	72	- Other	0
722011	72	-- Of a thickness of 4.75 mm or mor	0
722012	72	-- Of a thickness of less than 4.75	0
722020	72	- Not further Worked than Cold-roll	0
722211	72	-- of circular cross-section	0
722219	72	-- Other	0
722220	72	- Bars and Rods, Not further Worked	0
722230	72	- Other Bars and Rods	0
722240	72	- angles, shapes and sections	0
722300	72	Wire of stainless steel.	0
722410	72	- Ingots and Other primary forms	0

722490	72	- Other	0
722511	72	-- Grain-Oriented	0
722519	72	-- Other	0
722592	72	-- Otherwise plated or coated with	0
722619	72	-- Other	0
722620	72	- of High speed steel	0
722699	72	-- Other	0
722810	72	- Bars and Rods, of High speed stee	0
722840	72	- Other Bars and Rods, Not further	0
722990	72	- Other	0
730120	73	- angles, shapes and sections	0
730230	73	- Switch blades, crossing frogs, po	0
730290	73	- Other	0
730300	73	Tubes, pipes and hollow profiles, o	0
730411	73	-- of stainless steel	0
730431	73	-- Cold-drawn or cold-rolled (cold-	0
730441	73	-- Cold-drawn or cold-rolled (cold-	0
730490	73	- Other	0
730511	73	-- Longitudinally submerged arc wel	0
730519	73	-- Other	0
730520	73	- Casing of a kind used in drilling	0
730611	73	-- welded, of stainless steel	0
730619	73	-- Other	0
730630	73	- Other, welded, of circular cross-	0
730690	73	- Other	0
730711	73	-- of Non-malleable cast iron	0
730721	73	-- Flanges	0
730723	73	-- Butt welding Fittings	0
730791	73	-- Flanges	0
730820	73	- Towers and lattice masts	0
731021	73	-- Cans which are to be closed by s	6
731029	73	-- Other	0
731412	73	-- Endless bands for machinery, of	0
731600	73	Anchors, grapnels and parts thereof	0
731811	73	-- Coach screws	6
731816	73	-- nuts	6
731819	73	-- Other	0
731990	73	- Other	6
732010	73	- leaf-springs and leaves therefor	6
732090	73	- Other	6
732112	73	-- for liquid fuel	6
732391	73	-- of cast iron, Not enamelled	6
732392	73	-- of cast iron, enamelled	6
732393	73	-- of stainless steel	6
732394	73	-- of iron (Other than cast iron) o	6
732399	73	-- Other	6
732429	73	-- Other	0
732510	73	- of Non-malleable cast iron	0
732591	73	-- Grinding Balls and similar artic	0
732599	73	-- Other	6
732619	73	-- Other	0
740100	74	Copper mattes; cement copper (preci	0
740311	74	-- Cathodes and sections of cathode	0
740321	74	-- copper-zinc base alloys (brass)	0
740322	74	-- copper-tin base alloys (bronze)	0

740329	74	-- Other copper alloys (other than	0
740400	74	Copper waste and scrap.	0
740500	74	Master alloys of copper.	0
740620	74	- Powders of lamellar structure; fl	0
740710	74	- of refined copper	0
740721	74	-- Of copper-zinc base alloys (bras	0
740729	74	-- Other	0
740819	74	-- Other	0
740829	74	-- Other	0
740911	74	-- in coils	0
740919	74	-- Other	0
740929	74	-- Other	0
740931	74	-- in coils	0
740990	74	- of Other copper alloys	0
741022	74	-- of copper alloys	0
741121	74	-- Of copper-zinc base alloys (bras	0
741122	74	-- Of copper-nickel base alloys (cu	0
741300	74	Stranded wire, cables, plaited band	0
741510	74	- Nails and tacks, drawing pins, st	0
741529	74	-- Other	0
741533	74	-- Screws; bolts and nuts	0
741539	74	-- Other	0
741810	74	- Table, kitchen or Other household	0
741820	74	- Sanitary ware and Parts thereof	0
741910	74	- chain and Parts thereof	0
741991	74	-- cast, Moulded, stamped or Forged	0
741999	74	-- Other	0
750210	75	- Nickel, Not alloyed	0
750511	75	-- of Nickel, Not alloyed	0
750512	75	-- of Nickel alloys	0
750521	75	-- of Nickel, Not alloyed	0
750522	75	-- of Nickel alloys	0
750620	75	- of Nickel alloys	0
750711	75	-- of Nickel, Not alloyed	0
750712	75	-- of Nickel alloys	0
750720	75	- Tube or pipe Fittings	0
750890	75	- Other	0
760110	76	- aluminium, Not alloyed	0
760120	76	- aluminium alloys	0
760200	76	Aluminium waste and scrap.	0
760320	76	- Powders of lamellar structure; fl	0
760529	76	-- Other	0
760612	76	-- of aluminium alloys	0
760692	76	-- of aluminium alloys	0
760719	76	-- Other	0
761210	76	- Collapsible tubular containers	0
761410	76	- with steel core	0
761520	76	- Sanitary ware and Parts thereof	0
761699	76	-- Other	0
780110	78	- refined lead	0
780191	78	-- containing by weight Antimony as	0
780411	78	-- sheets, strip and foil of a thic	0
780419	78	-- Other	0
780420	78	- powders and Flakes	0
790112	79	-- Containing by weight less than 9	0

790120	79	- zinc alloys	0
790400	79	Zinc bars, rods, profiles and wire.	0
800110	80	- tin, Not alloyed	0
800120	80	- tin alloys	0
800700	80	Other articles of tin.	0
810196	81	-- wire	0
810199	81	-- Other	0
810295	81	-- Bars and Rods, Other than those	0
810296	81	-- wire	0
810299	81	-- Other	0
810390	81	- Other	0
810419	81	-- Other	0
810520	81	- Cobalt mattes and Other intermedi	0
810590	81	- Other	0
810790	81	- Other	0
811010	81	- Unwrought antimony; powders	0
811221	81	-- Unwrought; powders	0
811300	81	Cermets and articles thereof, inclu	0
820190	82	- Other Hand tools of a kind used i	0
820310	82	- files, rasps and similar tools	0
820411	82	-- Non-adjustable	0
820530	82	- Planes, chisels, gouges and simil	0
820570	82	- Vices, clamps and the like	0
820720	82	- Dies for drawing or extruding met	0
820740	82	- tools for tapping or threading	0
820760	82	- tools for boring or broaching	0
820770	82	- tools for milling	0
820790	82	- Other Interchangeable tools	0
820900	82	Plates, sticks, tips and the like f	0
821195	82	-- Handles of base metal	0
821220	82	- Safety razor blades, including ra	6
821290	82	- Other Parts	6
821599	82	-- Other	6
830120	83	- Locks of a kind used for motor ve	0
830160	83	- Parts	6
830241	83	-- suitable for buildings	0
830610	83	- Bells, gongs and the like	0
830710	83	- of iron or steel	0
831130	83	- coated Rods and Cored wire, of ba	6
840211	84	-- Watertube boilers with a steam P	0
840212	84	-- Watertube boilers with a steam P	0
840219	84	-- Other vapour generating boilers,	0
840220	84	- Super-heated water boilers	0
840290	84	- Parts	0
840390	84	- Parts	0
840410	84	- Auxiliary plant for use with boil	0
840420	84	- Condensers for steam or Other vap	0
840490	84	- Parts	0
840510	84	- Producer gas or water gas generat	0
840590	84	- Parts	0
840681	84	-- Of an output exceeding 40 MW	0
840682	84	-- Of an output not exceeding 40 MW	0
840690	84	- Parts	0
840710	84	- aircraft engines	0
840733	84	-- of a cylinder capacity exceeding	0

840734	84	-- of a cylinder capacity exceeding	0
840890	84	- Other engines	0
840910	84	- for aircraft engines	0
840999	84	-- Other	0
841011	84	-- Of a power not exceeding 1,000 k	0
841111	84	-- Of a thrust not exceeding 25 kN	0
841112	84	-- Of a thrust exceeding 25 kN	0
841122	84	-- Of a power exceeding 1,100 kW	0
841191	84	-- of turbo-jets or turbo-propeller	0
841280	84	- Other	0
841490	84	- Parts	0
841590	84	- Parts	0
841630	84	- Mechanical stokers, including the	0
841821	84	-- compression-type	11
841829	84	-- Other	11
841940	84	- distilling or rectifying plant	0
841960	84	- machinery for liquefying air or o	0
842111	84	-- Cream separators	0
842549	84	-- Other	0
842619	84	-- Other	0
842820	84	- pneumatic elevators and conveyors	0
842860	84	- Teleferics, chair-Lifts, Ski-drag	0
843210	84	- ploughs	0
843221	84	-- Disc harrows	0
843290	84	- Parts	0
843410	84	- Milking machines	0
843420	84	- Dairy machinery	0
843590	84	- Parts	0
843840	84	- Brewery machinery	0
843991	84	-- of machinery for making pulp of	0
844250	84	- plates, cylinders and Other print	0
844317	84	-- Gravure printing machinery	0
844511	84	-- Carding machines	0
844519	84	-- Other	0
844520	84	-textile spinning machines	0
844530	84	-textile doubling or twisting machi	0
844629	84	-- Other	0
844820	84	- Parts and accessories of machines	0
844832	84	-- of machines for preparing textil	0
844833	84	-- Spindles, spindle flyers, spinni	0
845012	84	-- Other machines, with Built-in ce	11
845019	84	-- Other	11
845090	84	- Parts	0
845110	84	- dry-cleaning machines	0
845230	84	- Sewing machine needles	0
845410	84	- Converters	0
845420	84	- Ingot moulds and ladles	0
845430	84	- Casting machines	0
845490	84	- Parts	0
845521	84	-- hot or combination hot and Cold	0
845522	84	-- Cold	0
845530	84	- rolls for rolling mills	0
845590	84	- Other Parts	0
845891	84	-- Numerically controlled	0
845899	84	-- Other	0

845931	84	-- Numerically controlled	0
845940	84	- Other boring machines	0
846019	84	-- Other	0
846029	84	-- Other	0
846040	84	- Honing or lapping machines	0
846120	84	- Shaping or slotting machines	0
846130	84	- broaching machines	0
846140	84	- Gear cutting, Gear Grinding or ge	0
846320	84	-thread rolling machines	0
846610	84	-Tool holders and Self-opening dieh	0
846620	84	-work holders	0
846630	84	- Dividing heads and Other special	0
846693	84	-- For machines of headings 84.56 t	0
846890	84	- Parts	0
846900	84	Typewriters other than printers of	0
847029	84	-- Other	0
847310	84	- Parts and accessories of the mach	0
847321	84	-- of the Electronic calculating ma	0
847340	84	- Parts and accessories of the mach	0
847350	84	- Parts and accessories equally sui	0
847590	84	- Parts	0
847629	84	-- Other	0
847730	84	- Blow moulding machines	0
847751	84	-- for moulding or retreading pneum	0
847810	84	-machinery	0
847890	84	- Parts,	0
847960	84	- Evaporative air coolers	0
847990	84	- Parts	0
848010	84	-moulding boxes for metal foundry	0
848020	84	-Mould bases	0
848030	84	-moulding patterns	0
848049	84	-- Other	0
848190	84	- Parts	0
848291	84	-- Balls, needles and rollers	0
848299	84	-- Other	0
848310	84	-Transmission shafts (including cam	0
848410	84	- Gaskets and similar joints of met	6
848610	84	-machines and apparatus for the man	0
848630	84	-machines and apparatus for the man	0
848640	84	-machines and apparatus specified i	0
848690	84	- Parts and accessories	0
850110	85	-motors of an output Not exceeding	0
850134	85	-- Of an output exceeding 375 kW	0
850140	85	- Other ac motors, single-phase	0
850161	85	-- Of an output not exceeding 75 kV	0
850231	85	-- Wind-Powered	0
850240	85	- Electric rotary Converters	0
850421	85	-- having a power handling capacity	0
850490	85	- Parts	0
850511	85	-- of metal	0
850680	85	- Other primary cells and primary b	0
850690	85	- Parts	0
850730	85	- Nickel-cadmium	0
851120	85	- Ignition magnetos; magneto-dynamo	0
851140	85	- Starter motors and dual purpose s	0

851150	85	- Other generators	0
851190	85	- Parts	0
851210	85	- lighting or visual signalling equ	0
851240	85	-Windscreen wipers, defrosters and	0
851390	85	- Parts	6
851420	85	- Furnaces and ovens functioning by	0
851430	85	- Other Furnaces and ovens	0
851490	85	- Parts	0
851521	85	-- Fully or partly Automatic	0
851690	85	- Parts	6
851711	85	-- Line telephone sets with cordles	0
851890	85	- Parts	6
851950	85	-telephone answering machines	6
852210	85	- Pick-up cartridges	0
852380	85	- Other	0
852610	85	- Radar apparatus	0
852849	85	-- Other	6
852873	85	-- Other, monochrome	6
852990	85	- Other	0
853010	85	- Equipment for railways or tramway	0
853090	85	- Parts	0
853210	85	- fixed capacitors designed for use	0
853223	85	-- Ceramic dielectric, single layer	0
853224	85	-- Ceramic dielectric, multilayer	0
853225	85	-- dielectric of paper or plastics	0
853290	85	- Parts	0
853310	85	- fixed Carbon resistors, compositi	0
853340	85	- Other Variable resistors, includi	0
853390	85	- Parts	0
853400	85	Printed circuits.	0
853521	85	-- For a voltage of less than 72.5	0
853529	85	-- Other	0
853610	85	- Fuses	0
853810	85	- Boards, panels, consoles, desks,	0
853890	85	- Other	0
853921	85	-- tungsten halogen	6
853990	85	- Parts	6
854011	85	-- colour	0
854020	85	-Television camera tubes; image con	0
854079	85	-- Other	0
854099	85	-- Other	0
854140	85	- photosensitive semiconductor devi	0
854150	85	- Other semiconductor devices	0
854160	85	-mounted Piezo-Electric crystals	0
854190	85	- Parts	0
854232	85	-- Memories	0
854233	85	-- Amplifiers	0
854290	85	- Parts	0
854310	85	- Particle accelerators	0
854330	85	-machines and apparatus for electro	0
854390	85	- Parts	0
854411	85	-- of copper	0
854419	85	-- Other	0
854430	85	- Ignition wiring sets and Other wi	0
854511	85	-- of a kind used for Furnaces	0

854620	85	- of ceramics	0
854790	85	- Other	0
854890	85	- Other	0
860210	86	- Diesel-Electric locomotives	0
860699	86	-- Other	0
860712	86	-- Other bogies and bissel-bogies	0
860721	86	-- air brakes and Parts thereof	0
860729	86	-- Other	0
860730	86	- Hooks and other coupling devices,	0
860791	86	-- of locomotives	0
860799	86	-- Other	0
870190	87	- Other	0
870321	87	-- of a cylinder capacity Not excee	6
870331	87	-- of a cylinder capacity Not excee	6
870332	87	-- of a cylinder capacity exceeding	6
870390	87	- Other	6
870810	87	- Bumpers and Parts thereof	0
870821	87	-- Safety seat belts	0
870840	87	- Gear boxes and Parts thereof	0
870850	87	- Drive-axles with differential, wh	0
870892	87	-- Silencers (mufflers) and exhaust	0
870894	87	-- Steering wheels, Steering column	0
870895	87	-- Safety airbags with inflater sys	0
870899	87	-- Other	0
870911	87	-- electrical	0
870919	87	-- Other	0
870990	87	- Parts	0
871000	87	Tanks and other armoured fighting v	6
871110	87	-with reciprocating internal combus	6
871120	87	-with reciprocating internal combus	6
871130	87	-with reciprocating internal combus	6
871310	87	- Not mechanically propelled	6
871420	87	- of carriages for disabled persons	0
871491	87	-- frames and forks, and Parts ther	0
871493	87	-- Hubs, Other than coaster braking	0
871494	87	-- brakes, including coaster brakin	0
871495	87	-- Saddles	0
871496	87	-- Pedals and crank-Gear, and Parts	0
871499	87	-- Other	0
871620	87	- Self-loading or Self-unloading tr	0
880211	88	-- of an unladen weight Not exceedi	0
880230	88	- Aeroplanes and Other aircraft, of	0
880320	88	- Under-carriages and Parts thereof	0
880330	88	- Other Parts of Aeroplanes or heli	0
880390	88	- Other	0
880521	88	-- air combat simulators and Parts	0
880529	88	-- Other	0
890110	89	- Cruise Ships, excursion boats and	0
890190	89	- Other vessels for the transport o	0
890400	89	Tugs and pusher craft.	0
890510	89	- Dredgers	0
890690	89	- Other	0
900110	90	- optical fibres, optical fibre bun	0
900150	90	- Spectacle lenses of Other materia	0
900219	90	-- Other	0

900290	90	- Other	0
900580	90	- Other instruments	0
900590	90	- Parts and accessories (including	0
900610	90	- cameras of a kind used for prepar	0
900640	90	- Instant print cameras	6
900652	90	-- Other, for roll film of a width	0
900659	90	-- Other	0
900669	90	-- Other	6
900699	90	-- Other	6
900710	90	- cameras	6
900890	90	- Parts and accessories	0
901310	90	- telescopic sights for fitting to	0
901320	90	- Lasers, Other than laser Diodes	0
901380	90	- Other devices, Appliances and ins	0
901390	90	- Parts and accessories	0
901420	90	- instruments and Appliances for ae	0
901540	90	- Photogrammetrical surveying instr	0
901839	90	-- Other	0
902230	90	- X-ray tubes	0
902290	90	- Other, including Parts and access	0
902890	90	- Parts and accessories	0
903010	90	- instruments and apparatus for mea	0
903082	90	-- for Measuring or checking semico	0
903090	90	- Parts and accessories	0
903120	90	- Test benches	0
903281	90	-- Hydraulic or pneumatic	0
903289	90	-- Other	0
903290	90	- Parts and accessories	0
903300	90	Parts and accessories (not specifie	0
910111	91	-- with Mechanical display only	6
910191	91	-- Electrically operated	6
910199	91	-- Other	6
910529	91	-- Other	6
910599	91	-- Other	0
910811	91	-- with Mechanical display only or	0
910819	91	-- Other	0
910910	91	- Electrically operated	0
911090	91	- Other	0
911120	91	- cases of base metal, whether or n	0
911180	91	- Other cases	0
911190	91	- Parts	0
911220	91	- cases	0
911290	91	- Parts	0
911320	91	- of base metal, whether or Not gol	6
911390	91	- Other	6
911410	91	- springs, including Hair-springs	0
911430	91	- dials	0
911490	91	- Other	0
920890	92	- Other	6
920991	92	-- Parts and accessories for pianos	0
920992	92	-- Parts and accessories for the mu	0
930190	93	- Other	6
930390	93	- Other	6
930510	93	- of revolvers or pistols	6
930520	93	- of shotguns or rifles of heading	0

930599	93	-- Other	0
930629	93	-- Other	6
930690	93	- Other	6
930700	93	Swords, cutlasses, bayonets, lances	6
940110	94	- seats of a kind used for aircraft	0
940120	94	- seats of a kind used for motor ve	0
940159	94	-- Other	6
940169	94	-- Other	6
940190	94	- Parts	6
940360	94	- Other Wooden furniture	6
940410	94	- Mattress supports	6
940430	94	- Sleeping bags	6
940490	94	- Other	6
940550	94	- Non-electrical lamps and lighting	6
950619	95	-- Other	6
950632	95	-- Balls	6
950639	95	-- Other	6
950640	95	- Articles and equipment for table-	6
950659	95	-- Other	6
950669	95	-- Other	6
950699	95	-- Other	6
950790	95	- Other	6
960190	96	- Other	6
960200	96	Worked vegetable or mineral carving	0
960310	96	- Brooms and Brushes, consisting of	6
960630	96	- Button moulds and Other Parts of	0
960720	96	- Parts	0
960810	96	- Ball point pens	6
960840	96	- Propelling or sliding pencils	6
960860	96	- Refills for Ball point pens, comp	6
960891	96	-- Pen nibs and nib points	6
961390	96	- Parts	6
961400	96	Smoking pipes (including pipe bowls	6
970110	97	- Paintings, drawings and pastels	6
970190	97	- Other	6
970200	97	Original engravings, prints and lit	6
970300	97	Original sculptures and statuary, i	6
970500	97	Collections and collectors' pieces	6

Note: based on HS 2012 nomenclature

Source: Based on WITS Comtrade online database.

Annexure 2: Tariff lines as Identified for India based on RCA Approach

S.N.	Product Code	Chapter	Product Name	Peru's MFN
1	10420	1	Goats	0
2	20421	2	Other meat of sheep, fresh or chilled : -- Carcass...	6
3	30219	3	Salmonidae, excluding livers and roes : -- Other	0
4	30233	3	Tunas (of the genus Thunnus), skipjack or stripe-b...	0
5	30329	3	Tilapias (Oreochromis spp.), catfish (Pangasius sp...	0
6	30333	3	Flat fish (Pleuronectidae, Bothidae, Cynoglossidae...	0
7	30389	3	Other fish, excluding livers and roes : -- Other	0
8	30499	3	Other, frozen : -- Other	0
9	30569	3	Fish, salted but not dried or smoked and fish in b...	0
10	30617	3	Frozen : -- Other shrimps and prawns	0
11	30619	3	Frozen : -- Other, including flours, meals and pel...	0
12	30749	3	Cuttle fish (Sepia officinalis, Rossia macrosoma, ...	0
13	50100	5	Human hair, unworked, whether or not washed or sco...	0
14	50610	5	Osseln and bones treated with acid	0
15	70310	7	Onions and shallots	6
16	71231	7	Mushrooms, wood ears (Auricularia spp.), jelly fun...	6
17	80450	8	Guavas, mangoes and mangosteens	6
18	90421	9	Fruits of the genus Capsicum or of the genus Pimen...	0
19	90422	9	Fruits of the genus Capsicum or of the genus Pimen...	0
20	90831	9	Cardamoms : -- Neither crushed nor ground	0
21	90832	9	Cardamoms : -- Crushed or ground	0
22	90922	9	Seeds of coriander : -- Crushed or ground	0
23	91012	9	Ginger : -- Crushed or ground	0
24	100310	10	Seed	0
25	100710	10	Seed	0
26	100821	10	Millet : -- Seed	0
27	100829	10	Millet : -- Other	0
28	110630	11	Of the products of Chapter 8	0
29	120230	12	Seed	0
30	120241	12	Other : -- In shell	0
31	120300	12	Copra.	6
32	120750	12	Mustard seeds	0
33	121190	12	Other	0
34	130211	13	Vegetable saps and extracts : -- Opium	0
35	140420	14	Cotton linters	0
36	200110	20	Cucumbers and gherkins	6
37	230240	23	Of other cereals	0
38	230500	23	Oil-cake and other solid residues, whether or not ...	0
39	230610	23	Of cotton seeds	0
40	230649	23	Of rape or colza seeds : -- Other	0
41	240311	24	Smoking tobacco, whether or not containing tobacco...	6
42	250620	25	Quartzite	0
43	251110	25	Natural barium sulphate (barytes)	0
44	251200	25	Siliceous fossil meals (for example, kieselguhr, t...	0
45	251400	25	Slate, whether or not roughly trimmed or merely cu...	0
46	251612	25	Granite : -- Merely cut, by sawing or otherwise, i...	0
47	251620	25	Sandstone	0
48	252100	25	Limestone flux; limestone and other calcareous sto...	0
49	252310	25	Cement clinkers	0
50	252510	25	Crude mica and mica rifted into sheets or splittin...	0
51	252530	25	Mica waste	0
52	260600	26	Aluminium ores and concentrates.	0
53	261400	26	Titanium ores and concentrates.	0
54	262091	26	Other : -- Containing antimony, beryllium, cadmium...	0

55	270799	27	Other : -- Other	0
56	271012	27	Petroleum oils and oils obtained from bituminous m...	0
57	271099	27	Waste oils : -- Other	0
58	271119	27	Liquefied : -- Other	0
59	271390	27	Other residues of petroleum oils or of oils obtain...	0
60	280200	28	Sulphur, sublimed or precipitated; colloidal sulph...	0
61	282090	28	Other	0
62	282410	28	Lead monoxide (litharge, massicot)	0
63	282732	28	Other chlorides : -- Of aluminium	0
64	282741	28	Chloride oxides and chloride hydroxides : -- Of co...	0
65	282990	28	Other	0
66	283190	28	Other	0
67	283410	28	Nitrites	0
68	284161	28	Manganites, manganates and permanganates : -- Pota...	0
69	284450	28	Spent (irradiated) fuel elements (cartridges) of n...	0
70	284510	28	Heavy water (deuterium oxide)	0
71	290241	29	Xylenes : -- o-Xylene	0
72	290371	29	Halogenated derivatives of acyclic hydrocarbons co...	0
73	290381	29	Halogenated derivatives of cyclanic, cyclenic or c...	0
74	290391	29	Halogenated derivatives of aromatic hydrocarbons :...	0
75	290392	29	Halogenated derivatives of aromatic hydrocarbons :...	0
76	290490	29	Other	0
77	290522	29	Unsaturated monohydric alcohols : -- Acyclic terpe...	0
78	290712	29	Monophenols : -- Cresols and their salts	0
79	290713	29	Monophenols : -- Octylphenol, nonylphenol and thei...	0
80	290715	29	Monophenols : -- Naphthols and their salts	0
81	290722	29	Polyphenols; phenol-alcohols : -- Hydroquinone (qu...	0
82	290899	29	Other : -- Other	0
83	290911	29	Acyclic ethers and their halogenated, sulphonated,...	0
84	290944	29	Ether-alcohols and their halogenated, sulphonated,...	0
85	291100	29	Acetals and hemiacetals, whether or not with other...	0
86	291221	29	Cyclic aldehydes without other oxygen function : -...	0
87	291249	29	Aldehyde-alcohols, aldehyde-ethers, aldehyde-pheno...	0
88	291300	29	Halogenated, sulphonated, nitrated or nitrosated d...	0
89	291419	29	Acyclic ketones without other oxygen function : --...	0
90	291423	29	Cyclanic, cyclenic or cycloterpenic ketones withou...	0
91	291431	29	Aromatic ketones without other oxygen function : -...	0
92	291439	29	Aromatic ketones without other oxygen function : -...	0
93	291470	29	Halogenated, sulphonated, nitrated or nitrosated d...	0
94	291531	29	Esters of acetic acid : -- Ethyl acetate	0
95	291711	29	Acyclic polycarboxylic acids, their anhydrides, ha...	0
96	291830	29	Carboxylic acids with aldehyde or ketone function ...	0
97	291891	29	Other : -- 2,4,5-T (ISO) (2,4,5-trichlorophenoxyac...	0
98	292142	29	Aromatic monoamines and their derivatives; salts t...	0
99	292143	29	Aromatic monoamines and their derivatives; salts t...	0
100	292144	29	Aromatic monoamines and their derivatives; salts t...	0
101	292145	29	Aromatic monoamines and their derivatives; salts t...	0
102	292221	29	Amino-naphthols and other amino-phenols, other tha...	0
103	292229	29	Amino-naphthols and other amino-phenols, other tha...	0
104	292243	29	Amino-acids, other than those containing more than...	0
105	292411	29	Acyclic amides (including acyclic carbamates) and ...	0
106	292521	29	Imines and their derivatives; salts thereof : -- C...	0
107	292529	29	Imines and their derivatives; salts thereof : -- O...	0
108	293319	29	Compounds containing an unfused pyrazole ring (whe...	0
109	293331	29	Compounds containing an unfused pyridine ring (whe...	0
110	293353	29	Compounds containing a pyrimidine ring (whether or...	0

111	293354	29	Compounds containing a pyrimidine ring (whether or...	0
112	293372	29	Lactams : -- Clobazam (INN) and methyprylon (INN)	0
113	293919	29	Alkaloids of opium and their derivatives; salts th...	0
114	293920	29	Alkaloids of cinchona and their derivatives; salts...	0
115	293941	29	Ephedrines and their salts : -- Ephedrine and its ...	0
116	293942	29	Ephedrines and their salts : -- Pseudoephedrine (I...	0
117	293943	29	Ephedrines and their salts : -- Cathine (INN) and ...	0
118	293949	29	Ephedrines and their salts : -- Other	0
119	293959	29	Theophylline and aminophylline (theophylline-ethyl...	0
120	293961	29	Alkaloids of rye ergot and their derivatives; salt...	0
121	293999	29	Other : -- Other	0
122	300339	30	Containing hormones or other products of heading 2...	0
123	320210	32	Synthetic organic tanning substances	0
124	320500	32	Colour lakes; preparations as specified in Note 3 ...	6
125	321100	32	Prepared driers.	6
126	330125	33	Essential oils other than those of citrus fruit : ...	0
127	350211	35	Egg albumin : -- Dried	6
128	370252	37	Other film, for colour photography (polychrome) : ...	6
129	381511	38	Supported catalysts : -- With nickel or nickel com...	0
130	401192	40	Other : -- Of a kind used on agricultural or fores...	0
131	401320	40	Of a kind used on bicycles	0
132	410711	41	Whole hides and skins : -- Full grains, unsplit	0
133	411200	41	Leather further prepared after tanning or crusting...	0
134	411310	41	Of goats or kids	0
135	440831	44	Of tropical wood specified in Subheading Note 2 to...	0
136	470319	47	Unbleached : -- Non-coniferous	0
137	480262	48	Other paper and paperboard, of which more than 10 ...	0
138	482020	48	Exercise books	6
139	500300	50	Silk waste (including cocoons unsuitable for reeli...	0
140	500600	50	Silk yarn and yarn spun from silk waste, put up fo...	6
141	500710	50	Fabrics of noil silk	0
142	500720	50	Other fabrics, containing 85 % or more by weight o...	0
143	510310	51	Noils of wool or of fine animal hair	0
144	520411	52	Not put up for retail sale : -- Containing 85 % or...	6
145	520515	52	Single yarn, of uncombed fibres : -- Measuring les...	6
146	520534	52	Multiple (folded) or cabled yarn, of uncombed fibr...	6
147	520535	52	Multiple (folded) or cabled yarn, of uncombed fibr...	6
148	520543	52	Multiple (folded) or cabled yarn, of combed fibres...	6
149	520547	52	Multiple (folded) or cabled yarn, of combed fibres...	6
150	520548	52	Multiple (folded) or cabled yarn, of combed fibres...	6
151	520615	52	Single yarn, of uncombed fibres : -- Measuring les...	0
152	520634	52	Multiple (folded) or cabled yarn, of uncombed fibr...	6
153	520644	52	Multiple (folded) or cabled yarn, of combed fibres...	6
154	520822	52	Bleached : -- Plain weave, weighing more than 100 ...	11
155	520841	52	Of yarns of different colours : -- Plain weave, we...	11
156	520921	52	Bleached : -- Plain weave	11
157	520929	52	Bleached : -- Other fabrics	11
158	521111	52	Unbleached : -- Plain weave	11
159	521151	52	Printed : -- Plain weave	11
160	521223	52	Weighing more than 200 g/m2 : -- Dyed	11
161	530310	53	Jute and other textile bast fibres, raw or retted	0
162	530500	53	Coconut, abaca (Manila hemp or Musa textilis Nee),...	0
163	530710	53	Single	0
164	530810	53	Coir yarn	0
165	530919	53	Containing 85 % or more by weight of flax : -- Oth...	0
166	531090	53	Other	0

167	540246	54	Other yarn, single, untwisted or with a twist not ...	6
168	540251	54	Other yarn, single, with a twist exceeding 50 turn...	0
169	540262	54	Other yarn, multiple (folded) or cabled : -- Of po...	6
170	540310	54	High tenacity yarn of viscose rayon	0
171	540730	54	Fabrics specified in Note 9 to Section XI	0
172	540772	54	Other woven fabrics, containing 85 % or more by we...	11
173	540774	54	Other woven fabrics, containing 85 % or more by we...	11
174	540781	54	Other woven fabrics, containing less than 85 % by ...	11
175	540784	54	Other woven fabrics, containing less than 85 % by ...	11
176	540794	54	Other woven fabrics : -- Printed	0
177	540834	54	Other woven fabrics : -- Printed	0
178	550410	55	Of viscose rayon	0
179	550922	55	Containing 85 % or more by weight of polyester sta...	6
180	550951	55	Other yarn, of polyester staple fibres : -- Mixed ...	6
181	550952	55	Other yarn, of polyester staple fibres : -- Mixed ...	6
182	550959	55	Other yarn, of polyester staple fibres : -- Other	6
183	550999	55	Other yarn : -- Other	6
184	551012	55	Containing 85 % or more by weight of artificial st...	0
185	551329	55	Dyed : -- Other woven fabrics	11
186	551411	55	Unbleached or bleached : -- Of polyester staple fi...	11
187	551449	55	Printed : -- Other woven fabrics	11
188	551521	55	Of acrylic or modacrylic staple fibres : -- Mixed ...	11
189	551591	55	Other woven fabrics : -- Mixed mainly or solely wi...	11
190	551622	55	Containing less than 85 % by weight of artificial ...	11
191	570220	57	Floor coverings of coconut fibres (coir)	6
192	570292	57	Other, not of pile construction, made up : -- Of m...	6
193	580126	58	Of cotton : -- Chenille fabrics	11
194	580430	58	Hand-made lace	0
195	580900	58	Woven fabrics of metal thread and woven fabrics of...	0
196	581010	58	Embroidery without visible ground	0
197	590110	59	Textile fabrics coated with gum or amylaceous subs...	0
198	590290	59	Other	0
199	590800	59	Textile wicks, woven, plaited or knitted , for lam...	0
200	600621	60	Of cotton : -- Unbleached or bleached	11
201	610323	61	Ensembles : -- Of synthetic fibres	11
202	610510	61	Of cotton	11
203	610520	61	Of man-made fibres	11
204	610831	61	Nightdresses and pyjamas : -- Of cotton	11
205	610910	61	Of cotton	11
206	611120	61	Of cotton	11
207	611420	61	Of cotton	11
208	620722	62	Nightshirts and pyjamas : -- Of man-made fibres	11
209	620811	62	Slips and petticoats : -- Of man-made fibres	11
210	620829	62	Nightdresses and pyjamas : -- Of other textile mat...	11
211	681292	68	Other : -- Paper, millboard and felt	0
212	681381	68	Not containing asbestos : -- Brake linings and pad...	6
213	690710	69	Tiles, cubes and similar articles, whether or not ...	0
214	700232	70	Tubes : -- Of other glass having a linear coeffici...	0
215	701120	70	For cathode-ray tubes	0
216	701190	70	Other	6
217	710239	71	Non-industrial : -- Other	0
218	720110	72	Non-alloy pig iron containing by weight 0.5 % or l...	0
219	720230	72	Ferro-silico-manganese	0
220	720390	72	Other	0
221	720719	72	Containing by weight less than 0.25 % of carbon : ...	0
222	720918	72	In coils, not further worked than cold-rolled (col...	0

223	720928	72	Not in coils, not further worked than cold-rolled ...	0
224	721410	72	Forged	0
225	722011	72	Not further worked than hot-rolled : -- Of a thick...	0
226	722220	72	Bars and rods, not further worked than cold-formed...	0
227	730511	73	Line pipe of a kind used for oil or gas pipelines ...	0
228	732591	73	Other : -- Grinding balls and similar articles for...	0
229	741910	74	Chain and parts thereof	0
230	750521	75	Wire : -- Of nickel, not alloyed	0
231	780420	78	Powders and flakes	0
232	810196	81	Other : -- Wire	0
233	811010	81	Unwrought antimony; powders	0
234	840211	84	Steam or other vapour generating boilers : -- Wate...	0
235	840610	84	Turbines for marine propulsion	0
236	840682	84	Other turbines : -- Of an output not exceeding 40 ...	0
237	841011	84	Hydraulic turbines and water wheels : -- Of a powe...	0
238	841013	84	Hydraulic turbines and water wheels : -- Of a powe...	0
239	842111	84	Centrifuges, including centrifugal dryers : -- Cre...	0
240	843840	84	Brewery machinery	0
241	844317	84	Printing machinery used for printing by means of p...	0
242	844512	84	Machines for preparing textile fibres : -- Combing...	0
243	844820	84	Parts and accessories of machines of heading 84.44...	0
244	844842	84	Parts and accessories of weaving machines (looms) ...	0
245	845510	84	Tube mills	0
246	845530	84	Rolls for rolling mills	0
247	846120	84	Shaping or slotting machines	0
248	847960	84	Evaporative air coolers	0
249	851420	85	Furnaces and ovens functioning by induction or die...	0
250	880260	88	Spacecraft (including satellites) and suborbital a...	0
251	880529	88	Ground flying trainers and parts thereof : -- Othe...	0
252	890110	89	Cruise ships, excursion boats and similar vessels ...	0
253	890400	89	Tugs and pusher craft.	0
254	890510	89	Dredgers	0
255	890520	89	Floating or submersible drilling or production pla...	0
256	890590	89	Other	0
257	890800	89	Vessels and other floating structures for breaking...	0
258	930510	93	Of revolvers or pistols	6
259	930700	93	Swords, cutlasses, bayonets, lances and similar ar...	6
260	950790	95	Other	6
261	960810	96	Ball point pens	6
262	960891	96	Other : -- Pen nibs and nib points	6

Note: Based on HS 2007 nomenclature.
Source: Compiled by the author based on WITS Comtrade, last assessed on 12-09-2015.

Annexure 3: Tariff lines as Identified for Peru based on RCA Approach

S.N	Product Code	Chapter	Product Name	MFN of India
1	10512	1	Weighing not more than 185 g : -- Turkeys	30
2	10620	1	Reptiles (including snakes and turtles)	30
3	20500	2	Meat of horses, asses, mules or hinnies, fresh, ch...	30
4	20725	2	Of turkeys : -- Not cut in pieces, frozen	30
5	30111	3	Ornamental fish : -- Freshwater	30
6	30355	3	Herrings (Clupea harengus, Clupea pallasii), sardi...	30
7	30366	3	Fish of the families Bregmacerotidae, Euclichthyid...	30
8	30369	3	Fish of the families Bregmacerotidae, Euclichthyid...	30
9	30381	3	Other fish, excluding livers and roes : -- Dogfish...	30
10	30390	3	Livers and roes	30
11	30431	3	Fresh or chilled fillets of tilapias (Oreochromis ...	30
12	30462	3	Frozen fillets of tilapias (Oreochromis spp.), cat...	30
13	30469	3	Frozen fillets of tilapias (Oreochromis spp.), cat...	30
14	30474	3	Frozen fillets of fish of the families Bregmacerot...	30
15	30482	3	Frozen fillets of other fish : -- Trout (Salmo tru...	30
16	30489	3	Frozen fillets of other fish : -- Other	30
17	30499	3	Other, frozen : -- Other	30
18	30520	3	Livers and roes of fish, dried, smoked, salted or ...	30
19	30539	3	Fish fillets, dried, salted or in brine, but not s...	30
20	30563	3	Fish, salted but not dried or smoked and fish in b...	30
21	30569	3	Fish, salted but not dried or smoked and fish in b...	30
22	30571	3	Fish fins, heads, tails, maws and other edible fis...	30
23	30617	3	Frozen : -- Other shrimps and prawns	30
24	30729	3	Scallops, including queen scallops, of the genera ...	30
25	30749	3	Cuttle fish (Sepia officinalis, Rossia macrosoma, ...	30
26	40291	4	Other : -- Not containing added sugar or other swe...	30
27	40711	4	Fertilised eggs for incubation : -- Of fowls of th...	30
28	40819	4	Egg yolks : -- Other	30
29	60120	6	Bulbs, tubers, tuberous roots, corms, crowns and r...	10
30	70310	7	Onions and shallots	30
31	70810	7	Peas (Pisum sativum)	30
32	70920	7	Asparagus	30
33	71040	7	Sweet corn	30
34	71080	7	Other vegetables	30
35	71120	7	Olives	30
36	71231	7	Mushrooms, wood ears (Auricularia spp.), jelly fun...	30
37	71334	7	Beans (Vigna spp., Phaseolus spp.) : -- Bambara be...	30
38	71335	7	Beans (Vigna spp., Phaseolus spp.) : -- Cow peas (...	30
39	71339	7	Beans (Vigna spp., Phaseolus spp.) : -- Other	30
40	71350	7	Broad beans (Vicia faba var. major) and horse bean...	30
41	71360	7	Pigeon peas (Cajanus cajan)	30
42	71420	7	Sweet potatoes	30
43	71490	7	Other	30
44	80122	8	Brazil nuts : -- Shelled	30
45	80390	8	Other	30
46	80440	8	Avocados	30
47	80450	8	Guavas, mangoes and mangosteens	30
48	80520	8	Mandarins (including tangerines and satsumas); cle...	30
49	80610	8	Fresh	40
50	81040	8	Cranberries, bilberries and other fruits of the ge...	30
51	81090	8	Other	30
52	81110	8	Strawberries	30

53	81190	8	Other	30
54	81400	8	Peel of citrus fruit or melons (including watermel...	30
55	90111	9	Coffee, not roasted : -- Not decaffeinated	100
56	90421	9	Fruits of the genus Capsicum or of the genus Pimen...	70
57	90422	9	Fruits of the genus Capsicum or of the genus Pimen...	70
58	91011	9	Ginger : -- Neither crushed nor ground	30
59	91012	9	Ginger : -- Crushed or ground	30
60	100850	10	Quinoa (Chenopodium quinoa)	0
61	100890	10	Other cereals	0
62	110423	11	Other worked grains (for example, hulled, pearled,...	30
63	110620	11	Of sago or of roots or tubers of heading 07.14	30
64	110630	11	Of the products of Chapter 8	30
65	120710	12	Palm nuts and kernels	30
66	120770	12	Melon seeds	30
67	120799	12	Other : -- Other	30
68	120991	12	Other : -- Vegetable seeds	10
69	120999	12	Other : -- Other	10
70	121130	12	Coca leaf	30
71	121190	12	Other	30
72	121229	12	Seaweeds and other algae : -- Other	30
73	121292	12	Other : -- Locust beans (carob)	30
74	130239	13	Mucilages and thickeners, whether or not modified,...	30
75	140490	14	Other	30
76	150410	15	Fish-liver oils and their fractions	30
77	150420	15	Fats and oils and their fractions, of fish, other ...	30
78	151590	15	Other	100
79	151610	15	Animal fats and oils and their fractions	30
80	160413	16	Fish, whole or in pieces, but not minced : -- Sard...	30
81	160415	16	Fish, whole or in pieces, but not minced : -- Mack...	30
82	160416	16	Fish, whole or in pieces, but not minced : -- Anch...	30
83	160554	16	Molluscs : -- Cuttle fish and squid	30
84	160556	16	Molluscs : -- Clams, cockles and arkshells	30
85	160559	16	Molluscs : -- Other	30
86	160569	16	Other aquatic invertebrates : -- Other	30
87	180100	18	Cocoa beans, whole or broken, raw or roasted.	30
88	180320	18	Wholly or partly defatted	30
89	180400	18	Cocoa butter, fat and oil.	30
90	190219	19	Uncooked pasta, not stuffed or otherwise prepared ...	30
91	200190	20	Other	30
92	200551	20	Beans (Vigna spp., Phaseolus spp.) : -- Beans, she...	30
93	200560	20	Asparagus	30
94	200570	20	Olives	30
95	200599	20	Other vegetables and mixtures of vegetables : -- O...	30
96	200891	20	Other, including mixtures other than those of subh...	30
97	200899	20	Other, including mixtures other than those of subh...	30
98	200939	20	Juice of any other single citrus fruit : -- Other	30
99	200989	20	Juice of any other single fruit or vegetable : -- ...	30
100	220710	22	Undenatured ethyl alcohol of an alcoholic strength...	150
101	230120	23	Flours, meals and pellets, of fish or of crustacea...	30
102	230230	23	Of wheat	30
103	230990	23	Other	30
104	250200	25	Unroasted iron pyrites.	10
105	250850	25	Andalusite, kyanite and sillimanite	10
106	250900	25	Chalk.	10
107	251010	25	Unground	5
108	251110	25	Natural barium sulphate (barytes)	10

109	251200	25	Siliceous fossil meals (for example, kieselguhr, t...	10
110	252310	25	Cement clinkers	10
111	252800	25	Natural borates and concentrates thereof (whether ...	10
112	260300	26	Copper ores and concentrates.	5
113	260700	26	Lead ores and concentrates.	5
114	260800	26	Zinc ores and concentrates.	5
115	261390	26	Other	5
116	261610	26	Silver ores and concentrates	5
117	261690	26	Other	5
118	261710	26	Antimony ores and concentrates	5
119	262019	26	Containing mainly zinc : -- Other	10
120	270111	27	Coal, whether or not pulverised, but not agglomera...	10
121	280110	28	Chlorine	7.5
122	280450	28	Boron; tellurium	7.5
123	280490	28	Selenium	7.5
124	280700	28	Sulphuric acid; oleum.	10
125	281000	28	Oxides of boron; boric acids.	10
126	281512	28	Sodium hydroxide (caustic soda) : -- In aqueous so...	10
127	281700	28	Zinc oxide; zinc peroxide.	10
128	282410	28	Lead monoxide (litharge, massicot)	10
129	282550	28	Copper oxides and hydroxides	10
130	282741	28	Chloride oxides and chloride hydroxides : -- Of co...	10
131	283322	28	Other sulphates : -- Of aluminium	10
132	283325	28	Other sulphates : -- Of copper	10
133	283525	28	Phosphates : -- Calcium hydrogenorthophosphate ("d...	10
134	284020	28	Other borates	10
135	310100	31	Animal or vegetable fertilisers, whether or not mi...	10
136	320290	32	Other	10
137	320300	32	Colouring matter of vegetable or animal origin (in...	10
138	320500	32	Colour lakes; preparations as specified in Note 3 ...	10
139	330113	33	Essential oils of citrus fruit : -- Of lemon	30
140	350211	35	Egg albumin : -- Dried	30
141	360200	36	Prepared explosives, other than propellent powders...	10
142	360300	36	Safety fuses; detonating fuses; percussion or deto...	10
143	392020	39	Of polymers of propylene	10
144	410510	41	In the wet state (including wet-blue)	10
145	410530	41	In the dry state (crust)	10
146	411520	41	Parings and other waste of leather or of compositi...	10
147	420600	42	Articles of gut (other than silk-worm gut), of gol...	10
148	430390	43	Other	10
149	440721	44	Of tropical wood specified in Subheading Note 2 to...	10
150	440722	44	Of tropical wood specified in Subheading Note 2 to...	10
151	440799	44	Other : -- Other	10
152	440929	44	Non-coniferous : -- Other	10
153	441300	44	Densified wood, in blocks, plates, strips or profi...	10
154	441879	44	Assembled flooring panels : -- Other	10
155	481930	48	Sacks and bags, having a base of a width of 40 cm ...	10
156	510119	51	Greasy, including fleece-washed wool : -- Other	15
157	510219	51	Fine animal hair : -- Other	15
158	510310	51	Noils of wool or of fine animal hair	15
159	510539	51	Fine animal hair, carded or combed : -- Other	10
160	510820	51	Combed	10
161	510910	51	Containing 85 % or more by weight of wool or of fi...	10
162	510990	51	Other	10
163	511290	51	Other	10.0% or Rs. 135per sq. mtr., whichever ishigher

164	520411	52	Not put up for retail sale : -- Containing 85 % or...	10
165	520547	52	Multiple (folded) or cabled yarn, of combed fibres...	10
166	520548	52	Multiple (folded) or cabled yarn, of combed fibres...	10
167	520622	52	Single yarn, of combed fibres : -- Measuring less ...	10
168	520710	52	Containing 85 % or more by weight of cotton	10
169	520790	52	Other	10
170	520921	52	Bleached : -- Plain weave	10
171	520922	52	Bleached : -- 3-thread or 4-thread twill, includin...	10
172	520929	52	Bleached : -- Other fabrics	10
173	521049	52	Of yarns of different colours : -- Other fabrics	10.0% or Rs. 185 per kg., whichever is higher
174	521119	52	Unbleached : -- Other fabrics	10
175	521120	52	Bleached	10
176	521149	52	Of yarns of different colours : -- Other fabrics	10.0% or Rs. 150 per kg., whichever is higher
177	550130	55	Acrylic or modacrylic	10
178	550330	55	Acrylic or modacrylic	10
179	550620	55	Of polyesters	10
180	550630	55	Acrylic or modacrylic	10
181	550820	55	Of artificial staple fibres	10
182	550999	55	Other yarn : -- Other	10
183	551120	55	Of synthetic staple fibres, containing less than 8...	10% or Rs. 31 per kg whichever is higher
184	560229	56	Other felt, not impregnated, coated, covered or la...	10
185	560311	56	Of man-made filaments : -- Weighing not more than ...	10
186	560600	56	Gimped yarn, and strip and the like of heading 54....	10
187	560811	56	Of man-made textile materials : -- Made up fishing...	10
188	580500	58	Hand-woven tapestries of the type Gobelins, Flande...	10
189	600410	60	Containing by weight 5 % or more of elastomeric ya...	10
190	600533	60	Of synthetic fibres : -- Of yarns of different col...	10
191	600621	60	Of cotton : -- Unbleached or bleached	10
192	600622	60	Of cotton : -- Dyed	10
193	600633	60	Of synthetic fibres : -- Of yarns of different col...	10
194	600643	60	Of artificial fibres : -- Of yarns of different co...	10
195	610210	61	Of wool or fine animal hair	10.0% or Rs. 595per piece, whichever is higher
196	610442	61	Dresses : -- Of cotton	10
197	610510	61	Of cotton	10.0% or Rs. 83per piece, whichever is higher
198	610520	61	Of man-made fibres	10.0% or Rs. 83per piece, whichever is higher
199	610610	61	Of cotton	10.0% or Rs. 90per piece, whichever is higher
200	610620	61	Of man-made fibres	10.0% or Rs. 25per piece, whichever is higher
201	610831	61	Nightdresses and pyjamas : -- Of cotton	10
202	610910	61	Of cotton	10.0% or Rs. 45per piece, whichever is higher
203	611019	61	Of wool or fine animal hair : -- Other	10.0% or Rs. 275per piece, whichever is higher
204	611220	61	Ski suits	10
205	611420	61	Of cotton	10
206	611430	61	Of man-made fibres	10
207	611594	61	Other : -- Of wool or fine animal hair	10
208	611691	61	Other : -- Of wool or fine animal hair	10
209	630120	63	Blankets (other than electric blankets) and travel...	10.0% or Rs. 275per piece, whichever is higher

210	640110	64	Footwear incorporating a protective metal toe-cap	10
211	680221	68	Other monumental or building stone and articles th...	10
212	681299	68	Other : -- Other	10
213	681320	68	Containing asbestos	10
214	710691	71	Other : -- Unwrought	10
215	710812	71	Non-monetary : -- Other unwrought forms	10
216	721621	72	L or T sections, not further worked than hot-rolle...	15
217	721622	72	L or T sections, not further worked than hot-rolle...	15
218	722880	72	Hollow drill bars and rods	15
219	731300	73	Barbed wire of iron or steel; twisted hoop or sing...	15
220	731441	73	Other cloth, grill, netting and fencing : -- Plate...	15
221	731442	73	Other cloth, grill, netting and fencing : -- Coate...	15
222	732591	73	Other : -- Grinding balls and similar articles for...	15
223	740100	74	Copper mattes; cement copper (precipitated copper)...	5
224	740311	74	Refined copper : -- Cathodes and sections of catho...	5
225	740710	74	Of refined copper	5
226	740811	74	Of refined copper : -- Of which the maximum cross-...	5
227	740821	74	Of copper alloys : -- Of copper-zinc base alloys (...	5
228	740829	74	Of copper alloys : -- Other	5
229	740919	74	Of refined copper : -- Other	5
230	761210	76	Collapsible tubular containers	10
231	780110	78	Refined lead	5
232	780191	78	Other : -- Containing by weight antimony as the pr...	5
233	790111	79	Zinc, not alloyed : -- Containing by weight 99.99 ...	5
234	790112	79	Zinc, not alloyed : -- Containing by weight less t...	5
235	790500	79	Zinc plates, sheets, strip and foil.	5
236	790700	79	Other articles of zinc.	10
237	800110	80	Tin, not alloyed	5
238	800120	80	Tin alloys	5
239	810600	81	Bismuth and articles thereof, including waste and ...	5
240	810790	81	Other	5
241	811010	81	Unwrought antimony; powders	5
242	811292	81	Other : -- Unwrought; waste and scrap; powders	5
243	830170	83	Keys presented separately	10
244	830910	83	Crown corks	10
245	831190	83	Other	10
246	841011	84	Hydraulic turbines and water wheels : -- Of a powe...	7.5
247	843049	84	Other boring or sinking machinery : -- Other	7.5
248	860120	86	Powered by electric accumulators	10
249	890400	89	Tugs and pusher craft.	10
250	890790	89	Other	10
251	960711	96	Slide fasteners: -- Fitted with chain scoops of b...	10

Note: based on HS 2007.

Source: Compiled by the author based on WITS Comtrade, last assessed on 12-09-2015.