

TRADE AND TRANSPORT FACILITATION ANALYSIS OF PERU

LOGS22 Trade and transport facilitation Course work in Operations & Supply Chain Management, 6 ECTS

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LIST OF ABBREVIATIONS AND ACRONYMS

ACI = Air Connectivity Index

AICC = International Airport of Chincero Cusco

APEC = Asia-Pacific Economic Cooperation Forum

BCRP = Central Reserve Bank of Peru

CAN = Andean Community of Nations

CET = Common External Tariff

CPI = Corruptions Perceptions Index

ECLA = Economic Commission for Latin America

EFTA = European Free Trade Association

ENAFER = Empresa Nacional de Ferrocarriles del Peru

ENAPU = Empresa Nacional de Puertos S.A.

ETI= Enabling Trade Index

FCCA= Ferrocarril Central Andino

FIATA = International Federation of Freight Forwarders Associations

FTA = Free Trade Agreement

GCI= Global Competitiveness Index

IATA = International Air Transport Association
ICC = International Chamber of Commerce

IIRSA = Integration of Regional Infrastructure in South America

IMO = International Maritime OrganizationS
IRU = International Road Transport Union

ITC = International Trade Centre

LPI = Logistics Performance Index by The World Bank

LSCI = Liner Shipping Connectivity Index MEF = Ministry of Economy and Finance

MINCETUR = Ministry of Foreign Trade and Tourism

MP = Mesoamerica Project

MTC = Peru's Ministry of Transport

OAS = Organization of American States

PTR = Peruvian Trains and Railways

SGE = Switzerland Global Enterprise

SICE = Organization of American States Foreign Trade Information System

SUNAT = The National Customs and Tax Administration Supervisory Authority

UN = United Nations

USAN = Union of South American Nations

TTF = Trade and Transport Facilitation

UPU = Universal Post Union

1 OVERVIEW OF THE ECONOMY AND INTERNATIONAL ECONOMIC RELATIONS IN PERU

1.1 The Political and Geographical position of Peru

Peru is a South American country and it's located in the west of South America. Peru borders Ecuador and Colombia to the north, Pacific Ocean to the west, Chile to the south and Brazil and Bolivia to the east. It has sovereignty over 1,285,215 km² which makes it the third largest country in South America and one of the 20 largest countries in the world. That also means that Peru is larger e.g than France and Spain combined. Peru also owns 370km of nautical kilometres to the Pacific Ocean (Peru Travel 2014). Peru is also a diverse country with three main regions according to the traditional method of dividing country by altitude: Coast, mountains and jungle (Peru Travel 2014).



Figure 1 Map of Peru displaying the largest cities and a geographic location (GlobaTrade 2014.)

The current estimation of Peru's population is about 30,91 million people which makes it the 42nd largest country in the world and the fourth largest in South America with only Brazil, Colombia and Argentina being larger (World Population Review 2014). The official language of Peru is Spanish and it is used nationwide. However in-

digenous languages also have official status in areas where they are largery used. These include e.g: Quechua and Ayamara. The largest city of Peru is the capital Lima, with the population of just under 8 million people. Other major cities include Arequipa, Trujillo and Chiclayo. There are estimates that Peru could sustain an average growth rate of 5.5 percent annually for the next 40 years and that makes it one of the 26 fastest growing countries in the world (World Population Review 2014).

The history of Peru for the past few hundred years is eventful. The Europeans founded the country in the year 1532, conquered the country from the Incas and made it a Spanish colony. After this the next 200 years were relatively peaceful with Lima becoming the main political, social and commercial center of the Andean nations (Lonelyplanet 2014). After the war of freedom the Peru was finally declared independent in 1821. However there were fights with Colombia and Chile considering the border issues in the early years after the independence. Other than the border issues Peru has had a relatively peaceful recent history and it was spared from both World War 1 and World War 2 (Formin Finland 2013).

Peru is a democratic republic whom constitution law is from the year 1993 (Formin Finland 2013). The government is structured to follow the principles of the three autonomous and independent powers: The executive, whose maxinum representative is the President of the Republic; the Legislative Power of National Congress; and the Judicial Power. There are elections every five years by a universal, secret and direct vote to elect both the President of Republic and the 130 members of the government of Peru's congress. The current president is Peruvian National Party's Ollanta Humala Tasso who was elected in 2011 to serve his five year term (Peru Travel 2014). Current political landscape in Peru is somewhat intricated. Since the President Humala's left-wing National Party doesn't own an outright majority in the congress. Out of the possible 130 seats Humala's party has 43 seats. Humala's current politic approach has been centrist-leftist during his term. Few of his biggest goals include cutting the poverty, reducing social conflicts and contending with illegal mining (Taft-Morales, 2013). Though Humala has been successful with cutting the poverty his latest approval rating has been around a 30 percent (Peru this Week 2014a).

It can be seen that the foreign policy of Peru is stable and there is no major conflicts or crisis in sight. Peru has the closest political foreign relations with its neighbours Colombia and Ecuador. However it shares a close trade relations with all the neighbour countries including Bolivia, Brazil and Chile. Peri also shares free trade agreement with EU and United States, the agreements were concluded in 2013 and 2009 respectively. Peru is part of the Union of South American Nations (USAN) which drives the political and economic integration of South American nations. It has also been a founding member of the Pacific Alliance with Colombia, Chile and Mexico. The goal of the alliance is to further free trade with "a clear orientation towards Asia", and economic integration.

In addition to these unions Peru is also part of the Andean Community of Nations (ACN) and Organisation of American States (OAS) (Formin Finland 2013). Peru's involvement to these unions will be discussed in more detail in the chapter 1.3.

1.2 Recent Economic development of Peru

The World Bank describes Peru as an upper middle income country and Peru's macroeconomic performance over the past decade has been exceptional. International Business Week called it in 2014 as an "unsung hero of Latin America" mentioning rising economy and a stable government. Real GDP growth of 6,33 percent over the period 2002-2012 is the clear indicator of Peru's success. The matter of the fact is that this period of growth is the highest 10-year average growth in Peru's history (International Monetary Fund 2012). This macroeconomic development has has driven an increase of more than 50 percent in Peru's per capita income during this decade, after almost 30 years of stagnation. The series of reforms that the country has embarked since the 1990's have been the key components for the economic success and the strong GDP growth. These reforms include: Fiscal consolidation, trade openness, exchange rate flexibility, financial liberalization, higher reliance on market signals and prudent monitary policy. (World Bank 2014a). In addition Peru was able to withstand the global financial crisis relatively well in 2008-2009. The real GDP hit its low in 2009 when the economy only grew by 1 percent. However this was short-term shift since in 2010 GDP growth jumped to 8,8 percent (International Monetary Fund 2012).

Table 1 General overview of Peru's economic figures between 2007-2012 (World Trade Organization 2013).

	2007	2008	2009	2010	2011	2012
GDP at current prices (S/. billion)	335.5	371.1	382.3	437.7	486.5	526.0
GDP at current prices (US\$ billion)	107.2	127.4	127.0	154.1	176.8	199.3
Real GDP (annual percentage	8.9	9.8	0.9	8.8	6.9	6.3
change) Private consumption	8.3	8.7	2.4	6.0	6.4	5.8
Public consumption	4.5	2.1	16.5	9.7	6.1	10.5
Gross domestic investment	25.8	25.8	-20.6	36.3	9.4	10.1
Exports of goods and services	6.9	8.2	-3.2	1.3	8.8	4.8
Imports of goods and services	21.4	20.1	-18.6	24.0	9.8	10.4
Prices and exchange rate	2.00	C C	0.05	2.00	4 7 4	2.65
Consumer price inflation (End of period, percentage change)	3.93	6.65	0.25	2.08	4.74	2.65
Average nominal exchange rate	3.13	2.92	3.01	2.83	2.75	2.64
(S/. per US\$) Multilateral real exchange rate	0.7	-3.5	-2.0	-3.1	2.1	7.2
(annual average, percentage	0.7	-3.3	-2.0	-3.1	2.1	7.2
change)						
Saving-investment (% of GDP)						
Domestic saving	24.3	22.7	20.1	22.8	23.4	23.2
Public saving	6.3	6.8	4.6	6.0	7.2	7.8
Private saving	17.9	15.9	15.5	16.8	16.2	15.4
External saving	-1.4	4.2	0.6	2.5	1.9	3.6
Investment	22.8	26.9	20.7	25.3	25.3	26.8
Public sector	3.4	4.3	5.2	5.9	4.5	5.2
Private sector	19.5	22.6	15.5	19.3	20.8	21.6
Public finance (% of GDP)						
Economic balance of the NFPSb	2.9	2.4	-1.3	-0.2	2.0	2.2
Primary balance	4.7	4.0	0.0	1.0	3.1	3.2
Central Government	4.5	4.0	-0.2	1.1	3.1	3.0
Interest	1.8	1.6	1.3	1.2	1.1	1.1
Total public debt	28.5	25.9	26.1	23.3	21.2	19.8
External public debt	17.9	16.3	15.6	12.9	11.2	9.9
Domestic public debt	10.6	9.6	10.5	10.4	10.0	9.9
External sector	20.4	27.2	24.0	25.5	20.7	25.4
Exports of goods and services (% of GDP)	29.1	27.3	24.0	25.5	28.7	25.4
Imports of goods and services (% of GDP)	22.3	26.9	20.3	22.6	24.6	24.3
Current account (% of GDP)	1.4	-4.2	-0.6	-2.5	-1.9	-3.6
Net international reserves (US\$	27,689	31,196	33,135	44,150	48,816	63,991
million)						

As the Table 1 indicates the GDP growth has been really stable after the financial crisis slump in 2009. Other key indicators such as private consumption, gross domestic investment and exporting have also been able to withstand the financial crisis and have since had more positive figures. Inflation has also stayed on a moderate level though in 2008 and 2011 supply shocks in food and high fuel prices drove it to the remarkably high numbers. Peru's net international reserves have also increased every year since 2007 and they have been able to decrease their public debt by almost 10 percent during the five year.

The rapid economic development of the past years have also underpinned a continuous recovery of per capita GDP in dollar terms which grew from US\$3,772 in 2007 to US\$6,623 in 2012. With this increase the unemployment also decreased from 8,4 percent to 6,8 percent during that period. Unemployment even reached historic lows in December of 2013 at 5.8 percent (International Business Times, 2014). However there still exists major disparities across the country, particularly between rural and urban areas. Clear indicator about this is that Peru's human development index ranks it 77th out of 187 countries. So while poverty has been reduced and living standards have been improved through the GDP increase, the process in social inclusion is still slow and under development (World Trade Organization, 2014).

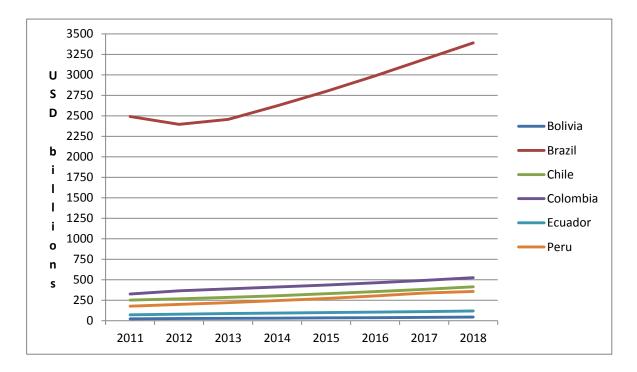


Figure 2 Past and projected GDP growth in Peru and Bolizia, Brazil, Chile, Colombia and Ecuador (International Monetary Fund 2013)

Figure 2 shows how Peru compares to its' main trading countries and neighbors. Brazil is on it's own class just by their size as an economy. They have had their issues and their economy slumped during 2011 and 2012 but according to IMF (2013) they also have a strong future ahead of them considering the GDP growth. The most interesting notion here is probably how stable the economic outlook seems to be for all the countries. Bolivia, Chile, Colombia, Ecuador and Peru all have had a stable economic growth in the past, have it now and the forecast indicates the same trend to continue. Figure also shows that from these countries Peru has a third biggest economy just behind Colombia and Chile but well ahead of Ecuador and Bolivia.

1.3 Overview of the Trade Regime of Peru

Since 1990s there has been a constant effort to integrate Peru in regional and international markets. However agreements like Andean Community (CAN) and Organisation of American States (OAS) date as far as 1969 and 1948, respectively. The Andean Community consists of Bolivia, Colombia, Ecuador, Peru and Venezuela (SICE, 2014). Andean Community not only improves integration and economic cooperation but also has the mission for sustainable and equitable human development (Comunidad Andina, 2014). Organisation of American States (OAS) includes all the 35 independent countries of the Americas with the purpose to promote cooperative economic, social and cultural development (OAS, 2014). Peru also became the member of the World Trade Organization in 1995 and it has a free-trade agreement with following countries and unions: Thailand, United States, Chile, Canada, Singapore, China, European Free Trade Association (EFTA), South Korea, Mexico, Panama, Costa Rica, Japan and European Union (SICE, 2014). In addition to the mentioned above there as of 2014 there are also ongoing free-trade agreement negotiations with Guatemala, El Salvador and Honduras (World Trade Organization 2014).

As a member of the Andean Community (CAN) Peru started trade negotiations in 2007 with the EU27. EU27 is working towards association agreements with the members of Andean Community (CAN) The idea was the completion of full economic integration of the region into a common market, with a common external tariff (CET) (Bouët, Mevel and Thomas, 2008). The EU-Peru Free Trade Agreement (FTA) was finally concluded in the June of 2012 meaning that the Agreement would eliminate tariffs in all industrial and fisheries products, increase market access for agricultural products and improve access to public procurement, services and investment markets. The agreement also establishes common disciplines including on intellectual property rights, competition and transparency (European Commission, 2014). In addition to the above mentioned unions Peru has also been a participant to the Asia-Pacific Economic Corporation Forum (APEC) since 1998 in which it has hosted the main APEC meetings in 2008 and will do so again in 2016. Peru also takes part in the Global System of Trade Preferences among Developing Countries (GSTP) which comprises of 43 countries under which it grants tariff preferences for a group of 22 products.

Peru considers trade as one of the pillars to promote economic growth and employment. To facilitate this Peru has implemented policies to promote this since 2007. This includes simplifying the customs and administrative procedures by creating a single window for foreign trade in 2006 as a system to facilitate trade. Peru has also continued its program of unilateral tariff liberalization. As a result of this the simple average tariff rate has declined to one of the lowest in the whole continent; from 8 percent in 2007 to

3.2 percent in 2012. In addition, the percentage of duty-free tariff lines increased from 43.6 percent to 55.9 percent during the same period (World Trade Organization, 2013).

1.4 Merchandise Trade development of Peru

Peru is largely depending on exporting and good evidence about this is large share of GDP that exports have for example in 2012 25.4 percent. Peru has a quite diversified merchandise export basket but it is focused on raw materials since Peru is one of the world's leading producers of those. This also means that the Peru's exports are largely sensitive to changes in the respective prices. When the exporting has focused on raw materials it is only fitting that the imports are focused on manufactured products when almost three quarters of all manufactured goods were imported in 2012 (World Trade Organization 2014).

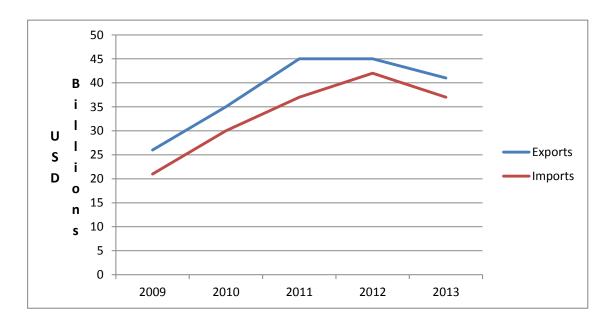


Figure 3 Development of Peru's international trade in 2009-2013 (ITC 2014)

This table indicated the development of Peru's export and import values during the period 2009-2013. In 2009 the economy was in the middle of financial crisis so both exports and imports skyrocketed after the year. There is a recent slump in both exports and imports after 2012 which is due to falling international demand and prices for traditional Peruvian exports, such as copper, silver and natural gas (Focus Economics 2014). It is still significant that the trade balance has stayed positive throughout the review period even though it reached its positive peak in 2011.

Table 2 Product and commodity structure of Peru between 2011-2012, exports (ITC 2013)

Export product	Value in 2011 (USD, millions)	Value in 2012 (USD, millions)	% of exports in 20
Ores, slag and ash	13,159,601	13,395,295	
Pearls, metals	10,257,117	10,177,480	
Mineral fuels, oils	5,019,221	5,364,267	
Copper and articles thereof.	3,396,389	2,772,049	
Residues, wastes of food industry	1,902,466	1,940,611	
Apparel, accessories, knit or crochet	1,357,834	1,430,513	
Coffee, tea, mate and spices	1,721,152	1,140,133	
Edible fruit, nuts, peel of citrus fruit, melons	839,868	906,180	
Fish	724,630	716,294	
Edible vegetables and certain roots and tubers	499,544	575,385	
Animal, vegetable fats and oils, cleavage products	352,020	569,830	
Zinc and articles thereof.	642,358	562,625	

Table 3 Product and commodity structure of Peru between 2011 and 2012, imports (ITC 2013)

Import product	Value in 2011 (USD, millions)	Value in 2012 (USD, millions)	% of total import
Machinery, nuclear reactors, boilers	5,758,719	6,479,637	
Mineral fuels, oils, distillation products	5,936,367	6,086,882	
Vehicles other than railway, tramway	3,731,975	4,926,532	
Electrical, electronic equipment	3,517,096	4,038,359	
Plastics and articles thereof.	1,950,508	2,024,893	
Iron and steel	1,552,214	1,674,702	
Cereals	1,406,582	1,368,815	
Articles of iron or steel	1,175,524	1,272,038	
Miscellaneous chemical products	796,620	824,710	
Rubber and articles thereof	696,769	796,721	
Paper and paperboard, articles of pulp, paper and board	690,210	671,967	
Fertilizers	599,114	643,122	

The tables above demonstrate the top 12 export- and import products of the year 2012. You can also see the change in value of these products between 2011 and 2012. As mentioned earlier Peru is largely dependent on raw materials exporting and this can also be seen in the table above. Ores, metals, minerals and coppers make up almost 70 percent of the country's total export value which is an outstanding figure. In the import side the products are a little bit more evenly balanced. Manufactured products dominate the field and agricultural products that Peru produces itself are not on the list.

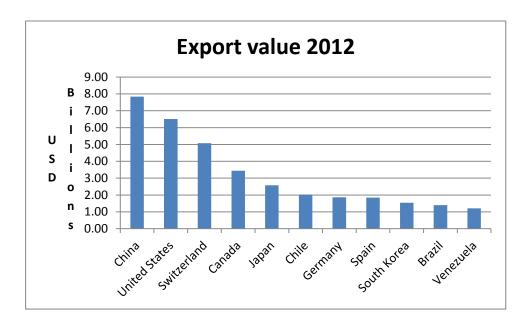


Figure 4 Destination countries in Peru's international trade in 2012 (ITC 2014)

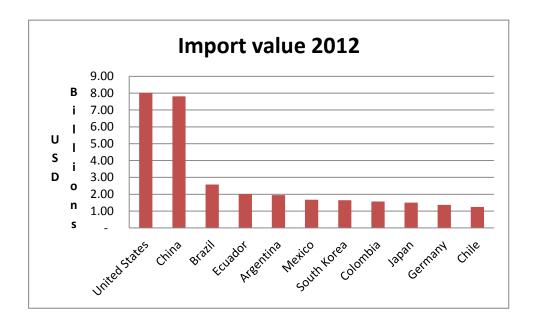


Figure 5 Origin countries in Peru's international trade in 2012 (ITC 2014)

In terms of destination countries China and United States account almost 40 percent between them in total good exports in 2012. It is notable that the trade to China has increased from 10.8 percent to 17.1 percent after 2007 while the share of United States share declined from 19.9 percent to 14.2 percent despite the Free Trade Agreement that the countries agreed on 2009 (World Trade Organization 2014). It is also notable that there are only two neighbor countries in the top-11 destination countries; Chile and Brazil. United States and China are also the biggest origin countries of Peru while there are a lot of more South-American countries as largest importers than there is as exporters.

1.5 Services Trade development of Peru

Peru is a service driven country and during the last three decades, the service sector has represented more than 50 percent of Peru's total GDP. However Peru has historically shown a deficit in services and the imports have been larger than exports. In 2004 Peru's trade balance became positive but that was due to significant growth in exported goods and this trade surplus was not reflected to service sectors. The trade deficit is mainly caused by deficit on transportation-related services where deficit is over US\$ 1,000 million. Although the exporting of transport services have been grown faster than imports it still represents over 60 percent of overall deficit (Rocha, 2011).

Table 4 Peru's trade in services between 2007 and 2012 (World Trade Organization 2014)

Service	2007	2008	2009	2010	2011	2012
Transport	-1,198	-1,741	-979	-1,599	-1,521	-1,630
Export	646	818	758	854	997	1,223
Import	-1,844	-2,560	-1,737	-2,453	-2,517	-2,852
Travel	755	870	926	740	1,008	1,168
Export	1,723	1,991	2,014	2,008	2,360	2,657
Import	-968	-1,121	-1,088	-1,268	-1,352	-1,490
Communications	-21	-8	-69	-78	-47	-74
Export	88	125	91	102	132	147
Import	-110	-133	-161	-180	-180	-221
Insurance and reinsurance	-23	-152	-176	-325	-359	-366
Export	289	227	271	166	230	361
Import	-311	-379	-447	-491	-588	-728
Other	-705	-1,024	-878	-1,083	-1,214	-1,355
Export	406	487	501	562	646	742
Import	-1,111	-1,511	-1,379	-1,645	-1,861	-2,097
Total services	-1,192	-2,056	-1,176	-2,345	-2,132	-2,258
Export	3,152	3,649	3,636	3,693	4,364	5,130
Import	-4,344	-5,704	-4,812	-6,038	-6,497	-7,388

As can be seen from the table above the transports create enormous trade deficit which is really hard to compensate through other sectors even though travelling industry seems to be a gold mine for Peruvians and it has been growing great numbers over the past few years. It is also relevant to notice that this service sector deficit has been growing in every other sector than travelling since 2010. This is a worrying trend for Peruvians and I personally think that it is something that the government should take on a greater notice.

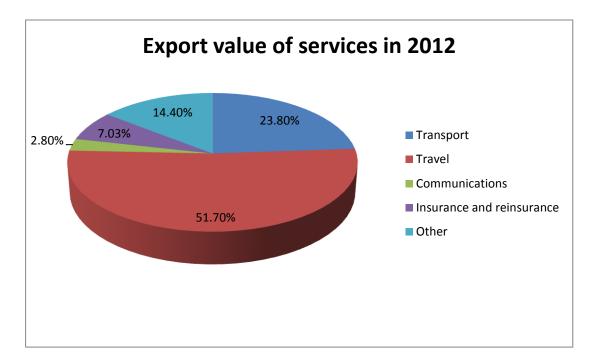


Figure 6 Peru's Export value of services in 2012 (World Trade Organization 2014)

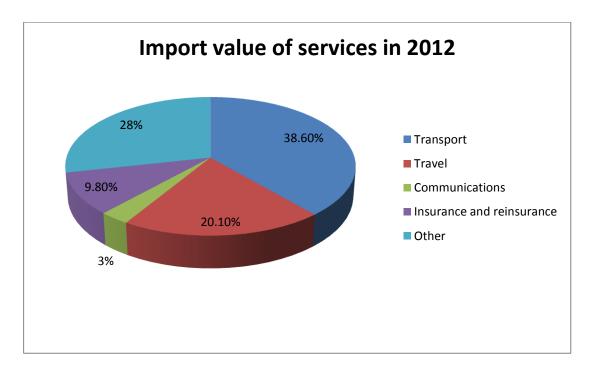


Figure 7 Peru's import value of services in 2012 (World Trade Organization 2014)

Figures above indicate how the service sector has been divided in 2012. The noticeable fact is how much lesser share travelling has on imports than it has on exports. Peru's service exports are largely dependent on travelling industry and it holds over 50 percent of the total export value but in imports it only accounts 20 percent. Transporting indus-

try has seen a steady increase in exporting but it still holds only 23,8 percent of the total while in imports transporting is the biggest industry with 38,6 percent share.

1.6 World Bank & UNESCAP Trade Cost indicator for Peru

¡Error! No se encuentra el origen de la referencia. lists 20 of Peru's trading partners with the lowest bilateral trade costs in

2012, according to the World Bank & UNESCAP Trade Cost dataset. The Trade Cost Dataset provides estimates of bilateral trade costs in agriculture and manufactured goods and it covers 178 countries. Energy costs are excluded. (The World Bank 2014i.)

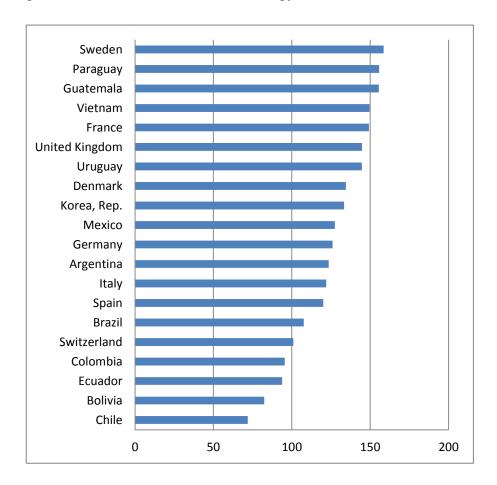


Figure 8 Peru's Trade Costs as percentage of ad valorem bilateral trade value in 2012 (World Bank 2014)

The table demonstrates percentage of ad valorem bilateral trade value in 2012 for the 20 countries with the lowest trade costs. It shouldn't come as a surprise that the South American countries close to Peru have low trade costs since these countries have FTA's and other conventions between them to improve bilateral trade. It is also notable that all the CAN countries (Bolivia, Ecuador and Colombia) are all in the top four.

1.7 Foreign Direct Investment development of Peru

Peru had a record level of FDI in 2007-2008. However because of the financial crisis and global recession those amounts dropped significantly for the year 2009. However because Peru's attractive legislative, dynamic mining sector and fiscal framework Peru continues to attract investors. It also has low cost of wages compared to the developed countries and the non-restrictive policy concerning dividends. Because of these reasons over \$70 billion of foreign investments are expected over the next five years. However some key development points still remain for Peruvian government and authorities and Spanish bank Santander lists them as following: Reduce custom barriers, improve the efficiency of public institutions, make the tax legislation more flexible and strengthen the rule of law (Santander 2014).

Table 5 Inward FDI of Peru by Country of Origin in 2009-2010 (Rocha 2011)

Country	2009 share (%)	2010 share (%)	Growth rate (%)
European Union	53,53	52,3	4,56
United States	15,79	15,24	3,3
Chile	6,73	6,37	1,19
Brazil	2,54	4,88	105,87
Panama	4,79	4,48	0
Colombia	3,99	4,29	8,86
Mexico	2,39	2,24	0
China	1,8	1,83	6,56
Singapore	1,88	1,76	0
Canada	1,66	1,66	6,56

The table above indicates where the foreign investments came to Peru between 2009-2010. From European Union countries Spain and United Kingdom had the highest share of Peru's total FDI with Spain having the highest share with 21.2%. Some of the biggest companies that invested to Peru include: HSBC, Nextel International and a Spanish telecommunications firm Telefonica (Rocha 2011) It's also notable that even though China is a very important country for Peru considering trade it isn't that in a FDI scale.

Table 6 FDI inflow and inward stock in Peru and other countries in the region, US\$ million (UNCTAD 2014).

		2009	2010	2011	2012	2013
Argentina	FDI Inflow	4017	11333	10720	12116	9082
	Inward FDI Stock	79871	88458	96029	103158	112349
Bolivia	FDI Inflow	423	643	859	1060	1750
	Inward FDI Stock	6421	6890	7749	8809	10558
Brazil	FDI Inflow	25949	48506	66660	65272	64045
	Inward FDI Stock	400808	682346	696507	745089	724644
Chile	FDI Inflow	12887	15725	23444	28542	20258
	Inward FDI Stock	127940	160612	172699	206021	215452
Colombia	FDI Inflow	7137	6746	13405	15529	16772
	Inward FDI Stock	75087	82410	96017	112069	127895
Ecuador	FDI Inflow	308	163	644	585	703
	Inward FDI Stock	11691	11855	12496	13083	13785
Paraguay	FDI Inflow	95	216	557	480	382
	Inward FDI Stock	2655	3096	3877	4808	4886
Peru	FDI Inflow	6431	8455	8233	12240	10172
	Inward FDI Stock	34521	42976	51208	63448	73620
Uruguay	FDI Inflow	1529	2289	2504	2687	2796
	Inward FDI Stock	10668	12479	15147	17547	20344
Venezuela	FDI Inflow	-2169	1849	3778	3216	7040
		42608	41393	44576	49079	55766

In the table above we can see how Peru compares to other South American countries in FDI inflow and as well as in inward FDI stock. It is notable how Peru lags behind Chile in both categories. It is understood how Chile has a larger economy that Peru has but still looking at their populations Peru is almost twice as a big as Chile. We can also see that the overall trend in South America is that the continent has attracted more and more FDI after the global recession in 2009 and Peru has had its share of the positive trend.

1.8 Credit rating of Peru in comparison to its peers

Peru is on the rise considering the credit rating. Bond credit rating company Moody's for example raised Peru's credit rating in July of 2014 with two levels up to A3. At the same time it was upgraded from "lower medium grade" to "upper medium grade" in order to give some reference. Moody's stated that the reasons behind this increase were good expectations for faster growth, improvement in the government's balance sheet and initiatives that are to increase competitiveness. This is the seventh highest investment grade given by Moody's and is on line with the likes of Mexico (Bloomberg 2014a). However Peru is still three grades below its neighbor Chile and I personally think that reaching that level could be the long-term goal of Peruvian authorities.

Table 7 Summary of credit ratings of Peru in 2014 (Trading Economics 2014)

Country	S&P	Moody's	Fitch
Argentina	SD	Caa1	RD
Bolivia	BB	Ba3	BB-
Brazil	BBB-	Baa2	BBB
Chile	AA-	Aa3	A+
Colombia	BBB	Baa2	BBB
Ecuador	B+	Caa1	В
Paraguay	BB	Ba2	BB-
Peru	BBB+	A3	BBB+
Uruguay	BBB-	Baa2	BBB-
Venezuela	CCC+	Caa1	В

The credit rating table demonstrates how Peru compares to other South American countries considering their credit rating given by three biggest bond credit rating companies S&P, Moody's and Fitch. It is clear that Chile is a standout among the countries and surprisingly Argentina comes out the worst. Peru has a steady credit rating among all the three companies and by these ratings it could be stated that the country is the second best in this category among the South American countries.

2 PERU IN MAIN TRADE AND TRANSPORT FACILITATION INDICATORS

2.1 Logistics Performance Index

The Logistic Performance Index consists of a worldwide survey of operators on the ground (both express carriers and global freight forwarders) and those provide feedback on the logistics friendliness of the countries in which they trade and in which they operate. It is used to help countries identify challenges and key issues regarding their performance on trade logistics but also to improve the performance. The comparison to other countries is also relevant since in the most recent LPI report the data is available for 160 countries. There are two Logistic Performance Index types: International LPI which provides evaluations of a country in six areas by its trading partners and Domestic LPI which provides assessments of a country by logistic professionals and trading partners inside the country. In this case we focus on International LPI rankings (World Bank 2014b).

Table 8 LPI ranks of Peru and and comparators (World Bank 2014b)

	2007 LPI Rank-	2007 LPI	2012 LPI Rank-	2012 LPI	2014 LPI Rank-	2014 LPI
Country	ing	Score	ing	Score	ing	Score
Argentina	45	2,98	49	3,05	60	2,99
Brazil	61	2,75	45	3,13	65	2,94
Chile	32	3,25	39	3,17	42	3,26
Colombia	82	2,50	64	2,87	97	2,64
Ecuador	70	2,60	79	2,76	86	2,71
Peru	59	2,77	60	2,94	71	2,84

As can be seen from the table above the performance of South American countries is somewhat impaired. Between 2007 and 2014 there has been an improvement in the LPI score with most of the countries but the rankings have fallen. Peru has also seen a decline in rankings and it doesn't really compare particularly well to its fellow South American countries.

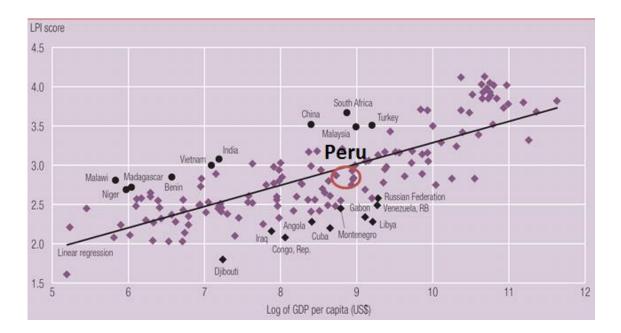


Figure 9 Over and underperformers in LPI, based on prosperity (LPI 2012)

The figure demonstrates how Peru compares to other World Bank's comparator countries in LPI considering the over and underperforming based on prosperity. You can clearly see how Peru is almost exactly average in both GDP per capita and LPI score. As the living standards and GDP per capita continues to grow is also creates a challenge for Peru to perform well in the charts like above as the LPI score should also see some improvement at the same time. It will be very interesting to see in the future whether Peru can continue this improvement. The decrease in LPI score and LPI ranking between 2012 and 2014 wasn't an encouraging trend so I'm sure that the country would like to perform better in the future.

2.2 Enabling Trade Index

Enabling Trade Index measures the factors, policies and services that facilitate the trade in goods across borders and to destination. These trade-enabling factors are then divided into four categories which are following: Market access, border administration, infrastructure and operating environment. These four categories are then yet divided to seven pillars with determine the overall score. It is also notable that these categories and pillars make the scope of Enabling Trade Index much broader than just the basic trade facilitation would. The latest report is from 2014 and it covers 138 economies so as with Logistic Performance Index the Enabling Trade Index makes the comparison between countries, regions and continents possible (World Economic Forum 2014a)

Table 9	Enabling Trade Index ranks and scores of Peru and comparators (World
	Economic Forum 2014a)

Country	Rank	Score	Domestic market access	Border administration	Infrastructure transport	Operating environment
Argentina	95	3,66	4,41	3,73	2,71	3,38
Brazil	86	3,77	4,01	4,17	2,65	3,86
Chile	8	5,13	5,93	5,60	3,53	5,03
Colombia	73	4,00	5,08	4,44	2,48	3,55
Ecuador	65	4,07	5,09	4,54	3,13	3,89
Peru	51	4,28	5,83	4,74	2,67	3,97

Peru does fairly well in every shown category compared to other South American countries. Chile is once again a clear standout in the whole continent while the South American giants Argentina and Brazil disappoint in ETI. It is also notable that infrastructure seems to be the challenge for the whole continent while market access is definitely a strong point and The Pacific Alliance countries even beat EU 28 in this category (World Economic Forum 2014a).

Table 10 Detailed figures of Peru in Enabling Trade Index 2014 (World Economic Forum 2014a)

Peru	Rank (out of 138)	Score (1-7)
Market Access	4	5,0
Pillar 1: Domestic market access	13	5,8
Pillar 2: Foreign market access	9	4,2
Border Administration	51	4,7
Pillar 3: Efficiency & transparency of border administration	51	4,7
Infrastructure	91	3,4
Pillar 4: Availability & quality of transport infrastructures	101	2,7
Pillar 5: Availability & quality of transport services	77	3,9
Pillar 6: Availability & use of ICTs	89	3,6
Operating environment	80	4
Operating environment	80	4

All the efforts that Peruvian authorities have done to improve Peru's trade considering the market access have seemed to pay off in an outstanding way since the country ranks at number four out of the 138 countries. However there are still a lot room for improvement in infrastructure and operating environment. Transport proves to be a problematic figure in this instance again just as it was in the service trade chapter as well. World Economic Forum's Global Enabling Trade Report 2014 mentions that the

most problematic factor for trade in exporting are high costs or delays by domestic transportation.

2.3 Global Competitiveness Index

World Economic Forum's Global Competitiveness Index and Global Competitiveness report is a yearly report which examines the economies of 144 countries and it is considered as the most comprehensive assessment of national competitiveness worldwide. The report is based on the latest theoretical and empirical research and it provides insight into the drivers and of the countries prosperity and productivity. The report defines competitiveness as the set of institutions, policies and factors that determine the level of productivity of a country. The concept of competitiveness is divided into 12 pillars which you can see from the below Global Competitiveness Index profile of Peru. GCI score is then calculated from a weighted average of these pillars which each measuring a different aspect of competitiveness (World Economic Forum 2014b).

Table 11 GCI ranks and the latest score between Peru and the comparators (World Economic Forum 2014b and 2012)

Country	Rank 2012-2013	Rank 2013-2014	Rank 2014-2015	2014-2015 score
Argentina	98	104	104	3,79
Bolivia	108	98	105	3,77
Brazil	48	56	57	4,34
Chile	37	34	33	4,60
Colombia	73	69	66	4,23
Peru	65	61	65	4,24

pls. note that the data for Ecuador wasn't available so Bolivia is used instead.

This table indicates that the overall trend for the comparator countries in the GCI has been mixed. Colombia and Chile have been able to improve their rank while South American powerhouses Argentina and Brazil have slipped and once again the poor performance of Argentina is very notable. Peru has seen its position improve for 2013-2014 and then slip again in 2014-2015 but the differences have been minor so the trend is stable as it is.

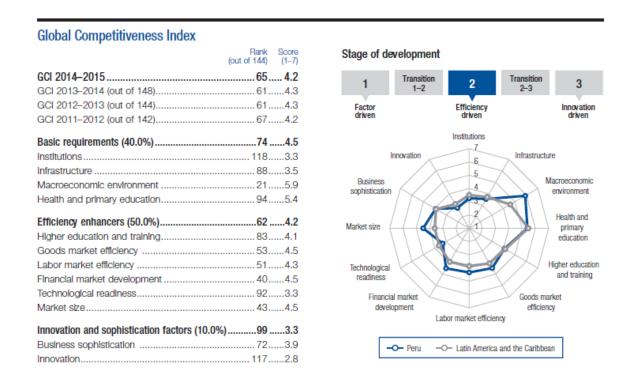


Figure 10 Peru's GCI in more detailed overview (World Economic Forum 2014b)

In the informative figure above you can see Peru's Global Competitiveness Index in more detail with all the 12 pillars playing part to the final GCI score. We can see that Peru is labeled as an "efficiency driven" with its competitiveness stage of development. The biggest strong points for Peru compared to Latin American and the Caribbean countries is it's market size and macroeconomic environment while the ranking with innovations and institutions is poor to say the least. Figures also suggest that Peru doesn't also seem to be very innovative country by any standards. This is the area where I personally think there could be a lot of improvement in the coming years when and if the Peru's economic growth stays at the high level. It is also notable that Peru's GCI score has remained stable over the past few years and hasn't showed improvement.

2.4 Corruptions Perceptions Index

Corruptions Perceptions Index is a ranking system made by global non-governmental organization Transparency International which monitors and publicizes corporate and political corruption in international development. The latest CPI from 2013 consists of 177 countries which are rated on a scale from 0 (high corruption) to 100 (low corruption, clean). The CPI index draws from 13 different surveys from 12 different institutions. In order for the country to appear in CPI it has to have at least three surveys to measure its corruption.

Table 12 CPI rank of 2013 and scores in 2012-2013 between Peru and the comparators (Transparency International 2014)

Country	2012 score	2013 score	2013 rank (out of 177)	Surveys used in 2013
Argentina	35	34	106	8
Brazil	43	42	72	8
Chile	72	71	22	9
Colombia	36	36	94	7
Ecuador	32	35	102	6
Peru	38	38	83	7

The difference in CPI scores in the review period 2012-2013 with the comparators is not very substantial and is not something to be made a lot of conclusions. However the countries again rank at a very wide range in the global scale with Chile being the standout and Argentina and Ecuador having the worst performance. Compared to other rankings treated in this report Peru doesn't rank especially well in CPI as it stands at 83 out of the 177 countries rated in the report.

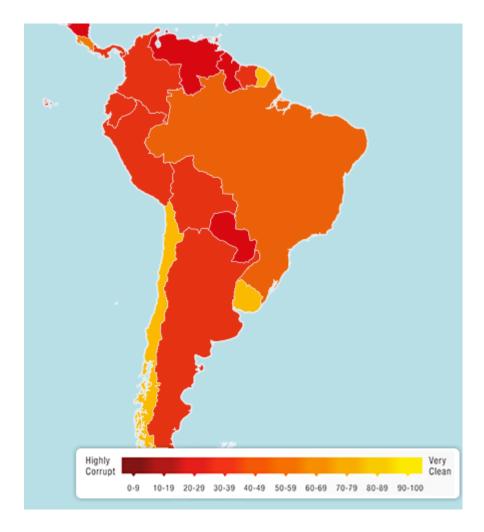


Figure 11 CPI in South America illustrated as a form of map (Transparency International 2014)

Above is a map to illustrate the large differences that South American countries have with their CPI scores. Chile, Uruguay and French Guiana are the top performers while Venezuela, Guyana and Paraguay are the worst.

2.5 Liner Shipping Connectivity Index

Liner Shipping Connectivity Index (LSCI) is a liner shipping connectivity measurement for the country's existing liner shipping network's level of integration. This means that the higher the index is the more effective it is for the country to participate to global trade and easier it is for foreign countries to access a high capacity global maritime freight transport system. It should be noticed that LSCI takes only account the maritime shipping. The LSCI is calculated by four different sections which include: Container carrying capacity (and capacity per capita), containership development (and develop-

ment per capita), average and maximum vessel size and number of shipping companies, liner services and vessels per company (The Geography of Transport Systems 2014).

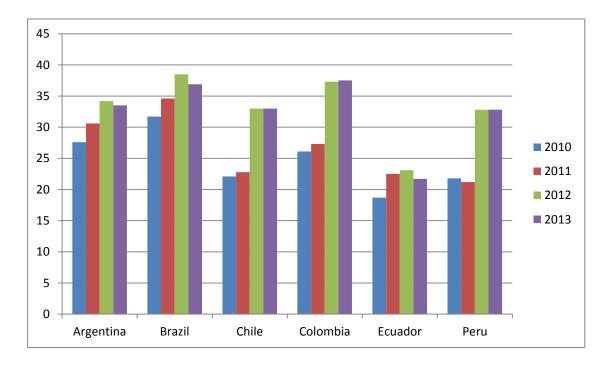


Figure 12 LSCI development between 2010 and 2013 with Peru and the comparators (World Bank 2014c)

Above figure illustrates how the comparator countries have performed in LSCI in between 2010-2013. Now it should be noticed that large countries might have a slight advantage in LSCI since it measures e.g how many shipping companies are servicing the country so it's obvious that it's hard for Peru to compete with someone like Brazil in this particular measurement. However the Peru has put a very positive development in LSCI especially between 2011 and 2012 and this is in line with the South American comparator countries upward trend in LSCI.

2.6 Air Connectivity Index

Air Connectivity Index (ACI) asses how well each country is connected to the rest of the world by air. This is a global measure of connectivity in the sense that the index captures the full range of interactions among all network nodes. ACI is done by authors Jean-Francois Arves and Ben Shepherd with the latest edition from 2011 covering 211 countries. It consists of network analysis methods, and is based on a gravity-like model known from regional science and international trade literatures. It should also be noticed that the measure of connectivity is tightly correlated with some of the most important

economic variables such as the degree of liberalization of the air transport markets and the extent that the country participates in international production networks. The score of the country's connectivity index is better if the cost of moving to other countries is low. Other way around the connectivity index is lower if the cost is higher (Arves, Shepherd 2011).

Table 13 ACI ranks and scores (%) of 2007 for Peru and the comparators (Arvers, Shepherd 2011)

Country	2007 score	2007 rank
Argentina	2,41	133
Brazil	2,67	125
Chile	1,79	162
Colombia	3,02	117
Ecuador	2,39	134
Peru	1,81	160

pls. Note that the latest AIC index is from 2007

As the table above indicates South American countries have a very low rank in ACI as Colombia performs the best and its ranking is 117. Peru also has a low rank at 160. It's also interesting to see Chile perform worst from the group since as we have seen from the past indicators it's most often the top performer from the comparators.

2.7 Global Connectedness Index

Global Connectedness Index (GCI) presents the detailed analysis of the state of globalization around the world and it's published annually since 2012 by the German logistics company Deutsche Post DHL. The index combines measures of cross-border flows of trade, capital, people and information flows. By DHL's own words it "aims to provide the most comprehensive and timely account of the world's global connectedness, backed up by regional and country-level analysis covering 140 countries that encompass 99% of the world's GDP and 95% of population". GCI index consists of depth and breadth connectedness. Depth measures country's international flows and takes into account the relativity to the size of their domestic economies. Breadth measures how closely a country's distribution of international flows across its partner countries matches the global distribution of the same type of flows. So the GCI combines depth and breadth to rank the world's most globally connected countries (DHL 2014a).

Table 14 GCI scores and ranks for Peru and the comparators (DHL 2014a)

Country	2013 depth score	2013 breadth score	2013 overall score	2013 overall rank	2011 overall rank
Argentina	10	30	40	87	84
Brazil	7	37	44	74	72
Chile	24	25	49	56	58
Colombia	12	26	38	92	96
Ecuador	13	21	34	105	105
Peru	14	30	44	72	67

The table above indicates how the comparator countries perform in CGI scores in 2013 and how their ranking has developed between 2013 and 2011. Chile is once again the top performer and as of the latest rank of 2013 Peru is slightly ahead of Brazil in global rank. All the comparator countries are lagging behind in depth score compared to breadth score and Peru is no exception. There could be a conclusion to be made that there's still a lot room to increase the international flows especially since Peru's rank has dropped couple of spots between 2011 and 2013.

3 TRANSPORT INFRASTRUCTURE IN PERU

Peru has over 190 airports, nearly 2,000 kilometres of railways and over 125,000 kilometres of roads. In addition it also has 9,000 kilometres of navigable waterways. However Peru is also a large country which can be hard to navigate because of the wide geographic variety with harsh mountains, comprehensive rainforest and long streches of desert coast. The country also has a low population density outside of it's capital, Lima. This means that travelling around the country can be very time consuming and uncomfortable though it's inexpensive (Frommers 2014).

The inland terrain creates a great challenge to build a effective road – and rail network. Building roads for example through Amazonian jungles and Andes is extremely difficult, time-consuming and expensive. Because of the just mentioned reasons it can also be at times not economically justified. Michael Le Corre, the CEO of Peru's helicopter service mentioned that "Due to the difficult terrain, there will always be need for helicopter services in the mountain and Amazon region". (Oxford Business Group 2012).

3.1 Road infrastructure and network

In 1990 Peru had about 70,000 kilometres of road. The latest estimation of The World Bank is that in 2009 the figure was 126,500 kilometres including motorways, highways, and main or national roads, secondary of regional roads, and all other roads in the country. Despite this extensive nature of Peru's road network, the percentage of paved roads is quite low. As mentioned in the previous chapter it can be really expensive and difficult to build an effective road network to high mountains or deep jungles. However it should also be noticed that building the roads is only the beginning since their maintenance can be just as equally difficult or expensive. Oxford Business Group's Report of Peru from 2012 mentions that building and establishing a modern road network is perhaps "the biggest challenge facing Peru in terms of infrastructure development". This is because airports and ports can avoid the harsh mountain and jungle terrain while roads must face it head on.

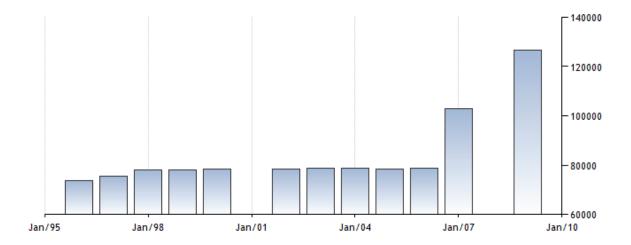


Figure 13 Development of Peru's total road kilometer figures between 1995 and 2009 (Trading Economics 2010)

The development of Peru's road network system has been quite rapid between 2006 and 2009 where the total road kilometer figures have jumped from 80,000 to over 120,000.

Table 15 Infrastructure investments foreseen between 2010-2016 (Switzerland Global Enterprise 2013)

New investments foreseen

Infrastructure	USD Million
Roads	11,421.00
Railways	5,300.00
Airports	548.00
Ports	420.00
Hidroways	87.00
Total	17,776.00

pls. note that these figures are between 2010-2016 and Oxford Business Group's Peru 2012 report have slightly different figures since those are from 2012 and on.

The road network has become the top priority of Peru's Ministry of Transport (MTC). The Ministry is about to invest over 11 billion U.S dollars to improve the road network over the next five years and this makes up the 54 percent of the whole transportation infrastructure investments. These investments should be able to make the national road network transit more efficient in the near future.



Figure 14 Map demonstrating the road network of Peru

The map above demonstrates where Peru's road network is centralized geographically. The bold red line illustrates highway so it's clear to see that the largest roads are focused on the west coast of Peru where the biggest cities of the country are. On the other hand the regions like Loreto, Ucayali and Madre de Dios are very lowly connected to the road network. This is due to the reasons mentioned before such as low population density and difficult terrain of high mountains and deep jungles.

3.2 Railway infrastructure and network

Peru's railroad system was nationalized in 1972 but was later in 1999 given a concession for two railway networks: Ferrovias Central Andina (central railway) and Ferrocarril Transandino (south and south-east railways). The Central Railway connects Lima-Calloa to Central Sierra while the South and South-East railway runs from Aguas Caliente to the ports of Mollendo and Matarini and also goes to Lake Titicaca's Puno. The both railways were build in the second half of 19th century. In addition to the two main

railways there also runs Tacna-Arica railway which goes across the border of Chile while it's only 62km long (Encyclopedia of Nations 2014).

The Ministry of Transport have seen railway network as an important part of their future investments. Oxford Business Group's Peru 2012 report tells that the MTC is about to fund 8.3 billion U.S dollars for the expansion of rail network over the next five years. This makes railways as the second largest transportation mode measured by the investment figures.



Figure 15 Map demonstrating the railway network of Peru

Trains are rare in Peru and as the map illustrates Peru's railway is not extensive and is only focused on the southern part of the country while the whole northern part and a large part of the coast and near borders of Brazil and Bolivia are largely unconnected. However as part of the future investments for railway networks the MTC is about to build the first major railway to northern part of Peru by Ferrocarril Nor-Andino, this

investment has been estimated to cost 5.3 billion U.S dollars making it a top-priority in MTC's investment list (Oxford Business Group 2012).

3.3 Maritime and Ports infrastructure and network

Peru has a long coastline of about 2,500 kilometres which borders with Pacific Ocean. This makes ports and maritime a big part of Peru's west coast infrastructure and part of the whole transport infrastructure as well. Oxford Business Group mentions that Peru has a potential to develop into "the leading logistics centre in the South American's western coast". Peru is largely dependent on exports and because of this ports are one of the very basic needs for the Peru's economy. In 2012 about 39 percent of the noncontainer traffic was exported while 38% was imported. The rest were either transhipped or carried in cabotage. The total cargo traffic was 62,093 thousand metric tons in 2011. When measured by volume, the main exports carried by the sea are iron ore and non-ferrous metals. The national port company is Empresa Nacional de Puertos S.A (ENAPU) which manages the ports (World Trade Organization 2013).



Figure 16 Seaports and container terminals of Peru (SeaRates.com 2014)

Peru has 45 ports from which 40 are located by the sea and the rest by the rivers and lakes. The most important port is by some distance the port of Callao which moves about 70 percent of the total cargo and has become the predominant port of the whole South American west coast (World Trade Organization 2013). Callao is located west of Lima and is part of the Lima's metropolitan area. Other important ports include the port of Chimbote and the port of Paita.

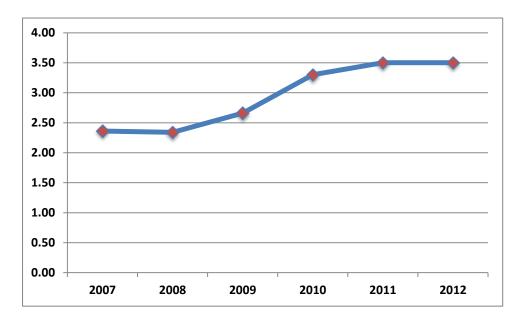


Figure 17 Peru's quality of port infrastructure (Index Mundi 2012)

The above data is from the World Economic Forum's Executive Opinion Survey and Peru has seen a substantial improvement over their quality of port infrastructure measured by business executives' perception of their own country's port facilities. The infrastructure is measured from the scale of 1 (extremely underdeveloped) to 7 (well developed and efficient by international standards). However in 2012 Peru's rank on the global scale was relatively low at 107. It still notable that the rank has improved compared to comparator countries. In 2007 Peru ranked in the last place and the latest rank from 2012 shows Peru at fourth place with Brazil and Colombia being worse and Chile, Ecuador and Argentina performing better. I personally think that improvement of the ports should be one of the top transport infrastructure priorities for Peru since as we have seen the country is very well dependent on exports. As of now the biggest developments and major renovations are focused on the port of Callao (Oxford Business Group 2012).

3.4 Airport infrastructure and network

Airport infrastructure of Peru is spread around the country unlike the ports or railway network. Peru has 56 airports and airfields around the country from which 21 have scheduled passenger flights on a regular basis. Jorge Chavez International Airport serves as the main international and domestic airport and as a hub for all the domestic airlines and as the standard destination for all international arrivals. The airport is located in Callao about 11 kilometres from the Historic Centre of Lima (How To Peru 2014). Jorge Chavez International Airport has earned continental recognition when it has been selected as the best airport of the South America for six years in the row by the airport and review site Skytrax (Peru this Week 2014b). The airport has also seen some investments in recent years with the second runway and terminal being completed in 2014.

The international freight traffic of Peru has seen a sufficient increase over the past few years from 224,831 tonnes in 2007 to 313,736 tonnes in 2012. 88 percent from this freight was international while only 12 percent being domestic (World Trade Organization 2013). The following map demonstrates how the major airports of Peru divide geographically and the following table shows how some of the key figures developed in Jorge Chavez International Airport between 2005 and 2008.



Figure 18 Major airports of Peru (Google Maps 2014)

Table 16 Development of key figures in Jorge Chavez International Airport between 2005 and 2008 (The A-Z Group 2014)

Traffic	2005	2006	2007	2008
Passenger throughput	5 662 288	6 038 922	7 507 811	8 228 506
Cargo handled (tonnes)	177 062	196 930	225 370	239 112
Aircraft movements	73 284	77 319	92 878	98 733

Air traffic in South America is sufficiently increasing. In 2013 the continent posted 8,4 percent rise in international passenger demand compared to the year before. This growth is only surpassed by Middle East. The growth was a bit lesser in domestic travelling since international and domestic travelling growth combined was 6,3 percent in the continent. Press release of The International Air Transport Association (IATA) highlights the strong growth of Colombia, Peru and Chile as a big reason for the figures of South America (IATA 2014a). I think that Peru should focus on keeping the high level of efficiency of Jorge Chavez International Airport. Lima is by far the biggest city of Peru and the airport is one of the South American hubs. Good efficiency level of the airport allows effective transfer of exports and imports in the future as well.

3.5 Warehousing capacity

Warehousing storage in airports and ports is a topical issue in Peru's transport infrastructure. There have been increasing traffic problems in the port of Callao which have led to the building of extra port terminal to serve as freight storage until the delivery or shipment to the final customer. Terminals like these can be also found near the Jorge Chavez International Airport which offer services related to clearance of air cargo, entry and offering the temporary storage. Warehouses related to ports and airports are located in the Callao province which is the international transport hub for Peru because of the port and the airport however the same type of warehouses in the proper scale are also to be found in the port of Paita which is mainly focused on external trade (UNCTAD 2011). Peru has also had one of the strongest growth figures in the refrigerated warehouse capacity in the recent years with the overall capacity growing as much as 128,11 percent between 2008 and 2010. However it should be noted that per urban resident the capacity is still at the very low level (International Association of Refrigerated Ware-

houses 2010). This is understandable since the capacity of refrigerated warehouses is dependent on the demand of these warehouses.

Table 17 Export value and market share for the top storage firms in 2011 (UNCTAD 2011)

Warehouses and storage firms	Exports (\$ billion)	Market share (%)
Talma Servicios Aeroportuarios S.A.	8,515	18,5
Swissport GBH Peru S.A.	3,743	8,1
Neptunia S.A.	1,539	3,3
Trabajos Maritimos S.A.	1,463	3,2
Other	30,741	66,8
Total	46,001	100,0

The table includes the companies that do not provide storage services for third-parties, but instead use their facilities to facilitate the firm's export activities. The market for warehouse and storage firms is largely divided and has a healthy competition. No company owns over 20 percent of market share and the market share of the companies outside the top four is over 66 percent.

3.6 Other (e.g. Pipelines and/or Inland Waterways, if important)

3.6.1 Camisea gas pipelines

At total Peru has 3,434 kilometres of gas and oil pipelines but this report focuses on the biggest and arguably the most interesting of them. The Camisea pipeline runs from the San Martín reservoir in the Amazon rainforest all the way across the Andes to the Pampa Melchorita gas terminal in the Pacific Coast. The downstream project consists of two pipelines: a 741 km natural gas pipeline and a 540 km liquids pipeline (Pipelines International 2009). Originally the Camisea natural gas sites were discovered by Royal Dutch Shell in 1986. However it wasn't until 2004 when the pipeline finally became operational after the project had cost 2,7\$ billion dollars (Hydrocarbons-Technology 2014). In the year 2009 the capacity of the pipeline was increased by 43 percent. (Pipelines International 2009). The pipeline has a prominent effect on Peruvian gas sector since it creates an average of 230\$ million incremental royalties and 90\$ million tax revenue income annually. Most of the gases are finally delivered to U.S, Mexico and Chile from the gas terminal of Pampa Melchorita (Hydrocarbons-Technology 2014).

The map below shows the way that pipeline runs from the Camisea gas fields to the Pacific Coast through the Malvinas processing plant.



Figure 19 Map demonstrating the current Camisea Gas pipeline (Economist 2010)

The latest news about Camisea gas fields include the Gasoducto Sur Peruano project for which Peru's government awarded a 34-year concession in the summer of 2014. The idea is to build over 900 kilometres long pipeline connecting Camisea gas fields to the southern cities of Cusco, Apurimac, Puno, Arequipa, Moquegua and Tacna. President Ollanta Humala was strongly supporting the project which is estimated to cost between 3,6\$ to 4,0\$ billion dollars making it more expensive than the original Camisea pipeline (The Wall Street Journal 2014).

4 INTERNATIONAL TRANSPORT AND SUPPLY CHAIN IS-SUES IN PERU

4.1 Priority transport corridors, including transit corridors

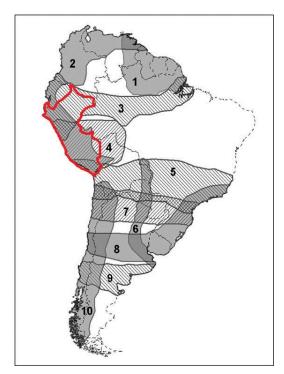
Peru has a five neighbor countries which are Brazil, Bolivia, Chile, Colombia and Ecuador. Geographically it's in the west coast of South America but still relevantly at the focal point of continent in the longitudinal direction. All the countries in South America are reachable by land but still only 15 percent to 23 percent of their total trade is between two South American countries. Most of the trade happens by land or sea and it is mostly raw materials with very little processing. This means that due to the low level of physical integration the developments for infrastructures between the countries can have a substantial combined effect to boost the competitiveness. It could also increase the regional trade among the cities and hubs linked by main transport corridors (Latin American Economic Outlook 2014) There are two main initiatives that drive the logistic and transport integration in South America: Integration of Regional Infrastructure in South America (IIRSA) and the Mesoamerica Project (MP).

4.1.1 IIRSA's hub projects

As of 2013 IIRSA has 583 infrastructure integration projects around South America and these projects are estimated to require around 155\$ billion dollars. However by the mid-2013 governments of South American countries have already prioritized 97 projects to be completed by 2020. Based on the existing trade corridors IIRSA has defined ten integration and development hubs in South America for infrastructure integration and regional planning. By IIRSA's definition Peru is part of the following hubs: The Andean Hub alongside of Colombia, Ecuador and Venezuela and The Amazon Hub alongside of Brazil, Colombia, Ecuador and Venezuela and as well as Peru-Brazil-Bolivia hub. The following table indicates the number of the priority projects each hub has, the main exports and the extra regional trade in the hub (Latin American Economic Outlook 2014)

Table 18 IIRSA's hubs that Peru is a part of (Latin American Economic Outlook 2014)

	Priority		Extra regional trade in
Hub	projects	Main exports	the hub
Andean Hub	12	Crude oil, iron ores, copper, soy beans	91 %
		Crude oil, iron ores, soy beans, aero-	
Amazon Hub	27	planes	95 %
Peru-Brazil-		Crude oil, iron ores, soy beans copper	
Bolivia	1	and gold	97 %



#2 is Andean Hub, #3 is Amazonian Hub and #4 is Peru-Brazil-Bolivia hub

Figure 20 Map indicating South American transport corridor hubs (Journal of Latin American Geography 2008)

The above table indicates the size of the projects and main exports of the IIRSA's hubs that Peru is part of. It is notable that these are largely the same exports that Peru itself has as the key exports for their international trade. There's also conclusion to be made by the table about the importance of the hubs since Peru-Brazil-Bolivia hub has only one priority project compared to Amazon Hub's 27. In the other hand the map shows how above demonstrates how the hub projects are divided geographically.

4.1.2 The Interoceanic Highway

The Interoceanic Highway is the first true transcontinental highway in South America. It is 5,404 kilometres long and connects the port of San Juan de Marcona in the Pacific Coast to the city and port of Rio Branco in Atlantic Coast. The highway was completed in 2011 with the ambition that it will boost the economy and bring goods, work and opportunities to the remote Andean communities that it runs through (The International Consortium of Investigative Journalists 2012). The highway also makes it easier for eco-tourism since it runs through Cuzco, which is the home for Latin America's most popular tourist site, the ruins of Machu Picchu. However the road has also raised some environmental questions since it runs through the Amazonian rainforests that are well known for their wide range of biodiversity and wilderness (National Public Radio 2009). The following map demonstrates how The Interoceanic Highway runs in Peru.



Figure 21 Interoceanic Highway in Peru

4.1.3 Pan American

Pan American is 25,800 kilometres long and it runs from the Arctic Circle all the way to Puerto Montt, nearly 1000 kilometres south of Santiago, Chile. It not only links North America and South America but it's also the most important highway in Peru and perhaps the best example of international transport corridors (Go-Panamerican.com 2006). In Peru the highway runs through the whole length of the country from north to south and connects all the major cities in the coastal area.

4.2 Customs and other border crossing procedures

In Peru the customs are mainly governed by the General Customs Law. When the goods are declared the customs regime is to be followed. Before the goods can be imported they have to be registered with The National Customs and Tax Administration Supervisory Authority (SUNAT) and be in possession of a single taxpayer's registration number (World Trade Organization 2013). Before the goods and their transport arrive to Peru, the carrier or it's representative have to contact the SUNAT electronically and forward the cargo manifest and other required documents within the time-limit regulated by the General Customs Law. For foreign operators SUNAT may also grant an Authorized Economic Operator (OEA) enabling them for streamlined customs procedures hence they are not required to provide the same amount of information as normally required in their customs declarations. The following documents are needed in order to import goods to Peru (Santander Trade 2014):

- The single import declaration
- An attestation of loading
- A commercial invoice
- An inspection invoice
- An inspection certificate
- A certificate of origin
- An insurance policy
- An authorization certificate

It is also worth noticing how Peru's measures to facilitate trade have affected the customs and border crossing procedures. Between 2002 and 2008 the customs clearance time for physical products that need physical or documentary inspection have decreased by about 30 percent (World Trade Organization 2008). Peru is a member of Andean Community so it follows the Nandina code which is the fully harmonized tariff system that all the CAN members can use. By the Andean Community Peru has granted the duty-free treatment for all imports that are from CAN member countries (Bolivia, Colombia, Ecuador and Venezuela). Bilateral agreements that Peru has signed can also pay the part since they can guarantee the most favored nation treatment. (Santander Trade 2014).

4.3 Degree of integration in international supply chains

Peru doesn't have a participation in the International Road Transport Union (IRU) while it is worth noticing that from the comparator countries Argentina, Brazil, Chile have their active members which represent road transport associations in the national level in the union (IRU 2014). Peru is also absent from the International Federation of Freight Forwarders Associations (FIATA) which represents the forwarding and logistics firm of the world (FIATA 2014). Peru is not part of the International Chamber of Commerce (ICC) either. This is something where Peru differentiates from its comparator countries since Argentina, Brazil, Chile and Colombia are part of the ICC as well as other South American countries like Bolivia, Paraguay, Uruguay, Venezuela (ICC 2014). I find it personally difficult to understand why Peru wouldn't be part of the ICC since it offers a fine a forum for businesses to examine the shifts around the world.

Peruvian airlines Lan Perú and TACA Peru are members of the International Air Transport Association (IATA) which represents and serves the airline industry worldwide and promotes the interests of their members. Lan Perú is the dominant airline in the country representing over 73 percent of the domestic market. (IATA 2014b). Peru is also part of the United Nations Economic Commission for Latin America (ECLA) in which Peru is alongside other South American countries to promote economic and social development through cooperation and integration (United Nations 2013).

5 GOVERNMENT AND THE TRADE AND TRANSPORT SECTORS IN PERU

Trade and transport sectors are governed and led by two different ministries: The Ministry of Foreign Trade and Tourism (MINCETUR) and The Ministry of Transport and Communications (MTC). Both ministries are responsible for setting, implementing, directing, coordinating and supervising their respective sectors' policies.

5.1 The structure of trade administration

MINCETUR is divided into two different sectors and ministries where Deputy Ministry of Tourism is responsible for issues regarding the development of the important tourism sector and the Deputy Ministry of Foreign Trade governs the trade issues and which prime objectives are promotion of exports and international trade negotiations. In the addition to the just mentioned sectors General Secretary works under MINCETUR as a supporting function. The issues regarding international trade negotiations are traditionally handled in coordination with the Ministry of Foreign Affairs or the Ministry of Economy and Finance (MEF). It is notable that MEF controls the governments' tariff and customs policy which is closely related to the actions that take place in MINCETUR (World Trade Organization 2013).

The ministry works on behalf of State in the issues regarding international trade negotiations and may sign related bilateral agreements. The Ministry has signed the following treaties: Canada-Peru FTA, Chile-Peru FTA, Thailand-Peru FTA and USA-Peru Trade Promotion Agreement (Lima Easy 2014). The Ministry also has other specific tasks regarding the foreign trade including being the representative of the country in international forums and organizations of trade, propose special treatment commercial and special development zones and improve the image of Peru to increase the development of foreign trade (MINCETUR 2014).

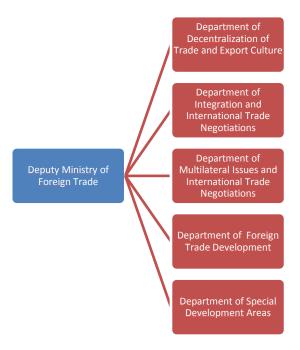


Figure 22 Reduced structure of the Deputy Ministry of Foreign Trade (MINCETUR 2014)

On the table there's a reduced version of the structure of the Ministry demonstrating the main departments that work under the Ministry. The departments are divided into five different sectors each with their own sectors responsible for specific areas related to the foreign trade.

5.2 Customs and other border agencies

Customs agents provide the services for both imports and exports regarding the customs clearance. Market of the customs agencies in Peru is extensive. In the figures of 2011 in exporting the four biggest firms control 53,3 percent of the total market share while in imports the same figure is only 25,7 percent. This makes the industry to have stiff competition among the biggest companies and a chance for the new firms to enter the market since it's not dominated by only one or two companies (UNCTAD 2011).

Table 19 Import values and market shares of the top custom agencies (UNCTAD 2011)

Agency	Imports (\$ billion)	Market share (%)
Ausa Aduanas S.A.	3,452	10,8
Agencias Ransa S.A.	1,933	6,0
Beagle Agentes De Aduana S.A.	1,576	4,9
Interamerican Service CO. S.A.C	1,253	3,9
Others	23,755	74,3
Total	31,968	100,0

Table 20 Export values and market shares of the top custom agencies (UNCTAD 2011)

Agency	Exports (\$ million)	Market share (%)
Agencia Afianzada De Aduana		
S.A.C.	9,159	20,5
Agencias Ransa S.A.	8,290	18,5
Beagle Agentes De Aduana S.A.	3,983	8,9
Jose V Molfino S.A.	2,415	5,4
Other	20,899	46,7
Total	44,745	100,0

The tables indicate the top custom agencies in both imports and exports. It is notable that agencies like Agencias Ransa S.A. and Beagle Agentes De Aduana S.A. are top companies in the both sectors. It also seems that the import sector is a lot more less centralized than export sector – the largest company in the import sector only has a 10,8 percent market share. You can also see how Peru is export driven country since the total value of exports is sufficiently larger than the total value of imports.

5.3 The structure of transport sector administration

Transport sector is governed in Peru by The Ministry of Transport and Communications (MTC) whose current minister is José Gallardo Ku. As with trade ministry the MTC is divided into two different sectors of Transport and Communications, each with their own responsibilities. The Deputy Ministry of Transport is responsible for regulating

transportation, design and implementing policies that integrate the country with transportation routes. The Ministry's industry covers all the transportation modes including road, air and adequate water infrastructure and its mission is to ensure that the transport services provided are efficient, safe and suitable (MTC 2014).

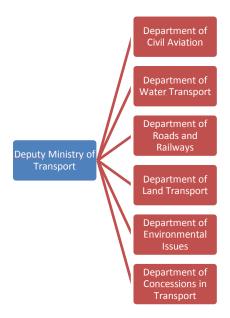


Figure 23 Reduced structure of the Deputy Ministry of Transport (MTC 2014)

The above table demonstrates the reduced structure of the Deputy Ministry of Transport. There's a six different sectors working under the Deputy with each focusing on one specific transport mode or issue.

5.4 Government investment plans in transport and logistics

Many different sources such as Oxford Business Group and Switzerland Global Enterprise (SGE) have emphasized the large need for improving the transport and logistics of Peru. Peruvian GCI still lags behind the neighbors Chile and Brazil and to reach their level in the future could and should be the objective for Peru. SGE argues that in order to improve its infrastructure Peru needs the FDI of foreign companies while these could also bring new know-how and high quality processes to boost the infrastructure projects working alongside with national building companies. The MTC has planned a total of 20,5\$ billion to different transport infrastructure projects between 2011 and 2016 (SGE 2013).

Table 21 The MTC's investment budget between 2005 and 2011 and the plan for 2012-2016 (Oxford Business Group 2012)

Year	Budget (\$ m)	% executed	Annual % increase
2005	380	82,8	1,8
2006	451	75,1	15,8
2007	488	75,2	7,5
2008	720	68,5	32,3
2009	1259	95,3	42,8
2010	1920	96,2	34,5
2011	2164	97,0	11,3
2012-2016	20 500	N/A	N/A

The MTC has planned a total of 20,5\$ billion to different transport infrastructure projects between 2012 and 2016. That's a sufficient increase in The MTC's investment budget in the last ten years which can be clearly seen from the table above. The economic growth and impressive performance of Peru has increased the demand of transport investments. The sectors like mining, agriculture and retail are thriving and all of these are largely dependent on infrastructure and demand large and effective infrastructure networks. However it is noted that the large investments of the current government are not only based on reflections to economic growth but also to address the issue of social inequality. To achieve that goal there are large investments in the rural areas of Amazonian and Andean regions where the arduous terrain creates its own challenges (Oxford Business Group 2012).

5.4.1 International Airport of Chinchero – Cusco (AICC)

The idea of construction of AICC was first declared the first priority project in 2001. However the construction has been delayed several times and the latest estimate is that the construction is likely to commence in the second quarter of 2015. The airport is located near the city of Cusco and it is intended to serve the visitors of Machu Picchu which have seen a steady increase in tourist figures and was declared as one of the new seven wonders of the world in 2007. The site enjoys over 1,5 million visitors annually and The current airport of the area, Velasco Astete Airport is having capacity challenges to manage the tourist backlog. AICC will have a capacity of 4,5 million passengers annually with the chance to expand to 5,7 million. The estimated figures for the total

investment cost are in the region between 539\$ million and 658\$ million making it the top priority of Peruvian government in the future air transport projects (CAPA 2014).

5.4.2 General San Martín (Pisco) Port Terminal

General San Martin Port is located in 280km of south to Callao in the province of Pisco. The port was originally build in 1969 but was later destroyed badly in the earthquake in 2007 and has been in need for the renovation since then. The current plan includes the modernization of two multipurpose berths and access channel will also be dredged to a depth of 12 metres, these meaning that the port will be able to handle larger vessels in the future. The investment is estimated to cost about 102\$ million dollars and was handed to consortium which consists of Spanish company Servinoga and three Brazilian companies Pattac, Tucumann and Fortesolo (Port Finance International 2014).

5.4.3 Lima subway line 2

To this day Lima's subway network has been a simple one despite it being the metropolitan of over eight million inhabitants. There has only been one line connecting the western part of the city from Bayóvar to the east all the way to Villa El Salvador. However in 2014 the Spanish building company ACS won the bid to construct the second subway line which unites the Port of Callao to the city center and all the way to northern part of Lima in Municipalidad Ate. The investment is estimated to cost around 5,7\$ billion and the Transport Minister Carlos Paredes called it "The biggest infrastructure project ever undertaken in Peru". The subway line is expected to be completed in 2019 while it hopes to ease the traffic in the city where economic growth is putting more cars on road every year. There are also plans to build an additional four metro lines in the capital in the long-term future (Bloomberg 2014b).

5.4.4 Longitudinal de la Sierra Highway

As we saw in chapter 3.1 the roads make up almost two thirds of the MTC's total transportation investment budget. Currently there are few major road projects in the country though a large portion of the total budget is for the paving and the maintenance of the current roads and not building new ones even though they could be much needed for the rural areas of Peru. The largest current project is Longitudinal de la Sierra road project for the sections 2, 4 and 5 in northern Peru which all comprise rehabilitation and up-

grading works and operation and maintenance of all the sections with the total approximated length of about 2000 kilometres. The estimated investment is around 500\$ million and the builder is expected to be selected in the fourth quarter of 2014 (ProInversión Peru 2014).

5.5 Participation in main international transport conventions and agreements

Peru joined to United Nations in 1945 making it an original member of the union. In its history with United Nations Peru has signed to five transport conventions and agreements of the UN making it the second most active country in the continent just behind of Chile's six. Here is the full list of the transport conventions of the UN that Peru has signed:

- **1957** Convention on Road Traffic, of September 1949.
- **1959** Customs convention on the Temporary Importation of Private Road Vehicles.
- 1959 Convention concerning Customs Facilities for Touring.
- 1959 Additional Protocol to the Convention concerning Customs Facilities for Touring.
- **2006** Convention on Road Traffic, of November 1968.

Peru became part of International Maritime Organization (IMO) in 1968 alongside its South American fellow country Uruguay and has since been an active participant in the organization. As of now Peru is the category C council member for the 2014-2015 biennium and was awarded the seat in the council by special elections in 2013. Category C it's the third highest category in the council and it represents the countries that have a special interest in maritime transport or navigation. Other South American countries in the current council are Argentina, Brazil and Chile (IMO 2014).

Peru has also been a member of the International Civil Aviation Organization (ICAO) since its foundation year 1947. Peru also hosted the first South American regional air navigation meeting later that year in Lima. This and the following meetings led to the establishment of the ICAO Regional Office for South America with it's head-quarters located in Lima. The mission for the regional office is to provide assistance to all regional member countries with the topics related to civil aviation development and provide oversight activities to validate efficient implementation of ICAO international standards (ICAO 2014). In addition to the air transport conventions Peru also signed the original Montreal Convention in 1999.

5.6 Main regulatory, governance or pricing issues for logistics services

Peruvian government has put a lot of emphasis in the recent years for the development of transport and logistic services sector and this has meant actions which include the reducing of the trade related costs and improving the trade efficiency. However despite the growing recognition of the transport industry and logistic services Peru is yet to set an integrated framework or coherent set of rules governing policy making of the logistic services. Therefore there is a modal regulatory fragmentation and laws from different sources regulate the activities of the logistic services sector (UNCTAD 2011). Several developing countries have been able to promote the service sector by the policy reforms and hence I think that Peru should definitively do the same since it has been discussed several times in this report that transport is growing priority for the Peruvian government. UNCTAD emphasizes the same approach as they proclaim that "Peru has no policy guidance that indicates a clear vision on the development of the logistic services". Peruvian government has made great strides in their investments in the last years so perhaps it would be a time to do the same regarding their policies.

6 PROVISION OF TRANSPORT AND LOGISTICS SERVICES AND MARKETS IN PERU

6.1 Road freight transport services

Buses are the main transport mode for the most of the Peruvians since the fares are relatively cheap even for the locals and buses run frequently from the Lima's bus system to long-distance routes. There is a healthy competition in the market in which no one company covers the whole country. In addition to the buses there operates "micros" in Lima and the other biggest cities, these are the minibuses which usually operate locally without long-distance opportunities (Lonely Planet 2014b). The biggest bus companies in Peru include Cruz del Sur, TEPSA and Ittsa and the long-distance bus companies are run by private firms.

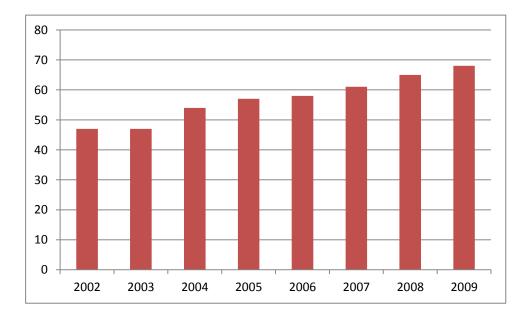


Figure 24 The amount of motor vehicles that are registered in Peru per 1000 people (World Bank 2009)

The above figure indicates the development of amount of motor vehicles (cars, taxis, buses) per 1000 people in Peru between 2002 and 2009. The trend has been upward but the figures are still remarkably low compared to 2009 figures of Chile (174/per 1000) and Brazil (about 200/per 1000). I think that the economic growth will increase the private ownership of cars since more and more people will naturally want to own their own

car. However especially in Lima the traffic is famously bad so by improving the public transport with projects like new subway lines the government can make the public transport more tempting choice at the expense of private cars. It is also notable that taxis are very common in Peru and for example in Lima there's 190,000 taxis compared to 60,000 in Buenos Aires and 100,000 in Santiago.

6.2 Railway freight transport services

As mentioned earlier in the chapter three the railway network of Peru is not very extensive and it is focused on the southern part of Peru while the large part of the country is totally barring any kind of railway network. Therefore railway service market in Peru is controlled by only the few companies consisting both public- and private companies. The Empresa Nacional de Ferrocarriles del Perú (ENAFER) is the main public company in the market which ensures the management and commercial use of the railway network in Peru. ENAFER consisted of two different and separate public railway companies which are Ferrovias Central Andina (FCCA) and Ferrocarril Transandino. However in 1999 the government of Peru made the decision to privatize the FCCA and give the 30 year concession for the Pittsburgh based railway investment and management company RDC. Other investment parties in FCCA include Juan Olaechea and Company, ADR Inversiones, Minas Buenaventura and Inversiones Andino (RDC 2013).

The largest and arguably the best known railway operator in Peru is the public company Perurail. It is owned 50-50 percent ownership by Peruvian Trains and Railways (PTR) and Orient-Express Hotel Ltd. The popularity of Perurail is mainly because it is the main rail operator for passengers and tourists for the sights like Lake Titicaca and Machu Picchu, the Cucho-Machu Picchu route alone carries 2 million passengers annually. However Perurail also offers cargo services and it's focused on bimodal transportation of minerals and copper concentrates with high-volume transportation. In 2011, 1.2 million tonnes of cargo was transposted with Perurail Cargo's service (Scribd 2012).

6.3 Maritime transport and port services

Ports play a huge part in the Peru's transport system and therefore there are an extensive range of both domestic and international shipping lines operating in the country. Callao is the main hub for Peru and the whole Pacific Coast of South America and therefore most of the maritime transport is focused on the port of Callao. In Callao there operates 15 main shipping lines and in the ports of Paita and Matarani 8 and 1 respectively. Some of the international shipping lines that have operations in Peru include Maersk

Line, Hamburg Süd and Evergreen. Some of the most important regional shipping lines are the likes of CSAV, Maruba and CCNI. It is also notable that these shipping lines were the main transporters of international trade in Peru (UNCTAD 2013).

Table 22 Commercial relations between the agents participating in activities of transport by sea (UNCTAD 2013)

Extra Port Terminal	Maritime Agency	General Agency	Shipping Line
TRAMARSA	Tramarsa	Consorcio Naviero Peruano	CSAV Libra
	Nautilius	Peruned	P&O Nedlloyd
		Hamburg Süd	Hamburg Süd Crowley
		La Hanseática	Hapag-Lloyd Maruba TCA
	Cosmos	Transmeridian	NYK Line D'Amico
NEPTUNIA		Amerandes	APL
NEFTONIA		Tecnapo	MOL
		Navinter	TMM
		Likes Peru	Likes Lines
	Broom Portuaria	Broom Peru	CMA CGM J. Lauritzen A/S China Shipping
	Océano	Transtotal	TBS Transmares T/O
LICSA	LICSA Portuaria Taylor Me		Mediterranean Shipping Company
ALCONSA		Ian Taylor	
ALCONSA	Maersk Portuaria	Maersk Peru	Maersk
		Agunsa	CCNI
	Agunsa	Kawasaki del Peru	"K" Line
IMUPESA		Navinter	Interocean American Shipping
	M. Woll	Greenandes Peru	Evergreen

The table above indicates the structure and the relations of the agents that make the Peru's maritime transport. It tells which companies have the most clients for e.g. Neptunia has been the maritime terminal leader in Peru for the past decade while the Bulgarian private shipping company Cosmos has the largest client base in shipping lines.

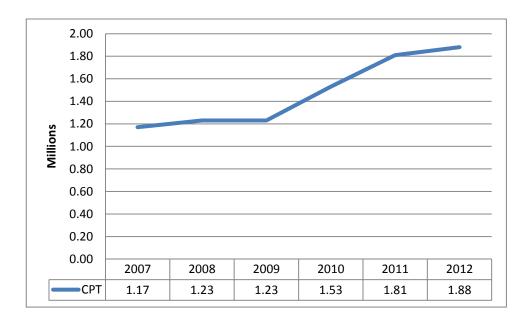


Figure 25 Container port traffic in Peru between 2007 and 2012 measured by twenty-foot equivalent units, a standard-size container (The World Bank 2013a)

Peru has enjoyed the rapid growth in its container port traffic in the few last years. As mentioned earlier, ports are the key for Peruvian exporting and importing as well so it doesn't surprise that the CPT in ports has grown sufficiently while the international trade of Peru has done the same. The similarities are very transparent since between 2011 and 2012 Peru's export growth stopped while only imports grew. Development of international trade in that period is clearly reflected as an only modest growth in those years in the table as well.

6.4 Air freight transport services

Air freight is important for Peruvian international trade and in 2010 airlines accounted 288,8 thousand tons of freight to be transported. However this figure is a lot less than by sea so one should keep in mind that the international trade of Peru is first and foremost ran by the sea. One of the characteristics of air freight in Peru is also that exports are twice as big as and four times more valuable than imports. Because of this airlines don't usually operate direct flights but use the network of regional air cargo instead. The airlines offer two types of service: Mixed with passengers and freight and exclusive with only freight. In 2010 54.5 percent of total number of freight transported was done by mixed transports because of the low size of goods (UNCTAD 2013).

Air transport market in Peru is privatized and there is no airline company that would be governmentally owned. The market is special for its volatility, many newcomers have come to the market and years later ceased their operations. Currently there are only a few airlines in the country in while Lan Perú control the domestic market with 75 percent market share. Other airlines include Peruvian Airlines, Cielos Airlines and Star Perú. The following figure indicates the mixed air transport (freight and passenger) market in 2010. Lan Perú is the market leader but the foreign companies like Lan Airlines (Chile), Iberia (Spain), KLM (Netherlands) and Delta Airlines (USA) also have a considerable market share. The "others" consists of 13 airlines whose market share was not large enough for the figure.

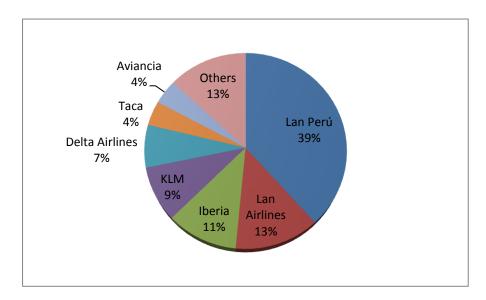


Figure 26 Market shares between the airlines in 2010 for Peru's mixed air transports (UNCTAD 2013)

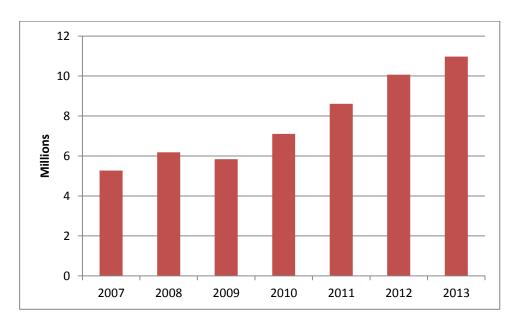


Figure 27 Total number of domestic and international aircraft passengers annually between 2007 and 2013 (World Development Indicators 2014)

The table illustrates the sufficient development of Peru's aircraft travelling. There could be numerous reasons for this development but growing tourism into the country and the increased wealth among Peruvians to travel abroad could explain the trend. Jorge Chávez International Airport in Callao remains the national and regional hub for the air freight transport in both passenger and cargo.

6.5 Logistics, freight forwarding and warehousing services

The role of the freight agents cover everything from the traditional freight services to customs procedures and warehouse storage. In Peru most freight agents are focused on Lima and Callao territory since this is where most of the domestic and international freight transportation takes place and where the largest port and airport of the country is located. Freight agents that operate in Peru is a mix of foreign and domestic companies. From the multinational agents DHL Freight Forwarder, Khune & Nagel, DB Schenker and UPS all have operations in Peru while some of the biggest domestic companies include Neptunia Agenciamiento de Carga, Gamma Cargo and Ransa Agenciamento de Carga (UNCTAD 2013).

Logistics operators on the other hand offer services using their own infrastructure or leased infrastructure that are related to handling of domestic suppliers, management of supply chain and cargo handling. Compared to freight agents the variety of firms providing the service is a lot narrower. The biggest ones are Ransa, TLI and Dinet and they have all concentrated their services to Lima. These firms work mainly with large international consumer firms and that limits the capacity to work with the local retailer firms. This has led to the fact that Peruvian retailers like Makro, Inkafarma and Wong have decided to internalize their logistic processes (UNCTAD 2013).

Table 23 The number of logistic service firms authorized by SUNAT in 2013 (UNCTAD 2013)

Authorized firms	#
Customs Agents	461
Freight Agents	651
Customs warehouses	305
Shipping agents	222
Maritime shipping companies	68

The table demonstrates the large variety of firms in Peru for the logistic service sector.

6.6 Express freight and courier services

Peru is well covered by the large express freight and courier companies like DHL, DB Schenker and FedEx all active have operations in Peru (DHL 2014, DB Schenker 2014, FedEx 2014). DHL has the widest range of service among the before mentioned with service point locations in 13 different Peruvian cities. DB Schenker's corporate office is located in Lima while addition to that it has only two more branches both located in Callao.

6.7 Postal services

Peru has one national post office service Serpost which handles Peru's the post traffic in both domestically and internationally. In addition to traditional postal service Serpost also offers services regarding postal money offers, post office boxes and general delivery service (ExpatPeru 2013). The national post office is topical issue right now since the workers of Serpost went to strike recently in September (World Socialist Web Site 2014). Peru also joined to Universal Post Union (UPU) in 1879 which acts as a primary forum for the cooperation between postal sector countries (UPU 2014).

6.8 Other (e.g. Pipelines and/or Inland Waterways, if important)

No available data

6.9 Indications on Shipment costs (as available)

As with most of the developing countries the cost of exporting and importing are quite high in Latin America. For Peru the cost to export a container was measured to be 890US\$ dollar per container by the Doing Business report 2014 (World Bank 2013b). On the other hand the cost to import a container was slightly higher at 1010US\$ dollars per container.

Table 24	Container export and import costs of Peru and the comparator countries
	(World Bank 2013b)

Country	Cost to export (US\$ per container)	Cost to import (US\$ per container)
Argentina	1650	2260
Brazil	2215	2275
Chile	980	930
Colombia	2355	2470
Ecuador	1535	1520
Peru	890	1010

However Peru measures well against its comparator countries of the continent especially with the cost of exporting. I think that the low cost of exporting is important for the export-driven country like Peru because it facilitates the ease of international trade. It is also notable that the large South-American economies like Argentina, Brazil and Colombia tend to have very high shipping costs.

6.10 Overall performance of transport and logistics services in Peru

Economically Peru does quite well at the moment. However it does make a sufficient amount of deficit each year in transport sector which is a problem to take into account but this is understandable since the government has made great strides over the last few years in both improving the existing transport services and investing on new ones. The best understanding for Peru's performance in transport and logistics can be obtained by comparing it to the countries in the same continent and region. In order to compare Peru's logistics performance to the region as whole and to measure it individually we use World Bank's Logistics Performance Index (LPI). By using LPI we can get good overall measurement of Peru's performance in transport and logistic services.

The World Bank's LPI is a weighted average which consists of the following six key dimensions:

- 1. Customs: Efficiency of the clearance process by border control agencies.
- 2. Infrastructure: Ports, railroads, roads etc. The infrastructure that relates to trade and transport.
- 3. International shipments: How easy it is to arrange competitively priced shipments.
- 4. Logistics competence: Transport operators, customs brokers etc. Quality and competence of logistics services.
- 5. Tracking & tracing: The ease and ability to track consignments.

6. Timeliness: The ability for shipments to reach the destination within the scheduled or expected delivery time.

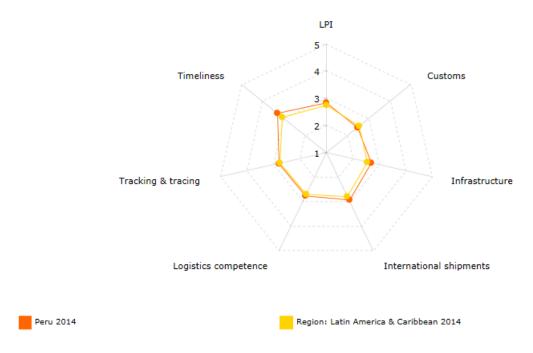


Figure 28 LPI 2014 scorecard demonstrated as a radar consisting of Peru and Latin America & Caribbean region (World Bank 2013)

The above figure illustrates the performance of Peru and the Latin America & Caribbean region within the six key dimensions. It is remarkable how Peru performs in par with the region's average scores in basically every dimension. Therefore it is hard to make any other large conclusions other than Peru's scores are slightly better in every category other than customs. The largest difference comes from Peru's ability to deliver the scheduled shipments on time.

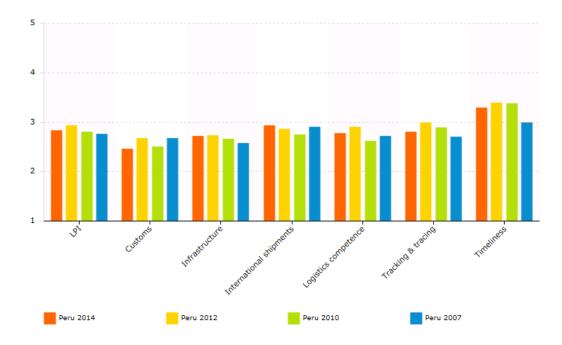


Figure 29 Peru's development in the LPI's six key dimensions between 2007 and 2014 (World Bank 2013)

The figure above shows the development that Peru has had in the six dimensions and in the LPI overall score in four different review years: 2007, 2010, 2012 and 2014. Now this should be the figure that illustrates the investments that Peruvian government has done over the past few years. Unfortunately there seems to have been little development and the latest trend from 2012 to 2014 has been downward. Now this is something that should alert the MTC. LPI ranking of Peru used to be 59 in 2007, 60 in 2012 and 71 in 2014. There are obviously thousands of reasons for this but I'm looking forward for Peru to improve its score and ranking in the following years. Now it is true that the MTC isn't the only institution that is responsible and who can affect to these scores but it will be very interesting to see if and how those 20 500\$ million dollars that are to be invested between 2012 and 2016 will show in the figures.

Table 25 Domestic LPI figures for Peru and Latin America & Caribbean region (World Bank 2013)

	Peru	Region: Latin America & Caribbean
Export time and cost / Port or airport supply chain		
Distance (kilometers)	237km	446km
Lead time (days)	3 days	2.9 days
Cost (US\$)	500US\$	1162US\$
Import time and cost / Port or airport supply chain		
Distance (kilometers)	75km	509km
Lead time (days)	2 days	3.4 days
Cost (US\$)	1118US\$	1432US\$
Shipments meeting quality criteria (%)	57.45 %	71.31 %
Number of agencies - exports	3	4.1
Number of agencies - imports	3	4.1
Number of documents - exports	3	3.9
Number of documents - imports	3	4.1
Clearance time without physical inspection (days)	1 days	2.5 days
Clearance time with physical inspection		
(days)	3 days	3.8 days
Physical inspection (%)	11.18 %	31.30 %
Multiple inspection (%)	1.58 %	17.83 %

World Bank also releases the domestic LPI which consists of some key figures that happen inside the country's borders. In the above table we can see the comparison of Peru and Latin America & Caribbean region. For the most part Peru measures well against the rest of the region. Export and import costs are significantly lower while distance to port or airport in the international trade is also low. The low import distance could be due to Lima's significant role for the country's economy and the amount of inhabitants that live in the capital compared to the total population. Quality seems to be the only part where Peru's performance is considerably worse. Perhaps the Peruvian government could improve their documentation regulations in order to improve the quality. So far only 3 documents are needed for both importing and exporting.

7 CONCLUSION

Writing this report has been all personal. By this I mean that I will actually travel to Peru for exchange in the next spring to study at the University of Lima. This future adventure has also made me think a lot of things that are written to this report more profoundly. On the global scale Peru is not a very large economy and it's not the South-American powerhouse – the dictum that could easily be said about Brazil or Argentina. It's also not as developed as its neighbor and perhaps the closest rival Chile. But despite these things Peru gets by just fine. I think that in the big picture Peru will do very well in the future. On the economic level there are a lot of things to be excited: Economic growth has been solid, the government system seems to be effective and there are no global issues in sight that could damage the peace in Peru and in the continent.

I actually see some similarities between Peru's economic development and the one that Finland enjoyed after the World War Two. Both were export driven countries in the given time, had strong leaders and enjoyed the years and years of GDP growth and increased private consumption. By what I have heard and seen I can also see some similarities between Peruvian and Finnish people, both can be shy for outsiders and both don't make too much of a noise about themselves or their success. However Finland is and used to be technology driven country and Peru is not. Peru is largely dependent on their raw materials and adequacy of those. Manufacturing sector is also just a minor part of the economy and "made in Peru" is almost unheard in the Western World.

In the future I would hope that Peruvian government would look into possibilities of increasing the engineering talent in the country. I firmly believe that if you don't have oil (Peru really doesn't) you can only get so far by other raw materials and in some point to have a more advanced economy you must have manufacturing and research and development functions and they have to be a major part of your economy. Peru performed badly in GCI innovation measurements. We have already seen the worrying signs since the overall export value of Peru has recently dropped because of the falling international demand and decrease in prices for the raw materials like gas, copper and silver. In order to succeed in the future markets every country should have a plan B. Peru has to develop that plan B if the just mentioned exports don't produce the benefits that they have done in the past.

In the service sector I would like to focus on two things: Tourism and transport. Everyone has to admit that Peru is nowadays really succeeding with their tourism services and the country has become one of the trendiest places to travel in the world. I do think that the country and the decision-makers understand the value of tourism. However you must take into account that the most popular tourism destinations like Machu Picchu don't have the unlimited capacity for tourism. Transport links into tourism. It doesn't come as a surprise that the sector makes a large amount of deficit every year. I wouldn't

really mind making that deficit if the transport and logistic services improve the efficiency and performance in the other sectors like tourism, international trade and even poverty.

Poverty is an issue in Peru and one of the ways to contend against this problem is transport. So with this being said transport plays a key role in Peru's future. As a country with a lot of terrain variety and a lot of areas without inhabitants it is even greater challenge to create a transport network that would ensure the connectivity of rural areas to the larger cities. But Peruvian government seems to be up for the task. I'm delighted by their large investments to transport infrastructure. I do believe that there are a lot of great projects completed and great projects to be completed in the future. I have to highlight the Longitudinal de la sierra Highway for its symbolic influence and Camisea gas project because of the impact it has for the sector and therefore for the Peruvian economy. In addition to the new projects I think you can't dismiss the importance of Jorge Chávez International Airport and the Port of Callao. These two are the main gateways from Peru to abroad and vice-versa. The good performance and level of efficiency in both locations ensure that the Peruvian government thinks the same and understands the meaning of these hubs.

Peru does a lot of things well to encourage foreign trade. They take part to international trade conventions and have signed loads of bilateral agreements with their main trade partners. In ETI Peru posts impressive figures especially in border administration, domestic market access and business environment. These are all important measurements for Peru since the ease of doing business and ease of entering the market all play important part for example in FDI which is something that is very important for Peru now and in the future as well. Luckily Peru has enjoyed sufficient amount of increase in FDI and I think we can be hopeful that the investments in transport infrastructure can play the positive part in the future to attract the foreign investors.

I think that the most burning question to answer in this conclusion is how I see Peru now and how I imagine it to be in the future trade and transport wise? Well, I see that the promise is definitively there. I don't see any reason why the economic growth of Peru would substantially decrease in the future from its current level. It is helpful for Peru that they don't compete on low-wage manufacturing sector the same way that for example many Asian countries do. This means that the GDP growth won't have that much of an effect to decrease jobs and push unemployment up since the wages will go up as well.

The transport infrastructure is definitively a challenge but I'm hopeful that Peru can improve in that department. Transport serves as facilitator for international trade and can be an important step for Peru to decrease poverty and improve equality. I think Peru is full of possibilities and personally I don't see it impossible that I could actually play a

part in the Peru's transport and trade sector in sometime future. It is a path of career that is definitively under consideration and this report has only amplified that consideration.

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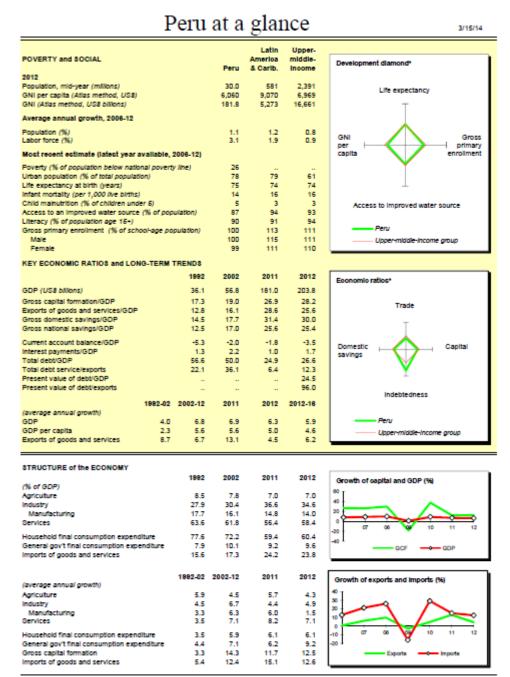
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ATTACHMENT 1A "PERU AT A GLANCE" (WORLD BANK 2013)



Note: This table was produced from the Development Economics LDB database.

^{*} The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

ATTACHMENT 2B "PERU AT A GLANCE" (WORLD BANK 2013)

Peru

PRICES and GOVERNMENT FINANCE					
	1992	2002	2011	2012	Inflation (%)
Domestic prices					0 T
(% change)					
Consumer prices	73.5	0.2	3.4	3.7	0 1
Implicit GDP deflator	69.2	0.5	4.8	1.6	14
Government finance (% of GDP, includes current grants)					2
					07 08 09 10 11
Current revenue	16.7	17.2	20.5	21.1	U
Current budget balance	0.0	0.5	6.7	7.3	GDP deflator —— CPI
Overall surplus/deficit	-3.9	-2.0	1.9	1.9	
TRADE	1992	2002	2011	2012	
(US\$ millions)	1882	2002	2011	2012	Export and Import levels (US\$ mill.)
-	3,578	7,714	46,268	46,611	
Total exports (fob)					50,000
Copper	756	1,187	10,711	10,234	40,000 +
Fishmeal	399	1,501	10,104	10,943	
Manufactures	1,016	2,345	10,431	10,414	30,000 +
Total Imports (cif)	4,001	7,393	36,967	39,996	
Fond	480	546	2,295	2,484	20,000
					10,000
Fuel and energy	396	975	5,737	6,174	
Capital goods	1,063	1,842	11,665	12,832	0 06 07 06 09 10 11
Export price Index (2000=100)	103	98	347	337	
Import price Index (2000=100)	87	95	215	218	■Exports ■Imports
Terms of trade (2000=100)	118	103	162	154	
BALANCE of PAYMENTS					
	1992	2002	2011	2012	Current account balance to GDP (%)
(US\$ millions)					
Exports of goods and services	4,414	9,169	50,633	50,769	4 T
Imports of goods and services	5,397	9,842	43,464	48,501	2
Resource balance	-983	-673	7,169	2,269	
Net Income	-1.392	-1,457	-13,710	-12,701	0
Net current transfers	458	1,019	3,200	3,296	-2 - 06 07 00 09 10 11 12
Current account balance	-1,916	-1,110	-3,341	-7.136	_
	_		8.065		-
Financing Items (net) Changes in net reserves	2,632 -716	1,927 -816	-4,724	21,963 -14,827	- 1
Memo:					
	2.455	0.774	40.043		
Reserves including gold (US8 millions)	3,456	9,721	48,913	64,155	
Conversion rate (DEC, local/US\$)	1.2	3.5	2.8	2.6	
EXTERNAL DEBT and RESOURCE FLOWS	1992	2002	2011	2012	
(US\$ m(li)ons)	1882	2002	2011	2012	Composition of 2012 debt (US\$ mill.)
	20.424	20.445	45.545		1
Total debt outstanding and disbursed	20,421	28,410	45,012	54,148	A: 2,435
IBRD	956	2,609	2,733	2,435	C: 937
IDA	0	0	0	0	G: 8,532 D: 5,159
Total debt service	1,018	3,443	3,292	6,413	2.5,159
BRD	194	304	340	400	E: 2,38
IDA	0	0	0	0	E 238
Composition of net resource flows					
Official grants	238	164	342	273	
Official creditors	293	257	136	-567	
Private creditors	-97	749	1,848	4,443	
Foreign direct investment (net inflows) Portfolio equity (net inflows)	-79 0	2,156 -9	8,233 147	12,244 -32	F: 34,899
World Bank program					
Commitments	1,150	150	130	0	A - IBRD E - Bilatera
Disbursements	.,	146	47	44	B - IDA D - Other multilateral F - Private
	_		279	342	C - IMF D - Other multisteral F - Private G - Short-te
Principal repayments	94	163			0.18
Principal repayments Net flows	-94	-17	-232	-298	0.000
Principal repayments	-				0.000

Note: This table was produced from the Development Economics LDB database.

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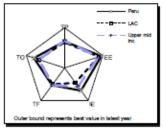
ATTACHMENT 2A PERU: TRADE AT-A-GLANCE (WORLD BANK 2013)

World Trade Indicators 2009/10

Peru: Trade-at-a-Glance Table

2008 GDP	2008 GDP	2008 Share	2008 Trade	Memb	Membership		No. of FTAs/ EIAs	
(millions)	per capita	In World Trade	per capita	GATT	wto	Goods	Services	
\$127,434	\$4,419	0.18%	\$2,458	1951	1995	7	3	

TRADE PERFORMANCE ^F		
	Ranking	Declie
TRADE POLICY (TP) (out of 125)	78	7
EXTERNAL ENVIRONMENT (EE) (out of 125)	15	2
INSTITUTIONAL ENVIRONMENT (IE) (out of 183)	56	4
TRADE FACILITATION (TF) (out of 155)	67	5
TRADE OUTCOME (TO) (out of 157)	10	1



TRADE POLICY (TP)	1995-99^	2000-04*	2005-08*	Latest	
Tariff Trade Restrictiveness Index TTRI (MFN applied tariff)		12.9	7.6	7.4 *	
TTRI (applied tariff including preferences)		_	5.8	5.3 *	MFN applied twff (spi
OTRI (Overall TRI, applied tariff incl. prefs.+NTMs)			12.8	12.3 *	ag)
MFN applied tariff - simple avg (%)	14.2	12.2	9.2	6.1	1 1
Dispersion (coefficient of variation)	0.2	0.4	0.7	1.0	TTRI (MFN)
Maximum rate (excl. alcohol and tobacco)			20.0	20.0	
Agriculture - simple avg (%)	15.5	15.8	12.7	10.0	MFN applied tarff (egt
Nonagriculture - simple avg (%)	14.0	11.7	8.6	5.5	~ <u>-</u>
MFN applied tariff - trade weighted avg (%)	13.4	11.3	6.4	2.9	
Applied tariff (Incl. prefs.) - trade weighted avg (%)	13.4	10.8	4.2	2.2	Applied tariff (wgt avg)
Agriculture	14.9	12.9	5.1	3.4	1 1
Nonagriculture	13.0	10.5	4.1	2.0	Import duties
Applied tariff (incl. prefs.) - production weighted avg (%)			11.2	9.2 *	<u> </u>
MFN applied tariff escalation (finished % minus raw %)		-1.1	-0.5	-0.9 *	0 10 20 30
Agriculture		2.3	3.4	2.9	EPers BLAC Bupper mid inc
Nonagriculture		0.0	0.1	-0.2	<u> </u>
import duties (% of imports)	8.8	6.6	5.3		
Tariff overhang (MFN bound minus MFN applied rate,%)	15.9	17.9	21.0	24.1	GATS
Bound tariff frequency ratio (% of total lines)	100.0	100.0	100.0	100.0	commit.
Non-ad valorem tariff frequency ratio (%)	0.0	0.0	0.0	0.0	
Non-tariff measures frequency ratio (%)		39.8			0 40 80
Anti-dumping initiations	10.6	6.6	2.5	3.0	BPeru DLAC Dilipper mid inc
Overall GATS commitment index (0-100, best)			24.58	24.58 *	

EXTERNAL ENVIRONMENT (EE)	1995-99^	2000-04*	2005-08*	Latest	
Market Access-TTRI (MA-TTRI, applied tariff incl. prefs.)			1.8	0.8	
MA-OTRI (applied tariff incl. prefs. and NTMs)			9.2	6.4 *	MA.TTRI
ROW applied tariff (incl. prefs.) - trade weighted avg (%)	4.0	3.1	1.5	0.9	1_
Agriculture	7.3	3.8	2.0	1.5	ROWapple-(kepl ang)
Nonagriculture	3.5	3.0	1.4	0.8	
MFN zero-duty exports (% of total exports)	33.1	40.6	50.5	55.8 *	MPN zero duly esporte (N)
Exports to FTA / CU partners (% of total exports)	5.4	5.9	29.8	54.0	
Anti-dumping initiations faced	0.2	0.2	0.5	2.0	Bles D.A. Dippersidite
Real effective exchange rate (% change,+ =apprec.)	-0.6	-0.1	1.8	7.1	All numbers normalized to a 0 to 1 scale

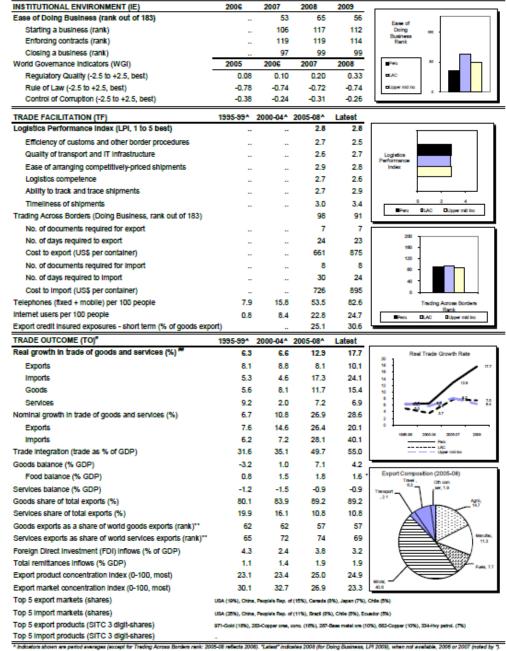
ns shown are period everages. "Laites" indicates 2006, when not evallable, 2006 or 2007 (noted by ").

EAP: East Asia and Pacific, ECA: Europe and Central Asia, LAC: Latin America and the Carbbean, MNA: Middle East and North Africa, SAC: South Asia, SSA: Sub-Salaran Africa. GATT: General Agreement on Terific and Tradic, WTO: World Trade Organization; FTA: free inside agreement; EIA: economic integration arrangement, NTM: nonfarff measures; ROM: rest of the world; CU: outsions unlost; "." Indicates missing value.

ATTACHMENT 2B PERU: TRADE AT-A-GLANCE (WORLD BANK 2013)

World Trade Indicators 2009/10

Trade-at-a-Glance Tables



nent Data Group, Prospects Group, UNCTAD and COMTRADE

as in constant 2000 US dollars. " Rank is based on average annual world share for each period. The sample sizes are 173, 179, 100 and 173 countries, resp