# Ι.

# Production and employment

Although in 2011 the Peruvian economy showed again a period of strong dynamism reflected in a growth rate of 6.9 percent at year end, higher volatility was observed in the growth rate compared to the previous year as a result of fears of a relapse in the world economy –due to the debt crisis affecting some countries of south Europe– on the one hand, and to uncertainty associated with elections in the country, on the other hand.

This growth in GDP was influenced by the strong dynamism of non-primary sectors (7.4 percent), which showed higher growth rates than primary sectors even though the latter registered higher rates than in 2010 due to the recovery of fishing –after 2 years of decline– and the industry based on the processing of raw materials.

In terms of per capita production, the growth rate recorded in 2011 was 5.7 percent, higher than the average rate of 4.4 percent registered in the previous decade, which was the period with the highest GDP per capita growth rate in the country.



#### 1. Domestic demand

In 2011 domestic demand grew 7.2 percent after having recorded a growth rate of 13.1 percent the previous year, even though the former rate was higher than the mean growth rate in the decade (6.8 percent). Analyzing the performance of the different components of domestic demand, we see that private consumption accelerated its

pace of growth from 6.0 percent in 2010 to 6.4 percent in 2011, that is, to a rate nearly one percentage point higher than the mean rate in the decade.

Private investment grew 11.7 percent, although showing a differentiated conduct over the year, with rates of over 15 percent in the first semester and one-digit rates in the second semester. Nonetheless, the growth rate of private investment in 2011 was also higher than the mean growth rate in the decade.

Government spending in investment dropped 17.8 percent. It should be pointed out that the government published Emergency Decree N° 012-2011 in March with the aim of increasing public saving to face the adverse effects of a relapse in the global economy.

TABLE 1 GROSS DOMESTIC PRODUCT BY TYPE OF EXPENDITURE (Real % change)					
	2009	2010	2011	Average 2002-2011	
Domestic Demand	-2.8	13.1	7.2	6.8	
a. Private consumption	2.4	6.0	6.4	5.5	
b. Public consumption	16.5	10.0	4.8	6.2	
c. Gross domestic investment	-9.2	23.2	5.1	10.9	
- Private	-15.1	22.1	11.7	10.8	
- Public	21.2	27.3	-17.8	11.3	
Exports	-3.2	1.3	8.8	6.5	
Minus:					
Imports	-18.6	24.0	9.8	9.0	
GDP	0.9	8.8	6.9	6.4	
Memo:					
Total public expenditure	18.1	16.3	-4.2	7.6	

Source: INEI and BCRP.



#### 1.1 Private consumption

Although GDP recorded a lower growth rate than in the previous year, private consumption showed a faster pace of growth and reached an expansion rate of 6.4 percent since the recovery after the financial crisis of 2009 consolidated only in the second half of 2010. Thus, private consumption registered a growth rate similar to the one recorded in 2006, when the economy began to show a faster pace of growth.



The factors accounting for the growth of private consumption in 2011 included a 7.1 percent increase in national disposable income, the improvement of consumer confidence –which on average remained 4 points above the level observed in the previous year–, and the growth of employment, which showed a faster pace of growth (5.4 percent) than in 2010 (4.2 percent).

TABLE 2 NATIONAL DISPOSABLE INCOME 1/ (% change)					
	2009	2010	2011	Average 2002-2011	
Gross domestic product	0.9	8.8	6.9	6.4	
Gross national product <sup>2/</sup>	1.2	7.7	6.2	5.6	
Gross national income <sup>3/</sup>	0.6	10.9	7.4	6.6	
National disposable income 4/	0.5	10.5	7.3	6.6	
1/ Preliminary data. 2/ Excludes non-resident factor income from GDP. 3/ Includes losses and gains due to changes in terms of trade.					

Source: INEI and BCRP.

Other indicators that ratify the growth of consumption during the year are worth mentioning: sales of new family vehicles grew 24.5 percent and registered a new record of 92 thousand units sold; imports of durable and nondurable consumer goods grew 17.5 and 8.8 percent in terms of volume, respectively; sales in supermarkets and department stores expanded 19 and 20 percent on average, respectively, and the consumer loans granted by depository institutions grew by a real 20.6 percent. Moreover, new malls continued to be built or were expanded, both in Lima and in other cities of the country.

#### 1.2 Private investment

Volatility associated with external uncertainty and the elections period was especially reflected in the behavior of private investment. After growing 22.1 percent in 2010, its growth rate dropped to 11.7 percent (down nearly 50 percent). Nonetheless, this rate was above the average rate in the last decade.



This growth of private investment exceeded for the second consecutive year the growth of GDP, as a result of which the fixed gross private investment-to-GDP ratio rose from 19.2 percent in 2010 to 19.6 percent in 2011.



The country's economic dynamism in 2011 was mainly sustained by investment projects in the sectors of mining, energy, and infrastructure, although investment projects in the sectors of manufacturing, commerce, and tourism also stand out.

TABLE 5 <b>MAIN PRIVATE INVESTMENT PROJECTS 2011</b> (Millions of US\$)	
SECTOR	AMOUNT
Agriculture and livestock	196
Fishing	35
Mining and hydrocarbons	8,073
Manufacturing	1,957
Electricity, gas and water	1,592
Construction and infrastructure	1,404
Commerce	668
Services	1,208
Total	15,133

Source: BCRP Survey on Macroeconomic Expectations, magazines and otras specialized sources.

Major projects in the mining sector included Swiss group Xstrata's works to develop the copper projects of Antapaccay in Cusco and Las Bambas in Apurímac, which are scheduled to start operations this year and in 2014, respectively; Chinalco's Toromocho project in Junín; Antamina's works in Ancash to expand its plant's ore processing capacity by 40 percent, and Barrick's expansion of Lagunas Norte in La Libertad.

In the hydrocarbons sector, Petrobras continued with its natural gas explorations projects in Lot 57 and Lot 58 in Cusco, while Savia Perú carried out oil exploration in Lot Z-2B in Piura.

Investments in the energy sector included investments in electricity projects, such as the construction of the Combined Cycle Power Plant in Chilca (Lima) by Fénix Power. This thermal power plant, which will start operating in 2013, will have a capacity of 520 mwh and involves a total investment of US\$ 700 million.

Moreover, in response to increased demand for energy, Edelnor continued making investments for the expansion and maintenance of its distribution grid in Lima, and initiated the Subtransmission Plan with an investment of US\$ 14 million for the construction of three new Transformation Sub-Stations at Jicamarca, Zapallal, and Universidad Nacional de Ingeniería.

Investments worth pointing out in the manufacturing sector included Cementos Yura's culmination of the construction and onset of operations of its third furnace to produce cement in Arequipa, as well as Refinería La Pampilla's investment in Lima for the treatment of the wastewater produced by its plant.

Projects in the industry of consumer goods included Alicorp's expansion of its pasta production plant in Lima, which will start operating in the first semester of 2012, as well as the expansion of its detergents plant, also in Lima, which is in the engineering stage and is expected to start operations by 2013.

As regards investments in commercial centers, several malls were built and opened their doors both in Lima and in other cities in 2011. New mall projects in Lima included Centro Comercial Parque Agustino, developed by Graña and Montero, which opened in December, and the construction of Mall Aventura Plaza Santa Anita and Centro Comercial San Borja Plaza, which are scheduled to open by the end of 2012.

On the other hand, new malls in other cities of the country included Centro Comercial Plaza de la Luna of the

Romero group in Piura; Real Plaza Juliaca in Puno, as well as construction works carried out in cities like Chimbote and Huacho and other expansion projects, such as the one carried out at the Real Plaza in Trujillo.

Finally, investment projects in the hotel industry included the Marriott Hotel in Cusco, San Agustín Paracas Resort in Ica, the Royal Decameron Punta Sal hotel in Tumbes, and Vista Pacífico Resort in Lima.

# 1.3 Government Expenditure

Public expenditure decreased 4.2 percent in 2011, reflecting the lower investment of the general government and state enterprises which showed a decline of 17.8 percent at year end, but offset by the growth of consumption (4.8 percent). This decline was influenced by Emergency Decree N° 012-2011, which was published in March with the aim of increasing public savings to improve the country's standing face the adverse effects that a relapse in the global economy after the 2009 crisis could have.

Public spending on goods and services concentrated in the sector of Transport and Communications on road maintenance and road repair; in the sectors of Defense and Interior on the maintenance and recovery of the operation capacity of these sectors, on police surveillance, and on the maintenance of machinery and equipment; in Education, on teacher training and literacy programs; in the sector of Foreign Affairs, on diplomatic missions, commercial offices, and bilateral policy actions; in the National Registry, on improving children and adults' access to an ID in urban and rural areas; and in the National Elections Offices on the goods and services required to organize and carry out the electoral process in 2011.

As regards public investment, the higher expenditure was registered in the sectors of Transports (investments in road concession projects, Tren Eléctrico, airport concessions, road rehabilitation); Education (improve infrastructure and the quality of education); Health (improvement and equipment of hospital emergency services); Electricity (installation of small power systems in several villages); Agriculture (improvement of irrigation infrastructure and preservation of natural resources); and Housing (National Water Supply and Rural Sanitation Program).

#### 1.4 Exports and Imports

Exports of goods and services grew 8.8 percent due to the increase observed in exports of non-traditional products, which grew 20.2 percent in terms of volume. It is worth pointing out that agricultural, fishing, and chemical exports stand out in the group of non-traditional exports, while greater exports of coffee and fishmeal stand out in the group of traditional exports.

On the other hand, imports of goods and services grew 9.8 percent in 2011, but showed a slower pace of growth than in 2010 (24.0 percent). Like in the previous year, increases were observed in all the groups of items: imports of consumer goods grew 12.4 percent, imports of inputs increased 6.7 percent, and imports of capital goods increased 22.1 percent.

#### 1.5 Saving and Investment

Together with the growth of GDP, a recovery was also observed in domestic investment and domestic savings in 2011. The former component rose from 25.3 to 25.5 percent of GDP, while the latter rose from 22.8 to 23.6 percent of GDP.

This recovery implied less funding requirements from external savings to finance investment. Thus, external financing declined from a level of 2.5 percent of GDP in 2010 to 1.9 percent in 2011.

TABLE 4 <b>SAVING AND INVESTMENT</b> (% of GDP)				
	2009	2010	2011	
I. Investment (=II+III)	20.7	25.3	25.5	
Gross fixed investment	22.9	25.1	24.1	
Public investment	5.2	5.9	4.5	
Private investment	17.7	19.2	19.6	
Change in inventories	-2.1	0.2	1.4	
II. Domestic savings	20.1	22.8	23.6	
Public sector	4.6	6.0	7.1	
Private sector	15.5	16.8	16.4	
III. External savings	0.6	2.5	1.9	

Source: BCRP.



# 2. Production Sectors

Non-primary sectors grew 7.4 percent in 2011 after increasing 10.3 percent in 2010, while primary sectors recorded a better result than in the previous year since the recovery of the anchovy biomass allowed a recovery of fishing activity after two years of decline, as well as a recovery of the resource-based industry, especially the industry associated with the production of fishmeal and fish oil.



TABLE 5 <b>GROSS DOMESTIC PRODUCT</b> (Real % change)						
	Weight 2010	2009	2010	2011		
Agriculture and livestock	7.5	2.3	4.3	3.8		
Agriculture	4.5	0.9	4.1	2.8		
Livestock	2.3	4.4	4.4	5.2		
Fishing	0.3	-7.9	-16.4	29.7		
Mining and hydrocarbons	5.2	0.6	-0.1	-0.2		
Metallic mining	4.1	-1.4	-4.8	-3.6		
Hydrocarbons	0.7	16.1	29.5	18.1		
Manufacturing	15.0	-7.2	13.6	5.6		
Manufacturing based on raw materials	2.5	0.0	-2.3	12.3		
Non-primary manufacturing	12.3	-8.5	16.9	4.4		
Electricity and water	2.0	1.2	7.7	7.4		
Construction	6.7	6.1	17.4	3.4		
Commerce	15.0	-0.4	9.7	8.8		
Other <sup>1/</sup>	48.3	3.1	8.0	8.3		
GLOBAL GDP	100.0	0.9	8.8	6.9		
Primary	15.6	1.0	1.1	4.4		
Non-Primary	84.6	0.8	10.3	7.4		
1/ Includes VAT, excise tax, and import duties.						

Source: INEI.

#### 2.1 Agriculture

In 2011 the agriculture sector grew 3.8 percent, completing in this way an expansive seven-year cycle associated with a process of growth of both domestic and external demand. The latter was reflected in the increase observed in the volumes of exports of asparagus and coffee, as well as in the greater share of exports of other crops, such as grapes, avocado and cocoa, which have won new markets abroad.

In the case of domestic demand, it is worth pointing out that the improvement of people's incomes is reflected in an increased consumption of meat and dairy products, which has allowed the livestock subsector to grow for the third consecutive year at a higher rate then the mean rate of the sector.



Agricultural production grew 2.8 percent in 2011, recording a lower rate than in 2010 due to the negative effects of La Niña, whose low temperatures affect mainly crops oriented to the domestic market, such as rice, maize, vegetables, and legumes. Agroindustrial crops, on the other hand, are supported by technological resources, such as irrigation systems and fertilizers, which provide them with better conditions to face this type of climate alterations.

AGRICULTU	TABLE 6 <b>JRE AND LIVESTOC K P</b> (Real % change)	RODUCTION		
	2009	2010	2011	Average 2002-2011
Agricultural production	0.9	4.2	2.8	3.5
For the domestic market	6.7	1.2	0.4	3.2
Potato	4.7	1.1	7.0	4.2
Rice	7.1	-5.3	-7.4	2.6
Banana	4.1	7.5	-5.1	2.0
Cassava	-0.5	6.4	-10.3	2.6
Amilaceous maize	14.6	-9.9	-0.7	0.1
Garlic	-14.2	8.6	31.7	2.6
Onion	-5.2	19.5	0.3	5.7
Dry beans	14.5	-5.9	-5.1	3.7
Lemon	-11.6	12.6	-2.9	1.0
Mandarine	-11.3	33.3	6.5	6.2
Orange	0.1	4.5	5.7	4.1
Tomato	5.3	1.5	-17.5	-0.2
Others	10.5	0.5	0.9	3.2
For export and industry	-11.9	12.0	8.6	4.4
Coffee	-11.1	8.7	13.6	4.4
Sugar cane	5.8	-0.8	0.3	3.0
Yellow maize	3.4	0.8	-1.7	1.8
Asparagus	-4.4	6.8	17.0	8.0
Grapes	18.4	6.1	5.5	8.8
Olive	-93.7	946.5	-2.6	8.5
Mango	-48.2	172.0	-22.5	9.3
Сосоа	9.1	26.7	21.1	9.1
Avocado	15.5	17.1	16.3	8.7
Cotton	-42.7	-33.6	91.4	-1.4
Oil palm	8.9	8.8	26.6	6.7
Others	9.2	2.2	19.2	-2.8
Livestock production	4.4	4.4	5.2	5.0
Poultry	9.9	5.8	6.4	7.7
Beef	0.8	4.4	4.1	3.1
Milk	5.5	1.6	2.7	4.5
Eggs	0.8	6.1	10.9	5.3
Others	-3.5	2.4	2.4	-0.7
AGRICULTURE AND LIVESTOCK	2.3	4.3	3.8	4.1

Source : Ministry of Agriculture.

Nearly 60 percent of the sector's annual growth in 2011 is explained by the expansion of the livestock subsector, which was in part associated with a higher per capita consumption of poultry: 44.8 kilos per capita per year (33 kilos five years ago and 25.4 kilos ten years ago). The population's consumption of eggs and beef has also increased significantly. Together, these three products account for over 50 percent of growth in the agriculture sector in 2011.

The cold temperatures caused by La Niña brought about favorable prices for export-oriented agriculture and agroindustry due to the lower global supply of coffee, cotton, and asparagus. The price of coffee registered record levels and reached a peak price of US\$ 6,698/ton –the highest level in the past three decades– in May 2011. In this context, Peruvian coffee growers obtained a production volume of 300 thousand tons of coffee –13.6 percent higher than in the previous year–, due to the abundant production obtained in the valleys of Junín, Cusco, and San Martín.



The volume of cotton production increased 91.4 percent, from 64 to 122 thousand tons between 2010 and 2011, and exports of cotton reached a value of US\$ 7.7 billion, favored by better prices since the price of cotton rose from US\$ 2,417 to US\$ 3,762 per ton between these two years. The largest production of cotton came from the valleys of Ica, Lambayeque, Piura, La Libertad, and Lima.

Asparagus producers increased their production by 17 percent to meet the increased demand for this crop from the industry that produces canned and frozen asparagus for the external market. The volume of exports increased 16.6 and 30.9 percent, respectively, while the prices of these exports increased 14.1 and 21.8 percent, respectively, due to the lower supply of asparagus from China, the world's largest producer of this crop. The highest volumes of asparagus were produced in La Libertad, Lima, and Ica.

The production of sugar cane recorded a slight increase (0.3 percent). Lower agricultural yields –down about 2 percent– due to the presence of cold temperatures and the delay of rains in the North areas were offset by a 2 percent increase in harvested areas. With this, the sugar industry improved the ratio of input required to produce a ton of sugar as the number of tons of sugar cane required to obtain a ton of sugar declined from 9.2 to 9.5 tons between 2010 and 2011.

It is worth pointing out that the positive results obtained in terms of agricultural exports reflect the participation of all the sectors involved. Small farmers exported coffee and cocoa from the jungle areas, quinua from Puno, oregano from the valleys in the South, organic bananas from Piura, cochineal from the coast and sierra, and nuts from Madre de Dios. Large farmers increased their exports of asparagus, grape, avocado, paprika, and sugar, while the high Andean communities increased their shipments of wool and fine fibers. In addition to this, exports of fresh and processed food and inputs also increased, contributing to the growth of the food and beverage industry in the country.

Agriculture for domestic consumption grew slightly (0.4 percent) as a result of a lower cultivation of rice in the North due to the delay of rains<sup>1</sup>; low yields of tomato and lemon due to the unusual cold weather these crops had to withstand, and a lower production of banana and cassava<sup>2</sup> due to the overflows of rivers Marañón, Ucayali, and Amazon at the end of the first quarter. However, the higher production of potato in the sierra and the increased production of garlic in Arequipa due to favorable rain conditions offset the lower results obtained in rice, tomato, lemon and other crops.

The sierra produced three-quarters of the annual production of potato in 2011. The largest supply was produced in the central sierra<sup>3</sup>, with yield improvements being observed in Pasco (58 percent), Junín (15 percent), and Huánuco (9 percent) since the crops were not affected by frosts in the higher altitude areas as happened in 2010. The southern sierra<sup>4</sup> registered a slightly higher volume of potato than in the previous year due to the increased supply of water observed in Puno. The production of potato in the northern sierra, on the other hand, declined due to alterations in the rainfall cycle in that area.

In the case of rice, production in the areas of Lambayeque and Piura was affected by anomalies associated with La Niña, which generated delays in rainfall due to the cold weather it causes.

 <sup>&</sup>lt;sup>1</sup> The rains in Piura, Lambayeque, Cajamarca, and Amazonas, departments that account for 50 percent the annual production of rice in 2010, were delayed 2 or 3 months; rainfall was more intense between March and May instead of in September-February.
 <sup>2</sup> Lost cultivated areas included 22.6 thousand hectares cultivated with bananas (14.4 percent of the harvested areas) and 6.9

<sup>&</sup>lt;sup>2</sup> Lost cultivated areas included 22.6 thousand hectares cultivated with bananas (14.4 percent of the harvested areas) and 6.9 thousand hectares cultivated with cassava (6.9 percent of the harvested areas).
3. The Control Signature areas (Illustrue Dassa Unific and Unapproximated areas).

<sup>&</sup>lt;sup>3</sup> The Central Sierra areas (Huánuco, Pasco, Junín, and Huancavelica) accounted for 34 percent of the total production of potato in 2011.

<sup>&</sup>lt;sup>4</sup> The Southern Sierra areas (Arequipa, Moquegua, Tacna, Puno, Cusco, Apurímac, and Ayacucho) represented 42 percent of the total production of potato in 2011.



Finally, the growth of agriculture entailed a greater use of fertilizers, which is reflected in that imports of fertilizers rose 10 percent in the year. The increased use of compound fertilizers and urea stands out. Between 2002 and 2011 potassium compounds have increased their share from 12 to 20 percent of total fertilizers, nitrogen compounds have increased their share from 12 to 20 percent of total fertilizers, nitrogen compounds have increased their share from 27 to 34 percent, and urea has reduced its share from 60 to 47 percent. In 2011 the use of potassium compounds has increased the most (24 percent) compared to the previous year, since these fertilizers are the ones used to increase yields and plants resistance to adverse weather conditions.

#### BOX 1

# EXPORT- AND INDUSTRY-ORIENTED AGRICULTURE

Export-oriented agriculture in Peru is based on the great diversity of climates found in the country's regions, which allows us to export produce in all the seasons of the year and to benefit from other countries' supply constraints associated with seasonal factors or with the effects caused by events such as "El Niño" and "La Niña".

The growth of agriculture in the country has been especially favored by several factors, including the increased extension of land dedicated to cultivate crops such as coffee, asparagus, and grapes –the three main agricultural exports in 2011–; the improvement in yields achieved in most export crops; the incorporation of new products, such as avocado and cocoa, and the high external prices observed in the last two years, which have encouraged agricultural production.

Peru's exports take place in a context of trade openness given that the country has signed free trade agreements with its main trading partners (China and the United States), with other countries in the American continent (Canada, Mexico and Chile), with some Asian countries (Republic of Korea, Singapore), with the Andean Community member countries (Bolivia, Colombia, and Ecuador) and with country members of Mercosur (Argentina, Brazil, Uruguay, and Paraguay).

INDICATORS OF GROWTH OF AGRICULTURE PRODUCTS						
	Coffee	Asparagus <sup>1/</sup>	Grape	Avocado	Cocoa <sup>2/</sup>	Mango
Exported value						
(Millions of US\$)						
2011	1,580	480	301	164	105	115
2010	887	427	180	85	79	89
2002	188	187	21	5	14	33
% Chg. 2011/2010	78.3	12.4	67.3	94.2	33.7	29.1
% Chg. 2011/2002	741.0	157.2	1,326.8	3,237.6	638.3	246.7
Production						
(Thousands of MT)						
2011	300	392	296	215	56	352
2010	265	335	280	184	47	454
2002	213	183	136	94	24	180
% Chg. 2011/2010	13.6	17.0	5.5	16.3	19.9	-22.5
% Chg. 2011/2002	41.2	114.3	118.4	127.6	131.7	95.9
Harvested area						
(Thousand hectares)						
2011*	360	32	16	19	83	25
2010	350	31	15	18	77	25
2002	287	19	11	10	49	12
% Chg. 2011/2010	2.8	5.0	5.0	7.5	8.1	0.0
% Chg. 2011/2002	25.1	69.0	44.0	84.8	69.6	103.2
Yield						
(Kg/hectare)						
2011*	845	12,152	20,942	11,530	676	13,964
2010	757	10,850	18,698	10,387	604	18,008
2002	740	9,539	12,394	9,129	495	14,475
% Chg. 2011/2010	11.6	12.0	12.0	11.0	12.0	-22.5
% Chg. 2011/2002	14.1	27.4	69.0	26.3	36.7	-3.5

Estimated data.

Fresh, frozen and canned.

<sup>17</sup> Fresh, frozen and canned.
 <sup>2/</sup> Includes all the derivate products of cocoa.
 Source: Ministry of Agriculture and BCRP branches.

The prices of exports of agricultural commodities registered a remarkable recovery in 2011. The prices of avocado and coffee increased 42 and 39 percent due to Mexico's lower supply of avocado -Mexico is the leading country in the production and exports of avocado- due to anomalous cold weather and to Brazil's lower supply of coffee due to excessive rainfall as a result of the 2010-11 episode of La Niña. The prices of asparagus and grapes increased 16 and 15 percent in annual terms due to China's lower supply of processed asparagus for the European market and to the higher competitiveness of the Peruvian asparagus and due to the time sale of Peruvian grapes in the markets of the United States, the Netherlands, China, and Russia.



The increase in the value of exports of coffee, asparagus and grapes in the last ten years –741, 157 and 1,327 percent, respectively– reflects the expansion of harvested areas and the yield improvements obtained between 2002 and 2011. The areas where coffee is grown have risen from 287 to 360 thousand hectares, the ones with asparagus have increased from 19 to 32 thousand hectares, and the ones with grapes have increased from 11 to 16 thousand hectares. The yields of these crops have risen substantially between 2002 and 2011: from 740 to 845 kilos per hectare in the case of coffee, from 9 to 12 tons per hectare in the case of asparagus, and from 12 to 21 tons per hectare in the case of grapes.

The extension of sown areas in the crop year is an indicator of the potential that crops have in terms of exports in the next few years. As for coffee, a higher supply is expected with the cultivation of 16 thousand hectares in San Martín in 2010-2011, which will increase the harvested areas by 19 percent in the next four years. In the last three sowing periods, La Libertad has led the expansion of areas sown with asparagus by including other 5.8 thousand hectares to cultivate this crop. This will imply an increase of 18 percent in the harvested areas in the next three years. In the same period, the departments of Piura and Ica have expanded the areas cultivated with grapes by 4.5 thousand hectares. This will increase the harvested areas by 30 percent in the next three years.

Avocado and cocoa are new export products that show significant growth in terms of exported value (3,238 and 638 percent, respectively, in the last ten years). Between 2002 and 2011, the harvested areas and yields of these crops have increased by 85 and 70 percent and by 26 and 37 percent, respectively. In the case of cocoa, 9.3 thousand hectares have been cultivated with cocoa in San Martín in the last two farming periods, which would represent an increase of 11 percent in the harvested areas in the next two years. In the case of avocado, a higher yield has been achieved especially in the inter-Andean valleys of the departments of Lima, La Libertad, Junín, Arequipa, Ayacucho, and Ica, especially for the varieties known as Hass and Strong avocado, which are in great demand abroad.

The production of mango, which is concentrated mainly in the department of Piura, has seen the harvested areas increase two-fold in the last ten years. The yield is associated with weather variations, as the production of this crop is favored by warm climates and affected by cold temperatures. The lower yields and lower production of mango obtained in the last year are explained precisely by the cold temperatures recorded in 2010-11.

#### 2.2 Fishing Sector

Recovering from two consecutive years of contraction due to the effects of the anomalies caused by El Niño event in 2009, fishing showed a growth of 29.7 percent in 2011. Even though a greater availability of fish species used both for both human consumption and industrial consumption was observed in the year, activity in the sector showed a high volatility associated with the impact of negative anomalies that favored species such as the anchovy, but caused other species, such as the giant squid, to move away from the coast especially in the second half of the year.

Fishing for human consumption grew 17.4 percent, favored by the increased presence of species such as yellow mackerel, prawns and squid to produce frozen products, and yellow mackerel, smoothhound, and striped mullet which are consumed as fresh fish. On the other hand, the catch of species used to produce canned fish products recorded a slight growth (2.0 percent) given that the increased catch of yellow mackerel, bonito, and Pacific chub mackerel was offset by a lower availability of shellfish, abalone, machete, and tuna.

The greater catch of giant squid to produce frozen products was registered during the first half of the year, reaching a maximum of 45.3 thousand tons in June, but a drastic decline was observed in squid catch since September when the volumes caught dropped to levels of 13.5 thousand tons on average due to the effects of negative anomalies in the coast that dispersed the species and hindered its catch.

TABLE 7 <b>FISH CATCH, BY DESTINATION</b> (Real % change)				
	2009	2010	2011	Average 2002-2011
Human consumption	-13.6	-3.0	17.4	6.7
Canned	-22.3	19.8	2.0	5.4
Fresh	6.1	-16.2	18.0	0.1
Frozen	-22.1	4.4	20.3	17.1
Dry-salted	-36.9	-3.0	-12.6	-4.0
Industrial consumption	-5.4	-42.9	110.1	-0.4
Anchovy	-5.4	-42.9	110.0	1.0
FISHING SECTOR	-7.9	-16.4	29.7	4.1

Source: Ministry of Production.



TABLE 8 <b>FISH CATCH BY MAIN SPECIES</b> (% change)					
Species <sup>1/</sup>	2009	2010	2011	Average 2002-2011	
Anchovy	-5.4	-42.9	110.0	1.0	
Pacific chub mackerel	-56.5	-77.4	1,487.0	2.4	
Prawns	513.8	-81.6	46.2	31.8	
Giant Squid	-30.1	-3.2	11.5	25.7	
Mackerel	19.3	-83.7	150.3	3.3	
Hake	35.2	-12.8	-23.6	-12.9	
Scallops	39.3	143.6	-19.1	26.9	
Others	-4.3	2.8	5.6	-9.2	

<sup>1/</sup> Includes anchovy for industry, frozen giant squid, prawns and scallops. Source: Ministry of Production.



The volume of yellow mackerel caught for human consumption increased substantially, reaching 261.8 thousand tons, a higher level of capture than the one recorded in the previous four years. Thus, the catch of yellow mackerel contributed with 7.9 percentage points to the sector's growth rate. After anchovy, this species was the one that showed the highest contribution to the annual growth of fishing in the year.

Anchovy catch for industrial consumption totaled 7.0 million tons, 110 percent more than in the previous year since the reproduction of this species was favored by continued fishing ban periods and by lower catch in the second semester of 2010 due to the presence of La Niña.



In March 2011 Imarpe<sup>5</sup> estimated the biomass of anchovy at 10.5 million metric tons, a higher level than the historical average level of 7.4 million metric tons, which allowed that a higher fishing quota of this species be established for the two fishing seasons.

TABLE 9 <b>FISHING SEASONS</b> (Thousands of MT)				
		2010		2011
	South	North-Central	South	North-Central
First season	400	2,500	400	3,675
Second season	450	2,070	400	2,500
Year total	5,420			6,975
Source: Ministry of Production.				

The first anchovy fishing season in the North-Central coast, the most important area in terms of catch and quota, started on April 1. A quota of 3.7 million metric tons –1.2 million higher than the quota in 2010– was established for this fishing period season, which ended on July 31. On the other hand, a fishing quota of 2.5 million metric tons was established for the second season (November 23 to January 31, 2012) by the Ministry of Production.

<sup>&</sup>lt;sup>5</sup> Imarpe estimates the biomass of anchovy one month before the beginning of the fishing season. On October 1, 2011, the anchovy biomass was estimated at 10.6 million tons.



Exports of fishmeal, which amounted to US\$ 1.77 billion, grew 9.8 percent, consolidating in this way the growing trend observed in the past six consecutive years. The growth of exports and production concentrated mainly between the months of May and June, the increased production of fishmeal being mainly destined to the Chinese market.

The price of fishmeal declined on average compared to its price in 2010 due to the greater availability of anchovy –the main input–, of which Peru is the world's largest producer. Over the year the price ranged from a maximum of US\$ 1,798 per ton in February and a minimum of US\$ 1,244 per ton in December, reflecting the lower supply observed in the first months of the year and the recovery of supply after anchovy catch normalized and higher quotas were established.





#### BOX 2

# ANCHOVY AND SQUID CAPTURE IN PERU

Peru is one of the major fishing countries in the world, with a significantly noteworthy annual catch of anchovy and pota, two of its main fishing resources. In 2011 these two species accounted for 82 and 4 percent, respectively, of total fishing capture on the Peruvian coastline, which amounted to 8.2 million metric tons.

Peruvian anchovetas (Engraulis ringens) are small size fish, which can reach up to 20 cm in length. They live in moderately cold waters, forming huge schools, which facilitate their capture in great volumes. Anchovies are mainly caught in two areas of the Peruvian coastline: the North-Central zone and the South zone. The former is more productive and accounts for 89 percent of the fish capture used for the production of fishmeal and fish oil in the last 9 years.





Anchovy is also used for direct human consumption. It is processed to make canned and frozen products, but it is also consumed fresh, even though this consumption accounts only for 2 percent of the total catch. In recent years, however, an increase has been observed in the capture of anchovy for human consumption, despite the decline recorded in 2011 due to the increased demand for this input of the fishmeal and fish oil industry.

The pota or giant squid is a mollusk that can measure up to 120 centimeters and weigh 50 kilograms. It is found from the northern coast of Chile to Mexico, but is mostly concentrated in the Peruvian coastline.

It is primarily used in the preparation of frozen products, with 70 percent of its catch being destined to this end. In 2011, the volume of pota capture increased 11.5 percent and pota exports to markets such as China, Thailand, Spain, and South Korea, grew in a similar magnitude. In terms of value, the exports of pota, made mainly by companies such as Productora Andina de Congelados (Proanco) and Peruvian Sea Food, grew 50 percent.



# 2.3 Mining and Hydrocarbons Sector

Activity in the mining and hydrocarbons sector decreased slightly and showed a rate of -0.2 percent due to lower metal mining production, which in part reflects the effects of the postponement of new mining projects in a more volatile international context after the financial crisis of 2008.

Several currently ongoing projects began to show low yields associated with wear and tear in the mining cycle. This was particularly evident in the case of some gold and silver mining projects, as well as in some zinc projects. In the case of the latter, some mining companies also switched their operations to the extraction of copper due to its higher relative price.

The negative performance in metal mining was offset by the strong growth observed for the second consecutive year in the production of natural gas, which increased from an average of 700 to 1,099 million cubic feet per day between 2010 and 2011.

TABLE 10 MINING AND HYDROCARBONS PRODUCTION (Real % change)					
	2009	2010	2011	Average 2002-2011	
METALLIC MINING	-1.4	-4.8	-3.6	3.1	
Gold	2.3	-10.8	0.0	1.7	
Copper	0.5	-1.7	0.1	6.3	
Zinc	-5.6	-2.8	-14.6	1.7	
Silver	6.4	-7.2	-6.2	2.9	
Lead	-12.4	-13.4	-12.2	-2.3	
Tin	-3.9	-9.7	-14.7	-2.8	
Iron	-14.4	36.7	16.0	8.7	
Molybdenum	-26.5	37.9	12.8	7.3	
HYDROCARBONS	16.1	29.5	18.1	10.9	
Liquid hydrocarbons	20.7	8.2	-2.8	4.6	
Natural gas	2.5	104.0	56.9	40.8	
TOTAL	0.6	-0.1	-0.2	4.2	

Source: INEI, Ministry of Energy and Mining and Perupetro.



**Gold** production reached 5.3 million ounces –a similar level to the one recorded the previous year–, as a result of which Peru stands again as the first producer of this precious metal in the region and ranks sixth in the world (with a contribution of 6.0 percent to global production).

The lower metal content obtained by Minera Yanacocha and Barrick Misquichilca accounted for a decline of 4.8 percentage points in the sector's growth rate, but this decline was offset by the operations of the new projects La Zanja and Tantahuatay in Cajamarca, as well as by increased informal gold mining in Madre de Dios, which together represented an increase of 254 thousand ounces in gold production relative to the previous year.



The extraction of **copper** grew slightly in 2011, from 1,094 thousand fine metric tons (FMT) to 1,095 thousand metric tons (0.1 percent). Production at Antamina and El Brocal grew 6.8 and 33.2 percent, respectively, replacing zinc with copper given the higher relative price of the latter metal. However, this result was offset by lower activity at Southern Peru, whose production dropped by 12.1 percent due mainly to the lower production registered by its Cuajone unit in Moquegua as a result of lower metal grades (140 thousand metric tons in 2011 versus 165 thousand metric tons the year previous).



Antamina consolidated its position as the leading producer of copper concentrates in the country, with a production of 347 thousand metric tons, followed by Southern Peru (with 261 thousand metric tons) and Cerro Verde (with 228 thousand metric tons). With this result, Peru remains for the second consecutive year as the second largest producer of copper, both in the region and in the world, with a share of 7.7 percent in terms of global production.

In 2011 the supply of **zinc** contracted 14.6 percent. This metal had the greatest negative impact on the sector's annual result, since its production declined from 1,470 thousand metric tons in 2010 to 1,256 thousand metric tons in 2011. The companies that recorded the biggest declines included Antamina, whose production dropped 36.7 percent; El Brocal, whose production fell 32.7 percent, and Volcan, whose production dropped 13.9 percent. The lower production of zinc in the first two cases is explained by the lower relative price of this metal, while the reduction in the latter case is explained by the smaller volume of treatment of minerals due to the beginning of the depletion phase of Volcan's open pit mine at Cerro de Pasco.

These results contrasted with the ones recorded by Milpo, whose zinc production grew in 2011 due to the culmination of the first expansion stage of its Cerro Lindo concentration plant in Ica, which allowed the company to increase its mineral treatment capacity from 5 thousand to 10 thousand metric tons of ore per day.

In 2011 Volcan was the first ranked zinc producer in the country with 328 thousand metric tons, followed by Antamina with 270 thousand metric tons. In the world, Peru fell one spot and now ranks third after Australia with a zinc output that represents 10.2 percent of global production, while China remained as the leading producer of zinc with an output that represents over 30 percent of the world production of this mineral.



**Silver** production declined 6.2 percent in 2011, affected by the lower grades of the Hochschild group's Minera Ares and Minera Suyamarca units of Arcata and Pallancata, located in Arequipa and Ayacucho, respectively, as well as by the lower content of silver recovered in the copper ores processed by Antamina. These declines were partially offset by Volcan's increased production as a result of the onset of operations of the first stage of its Piritas de Plata project in Pasco.

It should be said that Peru lost its spot as the world's largest producer of silver and now ranks second behind Mexico due to the onset of operations of Canadian company's unit of Peñasquito, which has a potential production of 32 million ounces per annum.



The extraction of **lead** shrank 12.2 percent, influenced mainly by Volcan's lower production –down 4.0 percent– due to the lower mineral content of its mine in Cerro de Pasco, as well as by the lower processing of zinc minerals, which use lead as a by-product, at Antamina (-66.2 percent) and at El Brocal (-17.6 percent). It should be noted that Peru ranked fourth in the world production of lead with 230 thousand metric tons in the year, which represents 6.4 percent of global production, while China remained the first producer of lead with close to 50 percent of total production.



The production of **tin** dropped 14.7 percent due to the reduction of the capacity of Minsur's concentration plant as a result of problems with the capacity of the tailing field. In contrast, the production of **iron** grew 16.0 percent in response to China's increased demand, while **molybdenum** concentration grew 12.8 percent due to Antamina's increased activity.

Moreover, the production of **hydrocarbons** rose 18.1 percent, reflecting mainly the higher production of natural gas (56.9 percent) which contrasted with the decline in the production of liquid hydrocarbons (-2.8 percent).



In 2011 the exploitation of **natural gas** reached a volume of 1,009 million cubic feet per day (mmcfd). The increase registered in terms of volume compared to 2010 is mainly explained by the fact that the commercial extraction of gas from Pluspetrol's Lot 56, which started only in mid-2010 with an output of 320 mmcfd, reached an average of 590 mmcfd in 2011. On the other hand, the decline in the production of **liquid hydrocarbons** reflects the lower content of natural gas found in Camisea's Lot 88, as well as the depletion of Pluspetrol's oil lots (Lots 8 and I-AB) in Loreto.





#### BOX 3

#### CAMISEA AND THE EXTRACTION OF NATURAL GAS IN PERU

At the beginning of the past decade, the production of natural gas in Peru did not exceed 40 mmcfd, that is, less than 5 percent of the production registered in 2011 (1,099 mmcfd). The substantially significant increase observed in the country's production of natural gas is mostly associated with the exploitation of the deposit of natural gas of Camisea since 2004. This reservoir of natural gas, discovered more than 20 years ago, has provided Peru with the opportunity of both transforming its energy matrix and creating a pole of development in the southern region of the country. It should be pointed out that because of the proven and probable reserves of natural gas at Camisea, estimated at around 16 trillion cubic feet, Camisea is the largest gas deposit in the country and the fifth in Latin America<sup>6</sup>.

The Camisea project consists of extracting the gas of Lots 88 and 56 (Cusco) and transporting it to a liquid separation plant, called Las Malvinas, where the water and liquid hydrocarbons are separated from the gas and the resource is prepared to be transported. The gas extracted from Lot 88 is transported to Lima through a pipeline, while the gas extracted from Lot 56 goes through a pipeline to the liquefaction plant of Peru LNG located in Pampa Melchorita, close to Ica, where it is liquefied and exported thereafter. The liquids obtained from natural gas in the separation plant are taken to the coast through another pipeline to a plant located in Pisco, where they are again separated into LPG, gasoline, and other condensed fuels and dispatched by sea or through truck tanks for consumption in the domestic market.

Despite its importance, Camisea is not the only site where natural gas is produced in the country. Although Camisea accounts for the 56.9 percent growth rate in the production of natural gas in 2011, there are other deposits of natural gas in the east and north coast of the country where this resource is produced.

<sup>&</sup>lt;sup>6</sup> The major gas deposits are located in Mexico, Venezuela, Bolivia, and Argentina.



(Millions of daily cubic feets)					
Company	Location	2009	2010	2011	
PLUSPETROL Lot 88 Lot 56	Cusco Cusco	280	372 270	458 590	
AGUAYTÍA Lot 31 C	Ucayali	35	27	18	
SAVIA PERÚ Lot Z-2B	Piura	11	11	11	
PETROBRAS Lot X	Piura	11	12	14	
SAPET Lot VI-VII	Piura	1	2	3	
Others		5	5	6	
TOTAL		343	700	1,099	

Source: Perupetro.

The growth of natural gas production has not only contributed significantly to the performance of the mining and hydrocarbons sector in 2011, but has also increased government revenues and earnings in foreign currency. Exports of this resource in 2011 amounted to US\$ 1.28 billion, approximately 3 percent of total exports.

#### 2.4 Manufacturing Sector

In contrast with the two-digit growth rate observed in 2010 (13.6 percent), activity in the manufacturing sector registered a rate of 5.6 percent in 2011. This lower growth, which was observed especially in non-primary manufacturing since the second quarter, was associated with a slowdown in both the external demand –which mostly affected the textile industry– and in the domestic demand, due mainly to lower government investment which affected the industrial branches oriented to construction.

After two years with nil or negative results, **manufacturing based on the processing of raw materials** grew 12.3 percent in 2011 due to increased activity in the processing of fishmeal and fish oil, canned and frozen fish products as a result of the recovery of the fishing industry resulting from the recovery of the anchovy biomass and the availability of giant squid, on the one hand, as well as due to the higher production of non-ferrous metals, which reflected an increased production of copper cathodes at Cerro Verde and copper anodes at Southern Peru after having faced technical problems of operation during the previous year.

In contrast with this, oil refining declined due to La Pampilla's lower demand for industrial oil and Pluspetrol's lower demand for natural gasoline. On the other hand, the branch of meat products continued to show the rising trend observed in the last three years associated mainly with an increased demand for poultry.

TABLE 11 <b>MANUFACTURING BASED ON RAW MATERIALS BY</b> MAIN INDUSTRIAL GROUPS (Real % change)								
	2009	2010	2011	Average 2002-2011				
MANUFACTURING BASED ON RAW MATERIALS	0.0	-2.3	12.3	3.8				
Sugar	7.2	-4.1	3.5	2.4				
Meat products	4.6	4.8	5.0	5.6				
Fishmeal and fish oil	-4.2	-42.0	109.0	0.7				
Canned and frozen fish products	-17.4	-12.4	59.6	12.3				
Refining of non-ferrous metals	-18.0	-6.1	7.4	0.4				
Refining of crude	27.7	14.2	-4.5	6.3				

Source: Ministry of Production and INEL



**Non-primary manufacturing** grew 4.4 percent, although differentiated trends were observed over the year. The branches of metal products, machinery and equipment; food and beverages; chemicals, rubber and plastic products, and the paper and printing industry showed a noteworthy higher production. However, after growing at two-digit rates in the first quarter, the sector recorded a slowdown since April due to the lower pace of growth of the world economy, which had a negative impact on export-oriented branches, such as textiles.

TABLE 12 GROWTH OF NON-PRIMARY MANUFACTURING DUE TO DOMESTIC DEMAND								
	2009	2010	2011	Average 2002-2011				
Mass consumer products	-6.8	14.1	3.1	5.3				
Dairy products	-3.0	13.1	3.8	8.2				
Oils and fats	1.6	17.0	-3.9	4.9				
Miscellaneous food products	-2.7	13.2	5.5	4.7				
Beer and malt	-1.5	6.2	4.6	10.0				
Soft drinks	9.1	7.1	7.8	6.1				
Clothing	-29.9	56.8	12.0	4.8				
Wood and furniture	-6.0	15.6	2.4	7.7				
Other paper and cardboard items	-21.9	21.7	1.6	13.9				
Toiletries and cleaning products	-2.7	7.6	5.6	7.4				
Pharmaceutical products	-1.2	-8.0	6.7	4.2				
Miscellaneous items	-1.6	3.0	-10.9	3.2				
Inputs	-9.6	18.4	10.4	7.8				
Paper and cardboard	-5.1	18.1	13.5	7.5				
Paper and cardboard containers	-2.1	19.4	8.5	8.8				
Publishing and printing	-7.6	15.6	10.6	10.1				
Basic chemicals	-19.5	12.5	4.8	6.2				
Explosives. chemical and natural scents	-13.0	17.3	15.6	9.0				
Rubber	-14.2	21.9	8.4	2.6				
Plastic	-3.9	19.1	4.1	6.0				
Glass	-5.8	29.6	21.9	13.6				
Materials for construction	1.3	16.5	2.0	10.9				
Paints. varnishes and lacquers	5.3	5.3	9.9	11.6				
Cement	6.4	14.0	2.2	9.1				
Construction materials	-3.7	22.3	-0.6	12.9				
Abrasive products	-20.6	23.9	11.1	6.6				
Capital goods	-16.2	20.8	6.2	7.1				
Iron and steel industry	-21.1	3.3	-4.6	3.8				
Metal products	-13.4	30.2	8.9	10.0				
Machinery and equipment	-28.2	5.7	62.3	0.0				
Electric machinery	-22.4	19.1	-4.4	2.4				
Transport equipment	-3.5	28.0	7.9	14.0				
Foreign market	-14.8	14.5	3.9	5.5				
Canned food, chocolate, and alcoholic beverages	-8.2	10.0	11.7	12.4				
Synthetic fibers	-5.2	7.4	-0.8	2.1				
Yarns, fabrics, and finished garments	-16.8	22.0	5.6	1.5				
Knitted garments	-22.6	14.9	-9.1	3.6				
Total non-primary manufacturing	-8.5	16.9	4.4	6.2				

Source: Ministry of Production.

Although production grew in all the branches, this growth was particularly noteworthy in the production of inputs, which registered an expansion of 10.4 percent due mainly to higher production in the branch of glass, which provides inputs to the branch of beverages and to the manufacturers of several industrial liquids; in the branch of explosives, natural essences and chemical, due to increased demand from the mining sector; in the industry of paper and cardboard, due to higher installed capacity to meet increased demand; and in printing and publishing activities due to a greater demand of advertising inserts and material for the electoral process.

Within the branches manufacturing mass consumption goods, increased activity stands out in the manufacturing of other garments, even though this branch showed a slowdown in the second semester due to both lower domestic and external demand. On the other hand, higher production was also observed in the branches of sodas, pharmaceutical products, and toilette and cleaning products.

The production of miscellaneous manufacturing products fell in 2011, affected by lower exports of jewelry and by a lower demand for bijouterie items and oils and fats.

The higher production of paints, varnishes and lacquers, as well as of cement, which registered a recovery towards the end of the year, stands out in the industries oriented to construction.

The industry of capital goods registered an expansion of 6.2 percent, driven by the higher production of mining machinery and equipment; centrifugal pumps for the local and external markets; metal products, in response to a greater demand for containers for the fishing industry, and transportation equipment, in response to larger orders of spare parts and accessories for vehicles, in line with the growth of the country's automotive fleet. In contrast, production in the iron and steel industry declined due to a lower demand for construction iron bars and higher imports of steel products.

The production for the external market grew 3.9 percent –below the average rate recorded in the sector– due to a slowdown in the pace of growth of yarns, fabrics, and finishes, particularly in the last months of the year. The industrial branch of knitted garments dropped 9.1 percent, significantly affected by lower external demand, especially from the United States.

# 2.5 Construction

The construction sector recorded a growth rate of 3.4 percent in 2011, thus consolidating a trend of ten consecutive years with growth, even though this rate was the lowest rate in the period due to the contraction of spending observed towards the middle of the year. The decline of public spending was associated with the government's publication of Emergency Decree N° 012-2011 in March with the aim of constraining spending and increasing public savings to improve the country's conditions to respond to adverse effects in the event of a relapse of the international economy after the crisis of 2009. As a result of this, there was a sharp decline in public expenditure oriented to investment, which affected construction.



This slowdown was associated with the difficult international context derived from the contagion problems that could arise from the crisis in South European countries and, in the domestic front, with the electoral process after which it is not unusual that a lag is observed in economic agents spending decisions.

Even though these two factors resulted in that construction recorded growth rates close to zero in the second and third quarters of 2011, the sector began to show a recovery towards the end of the year as the above mentioned factors started to subside. Thus, on the side of private investment, the survey on expectations about construction indicated an improvement in the situation of private companies, while on the side of government spending investment began to show lower rates of decline and recorded its first positive rate in the year in December. In this context, construction showed a growth rate of 11.8 percent in terms of seasonally adjusted quarterly rates in the fourth quarter.



As regards the evolution of construction by geographic areas, greater dynamism than in the capital was observed in the interior of the country, especially in the second half of the year. This was reflected in the growth rates of the local dispatches of cement companies located in the interior, which grew 7.7 percent on average in the second semester, whereas Lima registered a contraction of 2.1 percent. The dynamism of construction in the interior of the country was mainly associated with construction works in tourism, commercial, and industrial infrastructure.



In the real estate sector, the last survey on construction in Metropolitan Lima and Callao published by CAPECO, the Peruvian Chamber of Construction, CAPECO, continued to show an unmet demand for homes that cost less than US\$ 40 thousand.

The sector's increased demand was also driven by lower interest rates on mortgages, which showed levels of below 10 percent, both in soles and in dollars at the end of the year (8.2 and 9.4 percent on average, respectively).

The number of mortgage loans granted increased from 29,457 in 2010 to 34,487 in 2011, while existing mortgage loans at the end of 2011 amounted to 153,542 (versus 136,929 at end 2010).

Moreover, the study carried out by CAPECO also analyzed the number of apartment units sold in the period August 2010 to July 2011<sup>7</sup> and showed that these sales were 42.1 percent higher than in the previous year.

Along the same vein, TINSA<sup>8</sup> reports that 21,550 apartments were sold this year in Metropolitan Lima (versus 15,643 units in 2010).

TABLE 13 REAL ESTATE SECTOR: EVOLUTION OF MAIN VARIABLES								
	2009	2010	2011					
Unsatisfied demand - CAPECO <sup>1/</sup>	308,180	399,952	391,434					
% Change	<i>6.1</i>	<i>29.8</i>	<i>-2.1</i>					
Apartments sold (units) - CAPECO <sup>1/</sup>	11,598	13,184	18,736					
% Change	<i>-8.3</i>	<i>13.7</i>	<i>42.1</i>					
Apartments units sold- TINSA <sup>2/</sup>	13,378	15,643	21,550					
% Change	<i>-1.7</i>	<i>16.9</i>	<i>37.8</i>					
New mortgages <sup>3/</sup>	20,529	29,457	34,487					
% Change	n.d.	<i>43.5</i>	<i>17.1</i>					
Number of debtors of current mortgages <sup>3/</sup>	122,992	136,929	153,542					
% Change	<i>8.4</i>	11.3	<i>12.1</i>					
Average interest rate of mortgage in S/. 3/4/	9.8	9.3	9.4					
Average interest rate of mortgage in US\$ $^{\scriptscriptstyle 3/4/}$	9.1	8.1	8.2					

1/ El Mercado de Edificaciones Urbanas en Lima Metropolitana y el Callao, CAPECO. A one-year period is considered (from June to July in the next year). 2/ Informe de Coyuntura Inmobiliaria, TINSA PERU SAC.

3/ Commercial banks. Source: SBS

4/ Average monthly interest rates of mortgage loans granted in December by commercial banks.

Big real estate projects carried out in 2011 in Lima included the third condominium compound "Parques de la Huaca", with 384 homes, in San Miguel, developed by Grupo San Jose; the second stage of "Las Torres de Santa Clara II" developed by Grupo Acuario in Ate; "Los Parques de Carabayllo" which will have 1,200 apartments and "Parque Central Club Residencial" in Cercado de Lima, both developed by Graña y Montero, which has already culminated the construction of building number 12 of a total of 21 apartment buildings.

Two projects of the Techo Propio Program were implemented in other cities of the country: "Villa Melchorita", developed in Chincha by Constructora Sukasa will build 1,937 housing units in five stages, and the second stage of "Urbanization Santa Margarita", developed by EOM Grupo Clasem in Piura, has been completed with the construction of 1,510 homes. This project will have a total of eight construction stages.

El Mercado de Edificaciones Urbanas en Lima Metropolitana y el Callao, the sixteenth study carried out by CAPECO on construction in Lima includes total activity in the construction sector during July 2011 as well as construction projects initiated since July 2010, including the inter census period.



According to Colliers International, five new buildings were added to the market of Prime Offices in the year (one more than in the previous year): Tempus, Centro Empresarial Juan de Arona, and Centro Empresarial Pardo y Aliaga in San Isidro, Macros in Surco, and Miracorp in Miraflores. These five buildings have contributed with a new supply of 50,440 square meters to the office market, which accumulated a stock of 435,521 square meters at end 2011.

Moreover, Colliers' report highlights the dynamism of this market, because almost all the supply of new square meters was absorbed by the demand in the year. Furthermore, the vacancy rate at December was 2.7 percent; that is, lower than the rate of 5.3 percent registered at end 2010.

On the other hand, new hotel projects continued to be developed in 2011. The hotels that opened in Lima in the year included the Westin Libertador Lima Hotel (which had an investment of US\$ 130 million), Hotel Ibis in Miraflores (US\$ 20 million), and Hotel Atton in San Isidro (US\$ 30 million), while the ones that opened in the provinces included Casa Andina Classic Chachapoyas in Amazonas and Hotel Inkaterra Puerto Maldonado in Madre de Dios.

Furthermore, the following projects, which continued to be implemented in the year, should start operating in mid-2012: the Hilton Lima Hotel in Miraflores (with an investment of US\$ 20 million); the expansion of Hotel Orient-Express at the convent of Nazarenas in Cusco (US\$ 16 million); the Marriott Hotel in Cusco (US\$ 46 million); Hotel Royal Decameron Punta Sal in Tumbes, of the Blue Marlin group, a partnership between Decameron and Nuevo Mundo (US\$ 30 million), and San Agustín Paracas Resort in Ica (US\$ 10 million).

Commercial and entertainment construction projects developed in the year included five new shopping malls, three of them in Lima and two in other cities. In Lima, Graña y Montero developed Centro Comercial Parque Agustino, which involved an investment of US\$ 14.8 million; Grupo Interbank opened Real Plaza Chorrillos, and Multimercados Zonales developed Plaza del Sol in Huacho, with an investment of US\$ 19 million, while in the provinces the Grupo Romero and Grupo Interbank developed Plaza de la Luna in Piura, with an investment of US\$ 40 million and Real Plaza Juliaca (with an investment of US\$ 20 million) in Puno, respectively.

Finally, other construction projects included initiating the building works of some shopping malls that would start operating in 2012. These projects include Mall Aventura Plaza Santa Anita, which is developed by Grupo Aventura Plaza with an investment of US\$ 70 million; Centro Comercial San Borja Plaza, developed by the Brescia Group (US\$ 100 million), and Mega Plaza Chimbote in Ancash by Inmueble Panamericana (US\$ 28 million).

TABLE 14 MALLS 2011										
Economic Group	Commercial Project	Location	Amount of Investment (Millions of US\$)	Status						
Multimercados zonales (Grupo Romero)	Plaza de la Luna	Piura	40	Inaugurated						
Grupo Interbank	Real Plaza Juliaca	Puno	20	Inaugurated						
Multimercados zonales (Grupo Romero)	Plaza del Sol Norte Chico	Lima	19	Inaugurated						
Graña and Montero	Centro Comercial Parque Agustino	Lima	15	Inaugurated						
Grupo Interbank	Real Plaza Chorrillos	Lima	20	Inaugurated						
Grupo Brescia	Centro Comercial San Borja Plaza	Lima	100	In construction						
Aventura Plaza	Mall Aventura Plaza Santa Anita	Lima	70	In construction						
Inmuebles Panamericana (joint venture of Parque Arauco and Grupo Wiese)	Mega Plaza Chimbote	Áncash	28	In construction						

Source: Colliers International and media.

#### BOX 4

#### **EVOLUTION OF THE REAL ESTATE SECTOR**

#### Situation of the real estate sector

Hand in hand with the process of economic growth experienced by Peru, the real estate sector in Metropolitan Lima and Callao has been showing a remarkable dynamism in the last ten years. According to a report elaborated by the consulting firm TINSA, 21,550 apartments were sold in 2011, 40 percent more than in the previous year. The number of homes sold to people of the socioeconomic levels B and C stands out with over 50 percent of this total.

A report prepared by CAPECO –Cámara Peruana de la Construcción– based on an inter-annual census for the period August to July says that the number of apartments sold in 2011 has been the highest in the last ten years.





According to TINSA, the highest percentage of the units sold in the year (43 percent) is observed in houses with a cost of S/. 100 thousand to S/. 200 thousand in the socioeconomic level B, followed by those oriented to socioeconomic level AB (24 percent), and socioeconomic level A (22 percent). The cost of these last units ranges between S/. 200 thousand and S/. 350 thousand, or more than S/. 350 thousand, respectively.



The dynamism of the real estate sector has been based both on the growth of the actual demand for homes and on the favorable conditions to get mortgage loans.

According to CAPECO, the actual demand for homes is over 400 thousand units in Metropolitan Lima and Callao. However, the supply of apartments and houses included only 18,429 units in the period August 2010 – July 2011, the cost of 70 percent of these units exceeding US\$ 60 thousand. On the other hand, 80 percent of the unmet demand concentrates around homes that cost less than US\$ 40 thousand.



The reduction of interest rates in both domestic currency and foreign currency has encouraged the demand for mortgage loans. Banks' average interest rate on mortgages is 9.4 percent in domestic currency and 8.2 percent in foreign currency. The former has returned to levels observed prior to the international financial crisis, while the latter has reached even lower levels.



The banking system granted 34,487 new mortgage loans in 2011. Compared with the ones approved in 2010 (29,457), this represents a growth of 17 percent. Moreover, nearly 153 borrowers had an outstanding mortgage loan at December 2011.



\*The figures may be overestimated because a person may have been reported by more than one company as a debtor. Source: SBS.

Statistical data on credit for the construction sector reflect the dynamism of this activity. On the one hand, the number of borrowers who obtained bank loans for construction grew exponentially during 2008 and reached a peak in June 2009 with a total of 8,263 borrowers. This figure declined in 2010 due to international uncertainty, recovering thereafter when it reached a total of 7,310 borrowers with existing loans for construction at end 2011.



An average of 2,884 new credits for construction were registered in 2011, while the average in the period of July – December 2010<sup>9</sup> was 2,456 loans .



<sup>9</sup> New SBS statistical data available only since July 2010.

#### Indicators of Real Estate Prices<sup>10</sup>

In order to analyze the evolution of prices in the real estate market, the Central Bank began to collect information about the prices of real estate in the districts of Miraflores, San Borja, and San Isidro since the second quarter of 1998, given that these districts recorded the largest real estate supply in that year.

Following internationally accepted methodologies, it was decided that the indicator elaborated would be based on the median method. In addition to facilitating calculations, the main advantage of this method is that it reduces the potential bias of having small and very heterogeneous samples.

Price indices of houses and apartments, as well as price indices per square meter are currently available for 10 districts of Metropolitan Lima. This information has been used to elaborate several indicators, whose evolution is discussed below:

1. Quarterly Index of Sale Prices per Square Meter at Constant Soles: This indicator –calculated on the basis of the median of sale prices at constant soles of 2009– has been showing an upward trend since mid-2006, when it registered its lowest level since 1998. In Q4-2011, sale prices rose 13 percent compared to the same period in 2010.



2. Sale Price/Income per Annual Rent Ratio (Price to Earnings Ratio - PER): This indicator, which represents the number of years that a property would have to be rented to recover the purchasing value of the property, is equivalent to the price to stock earnings ratio.

The median of sale prices, the median of rents, and the sale price/rent ratio is calculated for each district. The Metropolitan Lima indicator is the average of the ratios by district. According to the classification of the Global Property Guide<sup>11</sup>, the prices of apartments are in the interval of normal prices (12.5-25.0).

<sup>&</sup>lt;sup>10</sup> An explanation of the data collection methodology used to elaborate these indicators can be found in Nota de Estudios, October 2010, and in http://www.bcrp.gob.pe/docs/Publicaciones/Memos-Estudios/2010/Memo-Estudios-55-2010.pdf.

<sup>&</sup>lt;sup>11</sup> Global Property Guide publishes recommendations on opportunities in residential property investment all over the world in its report Property Recommendations, el available at www.globalpropertyguide.com

PER: SALE PRICE / INCOME ANNUAL PER RENT RATIO PER M <sup>2</sup>												
MEDIANS 1/ 2010 - IIQ 2010 - IIIQ 2010 - IVQ 2011 - IQ 2011 - IIQ 2011 - IIIQ 2011 - IVQ												
Jesus María	11.8	10.5	11.9	12.6	13.1	12.9	13.0					
La Molina	13.0	15.7	16.1	16.5	17.2	15.2	15.8					
Lince	15.9	14.2	14.8	14.3	15.6	16.5	14.1					
Magdalena	10.6	11.7	10.9	11.6	13.7	12.7	12.5					
Miraflores	10.9	12.1	13.3	12.9	14.0	15.6	15.7					
Pueblo Libre	14.5	13.6	14.1	15.6	15.6	15.0	15.3					
San Borja	15.8	15.5	14.7	15.3	17.2	16.6	17.2					
San Isidro	14.4	13.6	13.8	15.6	15.9	14.9	16.7					
San Miguel	13.6	12.0	14.8	17.7	15.9	13.7	12.8					
Surco	12.8	13.8	14.7	15.9	15.8	13.3	16.3					
Aggregated												
Average	13.3	13.3	13.9	14.8	15.4	14.6	14.9					

1/ The ratios have been calculated based on the median of the sale prices and income rent of each district. Source: Real State Sector BCRP.

**3. Sale Price Index / Construction Cost Index Ratio**: The Construction Cost Index is calculated based on INEI's Index of Construction Materials and Labor Costs. The increase in this ratio towards the end of 2011 indicates that the sale prices of properties would have been rising more than costs.



- **4. Affordability ratio (Price to Income Ratio)**: This indicator, obtained by dividing the price of property by the average annual income of households, measures the payment capacity of families.
- **5. Comparison with International Indicators**: The indicators of the real estate market in Lima are compared with those of other countries based on information published by Global Property Guide. Lower sale prices, PER levels within the range considered normal, and affordability ratios at intermediate levels are observed in the case of Peru. Global Property Guide defines the ratio of affordability as the cost of a building with an area of 100 square meters divided by GDP per capita. Between 2009 and 2010, the

	2011								
Sale price per m <sup>2</sup> PER Affordability Ratio									
United Kingdom	15,187	23	55						
Japan	13,855	23	30						
United States	13,428	21	28						
Canada	6,179	19	12						
Argentina	3,144	15	30						
Brazil	3,836	18	30						
Uruguay	1,959	13	13						
Mexico	2,085	11	19						
Chile	1,794	11	13						
Costa Rica	1,642	12	19						
Colombia	2,102	13	30						
Panama	2,128	11	25						
El Salvador	1,189	13	31						
Peru	1,306	12	23						
Ecuador	958	13	22						

indicator fell from 21 to 20 and then returned to this level in 2011, falling below the average level in the period 1998-2011.

#### 3. Labor

According to the Ministry of Labor, employment in urban areas in formal firms with 10 or more workers grew 5.4 percent in 2011. This rate is higher than the one recorded in 2010 (4.2 percent) and higher than the mean annual rate in the period 2002-2011.



By production sectors, employment grew the most in the sector of trade (6.9 percent), followed by manufacturing (6.1 percent), and services (5.2 percent).

The increase of employment in the trade sector was in line with the growth of domestic demand, which translated into an increase in sales, both wholesale and retail. Like in 2010, employment in the industrial sector showed a positive evolution, while employment in the sector of services saw a greater demand for workers in schools, restaurants, financial establishments (AFP, Edpymes, and insurance companies), and business advisory services.

Employment in the primary sector declined from 7.2 percent in 2010 to 3.2 percent in 2011. This result was influenced by the climatic disturbances that affected the production of some crops such as rice, tomato, and corn, as well as by the lower metal mining production observed in 2011.

By geographical areas, employment showed a positive evolution in both Metropolitan Lima and in other urban areas, registering higher growth rates than in the previous year: 5.2 and 5.4 percent, respectively.



By regions, employment showed a positive evolution in most of the cities included in the sample of thirty cities reported by the Ministry of Labor and registered a decline only in five of them. The highest rate of growth was recorded in Piura, with 16.3 percent, followed by Sullana, with 16.1 percent. The growth of employment in these cities was associated with the export of organic bananas and grapes, among other crops, as well as with the increase of employment in financial establishments and education centers. Increased activity in fishing and the processing of squid was also relevant in the case of Sullana.

In Puno, employment's growth rate of 15.6 percent resulted from the greater dynamism of education, financial services, and tourism, whereas in Huancavelica the rate of -11.3 percent was due to the decline of metal mining production.



According to the Employment Survey –Encuesta Permanente de Empleo– carried out by the National Statistics Institution (INEI), employment in Metropolitan Lima registered a positive evolution. The employed population grew 1.9 percent –from 4.3 million in 2010 to 4.4 million in 2011– as a result of increased activity in the sectors of services and manufacturing. Thus, unemployment fell from 7.9 percent in 2010 to 7.7 percent in 2011.



Moreover, the quality of employment continued to improve: the number of workers adequately employed rose 8.9 percent, while the number of underemployed workers declined 6.3 percent. Furthermore, the number of salaried workers grew 4.1 percent, while self-employment fell 1.3 percent.

	TABLE WORKFORCE BY LEVELS OF EMPLOY (Thousands of	15 <b>MENT IN ME</b> individuals)	TROPOLIT	AN LIMA 1,	/	
		2007	2008	2009	2010	2011
I.	ECONOMICALLY ACTIVE POPULATION (EAP): 1 + 4	4,385	4,410	4,514	4,704	4,786
	1. EMPLOYED By economic activity	4,017	4,041	4,135	4,332	4,415
	Manufacturing Construction Commerce Services	688 249 882 2,132	6/4 262 892 2,152	661 260 922 2,237	729 309 943 2,293	737 311 948 2,363
	Others	65	60	56	59	57
	<b>By educational level</b> Primary school <sup>2/</sup> Complete high school <sup>3/</sup> Higher education University higher education	457 2,091 715 754	427 2,050 745 819	433 2,115 715 872	443 2,282 746 861	445 2,252 773 944
	<b>By occupation</b> Salaried workers <sup>4/</sup> Non-salaried workers	2,438 1,579	2,507 1,534	2,549 1,587	2,606 1,726	2,712 1,704
	<b>By size of business</b> Independent <sup>5/</sup> From 2 to 10 workers From 11 to 50 workers From 51 to more workers	1,366 1,223 409 1,018	1,338 1,152 421 1,130	1,373 1,186 420 1,155	1,496 1,236 442 1,158	1,478 1,233 471 1,233
	<b>By number of hours worked per week</b> Employed workers working 20 or more hours Salaried workers working 20 or more hours	3,556 2,251	3,604 2,316	3,664 2,340	3,902 2,424	3,983 2,536
	2. UNDEREMPLOYED	2,268	2,127	2,013	1,999	1,874
	Visible underemployment (by hours) <sup>6/</sup> Invisible underemployment (by income) <sup>7/</sup>	665 1,603	631 1,496	636 1,377	628 1,371	547 1,328
	3. PROPERLY EMPLOYED	1,749	1,914	2,122	2,333	2,541
	4. UNEMPLOYED	368	370	379	372	370
١١.	INACTIVE POPULATION	1,978	2,068	2,082	2,012	2,057
ш	. WORKING-AGE POPULATION (PWA)	6,363	6,478	6,596	6,715	6,842
R	ATES (%) Activity rate (EAP / PWA) Employment/population (Employed EAP/PWA) Unemployment rate (Unemployed EAP/EAP) Underemployment by hours	68.9 63.1 8.4 15.2	68.1 62.4 8.4 14.3	68.4 62.7 8.4 14.1	70.0 64.5 7.9 13.3	69.9 64.5 7.7 11.4

1 / Annual average.

1 / Annual average.
2 / Includes individuals with no education or with elementary school.
3 / Incomplete and complete secondary school.
4 / Includes employees, workers and housekeepers.
5 / Working alone or associated, without having paid workers.
6 / Includes those involuntarily working less than 35 hours per week.
7 / Refers to those working 35 or more hours a week who have an income under the minimum benchmark estimated by INEI.
Source: INEI. Encuesta Permanente de Empleo.

# BOX 5

# POVERTY

Current poverty figures are part of the new series of poverty data 2004-2010, elaborated through the methodological update of information performed by INEI and the Advisory Commission on Poverty. This change is intended to update some of the factors involved in the measurement of poverty taking into account the social, economic, and demographic changes experienced by the country in recent years.

According to ECLA/CEPAL (2010)<sup>12,</sup> Peru, Ecuador, and Argentina stand out in Latin America in terms of poverty reduction between 2009 and 2010 since these countries have recorded higher rates of poverty reduction than the mean rate of poverty reduction in the region (-1.7 percentage points).

In 2010, 30.8 percent of the Peruvian population lived in conditions of poverty<sup>13</sup> –this rate was 2.7 percentage points lower than the poverty rate in 2009 (33.5 percent)–, while the rate of extreme poverty fell from 9.5 percent to 7.6 percent (-1.9 percentage points)<sup>14</sup> in this period.



Compared to 2009, poverty declined in all the areas and domains studied by the national household survey –Encuesta Nacional Hogares sobre Condiciones de Vida y Pobreza (ENAHO)–, but this decline was greater in rural areas, where it fell from 66.7 to 61 percent (-5.7 percentage points). In terms of percentage points, this decline was particularly noteworthy in the case of Selva rural areas (-8.9 percentage points) and Coast rural areas (-8.2 percentage points), while poverty in Sierra rural areas declined 4.3 percentage points. In urban areas, poverty fell from 21.3 to 20.0 percent (-1.3 percentage points). Isolating the Selva urban areas (-5.5 percentage points), poverty showed only a slight reduction in urban domains of the Coast and Metropolitan Lima (-0.7 and -0.3 percentage points, respectively).

<sup>&</sup>lt;sup>12</sup> See Cepal: http://www.eclac.org/estadisticas/

<sup>&</sup>lt;sup>13</sup> The latest official statistics on poverty were published in 2010. See INEI, Informe Técnico: Evolución de la Pobreza 2004-2010. Actualización Metodológica, March 2012.

<sup>&</sup>lt;sup>14</sup> Total poverty: total population with per capita spending of less than the value of a basic basket of both food and non-food goods. Extreme poverty: this category compares per capita spending with the cost of a basic food basket.

INCIDENCE OF TOTAL POVERTY BY GEOGRAPHIC AREAS (%)												
	2004	2005	2006	2007	2008	2009	2010	Difference 2009-2010 (% points)	Difference 2004-2010 (% points)			
National	58.7	55.6	49.1	42.4	37.3	33.5	30.8	-2.7	-27.9			
Urban areas	48.2	44.5	37.0	30.1	25.4	21.3	20.0	-1.3	-28.2			
Rural areas	83.4	82.5	79.3	74.0	68.8	66.7	61.0	-5.7	-22.4			
Geographic domain												
Urban coast	50.8	43.2	37.6	31.7	27.4	23.7	23.0	-0.7	-27.8			
Rural coast	69.3	66.9	62.3	53.8	46.6	46.5	38.3	-8.2	-31.0			
Urban Sierra area	46.9	44.0	37.1	31.8	26.7	23.2	21.0	-2.2	-25.9			
Rural Sierra area	86.7	85.4	83.1	79.2	74.9	71.0	66.7	-4.3	-20.0			
Urban Selva area	59.4	58.4	54.6	44.0	32.7	32.7	27.2	-5.5	-32.2			
Rural Selva area	81.5	82.4	77.3	69.2	62.5	64.4	55.5	-8.9	-26.0			
Metropolitan Lima	44.6	42.4	32.7	25.1	21.7	16.1	15.8	-0.3	-28.8			

Source: INEI, Informe Técnico, Evolución de la Pobreza 2004-2010. Actualización Metodológica, March 2012.

Extreme poverty in rural areas dropped more intensely. The rate of extreme poverty declined from 29.8 percent to 23.8 percent in 2009-2010 (-6.0 percentage points), the drop of extreme poverty in Selva and Sierra rural areas (-7.2 and -6.4 percentage points, respectively) being worth pointing out.

The poverty gap –indicator that shows the difference between the per capita spending of the poor and the poverty line in percentage terms–dropped from 10.4 in 2009 to 9.0 percent in 2010; that is, 1.4 percentage points relative to its level in the previous year. This indicator, which may be used to calculate how much would be required in order that a person is no longer poor, decreased especially in rural areas (-3.6 percentage points), where the gap was 21.3 percent in 2010. In urban areas, the gap (4.5 percent) fell 0.6 percentage points between 2009 and 2010. Rural areas in the Sierra and Selva regions are still the areas with the higher poverty gap rates (23.8 and 19.5 percent, respectively).

TOTAL POVERTY GAP BY GEOGRAPHIC AREAS (%)										
	2004	2005	2006	2007	2008	2009	2010	Difference 2009-2010 (% points)	Difference 2004-2010 (% points)	
National	22.1	20.9	17.7	14.2	12.0	10.4	9.0	-1.4	-13.1	
Urban areas	15.1	13.9	10.9	8.0	6.3	5.1	4.5	-0.6	-10.6	
Rural areas	38.7	37.8	34.6	30.4	26.9	24.9	21.3	-3.6	-17.4	
Geographic domain										
Urban coast	16.0	13.1	11.2	8.3	6.7	5.3	5.2	-0.1	-10.8	
Rural coast	27.0	24.2	21.4	17.7	12.8	13.5	10.6	-2.9	-16.4	
Urban Sierra area	16.4	15.0	12.2	10.0	8.3	6.2	5.3	-0.9	-11.1	
Rural Sierra area	42.0	41.2	38.1	34.6	30.5	27.0	23.8	-3.2	-18.2	
Urban Selva area	21.4	21.8	19.1	13.5	8.7	9.3	7.2	-2.1	-14.2	
Rural Selva area	35.0	35.2	31.4	24.5	23.7	24.5	19.5	-5.0	-15.5	
Metropolitan Lima	12.6	12.1	8.2	5.5	4.6	3.4	3.1	-0.3	-9.5	

Source: INEI, Informe Técnico, Evolución de la Pobreza 2004-2010. Actualización Metodológica, March 2012.