

# INFLATION REPORT

# September 2015

Recent trends and macroeconomic forecasts 2015-2017



CENTRAL RESERVE BANK OF PERU

## **INFLATION REPORT:**

### Recent trends and macroeconomic forecasts 2015-2017

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This **Inflation Report** was prepared using data on the Balance of Payments and Gross Domestic Product at Q2-2015 and data on the Non-Financial Public Sector, Monetary Accounts, Inflation, Financial Markets, and the Exchange Rate at August 2015.

# Foreword

- According to the Constitution of Peru, the Central Reserve Bank of Peru (BCRP) is a public autonomous entity whose role is to preserve monetary stability. The BCRP is responsible for regulating the money supply and credit in the financial system, for managing the country's international reserves, and for reporting on the nation's finances.
- In order to consolidate this goal, the Bank's monetary policy is based on an inflation targeting scheme, with an inflation target of 2.0 percent, plus or minus one percentage point (between 1.0 and 3.0 percent). The Central Bank's inflation target is aimed at anchoring inflation expectations at a similar level to the inflation rate observed in developed economies and reflects the BCRP's permanent commitment with monetary stability.
- Each month, and according to a previously announced schedule, the Board of BCRP sets a reference rate for the interbank lending market. Since this interest rate, which is the monetary operational target, affects the rate of inflation through several channels in different timeframes, this rate is set based on inflation forecasts and forecasts of inflation determinants.
- The Central Bank takes into account that inflation may be influenced by factors beyond the control of monetary policy actions, such as shocks that may affect the supply of goods and services like fluctuations in the prices of imported products or climate factors, which may result in transitory deviations of inflation from the target. In its evaluations, BCRP considers the annual increase in the consumer price index registered each month and not only end-of-year figures.
- Additionally, the Central Bank implements preventive actions to preserve financial stability and monetary policy transmission mechanisms. Through interventions in the foreign exchange market, the Central Bank reduces excessive volatility in the exchange rate and accumulates international reserves in periods of capital inflows or high export prices, thus developing strengths to face negative events in an economy with still high levels of financial dollarization. The Central Bank also uses other monetary policy tools that affect the volume of liquidity and credit in a more direct manner, such as reserve requirements in domestic currency and in foreign currency, to avoid excessive credit or credit constraints.
- This Inflation Report includes macroeconomic forecasts that support the monetary policy decisions of BCRP as well as the risk factors that can modify these forecasts.



# Summary

- i. A sustained improvement in the US economy has characterized the global economy since May –when our last Report was published–, which has increased the likelihood that the Federal Reserve will raise its interest rate in the coming months. In addition, lower prospects for growth in China have generated a further decline in the prices of commodities. Because of this, the forecast of global growth in 2015 has been revised down from 3.2 to 3.0 percent, the downward revision of the growth forecast for Latin America –down from 0.8 to 0.2 percent– being worth pointing out in connection with the fall of GDP in Brazil. In 2016 and 2017, the world economy is estimated to show greater dynamism recording growth rates of 3.6 and 3.7 percent, respectively.
- ii. Peru would recover its GDP growth pace in 2015 with a rate of 3.1 percent as a result of a partial reversal of the supply shocks that affected the primary sector in 2014 (down 2.3 percent). The main difference with the growth rate estimated in our Report of May (3.9 percent) is the lower dynamism of non-primary activities associated with lower public expenditure, the drop of private investment, and the decline of non-traditional exports in the first half of the year. However, economic activity is expected to show a gradual recovery and a faster pace of growth in the second half of the year, driven by the positive impact of net exports and government spending.

Peru's GDP would show a faster pace of growth in 2016 and 2017 –with growth rates of 4.2 and 5.0 percent, respectively–, in line with the recovery of private and public investment associated with a gradual improvement of economic expectations, the announcement of private investment projects, and a better implementation of spending at the level of the subnational governments.

- iii. In 2015 the current account deficit of the balance of payments would be equivalent to 3.2 percent of GDP, lower than in 2014 (4.0 percent). The deficit is expected to be lower than the one estimated in our previous Inflation Report mainly as a result of lower factor income payments due to companies' lower earnings, which would offset the impact of the deterioration of the terms of trade on the trade deficit . In 2016 and 2017 the current account deficit is expected to decrease to 3.1 and 2.3 percent, respectively, as a result of a recovery in mining exports associated with the onset of operations at Las Bambas and the expansion of Cerro Verde.
- iv. A public sector deficit of 2.2 percent of GDP is estimated for 2015 (vs.0.3 percent in 2014). The increase in the deficit is explained by the lower revenues projected due to the lower pace of growth of economic activity, the reduction of the income tax, and the reduction of the items subject to tax withholding systems (retenciones





and detracciones). This would be in part offset by lower public investment as a result of the contraction of subnational governments' expenditure in the first half of the year. In 2016 and 2017, the deficit would increase to 2.7 and 2.6 percent, respectively, showing a similar path to the one foreseen in the Revised Multi-Annual Macroeconomic Plan for 2016-2018.

v. In September, the Board of the Central Reserve Bank of Peru (BCRP) have approved to raise the monetary policy interest rate by 25 basis points to 3.50 percent, in a context in which inflation expectations for the next year have risen to similar levels to the upper band of the inflation target range. This level of the policy rate, which is equivalent to a real interest rate of 0.5 percent, reflects an expansionary monetary stance similar to the one observed two months ago. In this way, the Board has reiterated the importance that the future evolution of inflation expectations have on the evolution of the policy benchmark rate.

The BCRP has also continued lowering the rate of reserve requirements in domestic currency to provide banks with liquidity in soles and facilitate the expansion of credit in this currency in a context in which deposits in soles have been growing at a slower pace than credit. The most recent reduction in the rate of required reserves in soles – from 7.0 to 6.5 percent– came into effect in June 2015. In addition to this, the BCRP has also continued placing long term repos and auctioning public deposit funds to meet the requirements for liquidity in soles.

Moreover, in order to offset the excessive pressure of the market of derivatives on the domestic currency, the BCRP has adjusted additional reserve requirements in soles according to the level of sell operations of forwards with currency derivatives.

vi. In August 2015 the accumulated rate of inflation in the last 12 months was 4.0 percent, this rate reflecting mainly increases in food prices and electricity rates. The rate of inflation excluding food and energy was 3.48 percent, with education costs and water supply rates accounting mainly for this higher rate, together with the prices of some items associated with the foreign exchange rate, such as the prices of vehicles and house rents.

Inflation is expected to gradually go towards 2.0 percent in the 2015-2017 forecast horizon, converging to the 2.0 percent target more slowly than estimated in our Inflation Report of May. This slower pace of convergence to the target would be reflecting mainly a higher-than-expected nominal depreciation, increased inflation expectations, and supply shocks associated with the impact of El Niño event.

vii. As regards the inflation forecast, the events that could most likely divert the rate of inflation from the baseline scenario include greater volatility in international financial markets, a slowdown of domestic demand, slower global growth, and the occurrence of supply shocks.



#### a. Lower global growth

The baseline scenario considers a slower recovery in the world economy in 2015-2017 than the one estimated in our Inflation Report of May due mainly to economic slowdown in the emerging economies. However, if such recovery were to take even longer and if the terms of trade continued deteriorating, the resulting lower external impulse would translate into a lower output gap and into a lower inflation rate.

#### b. Slowdown in domestic demand

Economic recovery could take longer than expected if the implementation of both public and private investment projects were to be postponed. This would lead to a more negative output gap (and to a reduction in the growth of the potential output) and, therefore, to lower inflation in the forecast horizon.

#### c. Volatility in international financial markets

This risk could occur if the withdrawal of monetary stimulus by the U.S. Federal Reserve brought about volatility in international financial markets. Such a scenario could generate depreciation pressures that would affect inflation on the upside through the pass-through effect.

#### d. Supply shocks

The baseline scenario considers a moderate-to-strong El Niño event. A more severe El Niño than the one considered could generate upward pressures on the prices of some food products.

viii. The evaluation of the above-mentioned risks continues to show a neutral balance for the inflation forecast. However, a more negative impact is estimated due to lower global growth, although offset by increased supply shocks.



	FORECAST SUMMARY								
			20	15 <sup>1/</sup>	20	16 <sup>1/</sup>	20171/		
		2014	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15		
	Real % chan	ge							
1.	GDP	2.4	3.9	3.1	5.3	4.2	5.0		
2.	Domestic demand	2.2	3.8	2.7	4.4	3.1	3.7		
	a. Private consumption	4.1	3.7	3.5	4.1	3.5	3.8		
	b. Public consumption	10.1	8.3	6.5	4.0	5.3	4.0		
	c. Private fixed investment	-1.7	1.0	-5.5	4.4	2.0	4.4		
	d. Public investment	-2.4	4.0	-2.0	7.2	8.5	5.0		
3.	Exports (goods and services)	-1.0	1.7	0.1	8.4	7.0	9.5		
4.	Imports (goods and services)	-1.5	1.5	-1.3	4.5	2.6	4.2		
5.	Economic growth in main trading partners	2.4	2.3	1.9	2.8	2.6	2.8		
Mem Ou	o: utput gap ² (%)	-1.0 ; 0.0	-2.5 ; -1.0	-1.5 ; 0.0	-1.0 ; 0.0	-1.5 ; 0.0	-1.0 ; 0.0		
	% change	- ,		- ,	- ,	- ,			
6.	Inflation	3.2	2.0 - 3.0	3.5 - 4.0	1.5 - 2.5	2.5 - 3.0	2.0 - 2.5		
7.	Average price of crude oil	-4.9	-40.9	-46.5	12.7	-3.6	8.5		
8.	Nominal exchange rate expected <sup>37</sup>	6.4	8.8	12.5	1.3	3.0	0.5		
9.	Real multilateral exchange rate	-0.6	4.0	3.2	0.4	4.2	1.4		
10.	Terms of trade 4/	-5.4	-2.0	-4.4	-0.6	-4.5	0.2		
	a. Export price index	-6.9	-9.0	-13.4	1.9	-4.5	2.3		
	b. Import price index	-1.5	-7.2	-9.4	2.5	-0.1	2.0		
	Nominal % cha	inge	<u>.</u>		·				
11.	Currency in circulation	11.2	9.0	8.0	9.0	8.0	8.0		
12.	Credit to the private sector 5'	10.4	10.5	9.0	11.5	9.5	9.5		
	% GDP	1			II				
13	Gross fixed investment	25.9	25.4	24.2	25.2	24.2	24.2		
14	Current account of the balance of payments	-4 0	-3.9	-3.2	-3.3	-3 1	-2.3		
15	Trade balance	-0.6	-0.8	-1 1	-0.2	-10	0.0		
16.	Long-term external financing to the private sector 6/	7.2	5.3	3.9	4.5	3.8	3.9		
17.	Current revenue of the general government	22.2	20.3	20.0	20.4	20.0	20.0		
18.	Non-financial expenditure of the general government	21.5	21.4	21.3	21.0	21.5	21.2		
19.	Overall balance of the non-financial public sector	-0.3	-2.0	-2.2	-1.8	-2.7	-2.6		
20.	Total public debt balance	20.1	20.7	22.4	21.0	24.2	24.2		
IR: In	flation Report.	1							

1/ Forecast.

2/ Differential between GDP and potential GDP (%).

3/ Survey on exchange rate expectations.

4/ Average.

5/ Includes loans made by banks' branches abroad.

6/ Includes Foreign Direct Investment, portfolio investment, and private sector's long-term disbursement.

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# I. International Environment

#### Output

 Since May –when our last Inflation Report was published–, the world economy has been affected both by uncertainty about when the U.S Federal Reserve will start raising its interest rates and by China's growth prospects, which has prompted a further fall in commodity prices. This has also been accompanied by a slowdown in global trade, which recorded a contraction of 0.5 percent in terms of volume during the second quarter, the worst performance since 2009.



2. In line with these developments, the global growth forecast for 2015 has been revised down from 3.2 to 3.0 percent and for 2016, from 3.7 to 3.6 percent. The largest downward revision is that for Latin America. Moreover, the growth forecast of Peru's trading partners has been revised down from 2.3 to 1.9 percent in 2015 and from 2.8 to 2.6 percent in 2016.



		_10		able 1					
		V.	(Annua	I % chan	ge)				
	PPP %	Trading Peru %			2	015*	20	16*	2017*
	2013	2013	2013	2014	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15
Advanced economies	43.8	50.0	1.1	1.8	2.1	2.0	2.4	2.3	2.2
Of which:									
1. United States	16.3	19.1	1.5	2.4	2.4	2.4	2.9	2.9	2.7
2. Eurozone	12.5	11.7	-0.3	0.9	1.5	1.5	1.7	1.7	1.7
Germany	3.5	3.0	0.4	1.6	1.6	1.5	1.6	1.6	1.5
France	2.5	0.7	0.7	0.2	1.2	1.1	1.5	1.4	1.5
Italy	2.0	2.0	-1.7	-0.4	0.6	0.8	1.2	1.2	1.2
Spain	1.5	2.9	-1.2	1.4	2.7	3.1	2.2	2.4	2.0
3. Japan	4.6	4.2	1.6	-0.1	0.9	0.9	1.3	1.5	0.4
<ol><li>United Kingdom</li></ol>	2.4	1.1	1.7	3.0	2.5	2.4	2.4	2.4	2.2
5. Canada	1.5	3.9	2.0	2.4	2.5	1.0	2.4	2.1	2.2
Emerging market and									
developing economies	56.2	50.0	5.0	4.5	4.1	3.9	4.7	4.6	4.9
Of which:									
1. Developing Asia	28.6	21.7	7.0	6.8	6.6	6.4	6.6	6.4	6.5
China	15.7	18.2	7.8	7.3	6.8	6.7	6.6	6.5	6.3
India	6.6	1.5	6.9	7.3	7.2	7.1	7.4	7.4	7.6
2. Commonwealth of									
Independent States	4.8	0.6	2.2	1.0	-2.1	-1.8	0.7	1.1	2.0
Russia	3.4	0.5	1.3	0.6	-4.2	-3.7	-0.4	0.2	1.0
3. Latin America and									
the Caribbean	8.8	24.4	2.9	1.3	0.8	0.2	2.3	1.6	2.8
Brazil	3.1	4.7	2.7	0.1	-1.0	-1.8	1.2	0.5	2.3
Chile	0.4	3.5	4.3	1.8	2.8	2.4	3.5	3.0	3.6
Colombia	0.6	2.7	4.9	4.6	3.2	2.9	3.3	2.8	3.7
Mexico	2.0	2.9	1.4	2.1	2.8	2.3	3.5	3.0	3.5
World Economy	100.0	100.0	3.3	3.3	3.2	3.0	3.7	3.6	3.7
Memo:									
Peru's trading partners 1/	59.4		2.6	2.4	2.3	1.9	2.8	2.6	2.8
BRICs 2/	28.8		6.3	5.7	4.8	4.6	5.4	5.3	5.5

1/ Basket of Peru's 20 main trading partners.

2/ Brazil, Russia, India, and China

\* Forecast. IR: Inflation Report.

Source: Bloomberg, IMF, and Consensus Forecast.

3. The increased likelihood that the Fed will raise its interest rate this year is explained by the sustained improvement observed in the **U.S.** economy. In Q2 the U.S. output grew 3.7 percent, showing a recovery at the level of all the components of aggregate demand. Consumption continues to be supported by the improvement of the labor market: a monthly average of 221 thousand new jobs were created between June and August, a figure exceeding the monthly average of 182 thousand new jobs recorded between 2010 and 2014. Moreover, the unemployment rate fell from 5.5 percent in May to 5.1 percent in August –a rate slightly above the long-term rate estimated by the Fed–, while the rate of underemployment fell from 10.8 to 10.3 percent in the same period. The positive evolution of activity is consistent with a growth rate of 2.4 percent in 2015 and a growth rate of 2.9 percent in 2016.

	(Seasonally ad	Table 2 USA: GDI ljusted annualiz	<b>P</b> zed quarterly r	ates)			
		20	14		20	15	
	I	II	III	IV	I	П	
Private consumption	1.3	3.8	3.5	4.3	1.8	3.1	
Fixed investment	6.0	5.6	7.9	2.5	3.3	4.1	
Change on inventories *	-1.3	1.1	0.0	0.0	0.9	0.2	
Net exports *	-1.4	-0.2	0.4	-0.9	-1.9	0.2	
GDP	-0.9	4.6	4.3	2.1	0.6	3.7	
Memo							
Unemployment rate **	6.7	6.1	5.9	5.6	5.5	5.3	
* Contribution to arowth.							

\* Contribution to grow \*\* End-of-period.

Source: BEA and BLS.



Inflation recorded a rate of 0.2 percent in August due to the correction in the price of energy and the appreciation of the dollar, while core inflation –which excludes food and energy prices– registered 1.8 percent. Core inflation has been showing a relative stability throughout the year.





In line with these developments, the probability that the Fed would raise its interest rates at the September monetary policy meeting, estimated on the basis of future contracts, increased from 40 percent at the end of May to 50 percent in mid-August. However, the increase in the probability of a rate rise was offset by concerns that the continuous appreciation of the dollar could affect exports and corporate profits significantly.



Moreover, the likelihood of a rate rise this year has decreased significantly in recent weeks due to the strong global slowdown observed and after most of the emerging and developed exchange markets recorded considerable falls. Thus, by mid-September, when this report was about to be released, the likelihood that the Fed would raise its rate in September had dropped to 36 percent. Finally, at the September policy meeting, the Fed decided to maintain its interest rate unchanged and noted its concern about the recent global economic and financial developments. The medians of the interest rate projections declined by 25 basis points in 2015, 2016, 2017 and in the long term. In line with this, the likelihood that the Fed will raise its rate rise in October dropped to 18 percent, while the likelihood of a rate rise in December fell to 46 percent.

			FED: F	Table 3 ORECAS	TING					
				c	entral tren	d				
	20	15	2	016	20	17	2018	Long	-term	-
	Jun.15	Sep.15	Jun.15	Sep.15	Jun.15	Sep.15	Sep.15	Jun.15	Sep.15	-
Growth	1.8 - 2.0	2.0 - 2.3	2.4 - 2.7	2.2 - 2.6	2.1 - 2.5	2.0 - 2.4	1.8 - 2.2	2.0 - 2.3	1.8 - 2.2	
Unemployment rate	5.2 - 5.3	5.0 - 5.1	4.9 - 5.1	4.7 - 4.9	4.9 - 5.1	4.7 - 4.9	4.7 - 5.0	5.0 - 5.2	4.9 - 5.2	
Inflation (PCE)	0.6 - 0.8	0.3 - 0.5	1.6 - 1.9	1.5 - 1.8	1.9 - 2.0	1.8 - 2.0	2.0	2.0	2.0	
Core inflation										
(Core PCE)	1.3 - 1.4	1.3 - 1.4	1.6 - 1.9	1.5 - 1.8	1.9 - 2.0	1.8 - 2.0	1.9 - 2.0			
Memo: Core PCE excludes food	d and energy.									
Interest rate:										
Median forecast (%)*	0.625	0.375	1.625	1.375	2.875	2.625	3.375	3.750	3.500	
* It adds data from 17 individu	al projections	of the membe	rs of the Fed a	it end-of-perio	d.					



4. Other developed economies have also shown positive developments, especially in the **Eurozone**. Growth in this region is explained by the low prices of fuels, the depreciation of the euro, and better financial conditions in terms of interest rates and access to credit (favored by the implementation of the ECB purchase programs). While GDP growth showed some slowdownin Q2, recent monthly indicators show a recovery of domestic demand, especially consumption. Negotiations on Greece, which culminated in a third agreement for a total of 86 billion euros, had a limited effect on the markets of the region.

Table 4           EUROZONE: GDP GROWTH           (Seasonally adjusted annualized quarterly rates)						
		20	014		20	)15
	I	II		IV	- 1	11
Private consumption	0.4	0.9	2.0	2.2	1.9	1.5
Fixed investment	1.5	-2.0	1.4	2.4	5.6	-1.9
Change on inventories *	0.4	0.0	-0.4	-0.4	0.2	-0.5
Net exports *	-0.4	0.0	0.0	0.0	-0.7	1.3
Government expenses	1.3	0.7	1.0	0.9	2.2	1.0
GDP	0.8	0.3	1.0	1.6	2.1	1.4
Memo						
Unemployment rate **	11.7	11.6	11.5	11.3	11.2	11.1

\* Contribution to growth.

\*\* End-of-period.

Source: Eurostat.



It is estimated that the Eurozone would grow 1.5 percent in 2015 and 1.7 percent in 2016. Some potential risks to this recovery include the unfavorable international situation, especially the economic slowdown in China which could affect the recovery of external demand.





5. As regards the emerging economies, most countries have had weaker-thanexpected outputs, in line with the deterioration of the international context.

In **China**, even though GDP grew 7.0 percent per annum in Q2 (vs. 5.3 percent in Q1), recent indicators point to a further economic slowdown. The unfavorable evolution of manufacturing activity would be extending to other sectors, which is reflected in a moderation of growth of the services sector and in a strong slowdown of investment and would be accompanied by a greater moderation of consumption and net exports. Factors accounting for this would include overcapacity in heavy industry and tighter financial conditions associated with the implementation of reforms by the Chinese Government. Another factor that contributed to this since June was the correction of the Chinese stock market bubble, which has involved even tighter financial conditions and expectations of a greater weakness in external demand.





Moreover, increased risks of having an almost zero inflation rate have added onto the country's economic slowdown. The fall of commodity prices and the high level of idle installed capacity, along with weak domestic demand, have influenced low rates of inflation in consumer prices (CPI) and prolonged deflation in producer prices (PPI).



In this context, China's Central Bank issued a series of measures associated with reforms to further liberalize the foreign exchange and the capital markets, as well as other reforms to reverse the economic slowdown and the greater risks of deflation. The most important measures include the devaluation of the so-called central parity rate or benchmark exchange rate used between the Chinese yuan against the dollar by 3 percent in August –the exchange rate reached record lows in three years– and cutting the policy interest rates in June and August –by a total of 50 bps– as well as cutting the rate of reserve requirements by 0.5 percent in August.









The depreciation of the yuan reflected the adoption of a new mechanism used to determine the benchmark exchange rate. This new mechanism will set the

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following day's opening central parity rate based on: (i) the closing price of the yuan on the spot market every workday, and (ii) the supply, demand, and changes in the foreign exchange rates of the major currencies. Previously, the Central Bank used the benchmark rate and a +/- 2 percent band to manage market expectations.

In the fiscal front, the government has extended tax incentives to small and medium-sized enterprises and increased the projects of infrastructure, water, electricity, and housing projects for the most vulnerable population groups. Furthermore, local governments have increased the debt swap quota by 1.2 billion yuan to 3.2 billion yuan to mitigate the adverse financial conditions local governments face due to their high level of indebtedness, the drop of land prices, and the reforms implemented by the Chinese Government.

6. The major countries of **Latin America** showed a slower pace of economic growth during the first eight months of the year. Brazil experienced a contraction in the level of activity and other economies showed a moderate pace of growth that was lower than the one estimated in our previous report.

This slowdown is explained by a deterioration in both external and domestic conditions. Factors standing out among the former include high uncertainty regarding China's growth, which has increased even further after the depreciation of the yuan, and the strong likelihood that the Fed will start a cycle of interest rate hikes. In addition to this, the prospects for global growth have declined and commodity prices have fallen even further. As for domestic factors, private investment continues to show a contraction in the region and private consumption is also showing signs of slowing down. In general, governments have less space to conduct countercyclical fiscal policies and the space for monetary policies remains limited due to the pass-through of depreciation to inflation.







In the first eight months of the year, inflation in Latin American countries with inflation targeting regimes showed rates above the target range, except in Mexico. A common factor that explains the rising trend of prices in the region is the pass-through effect of the depreciation of the region's currencies to the prices of tradable goods, this effect being slightly offset by the lower prices of commodities, particularly the price of crude oil. In the case of Brazil, inflation reached a record level due in part to the elimination of subsidies that was one of the actions of the fiscal adjustment plan and due to the increase of some managed prices.

	Graph 15 INFLATION: 2015	
. 1		
Mexico	2.8	
Peru	3.7	
Paraguay	3.8	
Chile	4.0	
Colombia	<b>4</b> .1	
Ecuador	4.2	
Bolivia	5.0	
Uruguay	7.9	
Brazil	9.2	
Argentina	17.0	
Venezuela	145.	5
Source: Latin A	American Consensus Forecast (August 2015) and BCRP (Peru).	

#### **Financial markets**

7. International financial markets were affected mainly by an increase in expectations of a prompt beginning of the cycle of rate hikes in the Federal Reserve monetary

policy rate, signs of China's slowdown, uncertainty regarding Greece's debt, and the widespread fall of commodity prices, which affected the emerging economies mainly.

In the foreign exchange markets, the dollar continued showing the generalized appreciation trend observed in earlier months. The likelihood of a rise in the FED policy interest rate in the month of September was increased by the publication of positive economic indicators, but this probability reversed after economic data in China showed an unfavorable evolution. The exchange rate of the dollar against a currency basket rose 5.3 percent between May and August (and thus accumulated an appreciation of 8.0 percent so far this year), while the euro and the yen depreciated 0.1 percent and 1.6 percent against the US dollar, respectively, in the same period.

The emerging-markets currencies, which have been depreciating since late 2014 as a result of falling commodity prices and capital flight, weakened further after the unexpected depreciation of the yuan.

		Table EXCHANC	e 5 GE RATE			
		Aug.15 (1)	 (2)	Dec.12 (3)	% ch (1)/(2)	ange (1)/(3)
FED Index*	C.U. per US\$	120.15	111.29	99.23	8.0	21.1
Eurozone	US\$ per Euro	1.121	1.210	1.319	-7.3	-15.0
Japan	Yen	121.23	119.71	86.75	1.3	39.7
United Kingdom	US\$ per Pound	1.534	1.557	1.625	-1.5	-5.6
Brazil	Real	3.620	2.658	2.050	36.2	76.6
Chile	Peso	693	607	479	14.1	44.7
Colombia	Peso	3,055	2,389	1,768	27.9	72.8
Mexico	Peso	16.75	14.75	12.87	13.6	30.2
Peru	Nuevo Sol	3.24	2.98	2.55	8.6	26.8
Israel	Shekel	3.93	3.90	3.74	0.7	5.1
South Africa	Rand	13.30	11.58	8.46	14.9	57.1
Turkey	Lira	2.92	2.34	1.79	24.9	63.4
China	Yuan (onshore)	6.38	6.21	6.23	2.7	2.3
Philippines	Peso	46.80	44.83	41.11	4.4	13.8
Indonesia	Rupee	13,945	12,470	9,645	11.8	44.6
Malaysia	Ringgit	4.20	3.50	3.06	20.0	37.2
Thailand	Bath	35.84	32.92	30.62	8.9	17.0

\* Last data on July 28.

Source: Reuters and FED.



- 8. In the context of uncertainty mentioned above, **stock markets** recorded a generalized fall in May-August. The fall registered in August is explained mainly by the increased levels of volatility –measured by the VIX index–, which showed a rebound influenced by the significant drop of China's stock exchange markets despite the measures implemented by the Chinese government, as well as by uncertainty regarding the cycle of interest rate hikes. As a result, several stock markets, particularly in Asia and in the United States, have accumulated negative outcomes so far this year. On the other hand, the Eurozone bourses remain in positive ground given the reduction of uncertainty about Greece.
- 9. The **public debt markets** were affected by uncertainty associated with the onset of the cycle of rate hikes in the Fed interest rate and by expectations of an appreciation of the dollar, particularly after the depreciation of the yuan in early August. The biggest rise was observed in the emerging economies' securities, which were particularly affected by the deterioration of the international context and by the slowdown registered in their pace of economic growth.

Yields in the **United States** showed an upward trend given increasing expectations of a rise in the Fed interest rate due to positive economic data. However, these expectations dropped in August due to greater global uncertainty –influenced mainly by China– which reduced yields, especially short-term yields.

In the **Eurozone**, greater risks on inflation and expectations that the ECB would give greater stimulus by the end of this year contributed to increase yields. It is worth mentioning that the formalization and approval of a third agreement for Greece influenced a significant reduction in long-term yields.

The debt markets in **Latin American** countries showed yield increases in the context of the greater risk aversion mentioned above and the drop of commodity prices.

Table 6           YIELDS ON 10-YEAR TREASURY BONDS           (%, end-of-period)						
	Aug.15	Apr.15	Dec.14	Dec.12	Public debt (% GDP 2014)	
United States	2.22	2.03	2.17	1.76	105	
Germany	0.80	0.36	0.54	1.31	73	
France	1.15	0.64	0.82	1.99	95	
Italy	1.96	1.50	1.88	4.49	132	
Spain	2.11	1.46	1.60	5.23	98	
Greece	9.10	10.35	9.42	11.68	177	
United Kingdom	1.96	1.83	1.76	1.83	90	
Brazil	14.27	12.80	12.36	9.17	65	
Colombia	8.15	6.73	7.10	5.48	38	
Chile	4.50	4.44	3.99	5.49	14	
Mexico	6.06	5.90	5.83	5.36	50	
Peru	7.36	5.68	5.41	4.09	21	
South Africa	8.34	7.94	7.96	6.78	46	
Israel	2.22	1.51	2.31	3.99	69	
Turkey	9.94	9.13	7.86	6.55	33	
China	3.40	3.44	3.65	3.59	41	
South Korea	2.31	2.43	2.63	3.17	36	
Indonesia	8.72	7.67	7.75	5.15	25	
Thailand	2.80	2.47	2.69	3.51	47	
Malaysia	4.36	3.85	4.12	3.50	57	
Philippines	3.68	3.98	3.83	4.42	37	
Source: Bloomberg and IM	F.					



# II. Economic Activity

#### Sector GDP

10. GDP grew 2.4 percent in the first half of 2015, but showing a rising trend in Q1 and Q2 (1.8 percent and 3.0 percent, respectively) due to the greater dynamism of mining activity. The growth of GDP in the primary sectors recovered partially from the supply shocks observed in 2014, rising from 0.2 percent in the first half of 2014 to 4.1 percent. On the other hand, GDP growth in the non-primary sectors continued to slow down, affected mainly by the decline of construction and non-primary manufacturing –down from 4.3 percent to 2.0 percent– as a result of lower government spending, the fall of private investment, and the decrease in non-traditional exports.

	G	<b>DP BY PR</b> ( (Rea	Table 7 ODUCTIC al % char	<b>DN SECTOR</b> nge)	ł			
	2	014		2015*		20	16*	2017*
	H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15
Agriculture and livestock	0.7	1.6	1.9	1.6	2.6	4.4	1.6	3.7
Agriculture	-0.7	0.4	0.1	0.3	1.0	5.1	0.6	3.7
Livestock	5.2	5.9	5.3	3.6	4.9	3.4	3.4	3.6
Fishing	-7.4	-27.9	19.2	17.2	16.5	17.8	-1.2	27.9
Mining and hydrocarbons	0.2	-0.8	5.5	4.2	6.7	11.6	10.6	11.3
Metallic mining	-0.5	-2.1	10.1	6.8	11.7	11.9	11.2	13.1
Hydrocarbons	2.2	4.0	-9.3	-5.2	-10.9	10.6	8.1	3.6
Manufacturing	0.0	-3.6	-2.6	2.3	0.4	4.1	1.8	4.6
Based on raw materials	0.5	-9.7	1.1	6.4	4.3	4.2	-0.5	10.6
Non-primary industries	0.6	-1.0	-3.8	1.3	-0.8	4.0	2.5	3.0
Electricity and water	5.3	4.9	5.1	5.1	5.2	6.0	5.5	5.5
Construction	2.4	1.6	-7.9	1.9	-6.2	5.0	3.0	4.0
Commerce	4.8	4.4	3.7	4.4	3.8	4.4	3.8	3.8
Services	5.4	5.0	4.0	4.5	4.1	4.4	3.8	3.8
GDP	3.4	2.4	2.4	3.9	3.1	5.3	4.2	5.0
Memo:	0.0	2.2			<b>F</b> 4	0.0	6.5	0.7
Primary GDP	0.2	-2.3	4.1	4.1	5.4	8.8	6.5	9.7
Non-primary GDP	4.3	3.6	2.0	3.8	2.5	4.5	3.6	3.8
* Forecast								

IR: Inflation Report.

11. Current and advanced indicators of economic activity show that the economy continues recovering, but at a slower pace than projected in our previous report, due mainly to lower investment. On the one hand, the production of electricity shows high rates at the end of the first semester, having reached a rate of 5.6 percent in June, the highest rate recorded since March 2014. In addition to this, a significant improvement has been observed in August (7.0 percent) as a result of an increased demand for electricity in the sectors of manufacturing and mining.



On the other hand, domestic consumption of cement continues to show negative growth rates, having fallen 3.1 percent compared to the first half of 2014. This contraction is associated with a weaker pace of implementation of public sector works and with lower private investment during the first half of the year.





The GDP growth rate projected for 2015 has been revised down in this report from 3.9 to 3.1 percent and the growth rate for 2016 is revised down from 5.3 to 4.2 percent. Moreover, the growth rates by sectors estimated for 2015 have also been revised down as follows: construction, from 1.9 to -6.2 percent due to lower investment; hydrocarbons, from -5.2 to -10.9 percent due to the effects of the lower international price of crude oil on production operations; manufacturing, from 2.3 to 0.4 percent; trade, from 4.4 to 3.8 percent, and services, from 4.5 to 4.1 percent, due to the impact of the lower pace of growth of consumption.



12. The projected path of the primary sectors in 2015 continues to show a partial reversal of the supply shocks that affected the outcome in 2014, this reversal being even stronger than the one estimated in May due mainly to greater growth in the subsector of metal mining.

As was projected earlier, a better performance is observed in the fishing sector so far this year as a result of the greater catch of anchovy recorded during the first fishing season of the year. A greater output of rice is also expected in the North Coast due to increased production. Finally, metal mining would also show greater growth due to a greater-than-previously estimated production of copper due to increased production at Toromocho and Constancia.

	Table 8 FORECAST OF GDP: 2015 (% change)	
	2014	2015*
Supply shocks		
Rice	-5.9	7.2
Anchovy	-52.6	55.2
Fish oil and fishmeal	-62.2	60.3
Gold	-10.4	-2.0
Copper	0.7	20.6
Zinc	-2.4	7.5

\* Proyección.

The gradual reversal of supply shocks in 2015 would result in a growth rate of 5.4 percent in the primary sectors (vs. -2.3 percent in 2014), which would thus contribute with 1.6 percentage points to the GDP growth rate. On the other hand, the non-primary sectors would grow 2.5 percent, less than in 2014 (3.6 percent), mainly due to the contraction of construction and a slower pace of growth in the sector of services.



13. Economic activity is projected to recover dynamism gradually in the rest of 2015, which is consistent with the reversal of the negative effects of the supply shocks.



14. By sectors, the higher growth of the output in 2015 (3.1 percent) –compared to the one recorded in 2014 (2.4 percent)– is still associated with the primary sectors, with increased production in metal mining, primary manufacturing, and fishing accounting for the higher growth observed in the first half of the year.



a) The **agriculture** sector recorded a growth rate of 1.9 percent in the first half of the year –a higher than in 2014 (0.7 percent)– as a result of a larger production of poultry for the domestic market, a greater production of rice in the North Coast, and the recovery of the coffee crops in the Selva areas after having overcome most of the adverse effects of the yellow rust plague.

The growth forecast for this sector in 2015 is revised up from 1.6 percent in the Inflation Report of May to 2.6 percent due to the higher production of rice, potatoes, and hard yellow corn registered in the first six months of the year, as well as due to the increased production of poultry for the domestic market.

In 2016 the sector is now estimated to grow 1.6 percent and not 4.4 percent as estimated in our previous report, given that the growth forecast of this sector has been revised down from 5.1 to 0.6 percent due to the impact El Niño event would have on agriculture production in the Coast areas.

b) Recording a much higher rate than in the first half of 2014 (-7.4 percent), the **fishing** sector grew 19.2 percent in the first half of 2015 due to the increased catch of anchovy registered during Q2. It is worth pointing out that in the first fishing season of the year (between April 9 and July 31), anchovy catch in the north areas totaled 2.5 million tons (vs. 1.72 million tons in the first fishing season of 2014).

The projected growth rate of this sector for 2016 has been revised from 17.8 to -1.2 percent in this report since it is foreseen that the moderate-to-strong El Niño event would affect climate conditions in the Peruvian coast and cause the presence of anchovy to decrease during the first fishing season of 2016. However, because El Niño would no longer be present in 2017, the sector would recover this year with a growth rate of 27.9 percent due to a base effect.

c) In the first half of 2015 the subsector of **metal mining** grew 10.1 percent due to an increased production of copper, zinc, molybdenum and gold, thus overcoming the contraction of 0.5 percent observed in the first half of 2014. The projected growth of this subsector in 2015 is revised up from 6.8 percent to 11.7 percent due to increased production of copper at Toromocho and Constancia as well as due to increased production of gold at Yanacocha and Anama.

A similar growth rate (11.2 percent) than the one estimated in our previous report is projected for 2016 –11.9 percent in the previous report–, whereas the projected rate for 2017 is revised down from 17.8 to 13.1 percent since the enlargement of Toquepala would be ready by end-2017 and not in the early months of the year as previously foreseen.

During the first half of 2015, the production of **copper** grew 9.4 percent, less than in the first half of 2014 (10.7 percent). However, copper production is expected to reach a growth rate of 20.6 percent in the year due to greater production in the second semester since Toromocho, according to their projections, would reach an annual production of between 190 and 195 thousand tons, exceeding in this way the 70 thousand tons registered in 2014. Constancia has also announced that it would meet its annual production goal of 100-125 thousand tons.

Furthermore, an increased copper output would be seen in 2016 driven by greater production in Toromocho, Antapaccay, and the expansion of Cerro Verde. Finally, the growth rate projected for 2017 takes into account the onset of Las Bambas project, a higher production level associated with the expansion of Cerro Verde, as well as the expansion of Toquepala at the end of that year.

The production of **gold** grew 7.8 percent in the first half of 2015 (vs. -16.1 percent in the same period of the previous year). This greater growth is explained by a greater output in Barrick and Yanacocha. Production in the former grew 35.4 percent in the first half of 2015 due to the improvements made in the leaching process of the mining unit Lagunas Norte, while production in the latter grew 16.7 percent due to the better grades of the ores obtained.

Even though a fall of 2.0 percent is still projected in the production of gold in 2015, this fall is lower than the one estimated in our previous report (-3.9 percent) due both to a better performance of the sector during the first half of the year and to an increased production anticipated at Antapaccay, which is showing higher production levels after the culmination of its expansion project. Another factor contributing to this better expected outcome is increased production at Anama –a mining unit located in Apurimac owned by Aruntani–which started its production in March this year, as well as due to greater production at Yanacocha.

Thus, the projected gold production in 2016 is revised on the upside, from -7.8 to -7.4 percent, due to the higher production of Anama and Antapaccay. In 2017, it is expected that the onset of operations of mining projects Ollachea and San Gabriel, as well as increased production in Shahuindo and Invicta projects –due to start operations in 2016– would offset the decline in the production of Yanacocha associated with the gradual process of mine closure and that this will result in a lower drop in gold production compared to previous years (-1.3 percent).



Overcoming the drop of 13.4 percent recorded in the first half of 2014, the production of **zinc** grew 13.3 percent in the same period of 2015 as a result of the recovery of the grade of mineral ores at Antamina, the start of operations at the expansion of El Brocal in the month of March, which allowed the company to have a plant dedicated exclusively to the production of zinc and lead, and increased production at Milpo units. Because of this greater extraction so far this year, the projected growth of zinc production in 2015 has been revised up from 6.9 percent in May to 7.5 percent.

Table 9         MINING PRODUCTION       (% change)							
	2014	2015*	2016*	2017*			
Gold	-10.4	-2.0	-7.4	-1.3			
Copper	0.7	20.6	21.8	19.3			
Zinc	-2.4	7.5	2.3	0.3			
* Forecast.							

d) Production in the subsector of **hydrocarbons** during the first half of 2015 fell 9.3 percent (vs. an increase of 2.2 percent in the same period of the previous year). This decline is explained by the lower production of crude (-15.4 percent) associated with the lower international prices of crude oil as well as by the lower production of natural gas (-0.1 percent) and of natural gas liquids (- 8.9 percent) associated with maintenance and with the rupture of the pipeline in April and May, respectively.

Because of the lower production of liquid hydrocarbons and natural gas observed, growth in the subsector in 2015 has been revised down from -5.2 to -10.9 percent. This revision also includes the effect of the maintenance of Peru LNG pipeline on production in August. A reversal of the current downward trend is foreseen in 2016 and 2017 with positive growth rates of 8.1 and 3.6 percent, respectively, as a result of the onset of operations of TGP compressor plant.

e) **Manufacturing** production fell 2.6 percent in the first half of 2015. During this period, production in the branches of primary manufacturing grew 1.1 percent driven mostly by a higher production of fishmeal and fish oil, in line with the recovery observed in the fishing sector. On the other hand, production in the branches of non-primary manufacturing declined 3.8 percent, in contrast with the 0.6 percent increase recorded in the same period of the previous year. The branches with the higher contribution to the decline were the branches oriented to inputs (printing activities, wood and rubber) and to investment (electric machinery, transportation materials,

and paints, varnishes, and lacquers), in line with the slowdown observed in domestic demand.

Due to the lower dynamism of economic activity, the growth rate of the sector in 2015 has been revised down from 2.3 percent, estimated in May, to 0.4 percent. Moreover, the growth rate in 2016 is also revised down from 4.1 to 1.8 percent, considering a lower production in the fishing and sugar industries due to El Niño.

- f) Finally, the growth rate projected for 2015 in the **construction** sector has been revised down from 1.9 percent to -6.2 percent. This is consistent with a lower physical advance of public works, which has decreased 84 percent in the first half of the year compared to the first six months of 2014.
- 15. Furthermore, the GDP growth forecast for 2016 is revised downward from **5.3** percent to **4.2** percent considering the effects of a moderate-to-strong El Niño event on agriculture, fishing, and primary manufacturing.

The sectors that would contribute more to the growth of GDP in 2016 would be the sectors of services, trade, and mining. This would be associated with a greater dynamism of domestic demand in the case of the former two sectors, while the growth of mining would be associated with increased production in the sub-sector of metal mining, especially with a greater production of copper.

In 2017, GDP is expected to grow **5.0** percent, driven by primary manufacturing and metal mining. It is worth pointing out that growth in the latter subsector would be fueled by Las Bambas project and by the expansion projects of Toquepala and Cerro Verde.

#### **Expenditure-side GDP**

16. A recovery is being observed in the economy through the increase in net exports, although investment –public and private– would be indicating that this process will be slower than expected in previous reports.

The strong drop of private and public investment in the first half of the year is explained by the deterioration that consumers and investors' expectations continue to show, as well as by the weak performance of public expenditure. The decline of private investment in the first half of the year (6.3 percent) has been the strongest drop observed since 2009, while the decline of 18.6 percent registered in public investment is the largest observed since 2011.



Table 10           GDP AND DOMESTIC DEMAND           (Real % change)								
	2014		2015*		2016*		2017*	
	H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15
I. Domestic demand	2.3	2.2	2.9	3.8	2.7	4.4	3.1	3.7
1. Private expenditure	1.8	1.4	3.3	3.2	2.5	4.3	2.5	3.6
Consumption	4.6	4.1	3.3	3.7	3.5	4.1	3.5	3.8
Private fixed investment	-0.7	-1.7	-6.3	1.0	-5.5	4.4	2.0	4.4
Change on inventories**	1.0	0.3	3.0	0.7	1.3	0.8	0.8	0.6
2. Public expenditure	5.5	5.9	0.4	7.0	3.9	5.0	6.2	4.3
Consumption	7.7	10.1	7.5	8.3	6.5	4.0	5.3	4.0
Investment	0.0	-2.4	-18.6	4.0	-2.0	7.2	8.5	5.0
II. Net external demand								
1. Exports	2.5	-1.0	-1.0	1.7	0.1	8.4	7.0	9.5
2. Imports	-1.2	-1.5	1.0	1.5	-1.3	4.5	2.6	4.2
III. GDP	3.4	2.4	2.4	3.9	3.1	5.3	4.2	5.0
* Forecast.								

\*\* % GDP.

IR: Inflation Report.

Table 11           GDP AND DOMESTIC DEMAND           (Contribution to the real % change)								
	2014		2015*			2016*		2017*
	HI	Year	HI	TR May.15	ік sep.15	IR May.15	ік sep.15	IK Sep.15
I. Domestic demand	2.4	2.2	2.9	3.9	2.7	4.5	3.2	3.7
1. Private expenditure	1.6	1.2	2.9	2.7	2.1	3.6	2.1	3.0
Consumption	2.9	2.5	2.1	2.3	2.1	2.6	2.2	2.3
Private fixed investment	-0.2	-0.4	-1.4	0.2	-1.2	0.9	0.4	0.9
Change on inventories	-1.2	-0.9	2.2	0.1	1.1	0.1	-0.5	-0.2
2. Public expenditure	0.8	1.0	0.1	1.2	0.7	0.9	1.1	0.8
Consumption	0.8	1.1	0.8	1.0	0.8	0.5	0.7	0.5
Investment	0.0	-0.1	-0.8	0.2	-0.1	0.4	0.4	0.3
II. Net external demand								
1. Exports	0.6	-0.3	-0.3	0.4	0.0	2.0	1.7	2.3
2. Imports	-0.3	-0.4	0.3	0.4	-0.4	1.2	0.7	1.0
III. GDP	3.4	2.4	2.4	3.9	3.1	5.3	4.2	5.0
* Forecast.								

- IR: Inflation Report.
- 17. During the first half of 2015, domestic demand, excluding inventories, grew 0.8 percent. GDP growth in this period (2.4 percent) was associated with an increased mining production, which was either exported or accumulated in inventories. The fall of private investment reflected the negative trend observed in indicators of business expectations, the drop in metal prices, and the impact of the depreciation of the nuevo sol.

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Public investment also contributed negatively to the growth of activity in the first half of the year due to the low implementation of projects by subnational governments.

18. In the second half of the year the economy is expected to gradually return to a faster pace of growth, driven by net exports and public expenditure. The improvement expected in net exports would be associated with the reversal of supply shocks –a faster-than-expected pace of growth is being observed in the mining sector–, while the expected improvement in public expenditure would be associated with an increase in the levels of implementation of government spending after the new authorities of the subnational governments have completed their learning period in the first half of the year, although at a slower pace than foreseen in our previous report. Thus, GDP is expected to grow 3.8 percent and domestic demand, excluding inventories, is expected to grow 2.4 percent in the second half of 2015.

Furthermore, in the second half of the year, inventories would register a temporary spike due to a lag between the cycle of mining production and mining exports, which should reverse between Q4-2015 and Q1-2016.

- 19. Therefore, the growth of domestic demand in 2015 has been revised down to 2.7 percent. This rate is higher than the one recorded in 2014 (2.2 percent), but 1.1 percentage points lower than the one estimated in our previous report. Similarly, the forecast scenario for 2015 considers that exports would grow by 0.1 percent of GDP (vs. 1.7 percent estimated in the May IR), whereas imports would fall 1.3 percent (showing a similar rate to the one observed in 2014). Because of this, the forecast of GDP growth in 2015 is revised from 3.9 to 3.1 percent.
- 20. In 2016 and 2017, domestic demand would show a gradual recovery with growth rates of 3.1 and 3.7 percent, respectively, driven by private investment as a result of both the current ongoing projects under concession contracts –Line 2 of Lima's Metro, Gasoducto del Sur, the airport of Chinchero, Vías Nuevas de Lima, and Longitudinal de la Sierra, among other projects– and the investment projects announced, which are estimated to amount to around US\$ 23.6 billion in the period 2016-2017. Government investment would also be another important factor for the recovery of domestic demand considering a scenario in which spending by regional and local governments would record a better performance.

Exports would grow 9.5 percent in 2017, driven by the start of mining projects, while imports would grow at a similar rate to domestic demand on average



during 2016-2017. Thus, GDP is expected to grow at a rate of 4.2 percent in 2016 and at a rate of 5.0 percent in 2017.





- 21. As previously mentioned, private consumption has slowed down and declined from 4.6 percent in the first semester of 2014 to 3.3 percent in the first semester of 2015. Some indicators that reflect the recent trend observed in private consumption are given below:
  - a. Even though it decreased in July and August, the consumer confidence index showed an optimistic level of 60 points in August 2015, a higher value than in August 2014 (58 points). In the period January-August, this indicator showed an average value of 61 points, a higher value than the one observed in the same period in 2014 (57 points).



b. Output in mass production manufacturing industries show a growth rate of 5.3 percent in July 2015.



c. The data of Instituto Nacional de Estadística e Informática (INEI) show that the growth rate of the salaried workforce employed in the private sector has increased from 0.8 percent in January to 1.8 percent in July.




d. The unemployment rate, indicator reflecting the percentage of the total labor force who are unemployed and looking for a paid job, registered 6.8 percent in the period January-August 2015, a higher rate than the one recorded in the same period in 2014 (6.2 percent).



e. The growth of credit to individuals, which includes consumer loans and mortgages, continues to show a moderate pace of growth. Credit to individuals recorded an annual growth rate of 12.4 percent in August 2015, while in the period of January-to-August it grew 12.1 percent, less than in the same period of 2014 (13 percent).



f. The volume of imports of consumer durables accumulated a decline of 5.8 percent between January and July of this year.



g. Sales of new family cars recorded a decline of 7.2 percent in August and accumulated a negative growth rate of 1.1 percent in the period January-August 2015.



22. The growth rate of private investment in 2015 has been revised down from 1.0 percent to -5.5 percent due mainly to delays registered in the expected timeframe of implementation of several investment projects, the deterioration of indicators of expectations, and lower terms of trade.







Private investment would recover gradually in 2016 and 2017, with growth rates of 2.0 percent and 4.4 percent, respectively, being estimated for these years. This recovery would be driven by the investment projects announced as well as by the projects being implemented under concession contracts. Thus, the ratio of total gross fixed investment to GDP, which includes both private investment and public investment, would be around 25 percent of GDP between 2015 and 2017.



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- 23. Some indicators reflecting the evolution of private investment in 2015 are given below:
  - a. Business expectations about demand in the three months ahead remain on the optimistic side with a level of 55 points in August. However, the indicator of business expectations six months ahead recorded a level of 47 points in August, a low level not recorded since June 2013. Moreover, business expectations about the economic situation three months ahead showed a level of 42 points in August, the lowest level observed in the first seven months of 2015.









b. The volume of imports of capital goods –indicator of the demand for investment– fell 7.6 percent in July 2015 and accumulated a decline of 9.8 percent between January and July 2015.



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c. The survey on expectations of GDP growth in 2015 shows downward adjustments: between May and September 2015, financial entities have revised down the GDP rate they expect from 3.0 to 2.8 percent; economic analysts have revised down their projections from 3.1 to 2.8 percent, and non-financial firms have revised their growth estimates from 3.5 to 3.0 percent. All the economic agents expect GDP to show a faster pace of growth in the next two years.

Table 12           SURVEY ON MACROECONOMIC EXPECTATIONS: GDP GROWTH (% change)							
		Expectations about:					
	IR Jan.15	IR May.15	IR Sep.15				
Financial entities							
2015	4.5	3.0	2.8				
2016	5.0	4.0	3.8				
2017		4.8	4.5				
Economic analysts							
2015	4.5	3.1	2.8				
2016	5.2	4.2	3.7				
2017		5.0	4.5				
Non-financial firms							
2015	4.5	3.5	3.0				
2016	5.0	4.0	3.5				
2017		4.5	4.0				

24. Private investment projects announced to be carried out in the period of 2015-2017 amount to US\$ 40.1 billion.

PRIVAT	Table 13           E INVESTMENT PROJECTS ANNOUNCED: 20'           (Millions US\$)	15-2017
	Total investment	Number of projects
Mining	13,421	32
Hydrocarbons	6,996	21
Electricity	4,967	35
Industry	2,718	15
Infraestructure	4,404	24
Other sectors	7,603	114
Total	40,109	241

Source: Information of companies.

In the hydrocarbons sector, Consorcio Gasoducto Sur Peruano continues implementing the project Mejoras a la Seguridad Energética del País y Desarrollo del Gasoducto Sur. Investment in the works carried out as of May amounts to US\$ 1 billion.



In the electricity sector, projects such as the Carhuaquero-Cajamarca Norte-Cáclic-Moyobamba transmission line and the hydroelectric power plants of Colca and Acco Pucará have already started their construction stage. It should be pointed out that all of these projects represent an investment of around US\$ 500 million in the period 2015-2017.

As for infrastructure projects, works carried out so far include the progress made in the works of Line 2 of Lima's Metro, which have focused on the construction of the ventilation wells located in Ate and Santa Anita as part of the first stage of the project. Moreover, Consorcio Consierra Tramo II, led by Spanish company Sacyr Concesiones, obtained funding for a total of US\$ 200 million in June for the implementation of the highway Longitudinal de la Sierra, Section 2. The contract for this project was awarded in December 2013.



Investments in the mining sector as of May amounted to US\$ 2.5 billion according to the Ministry of Energy and Mines, the expansion project of Cerro Verde with an investment of US\$ 804 million and the expansion project of Constancia with a total investment of US\$ 542 million standing out. The former, which is currently in its final stage, should start operations by the end of the year and reach full production capacity in 2016, while the latter, which started operating in late April, is currently completing the construction of its molybdenum plant and expects to reach full production capacity before the end of the year.



	Table 14 MAIN INVESTMENT PROJECTS ANNOUNCED: 2015 - 2017						
SECTOR	COMPANIES	PROJECT					
Mining	China Minmetal Corp Freeport-Macmoran Copper Jinzhao Mining Southern Perú Copper Corporation AQM Copper Southern Perú Copper Corporation Chinalco Shougang Corporation Bear Creek Mining Corporation Compañía de Minas Buenaventura S.A.A. Compañía de Minas Buenaventura S.A.A.	Las Bambas Expansion of Cerro Verde Pampa del Pongo Expansion of Toquepala Zafranal Los Chancas Expansion of Toromocho Expansion of Marcona Corani San Gabriel (Ex Chupacapa) Tambomayo					
Hydrocarbons	Enagas, Odebrecht S.A.C. Karoon Gas Autralia; Vietnam American Pluspetrol Perú Corp. S.A. Graña y Montero Petrolera Calidda Gas Natural del Perú China National Petroleum Corporation	Enhance energy security country and development of pipeline in the south Exploration: Lot Z - 38 Exploration of Lots 88 and 56 Improving Lots III - IV Massive use of Natural Gas Lot 58: 2D seismic lines					
Electricity	Enersur; Kallpa Generación Quimpac S.A.; Inkia Energy Inevarante Interconexión Eléctrica Isa Perú SA. Odebrecht S.A.C. Odebrecht S.A.C. Isolux de México;Isolux Ingeniería de España Corsán-Corviam; Engevix y Enex Generación Eléctrica Las Salinas Termochilca S.A.C.	Electric Node in the South of Peru Hydroelectric Power Plant of Cerro del Águila Hydroelectric Power Plant of Acco Pucará 500 KV Mantaro - Marcona - Socabaya - Montako Transmission Line and associated substations Hydroelectric Power Plant of Cerro Chaglla Hydroelectric Power Plant of Belo Horizonte 220 KV Moyobamba - Iquitos Transmission Line Hydroelectric Power Plant of Molloco Eolic Park Samaca Thermal Power Plant of Santo Domingo de Olleros - Combined cycle					
Industry	Corporación JR Lindley Repsol YPF S.A. Mitsubishi; Hochschild Mining PLC Técnicas Reunidas S.A. Grupo Gloria Alicorp	Expansion and new plants Expansion of La Pampilla plant Phospates projects Modernization of Talara refinery Investment projects 2011-2016 Expansion					
Infrastructure	Consorcio Nuevo Metro de Lima Odebrecht S.A.C. Consorcio Consierra II Covisol Consorcio Angostura APM Terminal, Callao Port Holding, and Central Portuaria Grupo Romero Graña y Montero S.A. Dubai Ports World	Line 2 Network Metro Lima (Electric Train) New highways in Lima Longitudinal de la Sierra road project, Section 2 Trujillo-Sullana: Sol Highway Majes Siguas II Modernization of North pier Expansion of Matarani port South express way Muelle Sur (Phase 2)					
Other sectors	Grupo Telefónica Entel Corporación Ecorigenes S.A.C Grupo Salinas Grupo Romero Grupo Falabella Besalco S. A. Graña y Montero Vivienda (GMV) Grupo Interbank Grupo Suma Inmobiliaria S.A Grupo Gloria	Expansion and facilities of net LTE-4G Development of services Real Estate projects National Fiber Optics Backbone Storages for minerals Expansion and New shopping centers Real Estate projects Projects of houses Expansion and New shopping centers Projects of houses Corporate offices: Stratego Casagrande, Cartavio and San Jacinto - Olmos project					

Source: Information of companies.



## Table 15 MAIN PROJECTS TO BE IMPLEMENTED THROUGH CONCESSION ARRANGEMENTS IN 2014-2015 (Millions US\$)

		Estimated i	nvestment
	_	2014	2015
Δ	Awarded	9 979	331
7.0	Line 2 and Faucett Ave - Gambetta Ave of the Basic Network of the Metro of Lima and Callao	5 075	
	Improvements of the National Energy Security and development of the South Peruvian Pipeline	3.643	
	International Airport of Chinchero - Cusco (AICC)	537	
	220 Ky Moyobamba - Iguitos Transmission Line and associated substations	499	
	General San Martín ( Pisco) Port Terminal	129	
	220 kV Friaspata - Mollepata Transmission Line and Orcotuna Substation 220/60 kV	39	
	220 kV La Planicie - Industriales Transmission Line and associated substations	35	
	Cable cars to Kuelap	18	
	Provision of Technological Security Services in Prisons	4	
	Broadband Installation for Integral Connectivity and Social Development of Ayacucho Region		55
	Broadband Installation for Integral Connectivity and Social Development of Huancavelica Region		49
	Broadband Installation for Integral Connectivity and Social Development of Apurimac Region		42
	220 Kv Azangaro - Juliaca -Puno Transmission Line		37
	Comprehensive Broadband Connectivity for the Social Development of the Northern Zone of the Country- Lambayeque Region		32
	First Stage of the Carapongo Substation and Conexion Links to Associated Lines		43
	Prison Infrastructure and Urban Renewal "Tinkuy Plaza Project"		73
B.	To be called		4,237
	Longitudinal of the Sierra - Section 4		340
	Power Supply from New Hydroelectric Plants 1/		2,750
	Quillabamba Thermal Power Plant		180
	220 kV Montalvo - Los Héroes Transmission Line and associated substations		26
	Massive use of Natural Gas (Apurímac, Ayacucho, Huancavelica, Junín, Cuzco, Puno, and Ucayali)		350
	LNG Supply System for Lima and Callao		250
	Grand National Aquarium and Additional Works and Services		38
	Headworks and Conduction for the Drinking Water Supply in Lima		600
	Choquequirao Cable car 1/		43
c.	Total Projects (A) y (B)	9,979	4,567
1/ I Sou	Date to be called is not defined. urce: Proinversión.		

At August 2015, seven projects amounting to US\$ 331 million have been awarded as concession contracts for their implementation. In Q4, PROINVERSION is scheduled to award concession contracts for the implementation of 9 projects, with investments amounting to a total of US\$ 4.24 billion.

25. The growth rate of **public investment** estimated for 2015 has been revised down from 4.0 percent to -2.0 percent, due mainly to the underperformance of subnational governments in terms of investment expenditure. Because the rate of expenditure of the executing units would be greater in 2016 and 2017 than foreseen in 2015, public investment is projected to show a growth rate of 8.5 percent in 2016 and a rate of 5.0 percent in 2017.



26. **Real exports** of goods and services fell 1.0 percent in the first half of the year in 2015 due mainly to the decrease recorded in exports of fishmeal, coffee, crude oil and derivatives, and textiles. However, exports would show a gradual recovery in the following months which would offset the fall registered in the first semester of 2015. Exports are estimated to show a growth rate of 0.1 percent in 2015, which represents an improvement compared to the rate observed in 2014 (-1.0 percent) due to increased mining exports and increased farming exports.

In 2016, exports are estimated to grow 7.0 percent, which implies a recovery in comparison with the previous two years. This improvement would be based on increased mining exports resulting from the onset of operations of mining project Las Bambas, the expansion of Cerro Verde, increased production from mining projects such as Toromocho and Constancia, and from higher production at Antamina. In 2017, exports would show a growth rate of 9.5 percent due to increased mining exports associated with the expansion of Toquepala and increased production at Las Bambas.







27. A negative growth rate of 1.3 percent is estimated in this report for **imports of goods and services** in 2015, in line with the slowdown of domestic demand and the decline of investment. In 2016 and 2017, imports are expected to recover gradually, in line with the projected growth of GDP.



#### Box 1 EXTREME EL NIÑO EVENTS IN PERU

El Niño atmospheric-ocean events constitute a risk for the Peruvian economy due to the supply shocks they cause. These extreme intensity events destroy a part of the economy's capital stock and affect the production of goods and services, thus generating adverse impacts on the potential output and on economic cycles.

Anomalies in the sea surface temperature (SST) are recorded to monitor El Niño in four regions of the Pacific Ocean –El Niño zones–, zone 1+2 being the nearest to the Peruvian coast.



The intensity of El Niño is defined according to El Niño coastal index (ICEN)<sup>1</sup>. The latest El Niño events of extraordinary intensity (1982-1983 and 1997-1998) recorded a maximum index of 4.0°C and 3.8°C, respectively. The current intensity of El Niño in July 2015 registered an ICEN idex of 2.2°C, which is consistent with a warm event of strong magnitude that does not imply intense rainfall, but implies above normal temperatures on the coast.



#### Manifestations of El Niño in 1982-1983 and 1997-1998

The impact of El Niño differs according to the particular characteristics of each event. "No two El Niño events are the same", says oceanographer Klaus Wyrtki (1975)<sup>2</sup>. The event varies according to the region of the Pacific



<sup>1</sup> Indicator of the intensity of El Niño elaborated by Comité Técnico del Estudio Nacional del Fenómeno El Niño (ENFEN). Nota Técnica ENFEN 9/4/2012.

<sup>2</sup> Artículo de Divulgación Científica, Ken Takahashi, Boletín IGP, VOL.2 No4 April 2015.

Ocean where it occurs, as well as according to the SST anomalies, rainfall, relative humidity and atmosphere temperature. Other relevant factors include the time of occurrence in terms of hydrological and agricultural calendars, in terms of the anchovy reproduction ccycle, the duration of the warm period, and the phase of crisis or boom the economic sectors are going through.

According to Peru Sea Institute (IMARPE), SST anomalies reached peaks, increasing by over 10°C in Paita in 1983 and about 8°C in 1998 during two consecutive months, while the minimum air temperature rose by over 8°C from Chiclayo to Chimbote during 1982-83 and from Chiclayo to Huacho during 1997-98 in both events, according to the National Service of Meteorology and Hydrology (SENAMHI).

Rainfall in the North Coast areas was 3,000 mm above normal in both events, whereas a cold wave with freezing temperatures and scarce rainfall (deficit of 50 percent<sup>3</sup>) affected the Southern Sierra<sup>4</sup> in 1982-83. The areas affected by El Niño in 1982-83 were the Coast and the Sierra regions, especially Tumbes, Piura, Lambayeque, La Libertad, and the Southern Sierra, while El Niño in 1997-98 affected especially the Coast areas, from Tumbes to Tacna.

Heavy rainfall occurred during the sowing and harvest periods (December-June) in 1982-83, which implied greater damage to agriculture, especially in crops such as potatoes, rice, maize, barley, tomatoes, and lemons, all of which are crops with a high weight in the productive structure of the farming sector. A different situation was observed in the 1997-98 event, when intense rainfall concentrated in the first quarter and brought about fewer losses. The event affected mainly the production of sugar cane, cotton, grapes, and olives –crops with a relative lower weight in the agriculture sector–, but contributed to increase the cultivation of rice and hard maize, which are crops less sensitive to water and temperature anomalies.

#### El Niño 2015: Current status and potential impacts

According to the ENFEN Multi-Sectoral Committee, there is a probability of 95 percent that the occurrence of El Niño event will extend to the months of January-March and a probability of 65 percent that it will reach a moderate-to-strong magnitude.

In the Central Pacific –El Niño zone 3.4–, the anomalies registered show levels above those observed in the 2 last episodes (1982-1983 and 1997-1998). Moreover, the average values of the possible scenarios of the forecast models elaborated by the National Oceanic and Atmospheric Administration (NOAA) also indicate that anomalies would continue to increase.



3 "1er. Compendio Estadístico Agrario 1950-91", MINAGRI, Lima, December 1992.

<sup>4 &</sup>quot;El fenómeno El Niño en el Perú", SENAMHI, Lima-Perú, 2014.

On the other hand, recent indicators for El Niño zone 1+2, relevant to Peru, show that atmospheric and oceanographic conditions are moderating, although they are still higher than normal. In addition, the reduction of anomalies would continue in the coming months, according to the average values of the scenarios forecast by NOAA for this area. If this forecast is corroborated, the 2015 El Niño would show a pattern different from the one observed in the previous events. Despite this, it should be pointed out that weather conditions may differ from the forecasts and rapidly generate reversals in the projected scenarios.



Therefore, from the perspective of the management of macroeconomic risks, it is necessary to anticipate what impact El Niño may have on the country's GDP in different risk scenarios.

To assess the potential effects of El Niño today, it is essential to be aware that, in practice, the final impact of this event will depend on prevention actions, on how fast damaged infrastructure is repaired (especially roads), and on the effect on income that can reduce private spending.

At the sector level, so far this year we see that 74 percent of harvests and sowing have been completed, so the impact in the agriculture sector is expected to be mild this year. The greater impacts would be seen in a lower production of fruits, such as lemon and mangos in the North areas, since these crops are very sensitive to temperature variations especially in the flowering stage. In 2016, export-oriented crops –i.e. mangos, organic bananas, quinoa, grapes, asparagus, blueberries, and paprika, among others– would be affected in the North Coast if the warm temperature anomalies continue in the first quarter of the year. Should these warm temperatures extend towards the South areas, they would affect other crops, such as olives and artichokes. Furthermore, if El Niño generated drought in the Sierra areas, crops such as potatoes, maize, beans, peas, as well as Andean crops and pastures would be affected.

Greater dynamism than in 2014 is foreseen in the fishing sector this year given that the first fishing season in the Central North Coast (which accounts for 88 percent of the annual fishing quota) was 17 days longer than the previous one. It is worth mentioning that the second fishing season was authorized in the South coastal areas (which accounts for 12 percent of the annual fishing quota), but cancelled in the Central North coast areas in 2014. In 2016, the adverse impact of El Niño in the fishing sector would be reflected in lower landings of anchovy.

Other sectors would have a more indirect impact depending on the degree of relationship they have with agriculture and fishing. Primary manufacturing would be the most affected sector as a result of a lower availability of farming and fishing inputs. The prices of agricultural products would show greater variations (due to lower supply), the trade balance would be affected by lower exports and higher imports, and lower economic activity would be reflected in lower tax revenues.



Rising prices would be temporary and their impact would be offset either by an increased supply in other regions associated with the great diversity of ecosystems in the country which allows different regions to produce the same crop, or by the supply resulting from the next production cycle (in the case of crops with short farming periods), or by the substitution of food products as a result of the diversity of the food products available in addition to imports of other foodstuffs.

It is worth pointing out that more technology and more information is now available from the Comité Multisectorial ENFEN today, seventeen years after the occurrence of the last extreme El Niño event. The government has budgeted about 0.4 percent of GDP for prevention actions this year, which is a similar amount to the one allocated for emergency and rehabilitation costs in 1998 (around 0.5 percent of GDP, Annual Report 1998, BCRP), and has also facilitated the application of regulations aimed to stimulate risk reduction actions and preparedness for El Niño<sup>5</sup>.

Producers have implemented prevention measures especially in the case of export-oriented crops, taking insurance against climate risk, using a greater variety of seeds that are more resistant to climate change, and improved the use of water. There is also a greater willingness to take advantage of the favorable effects that El Niño<sup>6</sup> may bring about, such as better export prices due to lower supply in other competing countries and the expansion of export opportunities other countries may have to abandon given that El Niño is a global event<sup>7</sup>.

<sup>5</sup> D.U. 004-2015, extraordinary measures adopted to face the impact of El Niño.

<sup>6</sup> Soil humidity, forest regeneration, greater water reserves, greater marine diversity –warmwater species such as scallops, king prawn, samasa, tollo, merlin, perico, and sardine.

<sup>7</sup> El Niño affects temperature and rainfall patterns in many regions of the world. El fenómeno El Niño en el Perú, SENAMHI, Lima 2014.

## III. Balance of Payments

#### **Current account balance**

- 28. In the first half of 2015, the current account of the balance of payments recorded a deficit of US\$ 4.2 billion (4.5 percent of GDP), lower than the one observed in 2014. The decline in the current account deficit was associated with the growth of traditional exports, especially mining exports and exports of services (tourism), and with the decrease observed in imports of capital goods. The negative impact of lower terms of trade on the trade balance was offset in part by lower factor income, in line with lower corporate earnings in the sector of mining and hydrocarbons. In this period, the deficit was financed through inflows of long-term capital (US\$ 4.8 billion).
- 29. The deficit in the current account of the balance of payments in 2015 is estimated to be equivalent to 3.2 percent of GDP, lower than the one observed in 2014. Furthermore, the current account deficit would also be lower than forecast in our previous report due mainly to economic slowdown, higher net exports in real terms, and lower factor income which would outweigh the effect of the greater deterioration of terms of trade.

In 2016 the current account deficit would be slightly lower than in 2015 given that the greater volumes of exports would offset the lower terms of trade. Moreover, a strong increase is projected in 2017 in mining exports as a result of higher production levels of copper at important mines such as Las Bambas and Cerro Verde.



	ם BALANCI (Mi	Table 16 E OF PAY	(MENTS \$)	,				
		2014		2015*		2	2016*	2017*
	H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15
I. CURRENT ACCOUNT BALANCE	-5,128	-8,031	-4,218	-7,967	-6,081	-7,309	-6,222	-4,949
% GDP	-5.2	-4.0	-4.5	-3.9	-3.2	-3.3	-3.1	-2.3
1. Trade Balance	-1,080	-1,276	-2,008	-1,693	-2,107	-499	-2,036	46
a. Exports	19,271	39,533	16,244	36,326	33,767	40,099	34,573	38,904
b. Imports	-20,351	-40,809	-18,253	-38,019	-35,874	-40,598	-36,609	-38,859
2. Services	-843	-1,800	-883	-1,536	-1,755	-1,467	-1,582	-1,618
3. Investment income	-4,967	-9,328	-2,888	-8,230	-5,636	-8,956	-6,112	-7,007
4. Current transfers	1,762	4,374	1,561	3,492	3,418	3,612	3,507	3,631
Of which: Remittances	1,293	2,639	1,296	2,847	2,851	2,948	2,924	3,018
II. FINANCIAL ACCOUNT	3,793	5,853	2,375	6,509	5,529	7,309	8,222	5,949
Of which:								
1. Private Sector	3,775	5,859	2,570	4,446	2,524	5,148	4,214	4,309
a. Long-term	2,693	6,490	3,297	4,563	3,187	5,148	4,214	4,250
b. Short-term <sup>1/</sup>	1,083	-631	-727	-117	-664	0	0	59
2. Public Sector <sup>2/</sup>	18	-6	-195	2,063	3,005	2,161	4,008	1,639
III. BALANCE OF PAYMENTS (=I+II)	-1,335	-2,178	-1,843	-1,458	-552	0	2,000	1,000
Memo:								
Long-term external financing of the								
private sector (% GDP) 3/	7.8	7.2	5.0	5.3	3.9	4.5	3.8	3.9
GDP (Billions US\$)	99	203	94	204	193	220	200	215

\* Forecast.

Includes net erros and omissions.
 Includes exceptional financing.

3/ Includes net foreign investments, portfolio investment and private sector's long-term disbursement.

IR: Inflation Report.

30. Long-term financing from private sources is expected to stabilize around 3.9 percent of GDP in 2017. This level is lower than the one observed in recent years, which would be associated, on the one hand, with the end of the cycle of large mining investments due in part to the end of the period of high growth rates in the prices of raw materials and, on the other hand, with a scenario of higher external interest rates, in line with market expectations of an interest rate adjustment by the Federal Reserve in 2015. However, private long-term financing would continue to exceed the gap in the current account in 2015-2017, foreign direct investment being the main component of this financing.



31. The decline in the current account deficit in 2015-2017 is consistent with a reduction in the ratio of investment from 25.9 percent in 2014 to 24.2 percent of GDP in 2017. Investment would be more oriented to infrastructure projects, but without reaching the magnitude of mining investment observed in recent years. A moderate increase in public and private domestic savings is also considered here.

Table 17           SAVINGS - INVESTMENT GAP           (% GDP)								
	201	14		2015*		20	16*	2017*
	H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15
1. Gross fixed investment	24.9	25.9	22.6	25.4	24.2	25.2	24.2	24.2
<ul> <li>2. Net domestic saving <sup>1/</sup></li> <li>a. Private</li> <li>b. Public</li> </ul>	<b>19.7</b> 11.0 8.7	<b>22.0</b> 16.7 5.2	<b>18.2</b> 11.9 6.3	<b>21.4</b> 17.9 3.6	<b>21.1</b> 18.1 3.0	<b>21.9</b> 18.0 3.9	<b>21.0</b> 18.3 2.7	<b>21.9</b> 19.0 2.9
3. External savings	5.2	4.0	4.5	3.9	3.2	3.3	3.1	2.3
* Forecast. 1/ Excluding change on inventories.								

1/ Excluding change IR: Inflation Report.

#### Trade balance

32. In the first half of 2015, the trade balance showed a deficit equivalent to US\$ 2.01 billion. This deficit, which is higher than the one recorded in the same



period in 2014, reflects a decrease of 15.7 percent in exports, while imports show a decline of 10.3 percent in a context of lower terms of trade. The decline in exports was mainly associated with the lower prices of traditional exports, which was coupled by the effect of lower volumes of exports of non-traditional products. On the side of imports, the decline was associated with the conduct of consumption and investment in the first half of the year.

By countries of destination, the decline observed in exports of traditional products was particularly noteworthy in the following countries: China (iron and copper), USA (silver and crude oil), Japan (crude oil, copper, and fishmeal), and Brazil (crude oil). In addition to this, economic slowdown in Latin American countries during the first 6 months of the year also reflected in the reduction of Peruvian exports of non-traditional products to countries in the region. Thus, Venezuela reduced its purchases of textiles, Colombia reduced its purchases of textiles and chemical products, Ecuador reduced the volume of purchases of iron&steel and metal-mechanic products, and Brazil reduced the volume of purchases of iron&steel products and non-metal minerals.

33. The forecast of the trade balance in **2015** has been revised down from a deficit of US\$ 1.7 billion (IR of May) to a deficit of US\$ 2.1 billion in a context of lower terms of trade. The revision takes into account the effect of lower traditional exports associated with an anticipated greater deterioration of prices, especially in the case of the prices of copper and gold, two of our major export products. The effect would be in part offset by lower imports of consumer and capital goods, in line with the downward revision of the rates of private consumption and investment projected for this year.

In **2016** the deficit in the trade balance would be similar to the one observed in 2015. The improvement in the volume of exports of both traditional goods (mainly copper) and non-traditional goods would be offset by the effect of higher imports, mainly capital goods, associated with higher investment, the latter being estimated to show positive growth rates again in this year.

Traditional exports would grow considerably in **2017** due to the greater production capacity of several major copper projects, to the stabilization of the prices of the metals Peru exports, to increased volumes of fishmeal (since the effects of El Niño event would no longer be observed), and to higher exports of non-traditional goods, all of which would translate into a positive balance in the trade balance after having shown a deficit in the period 2014-2016.

Table 18       TRADE BALANCE       (Millions US\$)									
	H1	2014 Year	H1	2015* IR May.15	IR Sep.15	2010 IR May.15	5* IR Sep.15	2017* IR Sep.15	
<b>Exports</b> Of which:	19,271	39,533	16,244	36,326	33,767	40,099	34,573	38,904	
Traditional products Non-traditional products	13,586 5,579	27,685 11,677	11,011 5,191	24,284 11,824	22,492 11,113	27,541 12,358	22,903 11,470	26,378 12,327	
<b>Imports</b> Of which:	20,351	40,809	18,253	38,019	35,874	40,598	36,609	38,859	
Consumer goods Inputs	4,264 9,370	8,896 18,815	4,095 8,036	9,200 14,737	8,686 14,733	9,901 15,770	8,992 14,202	9,391 15,218	
Capital goods	6,623	12,913	5,919	12,153	11,620	13,170	11,903	12,736	
Trade Balance	-1,080	-1,276	-2,008	-1,693	-2,107	-499	-2,036	46	

\* Forecast. IR: Inflation Report.

Table 19       TRADE BALANCE       (% change)									
			2014		2015*		201	6*	2017*
		H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15
<ol> <li>Value: Exports Traditional p Non-traditio Imports</li> <li>Volume: Exports Traditional p Non-traditio Imports</li> </ol>	products nal products products nal products	-6.6 -11.5 8.5 -2.0 2.5 0.6 9.0 -1.4	-7.8 -12.3 5.5 -3.4 -1.0 -3.2 6.2 -1.9	-15.7 -19.0 -7.0 -10.3 -3.0 -2.1 -4.2 -1.1	-8.1 -12.3 1.3 -6.8 1.1 -0.4 2.7 0.4	-14.6 -18.8 -4.8 -12.1 -1.2 -0.9 -2.2 -3.1	10.4 13.4 4.5 6.8 8.3 9.9 5.7 4.2	2.4 1.8 3.2 2.0 7.2 8.4 4.4 2.2	12.5 15.2 7.5 6.1 10.0 11.7 6.1 4.0
3. Price: Exports Traditional p Non-traditio Imports	products nal products	-8.9 -12.0 -0.4 -0.6	-6.9 -9.4 -0.7 -1.5	-13.1 -17.2 -2.9 -9.3	-9.1 -11.9 -1.4 -7.2	-13.4 -18.2 -2.4 -9.4	1.9 3.2 -1.1 2.5	-4.5 -5.9 -1.1 -0.1	2.3 2.7 1.3 2.0

- 34. Exports are foreseen to decline by 14.6 percent (vs. 8.1 percent estimated in our previous report), due mainly to lower traditional exports. A greater contraction in the volume of traditional exports is estimated in this report, particularly in exports of crude oil and oil derivatives, in line with the lower production of companies operating in the sector of hydrocarbons as a result of the drop in the international prices of crude.
- 35. A recovery is foreseen in mining exports in the **2016-2017** forecast horizon. This would be particularly noteworthy in exports of copper as a result of the positive impact that the onset of operations at Las Bambas, the expansion of Cerro Verde,





the recovery of higher grades of mineral ores at Antamina, and greater output levels at Constancia and Toromocho would have on production. In addition to this, a greater output is also foreseen in the fishing sector considering the normalization of climate conditions by end-2016.

On the other hand, in **2015** non-traditional exports would grow at a lower rate than estimated in the Inflation Report of May due mainly to the trend observed in the first months of the year, the negative rates anticipated in fishing exports due to the effects of a moderate-to-strong El Niño event, and to lower exports of textiles to Latin American countries, in line with economic slowdown in this region, which is one of the major points of destination of Peru's non-traditional exports.

In **2016** and **2017** non-traditional exports would amount to US\$ 11.5 billion and US\$ 12.3 billion, respectively, as a result of the recovery of prices and of increased demand, in line with higher growth in our main trading partners (Latin America and USA).











36. Imports in **2015** would amount to US\$ 35.9 billion, a lower figure than the one estimated in the Inflation Report of May. The forecast has been revised down due mainly to expected lower volumes of imports of capital goods (down from -0.7 to -7.3 percent), industrial inputs (down from 1.2 to -3.9 percent), and consumer goods (down from -2.9 to -5.7 percent), in line with the lower rate of economic activity foreseen and the rise in the US dollar-nuevo sol exchange rate estimated.

In **2016** the volume of imports would recover as a result of increased growth in the manufacturing sector and increased investment during the year, while in **2017** imports would show a greater growth in real terms, in line with the growth of domestic demand.





#### Terms of trade

- 37. In the first seven months of 2015, Peru's terms of trade index registered an average level of 94.0 (an index 4.6 percent lower than the one recorded in the same period of 2014). The export price index fell 13.6 percent while the import index fell 9.5 percent in the same period.
- 38. On the side of import prices, the sharp decline in the average price of crude oil stands out because the price of oil dropped to nearly half of the price level it had in the same period of 2014, in a context of broad global supply of crude and expectations of lower demand. This price fall also affected the price of food products on the downside, the latter also being subject to pressures due to uncertainty over whether China can maintain the level of its imports or not.

On the side of exports, the drop in the prices of basic metals is explained by increased concerns about China's performance after the collapse of its stock market and the depreciation of the yuan. As for the price of gold, the price drop is still explained by the strengthening of the dollar influenced by expectations that the Fed will raise its rates, although the price of gold has registered upward pressures derived from the demand for gold as a hedge asset in the periods of greater stress.

39. The terms of trade are estimated to decline 4.4 percent in 2015, 4.5 percent in 2016, and to start showing a correction in 2017 at a rate of 0.2 percent.

Table 20         TERMS OF TRADE,2013 - 2017         (Annual average data)								
	2013	2014	20	15*	20	2016*		
	Year	Year	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15	
Terms of trade	-5.7	-5.4	-2.0	-4.4	-0.6	-4.5	0.2	
Price of exports	-5.7	-6.9	-9.0	-13.4	1.9	-4.5	2.3	
Copper (US\$ cents per pound)	332	311	277	252	285	234	237	
Zinc (US\$ cents per pound)	87	98	100	90	102	83	84	
Lead (US\$ cents per pound)	97	95	88	82	90	79	80	
Gold (US\$ per ounce)	1,411	1,266	1,205	1,163	1,200	1,126	1,137	
Price of imports	0.1	-1.5	-7.2	-9.4	2.5	-0.1	2.0	
Oil (US\$ per barrel)	98	93	55	50	64	48	52	
Wheat (US\$ per ton)	266	243	200	191	215	193	211	
Maize (US\$ per ton)	235	155	144	143	158	155	163	
Soybean oil (US\$ per ton)	992	812	713	668	733	626	645	

\* Forecast.

IR: Inflation Report. Source: BCRP.









## Copper

40. The price of **copper** dropped 20.0 percent in the first eight months of 2015, closing with a monthly average price of US\$ 2.33 per pound in August. The price of copper decreased rapidly until it reached a minimum low of US\$ 2.217 per pound on August 24.

The downward pressures on the price of copper are explained by signals pointing to a lower-than-expected demand. The change anticipated in China's consumption of copper has reinforced initial estimations that there will be a significant global oversupply this year<sup>8</sup>.

Signals pointing to a lower dynamism in China were supported by the slowdown of the country's GDP, especially the lower growth of its manufacturing activity, the decline of total exports, the slowdown of investment in electricity infrastructure, and the slowdown of the Chinese real estate sector. The contraction of demand was coupled by a significant increase in copper production –despite the unplanned supply cuts<sup>9</sup>–, which was reflected in an increase in global inventories<sup>10</sup>.

A recovery is foreseen in China's demand in the forecast horizon as from Q4, although this recovery would be lower than initially estimated. A greater availability of supply is also foreseen due to the onset of production of several major projects as from the second semester of the year, including Las Bambas, Toromocho, Sentinel, and Cerro Verde whose greater production in the next two years would offset the lower production of mines with lower grades of ores. In line with these developments, the prices of copper are revised down to an average price of US\$ 2.52 per pound and US\$ 2.34 per pound in 2015 and 2016, respectively.

There are still upside risks associated with the likely recovery of China's demand due to the stimulus measures that the Chinese government is implementing, the support to the expansion of credit for industrial activity being particularly essential (since the trade of copper and the demand for copper are activities with a high degree of leverage). An increase in infrastructure investment

<sup>8</sup> Even though the International Copper Study Group (ICSG) reported that the globla oversupply of copper declined to only 4 thousand tons in the period of January-May 2015 due mainly to a seasonal recovery in China's consumption in the months of April and May.

<sup>9</sup> Grasberg exports stopped on July 25 due to the new regulations implemented by the government of Indonesia.

<sup>10</sup> Inventories in global exchange markets increased by about 70 percent in the first eight months of the year, the increase of inventories at the LME and at the Shanghai stock exchange standing out. Inventories in stock exchange markets exceeded 500 thousand tons at end-August.

is also highly likely, especially in the electricity sector where investment in infrastructure shows a slower pace of growth than that observed in our previous report. The downside risks are that China's consumption of copper may continue to deteriorate and that copper production may drop more than expected.



#### Zinc

41. The mean price of **zinc** decreased 14.9 percent in the first eight months of the year, reaching a monthly average price of US\$ 0.80 per pound in August 2015. However, it is worth mentioning that the price of zinc increased in Q2 to a maximum price of US\$ 1.09 a pound on May 6, falling gradually thereafter until it reached a minimum low of US\$ 0.77 per pound on August 24.

The fall in the price of zinc was supported by concerns of a slowdown of China's demand amid an unexpected global oversupply in the first semester<sup>11</sup>, the oversupply being explained by an increased production of refined zinc –up 9.4 percent in annual terms– in the first half of 2015, as well as by a slowdown in global demand<sup>12</sup>. The latter is explained by the fact that China's consumption of zinc grew only 3.4 percent, while the demand of the USA declined 3.3 percent in the same period.

Concerns of a market oversupply offset expectations that a slowdown in the supply of this mineral as a result of the closing of mines Century in Australia and Lisheen in Ireland would generate market pressures as from Q4-2015. The zinc market fundamentals point to a slightly tighter market in the last quarter



<sup>11</sup> The International Zinc and Lead Study Group (ILZSG) reported a global supply surplus of 157 thousand tons in the first six months of the year due to the stagnation of global demand, associated especially with the contraction of China's demand.

<sup>12</sup> According to the International Zinc and Lead Study Group (ILZSG) report of August 2015.

of the year. It is estimated that the production of refined zinc would not grow at the same pace as consumption, thus generating price pressures on the upside.

In this context, in the forecast horizon the international price of zinc is expected to recover in the coming months, even though China's greater slowdown would imply zinc prices to show levels below those estimated in the Inflation Report of May.



### Gold

42. The price of **gold** fell 8.1 percent in the first eight months of 2015, closing August with a monthly average price of US\$ 1,103 per troy ounce. The price of gold showed a downward trend during most of the year as a result of the strengthening of the dollar due to expectations that the Fed would start raising its interest rates. Another factor that contributed to this price fall in recent months was the lower physical demand for gold of the major emerging market economies as a result of the depreciation of their currencies. However, this price fall was offset by an increased demand for this metal as a hedge asset, especially in periods of marked financial volatility.

In the forecast horizon the price of gold is expected to be below the level estimated in our previous report. The price of gold will continue to be affected by downward pressures associated with signals indicating that the Federal Reserve maintains its decision to raise its interest rate and with expectations that the U.S. economy will continue to improve. Moreover, the demand would be affected by prospects of low inflation levels in most countries.





#### Crude oil

43. The price of **WTI oil** fell 26.8 percent in the first eight months of 2015 and recorded a monthly average price of US\$ 43.8/barrel in August. This downward trend is associated with a global oversupply of crude resulting mostly from increased global production.

On the one hand, the OPEC member countries increased their production with the strategy of maintaining their share. In addition, there were expectations of a return of Iran's production of crude after the sanctions imposed on this country for its Nuclear Program were lifted<sup>13</sup>. On the other hand, the production of non-OPEC countries also contributed to a higher supply: the production of



<sup>13</sup> Even though the U.S. Congress has not approved this yet.



crude in the United States reached record levels unheard of since November 1972, allowing inventories of crude oil to reach levels that had not been observed since 1930. This would be indicating that the U.S. production of oil could be less sensitive to low prices than was estimated in our previous report.

On the side of demand, the outlook has been affected by signals of economic slowdown in China, the country that has contributed the most to the growth of demand over the last decade.

In this context, the projection of the WTI oil price is revised downwards. However, the risk factors remain high, both on the downside and on the upside. The downside risks are associated with a rapid return of Iran's production to the market, with the possibility that the U.S. production is not reduced as estimated, with a decline in China's consumption, and with the possibility that the global demand for crude oil may be more inelastic than estimated.

The upside risks include a rapid reduction of oil production in non-OPEC countries. The International Energy Agency (IEA) has estimated that non-OPEC countries' production of crude oil will remain stable in 2016 and that it will only increase by about 1.0 million barrels per day this year<sup>14</sup>. Moreover, advanced indicators point out that the U.S. oil production has begun to decline and that it will continue falling in the rest of the year and even in 2016 if the price does not recover<sup>15</sup>. Furthermore, the number of oil platforms in non-OPEC countries has dropped by over 20 percent since July 2014<sup>16</sup>.



<sup>14</sup> Less than the growth of production in non-OPEC countries (2.4 million barrels per day in 2014).

<sup>15</sup> According to Short Term Energy Outlook, August 2015.

<sup>16</sup> According to statistical data of Bakker Hugh.

## Maize

44. In August, the average international price of **maize** was US\$ 136.0 per ton, 2.2 percent lower than the average price in April 2015.

This is explained by the improvement of weather conditions in August, which led the USDA to revise up the projected yield of this crop in the USA as well as final inventories. Another factor that generated downward pressures on the price of maize was the drop in the price of crude oil, which reduced the demand for biofuels such as ethanol. The fall in the price of maize was offset by excessive rainfall in the USA in late June and July, which generated concerns about the conditions of crops.

Based on these reasons, the price of maize is estimated to show lower levels than those foreseen in our previous report.



#### Wheat

45. In August, the international price of **wheat** showed a decline of 10.2 percent compared to April and closed with an average level of US\$ 176.0 per ton.

The drop in the price of wheat is explained by favorable climate conditions in the United States in August and by the USDA upward revision of final inventories in the 2015/2016 crop year when the market had expected the opposite. Other factors that pushed the price down were the appreciation of the dollar against the euro, which negatively affected U.S. exports in terms of competitiveness with respect to European exports, as well as the higher yields expected in other major producers of wheat, such as Russia.

Because of these factors, it is estimated that the price of wheat will show lower levels than those considered in our previous Inflation Report.





#### Soybean Oil

46. The average price of **soybean oil** in April was US\$ 644.0 per ton, 6.2 percent lower than in April 2014. This decline is explained by price drops in the months of July (down 6.5 percent compared to June) and August (down 7.4 percent compared to July).

The main factor that drove the price down was the decrease in the price of oil in the last two months. Another factor that contibuted to this decline during August was concerns about whether China –the major importer of soybean– could maintain or not the level of its demand after the devaluation of the yuan.

Because of these factors, it is estimated that the prices of soybean oil in the forecast horizon will show lower levels than those considered in our previous Inflation Report.



## **External Financing**

47. The net flow of private long-term external financing would amount to US\$ 3.2 billion in **2015**, with residents' investments abroad amounting to US\$ 2.4 billion and non-residents' investments in the country amounting to US\$ 5.6 billion. This level of net financing is lower than the one estimated in our previous report. This revision estimates mainly lower flows of foreign direct investment, in line with the downward revision of the growth of private investment, as well as lower financing flows for the non-financial sector.

A more gradual net inflow of long-term capital than the one estimated in our previous report is projected for **2016-2017**, with positive net flows amounting to US\$ 4.2 billion (2.1 percent of GDP) and US\$ 4.3 billion (2.0 percent of GDP) in 2016 and 2017, respectively. A scenario with a gradual increase in international interest rates in the next few years is considered in this forecast.

Table 21           FINANCIAL ACCOUNT OF THE PRIVATE SECTOR (Millions US\$)								
	2 H1	2014 Year	H1	2015* IR May.15	IR Sep.15	20 <sup>-</sup> IR May.15	16* IR Sep.15	2017* IR Sep.15
A. LONG-TERM % GDP	<b>2,693</b> 2.7	<b>6,490</b> <i>3.2</i>	<b>3,297</b> 3.5	<b>4,563</b> 2.2	<b>3,187</b> 1.7	<b>5,148</b> 2.3	<b>4,214</b> 2.1	<b>4,250</b> 2.0
1. ASSETS	-2,667	-4,548	-844	-4,330	-2,366	-2,703	-1,492	-2,611
2. LIABILITIES Foreign direct investment	5,360	11,038	4,141	8,893	5,553	7,851	5,707	6,861
in the country	4,519	7,885	4,038	7,620	5,935	5,618	4,867	4,930
Non-Tinancial sector	993 -169	3,023 1.078	446 722	1,001 -146	-37 185	-305	-573	1,931
Portfolio investment	1,163	1,945	-276	1,148	-222	1,538	1,412	1,751
Financial sector	-153	131	-342	271	-343	1,000	, 0	0
Long-term loans	-439	-593	-341	-30	-338	500	-500	-550
Portfolio investment	286	723	-1	301	-5	500	500	550
B. SHORT-TERM <sup>1/</sup>	1,083	-631	-727	-117	-664	0	0	0
C. PRIVATE SECTOR (A + B)	3,775	5,859	2,570	4,446	2,524	5,148	4,214	4,250
* Forecast. 1/ Includes net erros and omissions								

1/ Includes net erros and IR: Inflation Report.

48. The positive flow expected in the **financial account of the public sector** in the next 3 years (nearly US\$ 9.0 billion) reflects major disbursements destined to finance several investment projects such as the expansion of the refinery in Talara and the development of Line 2 of Lima's Metro in this period, as well as the treasury's funding needs.



49. At end-2014, (double check) the external indebtedness of the private sector represented 16.6 percent of GDP, while the indebtedness of the public sector was equivalent to 11.8 percent of GDP. The level of the external debt is expected to remain stable in the forecast horizon, with economic agents showing a higher preference for borrowing domestic currency.



50. The soundness of the balance of payments vis-à-vis negative events in the global economy is reflected in the position of Peru's international reserves relative to the balance of its short term external liabilities or comparing the total of these liabilities with the country's current account deficit. The high-levels the Peruvian economy registers in these indicators in the region has been preventively achieved over the period of time characterized by capital inflows and high commodity prices.

Table 22 NIR INDICATORS			
As a % of:	2005	2010	2015*
GDP Short-term external debt <sup>1/</sup> Short-term external debt plus Current account deficit	19.0 292.7 385.5	29.7 506.9 360.2	31.8 641.9 392.2

\* Forecast

1/ Includes short-term debt balance plus redemption (1-year) of private and public sector.



#### Box 2 PERU'S POTENTIAL FOR AGRICULTURAL EXPORTS

Peru's agro-export sector has grown exponentially over the past seventeen years. The value of agricultural exports increased by 707.7 percent during this period and, according to the Ministry of Agriculture, the value of these exports would increase from US\$ 5.05 billion in 2014 to US\$ 7 billion in 2016, even in a scenario marked by the occurrence of moderate-to-strong El Niño event next year.

This positive trend in exports may not only extend over time, but also grow even stronger if profitable products with a high external demand are identified and a higher added value is generated based on a constant incorporation of technology, carrying out hydraulic infrastructure projects, and using the country's natural advantages, such as climatic diversity, a workforce identified with farming, the good job carried out by the Servicio Nacional de Sanidad Agraria (SENASA)<sup>17</sup> in terms of pest prevention and control, and the expansion of markets of destination through the establishment of free trade agreement (FTA) and the promotion of the exportable supply. These elements have contributed to positioning Peru today as a world leader in many products of its export window.

PRODUCTS OF FARMING EXPORTS								
Items	Position in World - 2014 International trading references	Position in Agricultural Yield (tons / hectare) In the world and in its export window 1 /						
Quinoa	1	1st. in its export window						
Fresh asparagus	1	1st. in its export window						
Organic Coffee	1	n.a.						
Canned asparagus	2	n.a.						
Avocado	2	1st. in its export window						
Grape	5	1st. in its export window						
Organic bananas	5	n.d.						
Mango	6	5th. in its export window						
Tangerine	7	4th. in its export window						
Conventional coffee	7	9th arabic variety						
Artichoke	8	5th.						
Olive	9	7th.						
Onion	10	5th. in its export window						
Blueberries	10	11th. in its export window						
Cacao	11	7th.						

1 / Export window in asparagus: Chile, Mexico, USA; in avocado: Chile, USA, Mexico; in grape: Chile, Soth Africa, USA; in mango: Israel, Brazil, South Africa, USA; in blueberries: Netherlands, Mexico, Chile, USA, Bulgaria, Germany, New Zealand, Morocco, Poland, Canada; in onion: USA, Spain, Netherlands and Chile. Source: MINAGRI, FAO, TRADEMAP.

These advantages are expressed in the high yields achieved, as well as in the desert and jungle areas gained. The areas cultivated with ten of the major agro-export crops<sup>18</sup> have more than doubled between 1998 and 2013 –from 353 to 825 thousand hectares– and non-native species have been adapted efficiently. This has allowed the country to position itself as a great food supplier worldwide and to rank among the top food providers in terms of cost-effectiveness<sup>19</sup>.

Another advantage determining Peru's agricultural potential is the continuous diversification of its export products. This is reflected, for example, in the expansion of the cultivation of blueberries in La Libertad, with cultivated areas being estimated to increase from 200 hectares to 3 thousand hectares between 2014 and 2018; the incorporation of 38 thousand hectares of new farming land in the Olmos irrigation area which will be cultivated with crops that may be offered in the market in about three years; the renewal of around 40 thousand hectares of coffee plantations in the Peruvian rainforest in the coming years, and the recognition of the fine quality and "aroma" of our cocoa.



<sup>17</sup> Since 1993, SENASA promotes the participation of the private sector in the prevention, control and eradication of pests and diseases that affect agriculture.

<sup>18</sup> Coffee, artichokes, cocoa, quinoa, asparagus, mangos, avocadoes, grapes, onions, olives, and tangerines.

<sup>19</sup> With crop yields in many cases higher than the world average crop yield.

# IV. Public Finances

#### **Economic balance**

51. The economic balance continued showing a declining path, especially on the side of tax revenue as a result of the drop recorded in the prices of minerals and hydrocarbons, the tax measures adopted, and economic slowdown. Non-financial expenditure declined slightly –from 17.9 percent of GDP in the first semester of 2014 to 17.8 percent in the first semester of 2015– as a result of lower capital spending, offset in part by a higher current expenditure. Thus, the economic balance of the last four quarters showed a deficit of 1.0 percent of GDP.



Considering the balances observed in the first half of the year, the projected fiscal deficit in 2015 has been revised up to 2.2 percent of GDP (from 2.0 percent estimated in our report of May). Moreover, on the side of non-financial expenditure, the projection has been revised slightly downwards –down 0.1 percentage points of GDP from the level foreseen in our IR of May–, due mainly to the lower spending expected in subnational governments, particularly in capital spending.

Furthermore, the projected growth of the revenue of the general government in 2016 and 2017 has also been revised down from 20.4 percent of GDP (IR of

May) to 20.0 percent of GDP in each year. Tax expenditures show an increase equivalent to 0.5 and 0.6 percentage points of GDP, respectively, in these years.








Table 23           NON-FINANCIAL PUBLIC SECTOR           (% GDP)								
	20	14		2015*		20	16*	2017*
	H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15
1. General government current revenues <sup>1/</sup> Real % change	<b>23.6</b> 3.9	<b>22.2</b> 2.4	<b>21.4</b> -7.0	<b>20.3</b> -5.3	<b>20.0</b> -7.7	<b>20.4</b> 5.5	<b>20.0</b> 3.5	<b>20.0</b> 4.3
2. General government non-financial expenditure <sup>2/</sup> Real % change Of which: Current expenditure Real % change Gross capital formation Real % change	<b>17.9</b> 6.7 13.5 <i>8.7</i> 4.1 <i>0.1</i>	<b>21.5</b> 7.3 15.6 10.6 5.5 -0.2	<b>17.8</b> 2.1 14.0 6.3 3.2 -19.7	<b>21.4</b> 2.8 15.7 4.9 5.2 -2.2	<b>21.3</b> 1.4 15.8 4.4 4.9 -9.6	<b>21.0</b> 3.4 15.5 3.1 5.2 4.1	<b>21.5</b> 4.4 16.0 4.3 4.9 5.1	<b>21.2</b> <i>3.3</i> 15.6 <i>2.1</i> 5.1 <i>7.3</i>
3. Others	-0.2	0.5	0.4	0.1	0.1	-0.1	0.0	0.0
4. Primary balance (1-2+3)	5.5	0.7	3.9	-1.0	-1.2	-0.8	-1.5	-1.3
5. Interests	1.0	1.1	1.0	1.0	1.0	1.0	1.2	1.3
6. Overall Balance	4.5	-0.3	2.9	-2.0	-2.2	-1.8	-2.7	-2.6

1/ The central government includes the ministries, national universities, public agencies and regional governments. The general government has a wider coverage that includes the central government, social security, regulators and supervisors, government charity organizations and local governments.

governments. 2/ Includes accrued payments by Net payments of the Fuel Price Stabilization Fund.

\* Forecast. IR: Inflation Report.

52. The revised Multi-Annual Macroeconomic Framework (MMF) of August 31, 2015, estimates a deficit of 2.7 percent of GDP in 2015, whereas a deficit of 2.2 percent is estimated in this Inflation Report. This difference would be explained mostly by the fact that the revised MMF considers a higher capital spending in the general government, as well as a lower balance of non-financial public enterprises which include the expenditure of the modernization of the Talara Refinery. Furthermore, the revised MMF considers a higher growth of the capital expenditure of the general government in 2016 than the one considered in the Inflation Report, as a result of which the deficit in the MMF would reach 3.0 percent while the deficit projected in this report is 2.7 percent. Moreover, the BCRP estimates that in 2016 the investment of the national government would be affected by the election of new national authorities. It is worth pointing out that in 2011, which is when the last general elections took place, the gross capital formation accumulated between August and December dropped by 3.1 percent in real terms compared to the same period of 2010. In 2017, both projections converge towards a deficit of 2.6 percent of GDP.

#### **Fiscal impulse**

53. The **structural economic balance** is the balance obtained if the output were in its trend level and the prices of mining and hydrocarbon exports were at their

long term values. This balance is calculated isolating the effects of the business cycle and the effects of the higher prices of the country's main mineral exports on the revenue of the general government. In 2015, the structural economic balance would show a deficit of 1.6 percent of GDP, while in 2016 and 2017 it would show a deficit of 2.0 percent.



The change in the structural balance determines the **fiscal impulse**. This indicator allows us to identify the effect of fiscal policy on domestic demand isolating the effects of the business cycle. In the forecast horizon, the fiscal impulse would register a declining path, falling from 0.5 percent of GDP in 2015 towards a neutral position in 2017.



54. It should be pointed out that Emergency Decree 003-2015, dated August 28, 2015, has exceptionally established that, for the application of the Law for the





Reinforcement of the Fiscal Responsibility and Transparency Act –Law 30099, dated October 31, 2013–, the ex-ante guidelines of the fiscal structural balance of the non-financial public sector establishes that this balance cannot be higher than 3 percent of the output in 2016. In April, Emergency Decree 002-2015 had set this ratio at 2 percent. The increased resources arising from the application of the new regulation will be used exclusively to finance public investment projects and the maintenance of infrastructure. The regulation also establishes that the Executive will submit to Congress a draft law within a maximum period of 180 days establishing that the exante guidelines for the fiscal structural balance of the years after 2016 will consider an annual reduction of not less than 0.5 percent of the output until the balance reaches the 1.0 percent originally established in Law 30099.

#### **Tax revenues**

55. In the **first six months of 2015, the current revenues of the general government** amounted to 21.4 percent of GDP, a figure 2.2 percentage points lower than the one recorded in the same period of 2014, which represents a decline of 7.0 percent in real terms. This balance is explained mainly by a real decrease of 7.9 percent in tax revenues, whose ratio in GDP terms declined from 17.9 percent of GDP in the first half of 2014 to 16.1 percent of GDP in the first half of 2015. In addition, this performance was reinforced by the drop recorded in non-tax revenues as a percentage of GDP (down from 5.6 percent of GDP in the first half of 2014 to 5.3 percent of GDP in the first half of 2015).

Table 24           CURRENT REVENUES OF THE GENERAL GOVERNMENT           (% GDP)									
	20	)14		2015*		20	16*	2017*	
	H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15	
TAX REVENUES	17.9	17.0	16.1	15.4	15.1	15.4	15.2	15.1	
Income tax	7.6	7.0	6.7	5.8	5.7	5.8	5.7	5.5	
Value added tax	9.0	8.8	8.6	8.5	8.5	8.5	8.6	8.6	
Excise tax	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	
Import duties	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Other tax revenues	1.9	1.9	1.6	1.8	1.7	1.8	1.7	1.7	
Tax returns	-1.9	-1.9	-2.0	-1.8	-2.0	-1.8	-2.0	-2.0	
NON-TAX REVENUES	5.6	5.2	5.3	4.9	4.9	4.9	4.8	4.9	
TOTAL	23.6	22.2	21.4	20.3	20.0	20.4	20.0	20.0	
* Forocast									

IR: Inflation Report.

This decrease in revenue is explained by the tax measures adopted at the end of 2014 which included a reduction in the rate of the income tax, in tariff rates, in the excise tax on fuels, as well as changes in the systems of advance payment

of the VAT. Other factors contributing to this decline in revenue were the slower pace of economic growth and the drop in the price of oil and our main export products which has a direct effect on the canon and oil royalties, as well as on other sources of revenue such as the special tax on mining, the special levy on mining, and mining royalties.

Between January and July of this year, revenue from mining has represented 6.2 percent of the total revenue from domestic taxes, a figure that contrasts with the 17.5 percent reached in 2011 and with the maximum in 2007 which was close to 25 percent. It is worth mentioning that after being the most important source of tax revenue from internal taxes in 2011, mining is currently outweighed by sectors such as non-primary manufacturing, construction, and trade.

In **2015** the current revenues of the general government would decline further, decreasing from a contraction of 5.3 percent (IR of May) to a drop of 7.7 percent mainly as a result of lower revenues from the income tax. The latter would be particularly noteworthy in the revenues from the income tax of legal entities, which is expected to drop significantly due to the slower pace of growth in the economy. It is worth pointing out that a higher drop is expected in tax revenue in the second half of the year (8.5 percent in real terms vs.7 percent in the first 6 months), which would be explained not only by the reasons discussed above, but also by the basis effect of tax revenue collected last year for the sale of two companies operating in the mining and hydrocarbons sector (S/. 2.7 billion). Because of this, the ratio of current revenue in GDP terms would fall by around 2.2 percentage points of GDP compared to 2014, showing a level of 20.0 percent that would remain relatively stable in the 2016- 2017 forecast horizon.



#### **Evolution of Government Spending**

56. In the first six months of 2015, non-financial government spending was equivalent to 17.8 percent of GDP, which represents an increase of 2.1 percent compared



to the same period in 2014. This result reflects the faster pace of growth of the non-financial spending of the national government, which increased by 14.0 percent as a result of both higher current spending (10.3 percent) and higher gross capital formation (16.0 percent). On the other hand, however, government spending showed a decline at the level of subnational governments as a result of the problems arising from new authorities taking office in local and regional governments. Government spending shrank 5.3 percent in the case of the regional governments and 25.8 percent in the case of local governments, especially as a result of a significant drop in capital spending.

Table 25           NON-FINANCIAL EXPENDITURE OF THE GENERAL GOVERNMENT           (Real % change)								
	2012	2013	2014	2015 H1				
Current expenditure	5.3	10.5	10.6	6.3				
National Government	1.7	12.8	12.7	10.3				
Regional Governments	10.7	8.8	9.8	4.2				
Local Governments	16.7	2.1	0.7	-11.3				
Capital expenditure	15.0	12.4	-0.4	-10.9				
Gross capital formation	15.6	9.7	-0.2	-19.7				
National Government	-16.5	10.8	16.4	16.0				
Regional Governments	38.2	4.2	-14.5	-31.4				
Local Governments	39.8	12.0	-4.3	-40.3				
Others	7.0	54.5	-2.2	121.2				
TOTAL	8.0	11.0	7.3	2.1				
National Government	-1.2	13.7	12.9	14.0				
Regional Governments	18.3	7.4	1.9	-5.3				
Local Governments	27.8	7.7	-2.4	-25.8				

In **2015** non-financial government spending would grow by a real 1.4 percent, less than estimated in the Inflation Report of May (2.8 percent) due basically to the underperformance of regional and local governments in the first half of the year. The change projected in 2015 considers a recovery of spending in Q4. It is worth mentioning that in 2011, when new authorities took office in the regional and local governments dropped 35 percent between January and September and grew 17.0 percent in the fourth quarter of the year.

It should be pointed out that the Government has authorized the reallocation of resources among the different budget requirements of the three levels of government –national government, and regional and local governments– to finance public investment projects as well as equipment and maintenance costs (Legislative Decree 1176, dated July 4, 2015). The resources will be reallocated among the different levels of government from the agencies that have not been



allocated resources from Regular Resources to other agencies that have public investment projects whose implementation would begin this year.

Thus, in 2015 the non-financial expenditure of the general government would be at a level equivalent to 21.3 percent of GDP, a lower ratio than in 2014 (21.5 percent) and 0.1 percentage point of GDP lower than that estimated in the previous report.









Table 26 NON-FINANCIAL EXPENDITURE OF THE GENERAL GOVERNMENT (% GDP)									
	20	14		2015*		20	2016*		
	H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15	
Current expenditure	13.5	15.6	14.0	15.7	15.8	15.5	16.0	15.6	
National Government	9.1	10.7	9.8	10.9	11.1	10.6	11.2	10.8	
Regional Governments	2.7	3.0	2.7	3.0	3.0	3.0	3.1	3.0	
Local Governments	1.8	1.8	1.5	1.8	1.7	1.8	1.7	1.7	
Capital expenditure	4.4	6.0	3.8	5.6	5.5	5.6	5.5	5.6	
Gross capital formation	4.1	5.5	3.2	5.2	4.9	5.2	4.9	5.1	
National Government	1.3	2.0	1.5	2.4	2.3	2.4	2.3	2.3	
Regional Governments	1.0	1.1	0.7	1.0	0.8	1.0	0.9	0.9	
Local Governments	1.8	2.4	1.0	1.8	1.7	1.8	1.8	1.9	
Others	0.3	0.5	0.6	0.4	0.6	0.4	0.6	0.6	
TOTAL	17.9	21.5	17.8	21.4	21.3	21.0	21.5	21.2	
National Government	10.7	13.2	11.9	13.7	14.0	13.4	14.0	13.7	
Regional Governments	3.7	4.1	3.4	4.0	3.8	4.0	3.9	3.9	
Local Governments	3.6	4.3	2.6	3.7	3.5	3.7	3.6	3.6	

\* Forecast. IR: Inflation Report.

Non-financial spending is projected to grow 4.4 and 3.3 percent in 2016 and 2017, respectively. Within the levels of expenditure projected, current expenditure would grow at a lower rate –4.3 percent in 2016 and 2.1 percent in 2017– while gross capital formation would show a faster pace with a rate of 5.1 percent in 2016 and 7.3 percent in 2017. These projections consider that the new elected regional and local government authorities will soon overcome the management problems they usually have to deal with in the first year of their period in office.

57. The Ministry of Economy and Finance has submitted to Congress the budget bill for 2016, in which total resources amount to S/. 138.49 billion, which represents a nominal increase of 6.0 percent compared to the initial budget for 2015. Non-financial expenditure amounts to S/. 126.76 billion, a figure 6.1 percent higher than the one included in the initial budget for 2015. In 2016 the results-oriented budget to be carried out through 90 budget programs amounts to 62 percent of the non-financial and non-pension expenditure, which represents an increase compared to the percentage it had in 2015 (58 percent). The most important public investment project considered in the 2016 budget due to the amount involved is the construction of Line 2 and section Av. Faucett-Gambeta of the Red Básica del Metro de Lima y Callao (S/. 2.59 billion). Moreover, a total of S/. 3 billion has also been allocated as contingency reserve for expenses related to El Niño.



#### Financial requirements and debt of the non-financial public sector

57. The economic balance projected for 2015 –a deficit of 2.2 percent of GDP– implies that financial requirements would amount to S/. 21.6 billion. This amount, which is slightly higher than that estimated in the IR of May, would be covered with external disbursements and bond placements.

Table 27           FINANCIAL REQUIREMENTS OF THE NON-FINANCIAL PUBLIC SECTOR AND ITS FUNDING (Million S/.)								
	2	014		2015*		20	)16*	2017*
	H1	Year	H1	IR May.15	IR Sep.15	IR May.15	IR Sep.15	IR Sep.15
I. USES	-10,773	11,061	-2,380	20,552	21,554	18,169	23,719	26,658
<ol> <li>Amortization</li> <li>External</li> </ol>	1,581	9,059 4 207	6,021 2,842	8,071	8,021 3,782	6,031 3 374	5,984	8,927 2,869
b. Domestic Of which:	434	4,160	2,863	4,400	3,549	2,657	2,026	5,349
Recognition bonds	308	692	315	655	690	631	631	709
<ol> <li>Overall Balance (Negative sign indicates surplus)</li> </ol>	-12,354	2,002	-8,400	12,480	13,533	12,138	17,735	17,731
II. SOURCES	-10,773	11,061	-2,380	20,552	21,554	18,169	23,719	26,658
1. External	1,384	2,654	1,313	7,701	6,430	5,581	4,181	6,767
2. Bonds <sup>1/</sup>	1,736	13,002	7,418	8,846	16,316	9,261	17,569	7,263
3. Internal <sup>2/</sup>	-13,894	-4,595	-11,111	4,005	-1,192	3,327	1,969	12,629
Memo: % GDP								
Gross debt balance	18.3	20.1	20.0	20.7	22.4	21.0	24.2	24.2
Net debt balance 3/	1.3	3.9	3.2	5.6	6.5	7.2	9.2	11.7

\* Forecast. 1/ Includes domestic and external bonds.

2/ A positive sign indicates a withdrawal or overdraft and a negative sign indicates higher deposit.

3/ Defined as the difference between gross public debt and NFPS deposits. IR: Inflation Report.





59. In **2015** the public debt would increase to 22.4 percent of GDP, a rate higher than the 20.1 percent of GDP recorded at the end of 2014 and higher by 1.7 percentage points than the rate estimated in the IR of May. This result is in line with a context characterized by a greater fiscal deficit and a moderate pace of growth of economic activity.

It should be pointed out that the Peruvian Government placed Global Bond 2027 on August 18, in accordance with Supreme Decree 230-2015-EF, dated August 17, 2015. Bonds for a total of US\$ 1.25 billion were offered at a yield rate of 4.15 percent, a coupon rate of 4.125 percent, and at a price of 99.766 percent. The total demand for the bonds issued amounted approximately to US\$ 5.40 billion, 4.3 times the amount offered. The funds obtained will be used to pre-finance the Fiscal year 2016 requirements.

The balance of the gross debt of the non-financial public sector would amount to 24.2 percent of GDP at the end of the forecast horizon, while the net debt would increase to 11.7 percent of GDP in 2017.



# V. Monetary Policy and Financial Markets

#### Monetary policy actions

59. Since our previous Inflation Report was published in May, the upside risks to the inflation forecast have reflected in an increase of the exchange rate and in expectations of higher inflation. The effect of the increased depreciation of the nuevo sol on prices has generated a rise in inflation in the forecast horizon. In addition to this, supply shocks caused by climatic factors have also had persistent temporary effects on inflation.

Moreover, expectations of inflation in 2016 have gradually increased and reached the upper band of the target range as a result of the effect of the persistent increase observed in the inflation rate in previous months. In this context, the Board of the Central Bank decided to raise the benchmark interest rate by 25 bps to 3.50 percent in September. The Board also reiterated that the Central Bank oversees the inflation forecasts and inflation determinants and stands ready to make adjustments in its monetary policy rate to lead inflation to the target range if it is necessary. The Board also pointed out that the Central Bank has not started a sequence of hikes in its policy interest rate.

This new level of the benchmark rate, which is compatible with inflation's projected convergence to 2.0 percent in the 2015-2017 forecast horizon, corresponds to a real interest rate of 0.5 percent at the time when this report is published and reflects an expansionary monetary policy stance.

61. In recent months, the BCRP policy communiqués have highlighted that the expected rates of inflation have increased and reached similar levels to the upper band of the inflation target range. In this way, the Board of BCRP has reiterated the importance of the future evolution of inflation expectations in the future evolution of the monetary policy rate.

In this context, the increase in the benchmark interest rate is preventive and aimed at preventing second round effects of the supply shocks, as well as the effect of the depreciation of nuevo sol against the dollar on the inflation rate. With the



raise in the benchmark rate, the real interest rate of 0.5 percent is similar to the rate effective two months ago, and consistent with an expansionary monetary policy stance.



The Central Bank has also continued easing its regime of reserve requirements in domestic currency in order to provide banks with liquidity in soles to facilitate the expansion of credit in this currency, in a context in which deposits in soles have grown at slower pace than credit. The rate of reserve requirements was last lowered from 7.0 to 6.5 percent in June 2015.

Moreover, during the second quarter and so far in the third quarter, the BCRP has also adjusted the additional reserve requirements in soles according to the level of operations of forwards in dollars with foreign exchange derivatives with the aim of offsetting excessive pressure of the market of derivatives on the domestic currency.

#### **Monetary operations**

62. The monetary operations of the Central Bank have been mainly oriented to maintaining adequate levels of liquidity in a context of a strong demand for liquidity in soles from banks and expectations of a depreciation. To do so, the BCRP has continued carrying out liquidity injection operations, especially currency repos and auctions of public deposits. Thus, between May and August 2015, the balance of currency repos increased by S/. 5.68 billion, while the balance of auctions of public deposits increased by S/. 2.45 billion. At end-August, the balance of over 1-day repo operations is S/. 27.06 billion and the balance of auctions of deposits with the funds held at the BCRP by Banco de la Nación and Public Treasury is S/. 3.35 billion.

	OPE	Table 28 RACIONES,REPO,DE,MC (Million S/.)	DNEDAS	
Date	Operation	Term	Amount	Average rate
June 1, 2015	Regular	6 -month	500	3.94%
June 3, 2015	Substitution	2 -year	300	3.03%
June 5, 2015	Expansion	2 -year	400	4.61%
June 12, 2015	Expansion	2 -year	200	4.69%
June 12, 2015	Substitution	2 -year	200	3.15%
June 19, 2015	Substitution	2 -year	200	3.19%
June 26, 2015	Substitution	2 -year	132	3.16%
July 3, 2015	Expansion	2 -year	500	4.70%
July 10, 2015	Expansion	2 -year	300	4.80%
July 17, 2015	Regular	6 -month	300	4.20%
July 31, 2015	Regular	6 -month	500	4.60%
August 7, 2015	Regular	6 -month	400	5.07%
August 21, 2015	Regular	1 -year	500	5.98%
August 24, 2015	Regular	3 -year	500	6.63%
August 25, 2015	Substitution	3 -year	500	5.31%
August 28, 2015	Regular	2 -year	250	5.68%
TOTAL			5,682	

#### Table 29 AUCTIONS OF PUBLIC DEPOSIT

Date	Operation	Term	Amount	Average rate
June 3, 2015	Banco de la Nación	1-year	300	4.36%
June 10, 2015	Treasury	1-year	300	4.30%
June 24, 2015	Treasury	6-month	500	4.47%
July 8, 2015	Treasury	6-month	500	4.43%
July 22, 2015	Treasury	5-month	300	4.73%
August 19, 2015	Treasury	6-month	250	5.25%
August 24, 2015	Treasury	6-month	300	5.89%
TOTAL			2,450	





63. The BCRP also continued with its regular auctions of 6-month, 12-month, and 18-month BCRP-CDs three times a week, placing CDs for S/. 50 million each time in order to increase the volume of these certificates and provide more liquidity to the secondary market of BCRP-CDs to contribute to the development of the short-term yield curve in soles. Between May and August, the Central Bank placed BCRP-CDs for a total of S/. 6.15 billion and maturities amounted to S/. 4.99 billion, as a result of which the balance of BCRP-CDs increased by S/. 1.16 billion.

The yield curve of BCRP-CDs increased 28 basis points on average between May and August, reflecting the lower availability of liquidity in domestic currency and market expectations that the Central Bank will soon raise its policy rate again.



64. As a result of these liquidity injection operations, the ratio of instruments issued by the BCRP relative to total liabilities of the Central Bank decreased from representing 21.2 percent of international reserves in May to representing 11.4 percent in August. Most of this change was the result of an increase in the balance of currency repo operations. On the other hand, the ratio of banks' deposits remained stable since the reduction in the rate of reserve requirements in soles was offset by an increase in deposits in dollars associated with BCRP sales of dollars and with currency repos. Public sector deposits, which continued to be the largest source of sterilization, went from representing 44.6 percent of international reserves in May to representing 40.2 percent in August. This decline results from lower deposits in soles as a result of debt repayment and from higher government spending in these months.



Table 30           SIMPLIFIED BALANCE SHEET OF THE BCRP           (As % of Net Assets)										
	Dec.13 Dec.14 May.15 Aug.15									
<ul> <li>Net assets</li> <li>Net International Reserves</li> <li>Repos</li> </ul>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>						
	<b>99.5%</b>	<b>94.7%</b>	<b>88.2%</b>	<b>85.5%</b>						
	(US\$ 65,663 mills)	(US\$ 62,307 mills.)	(US\$ 60,413 mills.)	(US\$ 60,613 mills.)						
	<b>0.5%</b>	<b>5.3%</b>	<b>11.8%</b>	<b>14.5%</b>						
II. Net liabilities	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>						
1. Total public sector deposits	<b>36.3%</b>	<b>38.8%</b>	<b>44.6%</b>	<b>40.2%</b>						
In domestic currency	19.9%	19.7%	22.5%	17.7%						
In foreign currency	16.4%	19.1%	22.1%	22.6%						
2. Total financial system deposits	<b>31.0%</b>	<b>28.4%</b>	<b>39.6%</b>	<b>39.5%</b>						
In domestic currency	9.1%	8.1%	5.5%	4.6%						
In foreign currency	21.9%	20.4%	34.2%	34.9%						
<b>3. BCRP instruments</b>	<b>70.9%</b>	<b>40.1%</b>	<b>21.2%</b>	<b>11.4%</b>						
CD BCRP	10.3%	8.4%	7.8%	7.7%						
CDR BCRP	1.7%	1.4%	0.3%	3.2%						
Term deposits	0.0%	0.0%	0.8%	0.0%						
Overnight deposits	1.7%	0.5%	0.8%	0.5%						
4. Currency and others	19.5%	27.8%	18.7%	23.3%						

#### **Reserve requirements**

65. In order to provide liquidity to the financial system, the BCRP continued lowering the rate of reserve requirements in domestic currency until the month of June. The rate of reserve requirements in soles of the general regime was lowered from 8.0 percent in March 2015 to 6.5 percent in June 2015, while the minimum reserve requirements on current account deposits of total liabilities subject to reserve requirements was maintained at 0.75 percent. As a result of these measures, liquidity for a total of about S/. 968 million has been released to the system between March and June.

Table 31 RESERVE REQUIREMENTS MEASURES							
		Domestic Currency		Foreign c	urrency		
		<b>_</b>		General	regime		
	Reserve requirement	Deposits on current account	Minimum legal reserve requirement	Marginal reserve requirement on deposits	Maximum of reserve requirement		
Jan.14	14.0%	3.00%	9.0%	50%	45%		
Feb.14	13.0%	3.00%	9.0%	50%	45%		
Mar.14	12.5%	3.00%	9.0%	50%	45%		
Apr.14	12.0%	3.00%	9.0%	50%	45%		
Jul.14	11.5%	3.00%	9.0%	50%	45%		
Sep.14	11.0%	3.00%	9.0%	50%	45%		
Oct.14	10.5%	3.00%	9.0%	50%	45%		
Nov.14	10.0%	3.00%	9.0%	50%	45%		
Dec.14	9.5%	2.50%	9.0%	50%	45%		
Jan.15	9.0%	2.00%	9.0%	60%			
Feb.15	8.5%	1.50%	8.5%	60%			
Mar.15	8.0%	1.00%	8.0%	70%	60%		
Apr.15	7.5%	0.75%	7.5%	70%	60%		
May.15	7.0%	0.75%	7.0%	70%	60%		
Jun.15	6.5%	0.75%	6.5%	70%	60%		





#### Liquidity and credit

66. The average level of currency in circulation grew 6.8 percent in August 2015 in annual terms –less than in Q1-2015 and in Q4-2014 (8.4 percent and 11.5 percent, respectively)–, reflecting the lower level of economic activity observed so far this year. In 2015 currency would show an annual growth rate of about 8.0 percent, in line with the expected evolution in the pace of growth of economic activity.

Deposits in domestic currency continued showing lower dynamism with a rate of 1.5 percent in August 2015 (vs. 7.4 percent in Q1-2015 and 9.5 percent in December 2014), which reflected the substitution of savings in soles for savings in dollars in a context of weakening of the domestic currency. The ratio of dollarization of deposits rose from 39.8 percent in December 2014 to 43.3 percent in August 2015.

Table 32           MONETARY ACCOUNTS (END-OF-PERIOD)           (12-month % change)						
Mar.15	Jun.15	Jul.15	Aug.15			
8.4	8.7	7.8	5.5			
7.4	4.5	4.1	1.5			
7.9	6.4	5.5	3.2			
5.3	5.7	5.1	6.1			
19.2	24.5	26.1	28.2			
9.4	8.4	8.5	9.7			
	7.4 7.9 5.3 19.2 9.4	7.4     4.5       7.9     6.4       5.3     5.7       19.2     24.5       9.4     8.4	7.4     4.5     4.1       7.9     6.4     5.5       5.3     5.7     5.1       19.2     24.5     26.1       9.4     8.4     8.5			

1/ Includes foreign currency.

67. Showing a similar rate to the one observed in Q1-2015, credit to the private sector grew 9.7 percent in August 2015 (vs. 9.4 percent in March and 10.4 percent in December 2014). By currencies, credit in domestic currency continued to be more dynamic, with an annual growth rate of 28.2 percent, while credit in foreign currency dropped 17.1 percent, reflecting the process of de-dollarization of credit driven by the measures adopted by the BCRP at end-2014. In 2015 total credit to the private sector is expected to show similar growth levels to those currently observed, in line with the recovery of economic activity foreseen in the second half of the year.



68. Personal loans have continued growing at a stable pace of around 12.4 percent. The more dynamic segment within this type of credit was consumer loans, which grew from 11.4 percent in December 2014 to 14.5 percent at the end of August, while mortgage loans continued showing annual growth rates close to 9.6 percent. On the other hand, car loans continued slowing down.

Moreover, within business loans, the segment of corporate loans and loans to large enterprises grew 17.5 percent in August, while growth in the segment of credit to medium-sized companies fell 1.6 percent and loans to small- and micro businesses grew only 0.2 percent.

The slowdown in the expansion of credit to small and micro businesses reflects in part a lower offer of loans for this credit segment from non-bank financial institutions, which has been offset in part by a higher pace of growth of credit



offered by banks, reflecting a deterioration in the quality of the credit portfolio in this segment of credit. In both cases, credit in foreign currency for this segment continued declining.

	<b>CREDIT TC</b> (12-I	Table 33 D THE PRIVA month % cha	<b>TE SECTOR</b> ange)			
	Dec.14	Mar.15	May.15	Jun.15	Jul.15	Aug.15
Business	9.7	7.9	8.1	6.5	6.6	8.2
Corporate and large companies	11.6	15.2	16.2	15.1	14.8	17.5
Medium-sized enterprises	13.7	1.1	-0.2	-3.2	-2.8	-1.6
Small business and Microbusinesses	1.6	1.5	1.1	0.3	0.4	0.2
Individuals	11.8	12.1	12.4	12.0	12.0	12.4
Consumption	11.4	12.6	13.6	13.8	13.9	14.5
Car loans	6.7	2.8	1.2	0.5	0.6	-0.4
Credit cards	15.0	18.2	21.2	21.8	23.0	24.3
Mortgage	12.4	11.4	10.9	9.6	9.5	9.6
Total	10.4	9.4	9.6	8.4	8.5	9.7

Table 34 LOANS TO SMALL BUSINESSES AND MICROBUSINESSES								
	Annua	al flow	Annual g	rowth rate				
	Dec.14	Aug.15	Dec.14	Aug.15				
Banks	-1,295	1,919	-8.4	13.0				
Domestic currency	-882	3,105	-7.1	26.0				
Foreign currency	-139	-398	-14.4	-42.5				
Rest	1,836	-1,861	10.4	-10.1				
Domestic currency	1,858	-1,756	11.5	-10.3				
Foreign currency	-7	-35	-1.6	-7.8				
Total	541	58	1.6	0.2				
Domestic currency	977	1,349	3.4	4.6				
Foreign currency	-146	-433	-10.2	-31.2				

In August, the default rate of credit to businesses showed a rate of 3.3 percent, a slightly higher than the rate of 3.2 percent recorded in March 2015. In this segment, the default rate of credit to small companies showed an increase of 20 basis points and climbed to 9.7 percent, while the default rate of credit to medium-sized companies increased by 51 basis points and recorded a delinquency ratio of 5.5 percent. Moreover, the default rate in the segment of credit to individuals increased by 17 basis points to 2.7 percent in August.

Table 35 CREDITS DELINQUENCY INDEX OF THE DEPOSITORY CORPORATIONS			
	Dec.13	Dec.14	Aug.15
Business	2.70	3.14	3.26
Corporate	0.00	0.00	0.00
Large companies	0.38	0.68	1.07
Medium-sized enterprises	3.72	4.82	5.54
Small business	7.56	8.97	9.73
Microbusiness	5.08	5.83	5.44
Individuals	2.32	2.46	2.66
Consumption	3.39	3.37	3.50
Car loans	3.37	4.23	4.17
Credit cards	4.71	4.25	4.94
Mortgage	1.04	1.44	1.66
Average delinquency	2.57	2.96	3.06

69. In 2016 credit would grow 9.0 percent, considering a growth rate of 12 percent in credit in soles, which is consistent with a greater preference for credit in soles and with the effect of the actions taken by the BCRP to promote the dedollarization of credit. Moreover, deposits in domestic currency would grow 10.5 percent in the year. Thus, the ratio of credit-to-GDP is expected to continue increasing during 2016.



70. At the end of 2014, the BCRP established a program aimed at contributing to the de-dollarization of credit to reduce economic agents' risks associated with borrowing in foreign currency. Thus, additional reserve requirements were established for loans in foreign currency to increase the cost of these loans. Particularly, the program sought that banks reduced their balances of loans in dollars: (i) the balance of total loans<sup>20</sup> at June was required to be equal to 95

<sup>20</sup> Excluding loans for foreign trade operations as well as loans of over US\$ 10 million and due in a term of over 3 years, and granted as from January 1, 2015.



percent of the balance recorded in September 2013 or 90 percent of the same balance in December, and (ii) the balance of car loans and mortgage loans at June 2015 was required to be equal to 90 percent of the balance in February 2013 and 85 percent of such balance in December.

As a result of these measures, all the banks began to reduce their loan portfolios in dollars and began to replace them with credit in soles. The balance of total loans was reduced from US\$ 23.85 billion in December 2014 to US\$ 19.96 billion in August 2015 (down US\$ 4.96 billion). This balance is equal to 85 percent of banks' balance of credit in September 2013, lower than the one required for December 2015.



71. A significant reduction has also been observed in car loans and mortgage loans. Between December 2014 and August 2015, these loans have decreased by US\$ 797 million and show a balance of US\$ 3.55 billion (a figure equivalent to 74.4 percent of the balance they showed in February 2013).



72. As a result of these actions, the ratio of dollarization of credit has declined from 38.3 percent in December 2014 to 30.8 percent in August 2015.



73. By type of credit, a decline is observed in the ratio of dollarization of all of the credit segments. The dollarization ratio in mortgage loans decreased from 33.9 to 26.9 percent in August 2015 and the dollarization ratio in car loans declined by 18 percentage points. Moreover, by type of business, corporate enterprises and large companies have reduced the dollarization ratio of their loan portfolio by 12.1 percentage points, while medium-sized companies have reduced it by 11.3 percentage points.

DOLLARIZATION	Table 36 I RATIO OF CREDIT TO	THE PRIVATE SECTOR	
	Dec.13	Dec.14	Aug.15
Business	52.9	48.5	39.3
Corporate and large companies	67.4	59.9	47.8
Medium-sized enterprises	63.7	59.3	47.9
Small business and Microbusiness	13.0	11.5	8.6
Individuals	23.1	20.0	15.8
Consumption	10.5	9.5	7.8
Car loans	75.9	68.9	51.1
Credit cards	7.2	6.6	6.0
Mortgage	40.0	33.9	26.9
TOTAL	42.4	38.3	30.8

These lower levels of dollarization of credit increase the financial system's robustness face external shocks that generate high volatility in the exchange rate and also reduce the negative effects of foreign exchange volatility on the balance sheets of companies and households.

On the other hand, the levels of dollarization in private sector deposits has increased, although individuals continue to show lower levels than companies and institutional investors. The dollarization of companies' deposits increased by 70 basis points compared to Q1, while the dollarization of the deposits of institutional investors increased approximately by 12 percentage points. On the



other hand, the dollarization of deposits in the case of mutual funds decreased 1 percentage point from Q1.

	Table 37 DOLLARIZATION RATIO OF D	EPOSITS	
	Dec.13	Dec.14	Aug.15
Business	53.8	51.1	55.0
Demand deposits	48.7	48.2	51.8
Savings deposits	45.6	63.9	69.2
Term deposits	70.5	61.6	66.3
Individuals	35.3	33.7	37.2
Demand deposits	48.7	48.2	51.8
Savings deposits	35.6	35.2	38.9
Term deposits	33.3	30.8	34.0
Pension funds	83.8	88.6	94.2
Mutual funds	59.6	54.6	56.1
Total	46.0	42.5	46.6

#### Interest rates

 Real interest rates on deposits and loans in domestic currency decreased between May and August 2015. Thus, the real interest rate on 3-month corporate loans fell 6 basis points, while the rates on loans to corporate loans, large enterprises, medium-sized companies, and small and micro businesses declined by 16, 9, 8, 30, and 146 basis points, respectively. Moreover, the real interest rate on mortgage loans declined by 17 basis points in the same period.

Table 38         REAL INTEREST RATE IN DOMESTIC CURRENCY         (%)				
	Dec.14	May.15	Aug.15	Var. AugMay. (bps)
Corporate loans (To 3-months)	2.20	2.05	1.99	-6
Deposits up to 30-day	1.20	1.02	1.06	4
Deposits of legal entitiy up to 3-moth	1.20	1.14	1.20	6
Corporate loans	3.01	2.68	2.52	-16
Large companies loans	4.20	3.97	3.88	-9
Medium-sized enterprises loans	6.85	7.11	7.03	-8
Small businesses loans	17.97	18.15	17.85	-30
Microbusinesses loans	30.36	32.51	31.05	-146
Consumer loans	40.71	40.34	40.43	9
Mortgage loans	6.36	5.66	5.49	-17

75. The rising trend of nominal interest rates in the money market has had a moderate influence on lending rates in domestic currency, which increased in most of the credit segments between May and August 2015. In the segments of consumer loans, medium-sized companies, large enterprises, corporate loans, and mortgages, the lending rates have increased by 39, 22, 21, 14, and 13 basis

points, respectively. On the other hand, the interest rates for the segment of micro-businesses showed a considerable reduction, declining from 35.2 percent to 34.1 percent, in line with the lower delinquency rate registered in this segment.

On the other hand, the interest rates on deposits in national currency for terms of less than 30 days declined by 9 basis points and the rates on deposits with terms between 181 days and 360 days declined by 13 basis points, while the rates on 31- to 180-day deposits increased by 21 basis points. A decline would be expected in the following months in the lending rates as a result of the term liquidity injection operations in domestic currency that the BCRP is carried out.

	INTEF	REST RATE B	Υ ΤΥΡΕ ΟΓ	Table 39 LOANS IN (%)	DOMESTI	COURRENCY	1/	
	Interbank	Corporates	Large companies	Medium-size enterprises	Small businesses	Microbusiness	Consumer	Mortgage
Dec.14	3.80	5.6	6.8	9.5	20.6	33.0	43.3	9.0
Jan.15	3.35	5.2	6.6	9.5	20.4	32.5	42.3	8.9
Feb.15	3.43	5.1	6.7	10.0	20.5	32.2	40.5	8.9
Mar.15	3.35	5.2	6.6	9.8	21.2	34.4	40.6	8.5
Apr.15	3.52	5.0	6.6	9.8	21.3	35.1	41.1	8.5
May.15	3.50	5.4	6.7	9.8	20.9	35.2	43.0	8.4
Jun.15	3.42	5.1	6.6	9.7	20.8	34.6	43.8	8.4
Jul.15	3.26	4.7	6.6	9.6	20.7	34.3	44.0	8.4
Aug.15	3.69	5.5	6.9	10.0	20.9	34.1	43.4	8.5
			Accumu	lated change	(bps)			
Aug.15-May.15	19	14	21	22	0	-116	39	13
Aug.15-Dec.14	-11	-9	8	58	28	109	12	-47
Aug.15-Dec.13	-47	11	-17	-11	-18	95	117	-54

1/ Annual active interest rates on the operations carried out in the last 30 working days. Source: SBS and BCRP.

	Table 40 INTEREST RATES IN NUEV (%)	OS SOLES	
	Deposits up to 30-day	On 31 to 180-day term deposits	On 181 to 360-day term deposits
Dec.14 Jan.15 Feb.15 Mar.15 Apr.15 May.15 Jun.15 Jul.15 Aug.15	3.8 3.6 3.3 3.5 3.7 3.9 3.4 3.6 3.8	3.8 3.7 3.8 3.8 3.9 4.0 4.0 4.1	4.3 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.3 4.3
	Accumulated change (	bps)	
Aug.15-May.15 Aug.15-Dec.14 Aug.15-Dec.13	-9 2 7	21 34 58	-13 0 44
Source: BCRP.			



76. As for the interest rates for operations in dollars, most of the lending and deposit rates declined despite the fact that commercial banks used their excess of liquidity in foreign currency to do currency repos with the BCRP. Thus, the corporate prime rate for 90-day loans fell 21 basis points compared to May, recording a level of 0.61 percent, whereas the interbank interest rate remained at 0.15 percent.

	INTE	REST RATE	ВҮ ТҮРЕ С	Table 41 PF LOANS IN (%)	I FOREIGN		17	
	Interbank	Corporates	Large companies	Medium-size enterprises	Small businesses	Microbusiness	Consumer	Mortgage
Dec.14	0.15	2.5	5.1	8.3	12.3	16.9	27.3	7.6
Jan.15	0.15	2.5	5.2	8.1	11.5	17.9	28.1	7.6
Feb.15	0.15	3.6	5.3	8.3	12.0	18.1	29.9	7.7
Mar.15	0.15	2.6	4.9	8.2	13.5	14.9	30.9	7.4
Apr.15	0.15	2.1	4.8	8.3	11.6	19.9	30.6	7.1
May.15	0.15	2.8	4.7	8.5	10.9	20.4	31.0	7.4
Jun.15	0.15	2.2	4.6	8.3	11.7	19.7	31.4	7.3
Jul.15	0.15	1.7	5.0	8.7	11.0	18.5	31.2	7.1
Aug.15	0.15	2.1	5.3	8.2	11.3	15.0	31.3	6.9
Accumulated change (bps)								
Aug.15-May.15	0	-76	62	-26	43	-549	28	-48
Aug.15-Dec.14	0	-40	22	-9	-101	-196	401	-66
Aug.15-Dec.13	0	-31	-18	-8	-192	-424	522	-156

1/ Annual active interest rates on the operations carried out in the last 30 working days. Source: SBS and BCRP.

	Table 42		
	INTEREST RATES IN US	DOLLAR	
	(%)		
	Deposits up to 30-day	On 31 to 180-day term deposits	On 181 to 360-day term deposits
Dec 14	0.2	0.5	0.8
Dec.14	0.2	0.5	0.8
Jan.15	0.3	0.5	0.8
Feb.15	0.3	0.5	0.8
Mar.15	0.2	0.5	0.8
Apr.15	0.1	0.5	0.7
May.15	0.1	0.4	0.7
Jun.15	0.1	0.4	0.7
Jul.15	0.1	0.3	0.7
Aug.15	0.1	0.3	0.6
	Accumulated change (	bps)	
Aug.15-May.15	-2	-10	-9
Aug.15-Dec.14	-7	-15	-18
Aug.15-Dec.13	-5	-43	-66
Source: BCRP.			

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#### Exchange rate and foreign exchange interventions

77. Between May and August 2015, the exchange rate maintained its upward trend due to the likelihood that the Federal Reserve would soon end its expansionary monetary policy, as well as due to the devaluation of the yuan in August and fears of a greater economic slowdown in China. The US dollar/nuevo sol exchange rate went from S/. 3.157 per dollar at the end of May 2015 to S/. 3.237 per dollar at the end of August, which represents a depreciation of 2.5 percent.



78. In order to reduce the pressures on the dollar, at the end of August, the Central Bank established a new instrument called special Repo, which consists of the simultaneous sale of a certificate of deposit resettable (CDR) by the Central Bank and a securities repo operation in which financial institutions use the CDR as collateral to lend Nuevos soles of the BCRP. In this way, the instrument not injected liquidity into financial institutions. In that sense, operation is similar to the Repo's replacement but changes selling dollars on the spot market by CDR placements.





As a result of this operation, the private banking receives national currency generating a passive and maintains an active equivalent to the CDR that is left as collateral at the Central Bank. Moreover, the BCR records a liability for the CDR and an asset associated with the special repo.



At September 8, the balance of Special Repos is S/. 2.28 billion.

79. The net demand for dollars observed between May and August (US\$ 4.64 billion) was slightly higher than the net demand registered in the previous three months (US\$ 4.43 billion). The greater demand came from the non-mining private sector (US\$ 4.54 billion in the period) and from the AFPs (US\$ 676 million). Moreover, the mining sector and the BCRP generated the supply in the market.

In this context, the BCRP intervened in the foreign exchange market selling US\$ 2.68 billion in the spot market, of which US\$ 415 million was sales of FC associated with currency substitution repos. The Central Bank also continued carrying out interventions in the forward market through placements of FX swaps (US\$ 162 million), together with placements of BCRP-CDR amounting to an equivalent of US\$ 2.27 billion. Moreover, US\$ 444 million of this amount placed was carried out using a new type of security repos denominated Special Repos.



Furthermore, in order to offset the upward pressures on the exchange rate associated with swaps and forwards transactions, the Central Bank has been adjusting the rate of additional reserve requirements in domestic currency according to sales of dollar forwards with foreign exchange derivatives. Thus, in April of this year, the BCRP started to gradually reduce the limit used to calculate additional reserve requirements according to the balance of sales of dollar forwards with foreign exchange derivatives (95 percent of the original limit in June, 90 percent in July, and 80 percent in August.

In May, the BCRP lowered the limit for daily operations to the higher amount of either 8 percent of a bank's capital or US\$ 90 million and the limit for weekly operations was lowered to either 20 percent of a bank's capital or US\$ 350 million. Additionally, the Central Bank established additional reserve requirements on the volume of operations accumulated in the month, the limit being set at the higher amount of either 25 percent of the bank's capital or US\$ 1.2 billion.

The limits for the volume of daily, weekly, and monthly operations have been adjusted again as from September to a fixed amount of US\$ 90 million for daily operations, US\$ 250 million for weekly operations, and US\$ 1 billion for monthly operations. In addition to this, the rate of reserve requirements on all of these additional requirements (including the required reserves for the balance) was set a 200 percent of excess amounts. The rate of reserve requirements on the excess volume of operations was previously 100 percent, while the excess of the limit to the balance has previously a reserve requirements rate of 75 percent. These measures are aimed at reducing banks' incentives to meet the demand of sales of foreign currency with forwards or swaps beyond the limits established.





80. The multilateral real exchange rate index (RER) fell 1.8 percent between May and August 2015. Compared to August 2014, the RER index is 0.5 percent higher. The current level of the RER is within the range of the equilibrium level, which reflects fundamentals that support the sustainability of the external accounts.



#### **Capital market**

81. So far in Q3-2015, non-financial companies have issued bonds in the local market for a total of S/. 435 million, a lower amount than in Q2 (S/. 1.01 billion) but higher than the one recorded in Q3- 2014. In annual terms, the issuances of bonds in 2015 are higher on average than those observed in the last five years.



In a context of increased foreign exchange volatility, non-financial companies only issued securities in Nuevos soles to prevent the foreign exchange-related risk in the payment of coupons and the principal. As for companies operating in the financial sector, private financial companies issued securities for a total of S/. 130 million.

	Table 43 BONDS ISSUED BY NON-FINA	NCIAL FIRMS	
Mes	US\$	S/.	Total S/.
Dec.13 Jan.14 Feb.14 Apr.14 Jun.14 Jul.14 Sep.14 Nov.14 Dec.14 Jan.15 Feb.15 Apr.15 May.15 Jun.15	111.0 1.0 62.5 0.0 20.0 50.0 21.0 0.0 10.0 0.0 6.0 0.0 154.0	90.0 0.0 85.0 220.0 434.0 0.0 160.0 0.0 116.0 500.0 300.0 0.0 502.0 0.0	400.8 2.8 259.9 220.0 434.0 55.9 303.5 61.3 116.0 530.6 300.0 18.8 502.0 489.3
Average 2010 Average 2011 Average 2012 Average 2013 Average 2014 Average 2015	0.0	455.0	158.0 104.0 137.9 86.8 145.3 325.1

82. Bonds issued by Peruvian enterprises in the international market between May and August amounted to US\$ 1.96 billion. This is a lower amount than the one recorded in the previous quarter, the decline being explained by increased uncertainty in financial markets associated with China's economic slowdown, which has global investors to seek less risky securities.

The main issuers of bonds in the international market was Consorcio Nuevo Metro de Lima, which issued bonds for a total of US\$ 1.16 billion.

In the same period, corporate bond issued in Argentina, Brazil, Chile, Colombia, Paraguay, and Peru amounted to US\$ 6.65 billion, with Brazilian companies standing out as the main issuers of securities in the region (40 percent of total), followed by Chilean and Peruvian companies, with 29 percent each. Total securities issued in the region year-to-date amount to US\$ 13.10 billion, a figure still lower than the total amount issued in the region in 2014 (US\$ 25.54 billion).

The Peruvian government placed 12-year bonds in the international market for a total of US\$ 1.25 billion at a coupon rate of 4.125 percent. The ratio bid to cover was 3.4 percent and the credit spread assigned to this bond issuance was 189 points over the equivalent US Treasury bond.



BONDS ISSUED I	Table 44 N THE INTERN	ATIONAL MARKET	г	
Business	Emission date	Amount (Millions US\$)	Maturity (years)	Rate
Year 2014		5,510		
Non-financial sector		3,306		
Compañía Minera Ares	January 15	350	7	7.75%
Minsur	January 31	450	10	6.25%
Abengoa Transmisión Sur	April 08	432	29	6.88%
Camposol	April 24	75	3	9.88%
Rutas de Lima**	June 27	370	22	8.38%
Rutas de Lima***	June 27	150	25	5.25%
InRetail Shopping Mall	July 01	350	7	6.50%
Inketail Consumer	October 07	300	/	5.25%
Union Andina de Cementos	October 28	625	/	5.88%
Energia Eolica	December 15	204	20	6.00%
Financial sector		2,204		
Private financial sector		1,025		
Banco de Crédito	January 15	200	13	6.13%
Interbank	March 11	300	15	6.63%
Banco de Crédito	July 01	225	4	2.75%
BBVA Banco Continental	September 15	300	15	5.25%
Public financial sector		1,179		
Fondo MiVivienda	March 26	300	5	3.38%
Fondo MiVivienda*	May 15	279	4	1.25%
COFIDE	July 08	300	5	3.25%
COFIDE	July 08	300	15	5.25%
Year 2015		4,510		
Non-financial sector		3,361		
GyM Ferrovias***	February 03	206	25	4.75%
Southern Copper Corporation	April 17	500	10	3.88%
Southern Copper Corporation	April 17	1,500	30	5.88%
Consorcio Nuevo Metro de Lima	June 10	1,155	19	5.88%
Financial sector		1,149		
Private financial sector		349		
Intercorp	February 03	250	10	5.88%
Interbank**	February 03	99	15	7.66%
Public financial sector		800		
COFIDE	July 07	200	4	3.25%
COFIDE	July 07	600	10	4.75%

Emission in Swiss Franc.
 Emission in Nuevos Soles.
 Emission in Nuevos Soles VAC.

#### Box 3 SOURCES OF EXPANSION OF CREDIT TO THE PRIVATE SECTOR AND BCRP REPOS

The evolution of credit to the private sector and sources of credit expansion, as well as the role that BCRP term repos play in facilitating the process of de-dollarization of credit and in extending the average term of banks' liabilities is discussed herein.

In line with the slower pace of growth registered in economic activity, the growth of depository institutions' credit to the private sector has fallen from 12.9 percent in 2013 to 9.7 percent in August 2015. On the other hand, a faster pace has been observed in this period in the de-dollarization of credit, whose ratio declined from 42.4 percent to 30.8 percent due to the actions taken by the BCRP. This implied that lending in domestic currency accelerated its growth, from 22.3 in December 2013 to 28.2 percent in August 2015, while lending in foreign currency slowed down from 2.1 percent in 2013 to a 17.1 percent in August 2015.



Deposits and the BCRP operations have been the main sources of expansion of total credit. In 2013, credit increased by S/. 21.04 billion while deposits grew S/. 26.82 billion, which allowed banks not only to fund credit, but also to reduce their net external liabilities and accumulate deposits at the BCRP. In 2014, however, only S/. 2.52 billion of a credit expansion of S/. 18.33 billion was funded with deposits, so the Central Bank injected S/. 11.10 billion by reducing the rate of reserve requirements (S/. 7.86 billion) and reducing the balance of BCRP certificates of deposit by S/. 2.89 billion.

The expansion of credit at August 2015, which amounts to S/. 15.87 billion, has been financed with deposits (S/. 10.42 billion) and BCRP operations (S/. 584 million).





As a result of this dynamic in credit expansion sources, banks' ratio of lending-to-deposits has increased from 1.04 in December 2012 to 1.17 in August 2015. In this period, this increase is mostly explained by the reduction of reserve requirements in domestic currency (S/. 13.72 billion) and in foreign currency (US 2.43 billion), associated with credit expansion repo operations. An increase in this indicator is usually interpreted as an increase in the ratio of funding from sources other than deposits, which are riskier sources due to their greater volatility. This is the case, for example, of short term external liabilities. However, the other sources seen in the Peruvian financial system are capital and long-term obligations, so this higher ratio must not be interpreted as a reflection of an increased liquidity risk.



By currencies, the higher ratio of BCRP credit expansion operations in soles stands out among credit expansion sources. However, it must be taken into account that currency repos only change the ratio of funding by currencies and do not affect the ratio of total lending-to-deposits, because this instrument allows banks to replace funds in dollars they do not require for long term deposits in soles at the BCRP. In addition to this, since these currency repos between banks and the BCRP are long-term operations with an average maturity of 2 years and 9 months, they constitute a stable funding source and do not increase banks' liquidity risk.

In fact, currency repos and security repos have contributed to extend the average term of banks' obligations in nuevos soles. In June 2015, the average term of private sector deposits in banks is estimated at around 6 months, roughly similar to that observed in previous years. When we add the BCRP injection operations, the number of months increases by 4 months to an average term of 10 months. Extending the average maturity of funding in domestic currency reduces financial institutions' liquidity risks.



The BCRP repo operations are contributing to the process of de-dollarization of credit by facilitating financial institutions' transit from credit in dollars, which is relatively more abundant, to credit in soles, offsetting at the same time pressures on the deposit interest rate in soles. Furthermore, because these repos are long term operations, they also contribute to extend the average term of banks' liabilities, which in turn reduces banks' liquidity risk.



### Box 4 VOLATILITY OF THE REAL MULTILATERAL EXCHANGE RATE IN PERU

This box offers a comparison of the volatility of Peru's real exchange rate (RER) with the volatility of the exchange rates of other countries in the region and discusses some hypotheses that contribute to explain the heterogeneity observed. To facilitate comparison, data of the multilateral real exchange rate indices of Brazil, Chile, Colombia, Mexico, and Peru published by the Bank for International Settlements (BIS) are used here.



The graph illustrates the evolution of the multilateral real exchange rate<sup>21</sup> and the terms of trade since the first quarter of 2003. As one can see, Peru and Chile show the less volatile indicators of volatility in the real exchange rate of all the countries analyzed, while Brazil and Colombia show the higher volatility indicators, even though the volatility in the terms of trade is not lower than the one observed in the other countries analyzed.

Several key determinants of RER movements have been identified in economic literature, including relative productivity, the fiscal position, and the terms of trade<sup>22</sup>. According to the literature, an increase of the terms of trade (ToT) would result in an appreciation of the RER since greater revenue will bring about an increased

<sup>21</sup> A rise in the index implies a depreciation of the local currency in real terms.

<sup>22</sup> For a broader discussion on the determinants of the RER, see Rodríguez (2011) "¿Qué explica la evolución del tipo de cambio real de equilibrio en el Perú?," Revista Moneda 147. BCRP.

demand for domestic goods. In Peru, however, there are some factors that offset the effect of ToT on the RER, such as the effect that net factor income has on the current account and their negative correlation with the balance of trade, which acts as a hedge mechanism of the balance of payments face ToT shocks (see Tashu, 2015)<sup>23</sup>.

	CORRELATION	
	RER, ToT	RER, ToT (-1)
Peru Chile Colombia Mexico Brazil	-0.30 0.50 0.48 0.69 0.31	0.08 0.33 0.34 0.16 0.28

The increase (decrease) in net payments abroad of factors of non-resident companies in response to higher (lower) terms of trade reduces, in the case of Peru, the appreciation (depreciation) of the RER needed to maintain a sustainable current account since these payments are directly correlated with the evolution of ToT.

The following graph shows that there is a greater relationship between the RER and Peru's current account that the one existing between the RER and the trade account (which does not consider repatriation of profits). These two hypotheses are tested through a cointegration exercise between the three variables of interest: RER, ToT, and outlays of factor income as a percentage of GDP given that the latter includes repatriation of profits in the current account. The results of the exercise, which covered quarterly periods from 1996 to Q2-2015, are discussed below.



The results of the cointegration exercise are based on equations (1) and (2), and can be seen in the following table. The results of equation (1) show us that ToT ( $LToT_t$ ) affect the RER ( $LRER_t$ ) in the expected direction (an increase in ToT appreciates the RER), but in a small scale (an increase of 1 percent in the terms of trade would result in an appreciation of 0.02 percent in the RER). If we include the outlays of factor income ( $LIF_t$ ) in equation (2), the semi-elasticity of the RER on ToT increases dramatically (0.32) which would be reflecting that net factors

<sup>23</sup> Tashu, M., 2015. "Drivers of Peru's Equilibrium Real Exchange Rate: Is the Nuevo Sol a Commodity Currency", IMF Working Paper, WP/15/26.



paid by non-resident companies offset the effects of ToT on the RER. Earnings paid abroad would be acting as an insurance against the risk of sudden movements in the terms of trade. A country's disposable income would not grow as much as one would expect when terms of trade grow, and the disposable income would not decrease as much as one may expect when the terms of trade decline. This greater stability in disposable income would reduce the volatility in the local demand, offsetting the ups and downs in the RER.

## $LRER_{t} = \theta_{0} + \theta_{1} LTOT_{t} + \varepsilon_{t} \dots (1)$ $LRER_{t} = \theta_{0} + \theta_{1} LTOT_{t} + \theta_{2} LIF_{t} + \varepsilon_{t} \dots (2)$

RESULTS OF COINTEGRATION EQUATIONS*				
	Equation (1)	Equation (2)		
$\theta_0$ (Constant)	4.70	5.81		
$\theta_1$ (Elasticity to Terms of Trade)	-0.03	-0.32		
$\boldsymbol{\theta}_{_{2}}$ (Elasticity to Income Factor % GDP)	77	0.14		

\* Results are based on cointegrating equations (1) and (2) analyzing the movements of real exchange rate based on the terms of trade and outflows of factor income.

RER stability would also be more closely associated with the fiscal position in Peru than in other Latin American countries. When we look at the standard deviation of the RER in the five countries mentioned above, we see that Chile and Peru are the countries with lower volatility and that they register a better fiscal position than other countries in the period 2006-2014, as the following table shows:

VOLATILITY OF REAL EXCHANGE RATE AND TERMS OF TRADE (Standard deviation in percentage of quarterly changes)				
	Multilateral Real Exchange Rate (2003-2015)	Terms of trade (2003-2015)	Fiscal Surplus Average (2006-2014)	
Brazil	5.6	2.8	-3.1	
Chile	3.4	7.8	1.7	
Colombia	4.5	6.2	-1.4	
Mexico	3.8	4.1	-3.1	
Peru	1.8	4.9	1.2	
Source: BIS and IN	ЛЕ			

The results presented in this box indicate that other factors, such as the evolution of fiscal policy, total factor productivity, and other key determinants of the real multilateral exchange rate must be considered to analyze the effects of changes in commodity prices and in ToT on Peru's multilateral real exchange rate, and not just commodity prices. Otherwise there is the risk of extrapolating exchange rate conducts that are not characteristic

of the Peruvian economy.

# VI. Inflation

83. The rate of inflation accumulated in the last twelve months increased from 3.22 percent in December 2014 to 4.04 percent in August 2015.

This rate reflected mainly rises in the prices of foodstuffs and electricity rates, the food and energy component increasing by 4.70 percent. Inflation without food and energy –that is, the rate of inflation isolating the impact of these goods with high price volatility– registered 3.48 percent, due mainly to the rises observed in education costs, water supply rates, and in some items whose prices are linked to the foreign exchange rate, such as purchase of cars and house rents.

Table 45 WEIGHTED CONTRIBUTION TO INFLATION: JANUARY - AUGUST 2015					
	Weight	% chg.	Weighted cont.		
Inflation	100.0	3.4	3.40		
Foodstuffs	37.8	3.9	1.57		
Associated to international prices Of which:	10.0	1.7	0.17		
Sugar	0.5	20.1	0.11		
Canned milk	1.6	1.2	0.03		
Associated to domestic supply shocks Of which:	4.95	10.8	0.58		
Onion	0.4	98.0	0.31		
Fresh and canned fish	0.7	11.9	0.09		
Other fresh fruits	0.4	12.4	0.06		
Potato	0.9	6.4	0.05		
Tomato	0.2	28.1	0.05		
Corncob	0.1	23.7	0.04		
Meals outside the home	11.7	3.8	0.50		
Rest of foodstuffs	11.1	2.8	0.32		
Gasoline, urban fare, and electricity	14.3	3.5	0.50		
Gasoline	2.8	-2.4	-0.07		
Urban fare	8.5	1.0	0.09		
Electricity	2.9	16.7	0.48		
Associated to exchange rate Of which:	4.5	5.2	0.21		
Purchase of vehicles	1.6	8.2	0.13		
House rent	2.4	2.4	0.05		
Airplane fare	0.4	8.8	0.03		
Education	9.85	4.9	0.51		
Education costs (tuition and fees)	8.8	4.7	0.45		
Education in diverse areas	0.3	14.8	0.04		
iextdooks and schooldooks	0.7	3.5	0.02		
Rest	33.58	2.0	0.61		




Table 46           CPI AND FARMING PERISHABE FOOD           (Annual average change)							
	January-August	September - December	Year				
<b>2001-2014</b> CPI Farming perishable foods	3.0 8.2	1.8 -3.8	2.6 4.0				
<b>2014</b> CPI Farming perishable foods	3.9 12.5	1.9 1.3	3.2 8.6				
<b>2015</b> CPI Farming perishable foods	5.1 13.6						

				Tabl INFLA (% ch	e 47 ATION lange)							
					2040	2044	2042	2042	2044	201	5	
		weight	2008	2009	2010	2011	2012	2013	2014	JanAug.	Year	
CF	PI	100.0	6.65	0.25	2.08	4.74	2.65	2.86	3.22	3.40	4.04	
1.	CPI excluding food and energy	56.4	4.25	1.71	1.38	2.42	1.91	2.97	2.51	2.62	3.48	
	a. Goods	21.7	3.21	2.31	1.07	2.37	1.60	2.62	2.43	2.48	3.24	
	b. Services	34.8	4.97	1.24	1.58	2.45	2.10	3.18	2.55	2.70	3.63	
2.	Food and energy	43.6	8.58	-0.86	2.98	7.70	3.55	2.73	4.08	4.33	4.70	
	<ul> <li>a. Food and beverages</li> </ul>	37.8	9.70	0.57	2.41	7.97	4.06	2.24	4.83	3.92	4.77	
	<ul> <li>Fuel and electricity</li> </ul>	5.7	1.65	-10.40	6.80	6.01	0.22	6.09	-0.85	7.16	4.25	
	Fuel	2.8	-0.04	-12.66	12.21	7.54	-1.48	5.95	-5.59	-2.42	-9.15	
	Electricity	2.9	6.31	-4.56	1.36	4.30	2.19	6.23	4.37	16.72	18.91	

	Table 48         INFLATION         (Weighted contributions)										
2015									5		
		Year	2008	2009	2010	2011	2012	2013	2014	JanAug.	Year
CF	PI	100.0	6.65	0.25	2.08	4.74	2.65	2.86	3.22	3.40	4.04
1.	CPI excluding food and energy	56.4	1.88	0.74	0.78	1.36	1.05	1.62	1.37	1.42	1.88
	a. Goods	21.7	0.62	0.43	0.23	0.51	0.34	0.54	0.50	0.51	0.66
	b. Services	34.8	1.24	0.30	0.55	0.85	0.71	1.08	0.87	0.91	1.22
2	Food and an array	42.6	4 00	0.40	1 20	2 20	1 60	1 24	1.96	1.00	2.16
۷.	rood and energy	45.0	4.80	-0.49	1.30	3.38	1.00	1.24	1.80	1.98	2.10
	<ul> <li>a. Food and beverages</li> </ul>	37.8	4.67	0.28	0.91	3.03	1.59	0.89	1.91	1.57	1.91
	<ul> <li>Fuel and electricity</li> </ul>	5.7	0.13	-0.77	0.38	0.35	0.01	0.35	-0.05	0.41	0.25
	Fuel	2.8	0.00	-0.68	0.34	0.23	-0.05	0.18	-0.18	-0.07	-0.28
	Electricity	2.9	0.13	-0.09	0.04	0.12	0.06	0.17	0.12	0.48	0.54

84. Between January and August, the items that have contributed more to increase the rate of inflation have been meals outside the home, electricity rates, education costs (tuition and fees), onions, and water supply rates. On the other hand, the items that have contributed more to reduce the rate of inflation have been citrus fruits, gas, national transportation rates, avocadoes, and gasoline.

Table 49 ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION: JANUARY - AUGUST 2005									
Positive	Weight	% Chg	. Contribution	Negative	Weigh	t% Chg.	Contribution		
Meals outside the home	11.7	3.8	0.50	Citric fruits	0.5	-19.7	-0.15		
Electricity rates	2.9	16.7	0.48	Gas	1.4	-3.6	-0.05		
Education costs (tuition and fees)	8.8	4.7	0.45	National transportation	0.3	-11.0	-0.04		
Onion	0.4	98.0	0.31	Avocado	0.1	-17.2	-0.03		
Consumption of water	1.6	8.1	0.14	Gasoline and lubricants	1.3	-1.5	-0.02		
Purchases of vehicles	1.6	8.2	0.13	Other cereal	0.1	-24.3	-0.02		
Sugar	0.5	20.1	0.11	Fresh legumes	0.2	-5.9	-0.02		
Fresh and canned fish	0.7	11.9	0.09	Telephone rates	2.9	-0.6	-0.01		
Urban fare	8.5	1.0	0.09	Grapes	0.1	-5.8	-0.01		
Toiletries	4.9	1.5	0.07	Poultry meat	0.1	-4.2	-0.01		
Total			2.37	Total			-0.36		

The rise in **meals outside the home** (3.8 percent) was associated with higher food prices (4.1 percent).

**Electricity rates** increased 16.7 percent, due mainly to the update of generation, distribution, and transmission costs, which were affected by the increase in the exchange rate and with the higher price of natural gas, which affected





generation costs. Other factors that contributed also to this rise was the quarterly settlement of the compensation to regulated users made in February given the contracts between generation and distribution companies, as well as the annual adjustment of transmission tolls authorized in May and the advance payment made by Gaseoducto Sur Peruano.

**Education costs** –tuition and fees– increased by 4.7 percent, reflecting mostly the adjustments made in March in private schools (6.4 percent) and private universities (3.6 percent). Rises were observed thereafter in tuition in private institutes.

**Water rates** increased 8.1 percent due to the rise authorized by the regulating entity Sunass. This considers the fulfilment of goal by Sedapal, and for increase coveraged the drinking water.

The **prices of vehicles** rose 8.2 percent as a result of the depreciation of the Nuevo sol against the dollar (9.3 percent).

## Foodstuffs

85. The supply of perishable produce such as onions, tomatoes, and corn were affected by weather anomalies in the period of January-August.

The price of **onions** rose 98.0 percent, affected by heavy rains and warmer temperatures in Arequipa –the main producer region– in the first four months of the year, which resulted in lower cultivated areas and in an irregular yield. As a result of this, the total domestic production of onions dropped 7 percent in January-July. Moreover, the lower supply of first-quality onions observed in Lima had an impact on the wholesale price, which rose from S/. 0.54/Kg. in December 2014 to S/. 2.61/Kg in August 2015.

The price of **tomatoes** rose 28.1 percent, reflecting supply problems too. Higher temperatures and pests in the valleys of Lima resulted in a lower supply. In addition, lower cultivation in Ica due to a decline in the demand for the region's industry affected the price of tomatoes as well.

The price of **corn** rose 23.7 percent, reflecting price increases in the months of July and August (33.9 percent and 10.9 percent, respectively). The lower seasonal supply of Junín was coupled by a lower supply from Ancash, were the crop was also affected by freezing temperatures. In addition to this, cultivated areas in Lima declined 27.2 percent between December and April compared to the previous crop year due to climate alterations.

The increase in the price of **sugar** (20.1 percent) was also associated with supply problems. The lower availability of sugar cane caused by water shortages in 2014 resulted in a decrease of the harvested areas and yields. Strikes and technical stops in some companies also contributed to this result.

The prices of **fresh and frozen fish** increased 11.9 percent due to an irregular supply. Strong-intensity anomalous waves during some weeks led to the closure of ports and caused damages in port infrastructure. The availability of yellow mackerel, a highly demanded species, decreased due to sea-related factors, as a result of which the fishing quota assigned to industrial fleets was not covered.





#### Box 5 WHAT EXPLAINS INFLATION DEVIATIONS? A HISTORICAL DECOMPOSITION ANALYSIS

In order to be able to control inflation effectively, the central bank needs to know what causes the supply shocks that deviates the inflation rate from the inflation target. Deviations may be caused by various factors, which may be either external or domestic, and monetary policy responses vary according to the nature of these shocks.

This box discusses the findings of a historical decomposition exercise of inflation based on a structural VAR model of 10 variables<sup>24</sup>, which allowed us to break down inflation in the following determinants: shock expectations, **supply shocks** –shocks to food and energy prices and to wholesale price inflation–, nominal depreciation, shocks of imported components –which accounts for the effect of changes in the imported price index, the dollar-currencies "basket", and the foreign price index (pure FPI)–, **demand shocks** –shocks to the output gap and the CPI–, and terms of trade shocks.

The proposed model is a modification of the model developed by McCarthy (2007)<sup>25</sup>, which describes the dynamics of price setting through a distribution chain by stages. The transmission of shocks in the model proposed suggests the existence of a supply shock that affects the food and energy **CPI** and an external shock affecting the **terms of trade** that is passed-through to the **output gap**, which is also influenced by a domestic demand shock. These shocks affect the nominal exchange rate and the components of imported inflation in separate ways. Increases in these variables will raise production costs, which will have a rising impact on wholesale prices. Finally, overall inflation is affected by the shocks described and by a shock of expectations. The pass-through mechanisms of these shocks are illustrated in the graph below:



<sup>24</sup> The variables used included the terms of trade (TT), food and energy inflation, the output gap, nominal depreciation, imported inflation, wholesale price inflation, overall inflation, expectations of inflation, dollar-currencies "basket", and the pure Foreign Index Price. Quarterly estimates in the period Q1-2002 – Q2-2015 were analyzed. Changes in the variables TT, dollar basket, and FPI are expressed in annual terms compared to the previous quarter. Cholesky decomposition method was used as structural identification with the order presented in Graph 1. The number of lags was selected based on the Schwarz criterion. Robustness testing was performed by modifying the proposed order. The results of these models do not differ greatly from the ones discussed herein.

<sup>25</sup> McCarthy J. "Pass-Through of Exchange Rates and Import Prices to Domestic Inflation in Some Industrialized Economies" Eastern Economic Journal, 33(4), 511-537.

The historical decomposition of inflation deviations from the 2 percent target between 2013 and June 2015 resulting from the estimation of recursive VAR is discussed below. The most important factors determining the deviation of inflation in 2015 would be the nominal depreciation of the nuevo sol, which accounts for 1.3 percentage points of the 1.5 percentage points diversion of inflation; the supply shocks due to the price increases in food and energy, which explain 0.5 percentage points, while imported inflation in dollars and the output gap had a negative contribution to inflation, in line with the recent evolution observed in the international price of oil and with a weak economic cycle in which the Peruvian economy has been growing below its potential level.

HISTORICAL DECOMPOSITION OF INFLATION DEVIATION RESPECT TO THE TARGET INFLATION (End-of-period 2011-2014)									
Year	Inflation	Inflation divert 1/	Inflation expectation	Supply shocks	Nominal depreciation	Import components	Demand shocks	Terms of trade	
2013 2014 2015	2.8 3.2 3.5	0.8 1.2 1.5	1.0 0.7 0.5	-1.5 0.4 0.5	0.4 0.0 1.3	0.6 0.6 -0.2	0.6 -0.4 -0.6	-0.3 -0.1 0.0	

1/ Respect to the target 2 percent.

2/ Considers average in the last 4 quarters.



In the first half of 2015, the inflation rate accumulated in the last 12 months reached 3.5 percent. By components, a price increase of 4.2 percent was recorded in food and energy prices (a more volatile component associated with exogenous shocks) due to higher electricity rates and higher prices of perishable goods, such as onions, while inflation excluding food and energy showed a rate of 3.0 percent. A depreciation of 13.0 percent was also registered in the sol/dollar exchange rate and imported inflation<sup>26</sup> showed a decline of 2.3 percent. On the side of producers, national wholesale price inflation recorded a rate of 1.7 percent.

The results for this period show that the effect of the exchange rate contributed 1.3 percent to the diversion of inflation, while both supply shocks and the diversion of inflation expectations account for 1 additional percentage point of this deviation. The factors that offset these impacts are basically lower imported inflation, associated with lower oil prices and the lower international prices of imported food, as well as a negative output gap, which reflects the effects of a weak business cycle on inflation.



26 Quarterly annual rates.

#### Box 6 GASOHOL PRICES

A reduction has been observed in recent months in the international prices of fuels published by Osinergmin (parity prices)<sup>27</sup>, but this reduction has not been transferred in the same magnitude to consumers. To a large extent, this is mostly explained by the behavior of oil refining companies.



In the second week of September, refineries' prices of fuels in soles were 28 percent higher than Osinergmin's import parity prices, expressed in soles too.

Petroperu, for example, meets a part of its demand by importing oil derivatives. Its imports of gasohol fuels include imports of naphtha, high octane gasoline, and ethanol. According to Sunat information, the CIF import price paid by Petroperu for these products was in line with Osinergmin benchmark price for 90 and 97 octane gasohol, except in the last week when the benchmark price was slightly lower than the cost of import 90 octane gasohol<sup>28</sup>.



<sup>27</sup> The Osinergmin price represents an efficient import operation, which includes the price of the international marker, freight, insurance, losses, as well as import, storage and dispatch-related costs. A commercialization margin of S/. 0.19 per gallon is added to this price.

<sup>28</sup> Charts the price of gasohol CIF import has been estimated as the weighted average of the CIF import price of gasoline or gasoline with the price of imported ethanol, with a weight of 7.8 per cent ethanol.

Moreover, Petroperu also imports crude to supply its refineries, the FOB price of imports being very similar to the marker of WTI oil (West Texas Intermediate). The average price of imports of crude between January and August was US\$ 52.2 per barrel, while the price of the WTI crude oil was US\$ 51.6 per barrel.



However, an asymmetric reaction has been observed when there are movements in the international prices of derivatives: between January and July, the international price tag of gasohol fuels rose by S/. 1.78 per gallon –from S/. 4.78 to S/. 6.56 per gallon–. In response, Petroperú raised its refinery price by S/. 1.88 per gallon. Moreover, between July and the second week of September, the benchmark price of gasohol fuels was lowered by S/. 1.42 per gallon –from S/. 6.56 to S/. 5.14 per gallon), to which the company responded by reducing its refinery price only by S/. 0.56 per gallon.

As a result of this, the advance in refinery prices compared to the international prices of these fuels has increased from 10 percent in December 2014 to 28 percent during the first two weeks of September, which prevents that the lower international prices of oil derivatives are passed on to consumers.

If this advancement in refinery prices relative to the international benchmark were eliminated, the price of gasohol to final consumers could be reduced by about 16 percent, which would mean that the users of this fuel could save around S/. 80 million each month.

Petroperu's gasohol price policy contributes to explain the improvement observed in the company's balance in the first half of 2015, with net profits amounting to S/. 357 million, a higher figure than the one reported in the same period last year (S/. 71 million).



# VII. Inflation Forecast and Balance of Risks

### Forecast

- 86. The BCRP monetary policy actions are based on inflation forecasts and on projections of inflation determinants prepared using the macroeconomic data available at the time a policy action is decided. These forecasts also include a confidence interval, which quantifies the degree of uncertainty associated with each forecast. Indicators standing out as inflation determinants include the evolution of inflation expectations, imported inflation, and demand inflationary pressures, all of which are quantified through the concept of the output gap (the difference between GDP and GDP's potential level). Because this indicator anticipates the evolution of demand-pull inflation, the output gap is an indicator that allows the BCRP to adjust its monetary policy stance on a timely basis.
- 87. Inflation is forecast to gradually come closer to 2.0 percent in the 2015-2017 horizon, but showing a slower pace of convergence to the target than estimated previously in the Inflation Report of May. This slower pace would be mainly reflecting a greater-than-expected nominal depreciation of the nuevo sol, increased expectations of inflation, and supply shocks associated with the impact of El Niño event. These effects would be offset in part by an output gap that is still negative, but would be recovering slowly by the end of the forecast horizon. Moreover, the reduction of inflation in the forecast horizon would be coupled by a reversal of inflation expectations to a closer level to the BCRP target range.
- 88. Some aspects of the determinants of the inflation forecast are discussed below:
  - a) The **output gap**, which was negative in the first half of 2015, is expected to recover gradually in the forecast horizon, although at a slower pace than estimated in the Inflation Report of May. The lower gap would be explained by the effect of the lower terms of trade, lower business confidence, and the slower pace of growth observed in our trade partners.

Factors having a positive impact on the output gap in 2015 include the expansionary monetary conditions in soles and a fiscal impulse as from

Q4-2015. Along with the recovery of the output in the primary sectors – especially in the mining sector–, these effects are expected to favor a gradual recovery in business confidence and consequently, in investment in the following quarters.

Since GDP is expected to grow in 2016 at a similar rate as the potential output, the economy is forecast to converge towards a neutral cycle in the next two years.



b) Expectations of inflation in 2016 –relevant monetary policy horizon in the Peruvian economy– have increased and reached the upper band of the inflation target range. It should be pointed out that the Central Bank will continue to pay close attention to changes in long-term inflation expectations and will take appropriate monetary policy measures that contribute to maintaining inflation expectations within the target range.





	Ta SURVEY ON MACROECONC	able 50 DMIC EXPECTATIONS (%)	: INFLATION	
			Expectation about:	
		IR Jan.15	IR May.15	IR Sep.15*
Financial entities	2015 2016 2017	2.5 2.5	2.9 2.8 2.9	3.3 3.0 2.8
Economic analysts	2015 2016 2017	2.7 2.5	2.9 2.6 2.5	3.5 3.0 2.6
Non-financial firms	2015 2016 2017	3.0 3.0	3.0 3.0 3.0	3.3 3.0 3.0

\* Survey conducted during the second fortnight of August 2015.

c) Imported inflation reflects the evolution of import prices and the evolution of the exchange rate. As regards international prices, a slight reversal is foreseen in the prices of the main imported goods and a partial decline is projected in the domestic revenues margin of refining. In addition to this, the recent trend observed in the exchange rate would have an upward effect on inflation due to the pass-through effect. This effect is greater when there is a depreciation than when there is an appreciation of dollar-sol exchange rate.

The BCRP survey on expectations about the dollar-nuevo sol exchange rate shows that economic agents expect a moderate depreciation of the nuevo sol next year. Economic agents consider that the depreciation observed so far is a transitory event in a context of uncertainty regarding China's economic slowdown, which also reflects market anticipation of the withdrawal of monetary stimulus by the U.S. Federal Reserve.

Table 51           SURVEY ON MACROECONOMIC EXPECTATIONS: EXCHANGE RATE (Nuevos soles per US\$)									
		IR Jan.15	IR May.15	IR Sep.15*					
Financial entities Economic analysts	2015 2016 2017 2015 2016 2017	3.10 3.15 3.10 3.15	3.22 3.25 3.25 3.25 3.30 3.30	3.35 3.45 3.45 3.35 3.45 3.45 3.45					
Non-financial firms	2015 2016 2017	3.00 3.10	3.20 3.25 3.30	3.30 3.40 3.45					

\* Survey conducted during the second fortnight of August 2015.

- d) The main supply factors that would affect inflation would include: i) the effect of the higher US dollar-nuevo sol exchange rate, ii) the annual revision of electricity rates, and iii) the impact of El Niño. The combination of these factors would cause a greater increase on the average prices of food and energy, which is estimated at 4.0 percent in 2015. This increase would be due mostly to the evolution of energy prices (5.9 percent) –which includes fuel prices and electricity rates–, while food prices would increase 3.7 percent.
- 89. The evolution of the **output gap** is determined by developments in external conditions, the monetary policy stance, the fiscal impulse, and by economic agents' confidence about the course of the economy. A gradual reversal is estimated in the output gap in the 2015-2017 forecast horizon as a result of the following factors:
  - a) **Business confidence**: a gradual recovery is foreseen in business confidence due to higher global growth, the culmination of important mining and energy projects, and the recovery of public and private investment.
  - b) **External conditions**: a slower pace of recovery is estimated in terms of global growth due mainly to the weak level of economic activity observed in the Eurozone and the emerging economies. Moreover, in line with the recent trend observed in the prices of commodities, lower terms of trade than the ones foreseen in the IR of May are now estimated.
  - c) **Fiscal Impulse**: The fiscal impulse estimated for this year would be equivalent to 0.5 percent of GDP (similar to the one estimated in the IR of May) due mainly to the delay in the implementation of public investment projects by subnational governments.
  - d) **Monetary conditions**: Monetary conditions in soles are still one of the factors that have a positive contribution to the level of the output gap. On the other hand, monetary conditions in dollars are expected to show a contraction in 2015 due to the withdrawal of monetary stimulus by the U.S. Federal Reserve and the beginning of a series of anticipated rises in its monetary policy rate.
- 90. The risk factors that imply higher inflation have materialized. This has been the case of higher food prices due to external factors as well as a greater exchange rate-to-inflation pass-through. Because of this, inflation is foreseen to show a slower convergence to the 2 percent target in the forecast horizon.





Every forecast is subject to the occurrence of unanticipated events that may divert the forecast from the central scenario. In a context of uncertainty, the materialization of some risks may imply a different rate of inflation than the one forecast originally.

## Balance of risks in the 2015 – 2017 horizon

91. As regards the inflation forecast, the events that could most likely divert the inflation rate from the baseline scenario include greater volatility in international financial markets, a slowdown of domestic demand, slower global growth, and the occurrence of supply shocks.

#### a. Lower global growth

The baseline scenario considers a slower recovery in the world economy in 2015-2017 than the one estimated in our Inflation Report of May due mainly to economic slowdown in the emerging economies. However, if such recovery were to take even longer and if the terms of trade continued deteriorating, the resulting lower external impulse would translate into a lower output gap and into a lower inflation rate.

### b. Slowdown in domestic demand

Economic recovery could take longer than expected if the implementation of both public and private investment projects were to be postponed. This would lead to a more negative output gap (and to a reduction in the growth of the potential output) and, therefore, to lower inflation in the forecast horizon.

## c. Volatility in international financial markets

This risk could occur if the withdrawal of monetary stimulus by the U.S. Federal Reserve brought about volatility in international financial markets. Such a scenario could generate depreciation pressures that would affect inflation on the upside through the pass-through effect.

## d. Supply shocks

The baseline scenario considers a moderate-to-strong El Niño event. A more severe El Niño than the one considered could generate upward pressures on the prices of some food products.

92. Even though the balance of the above-mentioned risks remains neutral for the inflation forecast, a higher negative impact is foreseen due to lower global growth, offset by greater supply shocks.



## Conclusions

- 93. Inflation is still forecast to continue declining in the following months and would reach a rate of 2 percent in the 2015-2017 horizon, which is consistent with expectations of declining inflation, fewer supply shocks, and the gradual closing of the negative output gap in the forecast horizon.
- 94. The Central Bank will continue to pay careful attention to developments in the world economy and in the domestic economy, as well as to inflation expectations. The BCRP stands ready to adjust its monetary stance if it is necessary to ensure inflation's convergence to the inflation target range.



