

INFLATION REPORT

December 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 Q3-2015, data on Monetary Accounts, Inflation, Financial Markets, and the Exchange Rate at September 2015, and data on the operations of the Non-Financial Public Sector at November 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

- While the global growth forecast for 2015 remains unchanged at 3.0 percent, the global growth forecast for 2016 has been revised down from 3.6 to 3.4 percent. It is worth highlighting that the growth rates of the U.S. economy and China estimated for this year have been revised up from 2.4 to 2.5 percent and from 6.7 to 6.9 percent, respectively, which contrasts with the downward revision of growth rates in Russia (down from -3.7 to -3.9 percent) and Brazil (down from -1.8 to -3.5 percent). Moreover, it should also be pointed out that the forecast of economic activity in Peru's trading partners in 2015 has been revised down from 1.9 to 1.8 percent, the lowest rate estimated since 2009. The recovery of growth expected in the world economy in 2016 would show a more gradual pace (from 3.6 to 3.4 percent), especially in our trading partners (down from 2.6 to 2.1 percent), while in 2017, the world economy would continue recovering with a growth rate of 3.6 percent.
- ii. Peru's GDP this year is projected to show a recovery with a growth rate of 2.9 percent as a result of a partial reversal of the supply factors that affected the primary sector last year. The main difference of this forecast with that of our September Report (3.1 percent) is the slower pace of expansion of public spending. A weak performance is observed in public investment, whose growth rate in 2015 would be more negative than foreseen in our previous report due mainly to lower spending in gross capital formation at the levels of both the national government and local governments.

In 2016 and 2017, domestic demand would show greater dynamism as a result of an improvement in private expectations and a better management of spending by the subnational governments.

- iii. In 2015, the deficit expected in the account current of the balance of payments would be similar to that observed in 2014 (4.1 percent of GDP vs. 4.0 percent of GDP in 2014), but higher than that forecast in the previous report (3.2 percent) due to a context in which a further deterioration of the terms of trade has been observed. In 2016, on the other hand, the current account deficit (3.6 percent) would be lower than in 2015 given that larger volumes of exports would offset the lower terms of trade, while in 2017 a sharp increase of mining exports associated with higher production levels of copper in important mines such as Las Bambas and Cerro Verde would contribute to reduce the deficit to 2.6 percent of GDP.
- iv. The public sector deficit forecast for 2015 is revised down from 2.2 to 2.1 percent of GDP (0.3 percent in 2014), this result being mainly explained by non-financial expenditure which has been revised down (0.1 percentage points of GDP) from the level registered in the September report, taking account executed spending of





November and lower expected spending in December, particularly, capital spending. On their side, revenue would show slower growth as a result of a slower pace in economic activity and lower mineral and hydrocarbon prices. Similarly, the growth of the general government revenue forecast for 2016 and 2017 is revised down from 20.0 percent of GDP in both years (IR of September) to 19.8 and 19.6 percent of GDP, respectively.

v. Inflation accumulated in the last twelve months rose from 3.22 percent in December 2014 to 4.17 percent in November 2015. Inflation without food and energy, that is, the inflation rate isolating the impact of these high-volatility prices, rose to 3.46 percent due mainly to the price rise observed in education costs and in water supply rates as well as in some items associated with the exchange rate, such as the prices of motor vehicles and house rents. In addition to this, it is worth mentioning that inflation expectations for 2016 have gradually increased to above the upper band of the target range.

In this context, the Board of the BCRP rose the benchmark interest rate on two occasions, to 3.50 percent in September and to 3.75 percent in December. The Board also reiterated that the BCRP oversees inflation forecasts and inflations determinants and stands ready to make further adjustments in the policy rate, if necessary, to lead inflation to converge to the target range.

- vi. In addition to this, in order to continue promoting the de-dollarization of credit, in November the BCRP expanded its credit de-dollarization program, adjusting the limits used to calculate the rate of additional reserve requirements based on the reduction of banks' balance of credit in foreign currency at December 2016. In the case of total credit in foreign currency, the minimum reduction required now is 20 percent of the balance banks registered in September, 2013, while in the case of car loans and mortgage loans, the minimum reduction required by 2016 is 30 percent of the balance recorded in February 2013. Thereafter, the reduction for car loans and mortgage loans will increase by 10 percentage points at the end of each year.
- vii. A negative output gap is expected in 2015 due to the effects of lower business confidence and more deteriorated external conditions (growth of trading partners and terms of trade), even though these effects were offset by expansionary monetary conditions. Total inflation accelerated this year due to higher expectations of inflation and the effect of a greater depreciation of the sol, as well as due to transitory supply shocks. A similar output gap is expected for 2016, with a recovery in the quarterly pace of growth driven by greater public investment and a gradual recovery in business confidence being foreseen. This negative output gap reflects the absence of demand-pull inflationary pressures in the forecast horizon. The evolution of the supply shocks, would contribute to inflation's convergence towards the inflation target range in the forecast horizon.

- viii. Even though the balance of the risks mentioned above remains neutral in the inflation forecast, there is a higher risk of having a scenario of high volatility in financial and foreign exchange markets as well as a lower risk of occurrence of an extremely severe El Niño episode.
- ix. 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 2016-2017 than the one estimated in our Inflation Report of September, especially in the United States and 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 postponed, which would generate 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 capital outflows from the emerging markets and depreciation pressures on the currencies of these countries. An additional rise in the exchange rate would lead to higher inflation in the forecast horizon.

d. Supply shocks

A more severe El Niño episode than the one considered could generate upward pressures on the prices of some food products, especially in the first half of 2016.



FORECAST SUMMARY											
		0044	20	15 ^{1/}	20	16 ^{1/}	20	171/			
		2014	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15			
	Real % change										
1.	GDP	2.4	3.1	2.9	4.2	4.0	5.0	4.8			
2.	Domestic demand	2.2	2.7	2.5	3.1	3.0	3.7	3.8			
	a. Private consumption	4.1	3.5	3.4	3.5	3.5	3.8	3.8			
	b. Public consumption	10.1	6.5	7.4	5.3	5.3	4.0	4.0			
	c. Private fixed investment	-2.2	-5.5	-5.5	2.0	0.0	4.4	4.0			
	d. Public investment	-2.0	-2.0	-11.2	8.5	10.9	5.0	5.0			
3.	Exports (goods and services)	-1.0	0.1	1.9	7.0	5.4	9.5	7.9			
4.	Imports (goods and services)	-1.5	-1.3	0.6	2.6	1.3	4.2	4.0			
5.	Economic growth in main trading partners	2.4	1.9	1.8	2.6	2.1	2.8	2.5			
Mem	0 :	40.00	45.00	45.00	45.00	45.00	10.00	40.00			
0	Jtput gap 2 (%)	-1.0 ; 0.0	-1.5 ; 0.0	-1.5 ; 0.0	-1.5 ; -0.0	-1.5 ; -0.0	-1.0 ; 0.0	-1.0 ; 0.0			
		% change									
6.	Inflation	3.2	3.5 - 4.0	4.1	2.5 - 3.0	2.5 - 3.0	2.0 - 2.5	2.0 - 2.5			
7.	Average price of crude oil	-4.9	-46.5	-47.3	-3.6	-6.8	8.5	7.8			
8.	Nominal exchange rate expected 3/	6.4	12.5	14.7	3.0	2.9	0.5	0.2			
9.	Real multilateral exchange rate	-0.6	3.2	3.7	4.2	1.2	1.4	-0.7			
10.	Terms of Trade 4/	-5.4	-4.4	-5.8	-4.5	-4.0	0.2	1.7			
	a. Export price index	-6.9	-13.4	-14.6	-4.5	-6.4	2.3	3.5			
	b. Import price index	-1.5	-9.4	-9.4	-0.1	-2.5	2.0	1.8			
	Nom	inal % cha	inge	•	1						
11.	Currency in circulation	11.2	8.0	8.0	8.0	8.0	8.0	8.0			
12.	Credit to the private sector 5/	10.4	9.0	9.5	9.5	9.0	9.5	9.0			
		% GDP		<u> </u>	<u> </u>						
13.	Gross fixed investment	25.8	24.2	24.0	24.2	23.8	24.2	23.9			
14.	Current account of the balance of payments	-4.0	-3.2	-4.1	-3.1	-3.6	-2.3	-2.6			
15.	Trade Balance	-0.6	-1.1	-1.5	-1.0	-1.3	0.0	-0.3			
16.	Long-term external financing to the private sector 6/	7.2	3.9	5.0	3.8	3.9	3.9	4.0			
17.	Current revenue of the general government	22.2	20.0	20.0	20.0	19.8	20.0	19.6			
18.	Non-financial expenditure of the general government	21.5	21.3	21.2	21.5	21.3	21.2	21.0			
19.	Overall balance of the non-financial public sector	-0.3	-2.2	-2.1	-2.7	-2.9	-2.6	-2.7			
20.	Total public debt balance	20.1	22.4	22.6	24.2	24.8	24.2	24.2			

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.

IR: Inflation Report.

I. International Environment

Output

1. In November, the indices of global economic activity show an improvement in manufacturing (from 50.7 to 51.2) and services (from 53.3 to 54.1) compared to September, the favorable trends standing out particularly in the Eurozone.



2. The forecast of global growth remains unchanged at 3.0 percent for 2015 and is revised down from 3.6 to 3.4 percent for 2016 and from 3.7 to 3.6 percent in 2017. In 2015, it is worth highlighting the upward revision of GDP growth in the United States, up from 2.4 to 2.5 percent, and in China, up from 6.7 to 6.9 percent, which is offset by the downward revision of growth rates in Russia (down from -3.7 to -3.9 percent) and Brazil (down from -1.8 to -3.5 percent). It should also be pointed out that the lower economic activity anticipated in Latin America would be associated



with a foreseen slowdown in the pace of growth of Peru's trading partners, whose growth rates have been revised down from 1.9 to 1.8 percent in 2015, from 2.6 to 2.1 percent in 2016, and from 2.8 to 2.5 percent in 2017.

	Table 1 WORLD GDP GROWTH (Annual % change)									
		PPP % 2013	Trading Peru % 2013	2014	20 ⁻ IR Sep.15	15 IR Dec.15	20 ⁻ R Sep.15	16 IR Dec.15	201 IR Sep.15 I	17 R Dec.15
Adva	nced economies	43.8	50.0	1.8	2.0	2.0	2.3	2.2	2.2	2.1
Of wh	hich:									
1.	United States	16.3	19.1	2.4	2.4	2.5	2.9	2.6	2.7	2.6
2.	Eurozone	12.5	11.7	0.9	1.5	1.5	1.7	1.6	1.7	1.7
	Germany	3.5	3.0	1.6	1.5	1.5	1.6	1.5	1.5	1.5
	France	2.5	0.7	0.2	1.1	1.1	1.4	1.4	1.5	1.5
	Italy	2.0	2.0	-0.4	0.8	0.7	1.2	1.Z	1.2	1.2
2	Spain	1.5	2.9	1.4	5.1	3.1 0.7	2.4 1.5	2.5	2.0	2.1
J. ⊿	Japan United Kingdom	4.0	4.2	-0.1	2.4	2.4	7.0	7.0	0.4	0.4
4.	Canada	2.4	3.0	2.9	2.4	2.4	2.4	2.4	2.2	2.2
Э.	Callada	1.5	5.5	2.4	1.0	1.1	2.1	2.1	2.2	2.2
Emer Of wh	ging market and developing economi hich:	es 56.2	50.0	4.6	3.9	3.8	4.6	4.3	4.9	4.7
1.	Developing Asia	28.6	21.7	6.8	6.4	6.5	6.4	6.4	6.5	6.2
	China	15.7	18.2	7.3	6.7	6.9	6.5	6.4	6.3	5.9
	India	6.6	1.5	7.3	7.1	7.1	7.4	7.4	7.6	7.6
2.	Commonwealth of Independent States	4.8	0.6	1.0	-1.8	-2.5	1.1	0.7	2.0	1.9
	Russia	3.4	0.5	0.6	-3.7	-3.9	0.2	-0.2	1.0	1.0
3.	Latin America and the Caribbean	8.8	24.4	1.3	0.2	-0.4	1.6	0.5	2.8	2.3
	Brazil	3.1	4.7	0.1	-1.8	-3.5	0.5	-1.8	2.3	1.5
	Chine	0.4	3.5	1.9	2.4	2.2	3.0	2.6	3.6	3.2
	Colombia	0.6	2.7	4.6	2.9	2.9	2.8	2.5	3./ > E	3.5
	IVIEXICO Demu	2.0	2.9	2.1	2.3	2.3	3.0	2.8	3.D	3.3
	Peru	0.3	-	2.4	5.1	2.9	4.2	4.0	5.0	4.8
Worl	<u>d Economy</u>	<u>100.0</u>	<u>100.0</u>	<u>3.4</u>	<u>3.0</u>	<u>3.0</u>	<u>3.6</u>	<u>3.4</u>	<u>3.7</u>	<u>3.6</u>
Memo Peru's BRICs	o: trading partners 1/ 2/	59.4 28.8		2.4 5.8	1.9 4.6	1.8 4.6	2.6 5.3	2.1 5.0	2.8 5.5	2.5 5.3
1/ Bask	set of Peru's 20 main trading partners									

1/ Basket of Peru's 20 main trading partners. 2/ Brazil, Russia, India, and China.

Source: Bloomberg, IMF, and Consensus Forecast.

3. Economic recovery has continued in the **United States** in Q2 and Q3 after the slowdown observed in Q1 due to temporary factors (cold weather and problems in the West Coast ports) and to the appreciation of the dollar. In Q3 the output grew 2.1 percent, supported by consumption and non-residential investment. The dynamism of consumption –favored by better conditions in the labor market and high price levels of stock market assets– has offset the negative performance of net exports as a result of weak global demand and the appreciation of the dollar which has continued in recent months.



IR: Inflation Report.

At the sector level, prospects of greater dynamism remain in the services sector and a relative weakness is still expected in industrial production. The latter has intensified in recent months, especially in the energy sector (due to low oil prices) and in the manufacturing sector. These higher-than-expected effects would account for a slightly lower growth in 2016 and 2017 than what was projected in our previous inflation report.

Table 2 USA: GDP (Seasonally adjusted annualized quarterly rates)										
	2014 2015									
	Q1	Q2	Q3	Q4	Q1	Q2	Q3			
Private consumption	1.3	3.8	3.5	4.3	1.8	3.6	3.0			
Fixed investment	6.0	5.6	7.9	2.5	3.3	5.2	3.4			
Change on inventories *	-1.3	1.1	0.0	0.0	0.9	0.0	-0.6			
Net exports *	-1.4	-0.2	0.4	-0.9	-1.9	0.2	-0.2			
GDP	<u>-0.9</u>	<u>4.6</u>	<u>4.3</u>	<u>2.1</u>	<u>0.6</u>	<u>3.9</u>	<u>2.1</u>			
Memo										
Unemployment rate **	6.7	6.1	5.9	5.6	5.5	5.3	5.1			
* Contribution to growth. ** End-of-period. Source: BEA and BLS.										



On the other hand, the annual rate of the consumer price index in November was 0.5 percent, a higher rate than the average rate in the year. This low level of inflation is explained by lower energy prices and by the appreciation of the dollar. Core inflation –which excludes food and energy prices– registered 2.0 percent, the highest level recorded since mid-2014.



The dynamism of consumption, along with the stronger recovery of the labor market, increased the likelihood of an increase in the Federal Reserve interest rates. In line with these expectations, in its policy meeting of December, the Fed increased its interest rate range by 25 basis points to 0.25-0.5 percent, as expected by the market. The downward revision of some interest rate projections highlights expectations that the process of interest rate hikes will be unhurried and gradual.







4. Growth in the **Eurozone** has continued showing moderate rates (less than 2 percent), driven by domestic demand and supported by a non-restrictive fiscal policy. Private consumption, which has grown 1.6 percent on average so far in the year, continued to be driven by low commodity prices and by the better financial conditions associated with the European Central Bank (ECB) monetary policy. On the other hand, private investment has been lagging and net exports, in contrast with the previous quarter, have had a negative contribution to growth, both variables having been affected by the international context of a slowdown in the emerging economies.

Table 3 EUROZONE: GDP GROWTH (Seasonally adjusted annualized quarterly rates)									
			2015						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
Private consumption	0.1	0.7	1.7	2.1	1.8	1.3	1.7		
Fixed investment	1.7	-2.1	1.6	2.4	6.2	0.3	0.0		
Change on inventories *	0.9	-0.8	-0.4	-0.4	0.4	-0.8	0.8		
Net exports *	0.1	0.4	0.0	0.0	-0.8	1.2	-1.2		
Government expenditure	0.9	0.9	1.3	0.9	2.0	1.1	2.4		
GDP	<u>0.9</u>	<u>0.2</u>	<u>1.2</u>	<u>1.5</u>	<u>2.2</u>	<u>1.6</u>	<u>1.2</u>		
Memo									
Unemployment rate **	11.8	11.5	11.5	11.4	11.2	11.0	10.8		
* Contribution to growth. ** End-of-period. Source: Eurostat.									

This evolution has continued to be accompanied by low inflation rates. In November, the annual rate of inflation was 0.2 percent, well below the long-term target (2 percent). In addition, as reflected by the 5y-5y inflation swap forwards rates, market expectations of long-term inflation have remained low (around 1.8 percent).

Therefore, in order to ensure an inflation path consistent with the medium-term targets, the ECB reduced the rate of deposits by 10 bps (to -0.30 percent) in its policy meeting of December and extended its asset purchase program from September 2016 to March 2017, maintaining the amount of €60 billion per month.





In addition to these monetary stimulus programs, the Eurozone has maintained a neutral tax position –non-restrictive– for 2016 (similar to that of this year) according to the national budgets and the European Commission's decision to give member countries more time to fulfill the medium-term fiscal targets (like France, which has 2 more years to fulfill targets in 2017), with the aim of supporting growth.

In this context, it is estimated that the Eurozone would continue to show moderate rates of growth –1.5 percent and 1.6 percent in 2015 and 2016, respectively–, a slight downward correction having been made in the 2016 forecast relative to the previous report. This pace of growth is explained by a recovery of investment, in line with increased business confidence.

5. In **China**, GDP recorded an annualized quarterly rate of 7.4 percent in Q3 (like in the previous quarter) and an annual growth rate of 6.9 percent, the lowest rate since Q1-2009 (when the economy grew 6.2 percent in annual terms), basically because of the weakness of the industrial sector. In Q3, the annual growth of the service sector –whose weight is 51 percent of GDP so far this year– was 8.6 percent, but the industrial sector recorded much lower growth rates: 4.1 percent in the primary sector and 5.8 percent in the secondary sectors.



Recent signs of economic activity point to a slowdown in (industrial) manufacturing and to a slower pace of growth in the service sector. On the side of spending, the signals indicating the growth of consumption, especially retail sales, have been positive, but indicators of investment in manufacturing and real estate have been negative. These signals of slowdown have been accompanied by increased deflationary pressures. In November, the CPI inflation and core inflation remained at low levels, while the producer price index (IPP) has been showing negative rates for 44 consecutive months.



Table 4 CHINA'S ECONOMIC INDICATORS

Indicators	2012	2013	2014			2015		
indicators	Dec.	Dec.	Dec.	Mar.	Jun.	Sep.	Oct.	Nov.
Quarterly GDP (Seasonally adjusted annualized growth rates)	7.8	7.0	7.0	5.3	7.4	7.4	-	-
Annual GDP (%)	7.9	7.6	7.2	7.0	7.0	6.9	-	-
Quarterly urban unemployment rate (%)	4.1	4.1	4.1	4.1	4.0	4.1	-	-
Industrial Production (12 month % change)	10.3	9.7	7.9	5.6	6.8	5.7	5.6	6.2
Investment in fixed assets (Accum. annual % change)	20.6	19.6	15.7	13.5	11.4	10.3	10.2	10.2
Real estate Investment (Accum. annual % change)	16.2	19.8	10.5	8.5	4.6	2.6	2.0	1.3
Retail sales (12 month % change)	15.2	13.6	11.9	10.2	10.6	10.9	11.0	11.2
Exports (12 month % change)	14.1	4.3	9.7	-15.0	2.8	-3.7	-6.9	-6.8
Imports (12 month % change)	6.0	8.3	-2.4	-12.7	-6.1	-20.4	-18.8	-8.7
New loans in yuans (Annual %)	15.0	14.1	13.6	14.0	13.4	15.4	15.4	14.9
Total new financing (Annual %)	19.4	17.8	14.4	12.8	11.7	12.1	11.9	11.6
M2 (Annual %)	13.8	13.6	12.2	11.6	11.8	13.1	13.5	13.7
Consumer Price Index (12 month % change)	2.5	2.5	1.5	1.4	1.4	1.6	1.3	1.5
Wholesale Price Index (12 month % change)	-1.9	-1.4	-3.3	-4.6	-4.8	-5.9	-5.9	-5.9

Source: Bloomberg and IMF.







This slowdown in growth is in line with the adjustments and with the progress of the reforms being implemented in this economy with the aim of promoting a more sustainable growth in the long term. However, the risks that the economy will go through a sharp slowdown not only have not disappeared, but have also been affecting the evolution of financial markets. In the central meeting the Communist Party held in October, the authorities determined the five-year policy guidelines for 2016-20, ratified the reforms required to promote a new growth pattern –these reforms involve lower net exports and increased consumption–, and also announced that more policy measures will be taken to boost growth in the short term.

Thus, the government has been trying to compensate the adjustment in local governments' expenditure by increasing public spending and carrying out infrastructure and water, electricity and railway projects especially. In addition, the growth of bank credit has remained stable thanks to the measures taken by the Central Bank until October (which add onto the actions that were taken already in June and August), including cuts in the policy interest rates, reducing the rates of reserve requirements for all the banks and the rates for short term financing lines to banks. However, the adjustment of shadow banking credit has been significant, but has not been offset with greater financing via other sources (such as bonds and equities), which has implied that the growth of total credit in October was the lowest in 15 months.



In this context, the forecast of China's growth for 2015 has been revised up from 6.7 percent to 6.9 percent, in line with the revisions of the growth rates of the previous quarters, while the forecasts of China's growth for 2016 and 2017 have been revised down from 6.5 percent to 6.4 percent in 2016 and from 6.3 percent to 5.9 percent in 2017 given indications of a further slowdown of activity that has been materializing in this last quarter of the year and which would continue in the next years.



6. In Q3-2015, most **Latin American** countries with inflation targeting regimes showed heterogeneous evolutions, although all of them were affected by high volatility in financial markets and by concerns over the performance of China's economy.

At the country level, Brazil's GDP recorded a contraction for four consecutive quarters in a context of high inflation and depreciation, as well as pressure on fiscal accounts and political uncertainty. In Mexico, the GDP grew higher than expected given that industrial activities registered an improvement. In Chile, after staying unchanged in the previous quarter, the GDP showed a moderate increase due to a rebound in investment and an improvement of families' and government consumption, while in Colombia, high-frequency indicators of economic activity have been higher than in the previous quarter, but industrial activity remains behind due to the low prices of oil and fears about the possible effects of El Niño.







During the first eleven months of the year, inflation showed rates above the target range in most of the Latin American countries with inflation targeting regimes, except for Mexico. In Brazil and Colombia, inflation accelerated due to the significant depreciation of the Brazilian real and the Colombian peso, as well as due to increases in administered prices in the case of Brazil. In Chile, inflation showed a slowdown and returned to its target range in November, in line with a more restrictive monetary policy stance, while in Mexico inflation recorded historic lows.

Table 5 LATIN AMERICA: INFLATION (% change last 12 months)									
Target range	Brazil 2.5-6.5	Chile 2.0-4.0	<u>Colombia</u> 2.0-4.0	Mexico 2.0-4.0	Peru 1.0-3.0				
Dec.13	5.9	2.9	1.9	4.0	2.9				
Mar.14	6.2	3.9	2.5	3.8	3.4				
Jun.14	6.5	4.3	2.8	3.8	3.5				
Sep.14	6.8	4.9	2.9	4.2	2.7				
Dec.14	6.4	4.6	3.7	4.1	3.2				
Mar.15	8.1	4.2	4.6	3.1	3.0				
Jun.15	8.9	4.4	4.4	2.9	3.5				
Jul.15	9.6	4.6	4.5	2.7	3.6				
Aug.15	9.5	5.0	4.7	2.6	4.0				
Sep.15	9.5	4.6	5.4	2.5	3.9				
Oct.15	9.9	4.0	5.9	2.5	3.7				
Nov.15	10.5	3.9	6.4	2.2	4.2				

Source: Bloomberg.



Financial Markets

 After the unfavorable trend most markets showed in the period discussed in our previous report, some markets were favored by the positive indicators of activity observed in the developed economies and by the signals of support given by the major central banks (ECB, BoJ, BoE, and CB of China). The latter reinforced expectations that their monetary policies would diverge with the Fed's, which strengthened the dollar in international markets.



On the other hand, most emerging markets continued to be affected by expectations that the Fed would raise its interest rates, by the decline of commodity prices, and by the deterioration of growth prospects, which led to a volatile conduct in capital flows. According to the Institute of International Finance (IIF), while a net capital outflow of US\$ 52 billion was recorded in Q3, capital inflows in the months of October and November would amount to US\$ 9.6 billion.



8. In foreign **exchange markets**, the dollar maintained its appreciation although it did not show a uniform trend. Thus, in the second half of September, the appreciation trend of the dollar was interrupted temporarily after the Fed postponed starting the hike of interest rates due to the deterioration of expectations of global growth and due to the high volatility observed in the financial markets. The dollar resumed



its appreciation trend from October after international uncertainty-related factors mitigated and after the likelihood that the Fed would raise its rates increased again due to positive economic data in the U.S., particularly employment data.



As a result of this, the dollar index appreciated 1.4 percent between September and November. Thus, the dollar accumulates an appreciation of 9.4 percent so far this year, reaching its highest level since April 2003. On the other hand, it should be pointed out that the depreciation of the euro against the US dollar is 5.6 percent, which means that, against the dollar, the euro has reached its lower level in 9 months. As for the currencies of the emerging market countries, those of commodity-exporting countries depreciated the most.

Table 6 EXCHANGE RATE (C.U.* PER US\$)										
		 (1)	 (2)	<u>Nov.15</u> (3)	<u>% cł</u> (3)/(2)	nange (3)/(1)				
FED Index**	C.U per US\$	99.23	111.29	121.70	9.4	22.6				
Eurozone***	US\$ per Euro	1.319	1.210	1.056	-12.7	-19.9				
Japan	Yen	86.75	119.71	123.12	2.8	41.9				
United Kingdom***	US\$ per Pound	1.625	1.557	1.505	-3.3	-7.4				
Brazil	Real	2.050	2.658	3.871	45.6	88.9				
Chile	Peso	479	607	711	17.0	48.3				
Colombia	Peso	1,768	2,389	3,146	31.7	77.9				
Mexico	Peso	12.87	14.75	16.58	12.4	28.8				
Peru	Sol	2.55	2.98	3.38	13.5	32.5				
Israel	Shekel	3.74	3.90	3.88	-0.6	3.7				
South Africa	Rand	8.46	11.58	14.46	24.9	70.8				
Turkey	Lira	1.79	2.34	2.91	24.8	63.2				
China	Yuan	6.23	6.21	6.40	3.1	2.7				
Philippines	Peso	41.11	44.83	47.18	5.2	14.8				
Indonesia	Rupia	9,645	12,470	13,660	9.5	41.6				
Malaysia	Ringgit	3.06	3.50	4.26	21.9	39.4				
Thailand	Bath	30.62	32.92	35.81	8.8	16.9				

* C.U.: currency unit. ** Last day November 27.

*** Negative sign indicates us dollar appreciation. Source: Reuters and FED.



9. It should be pointed out that in previous cycles of interest rate adjustments by the Fed, the dollar appreciated mainly prior to the first rate hike. There have been five episodes of rises in the Fed rates in the last 30 years: (i) May 83 - August 84, (ii) December 86 - February 89; (iii) February 94 - February 95; (iv) June 99 - May 2000, and (v) June 2004 - June 2006. The current episode is analyzed considering the first rise in December 2015. The evolution of the dollar during these cycles –which go from 24 months before the start of interest rate rises to 24 months after the first rise– is shown in graph 19.

In every episode the dollar stabilizes as from the period zero (start of rate hike), with the exception of the 83-84 period. In the current episode, the dollar has been appreciating at rates similar to those observed in 1994-1995. After the 83-84 episode, today's episode and that of 94-95 show the higher appreciation rates higher (compared with the six episodes mentioned above). It is worth pointing out that the rate hikes of the 94-95 episode were unexpected and that the communication policy of the Fed at the time was less developed.







10. The **public debt markets** were influenced by expectations that the Fed and the major central banks (especially the ECB) would have divergent monetary policies. In general, in response to expectations that their central banks would withdraw or increase stimuli, the long-term yields of securities of the developed economies recorded significant reductions or were stable. In contrast, on the other hand, most of the yields of emerging economies' securities rose, affected by tighter financial conditions.

In the **United States** the yield curve showed a flattening since the market expected that the Fed rate adjustment would be gradual. The short section of the curve yields rose significantly –the performance of two-year bonds reached maximum levels in over five years–, but the yields of the long section showed no significant variation compared with the ones observed in the period covered in our previous report.

In the **Eurozone**, expectations that the ECB would give greater stimulus programs influenced the reduction of yields in general, particularly for short-term securities, which resulted in a binge of yield curves in the major economies. The significant reduction of yields in Greece was associated with the agreements reached between the European leaders and the Greek Government about the reforms and measures to be implemented as part of the recent third bailout program (€86 billion).

In **China**, the market was also influenced by expectations that the Central Bank of China would give greater stimulus to boost growth, while in **Latin America**, yields rose amid a context of declining commodity prices.

As for the markets of **corporate debt**, after having been favored for years by the context of low rates in developed economies that led investors to search for higher return assets, they will now face changing conditions given prospects that credit

conditions will be tighter as a result of expectations associated with the start of the Fed interest rate hikes and with the low prices of commodities (affecting companies in this sector). The most affected securities in both the United States and in the emerging economies have been high-yield bonds (non-investment grade) since riskier investments have registered capital outflows in a context of increased defaults and reduction of credit ratings in the U.S. energy sector (the major component of high-yield bonds).



Table 7 YIELDS ON 10-YEAR TREASURY BONDS (%, end of period)										
	Dec.12	Dec.14	Aug.15	Nov.15	Public debt (% GDP 2014)					
United States	1.76	2.17	2.22	2.21	105					
Germany	1.31	0.54	0.80	0.47	73					
France	1.99	0.82	1.15	0.79	95					
Italy	4.49	1.88	1.96	1.42	132					
Spain	5.23	1.60	2.11	1.52	98					
Greece	11.68	9.42	9.10	7.38	177					
United Kingdom	1.83	1.76	1.96	1.82	90					
Brazil	9.17	12.36	14.27	15.87	65					
Colombia	5.48	7.10	8.15	8.47	38					
Chile	5.49	3.99	4.50	4.61	14					
Mexico	5.36	5.83	6.06	6.21	50					
Peru	4.09	5.41	7.36	7.04	21					
South Africa	6.78	7.96	8.34	8.57	46					
Israel	3.99	2.31	2.22	2.13	69					
Turkey	6.55	7.86	9.94	9.91	33					
China	3.59	3.65	3.40	3.12	41					
South Korea	3.17	2.63	2.31	2.27	36					
Indonesia	5.15	7.75	8.72	8.57	25					
Thailand	3.51	2.69	2.80	2.73	47					
Malaysia	3.50	4.12	4.36	4.20	57					
Philippines	4.42	3.83	3.68	4.18	37					

Source: Bloomberg and IMF.





11. In October, **stock markets** partially reversed the widespread fall observed until the month of September –most markets showed the worst performance in four years in Q3–, especially the stock markets of the developed market economies.

In **Europe**, stock markets were driven mainly by expectations of more stimulus from the ECB, while in China they were driven by the actions taken by the regulating authority to stabilize the market and limit speculation, as well as by the stimulus measures announced by the government and the central bank.

In the **United States**, corporate profits in Q3 were higher than expected in about 75 percent of the companies included in S&P 500 index, although expectations of profits were low given the appreciation of the dollar and the low oil prices affecting the energy sector. In addition, expectations of rising rates have not generated overreactions since it is expected to be a gradual process. However, it should be pointed out that the recovery of the S&P 500 index has exceeded the levels observed prior to the financial crisis and that it currently is around record values. Moreover, the price to earnings (PE) ratio of the index currently shows the same level as that of its historic average level in the past 10 years.





II. Economic Activity

Sector GDP

12. A partial reversal of the supply shocks that affected the primary sectors in 2014 has been observed in these sectors during the first three quarters of 2015, which has reflected in a GDP growth rate of 4.2 percent during the first nine months of this year, contrasting with the rate they recorded in 2014 which has been the greatest output drop (-2.1 percent) observed in the primary sectors since 1992. This recovery in the primary sectors output results mainly from higher growth rates in metal mining, due to increased copper production, and in the sectors of agriculture and fishing.

On the other hand, the output in the non-primary sectors showed a slowdown (2.2 percent vs. 3.7 percent in 2014) associated with lower investment and a deterioration in business confidence.

Table 8 GDP BY PRODUCTION SECTOR (Real % change)									
	20	14		2015*		2016*		201	7*
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15
Agriculture and Livestock	1.5	1.9	2.2	2.6	2.6	1.6	1.6	3.7	3.7
Agriculture	0.4	0.7	0.3	1.0	0.7	0.6	0.5	3.7	3.7
Livestock	5.4	5.8	5.6	4.9	5.5	3.4	3.3	3.6	3.6
Fishing	-9.5	-27.9	9.1	16.5	19.3	-1.2	-1.2	27.9	27.9
Mining and hydrocarbons	-0.9	-0.8	6.6	6.7	7.3	10.6	10.6	11.3	10.4
Metallic mining	-1.8	-2.1	12.1	11.7	12.8	11.2	11.2	13.1	11.6
Hydrocarbons	2.3	4.0	-12.3	-10.9	-11.7	8.1	8.1	3.6	4.6
Manufacturing	-1.3	-3.7	-2.5	0.4	-1.6	1.8	1.1	4.6	4.2
Based on raw materials	-0.4	-9.3	-2.0	4.3	2.9	-0.5	-0.1	10.6	10.6
Non-primary industries	-1.4	-1.5	-2.7	-0.8	-2.9	2.5	1.5	3.0	2.5
Electricity and water	5.0	4.9	5.5	5.2	6.0	5.5	6.0	5.5	5.5
Construction	1.5	1.6	-7.7	-6.2	-6.5	3.0	2.5	4.0	3.5
Commerce	4.5	4.4	3.9	3.8	3.9	3.8	3.8	3.8	3.8
Services	5.1	5.0	4.1	4.1	4.0	3.8	3.7	3.8	3.7
GDP	2.8	2.4	2.6	3.1	2.9	4.2	4.0	5.0	4.8
Memo:									
Primary GDP	-0.4	-2.1	4.2	5.4	5.6	6.5	6.5	9.7	9.1
Non-Primary GDP	3.7	3.6	2.2	2.5	2.1	3.6	3.4	3.8	3.6

* Forecast.

IR: Inflation Report.

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13. In recent months, current and advanced indicators show a recovery in the GDP, with electricity production rates rising from 5 percent - 6 percent between March and July to rates above 7 percent since August and 8 percent since October.



On the other hand, the domestic consumption of cement continues to show negative growth rates. In November, this indicator dropped 3.0 percent, the lower pace of physical implementation of public works and lower private investment accounting for this decline.



14. Taking into account the less favorable international environment and the slowerthan-expected pace of economic recovery observed, the country's GDP growth rate projected for 2015 is revised down from 3.1 percent (IR of September) to 2.9 percent. Moreover, the projected growth of the sectors that have been revised on the upside in 2015 include metal mining, up from 11.7 to 12.8 percent); electricity and water, up from 5.2 to 6.0 percent, and livestock production, up from 4.9 to 5.5 percent, whereas the projected growth rate of the sectors of manufacturing –both primary and non-primary manufacturing and hydrocarbons have been revised on the downside. Furthermore, the GDP growth rates projected for the period 2016-2017 have been revised down by 0.2 percentage points to 4.0 and 4.8 percent, respectively.



15. Moreover, the projected growth rate of the primary sectors in 2015 continues to show a partial reversal of the supply shocks that affected the output in 2014. This reversal is even stronger in the case of copper and zinc than that estimated in the Inflation Report of September due to a better performance of metal mining.

	Table 9 SUPPLY SHOCKS (% change)	
	2014	2015*
Rice	-5.9	7.2
Anchovy	-52.6	64.0
Fishoil and fishmeal	-63.0	63.8
Gold	-10.4	-1.9
Copper	0.7	22.6
Zinc	-2.4	8.5
* Forecast.		

Thus, this gradual reversal of the supply shocks would result in a higher growth rate in the primary output –up to 5.6 percent from -2.1 percent in 2014– which would represent a contribution of 1.6 percentage points to the GDP growth rate. On the other hand, it is estimated that the non-primary output would grow 2.1 percent, less than in 2014 (3.6 percent), due mainly to the contraction of the sectors of construction (influenced by a further decline in public investment) and non-primary manufacturing as well as due to lower growth in the service sector.





16. Economic activity is projected to continue recovering in the last quarter of 2015, which is consistent with the reversal of the negative effects of the supply shocks mentioned above.



- 17. On the sector side, in contrast with 2014, the primary sector would continue showing the greatest output growth in 2015 (2.9 percent vs. 2.4 percent in 2014), especially due to the increased contribution to GDP growth associated with the greater production of metal mining and fishing in the first three quarters of the year. The performance of each production sector is discussed below:
 - a) The **agriculture sector** recorded a growth rate of 2.2 percent in the first three quarters of the year that was higher than that recorded in 2014 (1.5 percent). This rate was associated with an increased supply of poultry and rice for the domestic market as well as with an increased production of coffee, hard yellow maize, and grapes for agro-exports and the industry sector.

The growth forecast of the agriculture sector for 2015 remains at 2.6 percent, but the contribution of each subsector has been corrected: output in the livestock subsector would be higher due to a greater production of poultry (chicken and turkey), while output in the agriculture subsector would be lower due to a lower agro-industrial production of coffee, asparagus, quinoa, and olives.

The projected growth rates of the sector for the following years also remained unchanged at 1.6 percent in 2016 and 3.7 percent in 2017. These projections take into account the occurrence of a moderate-to-strong El Niño event which would affect agriculture production in the coast areas.

b) The **fishing sector** grew 9.1 percent in the first three quarters of the year, a rate that contrasts with the contraction this sector showed in the same period in 2014 (-9.5 percent).

In 2016 the output in this sector is still anticipated to fall by 1.2 percent. This rate also considers the occurrence of a moderate-to-strong El Niño event that would affect climate conditions in the Peruvian coast areas and could imply the decline of anchovy presence during the first fishing season of 2016. However, since El Niño event would no longer be present in 2017, the growth of the sector would recover in this year with a rate of 27.9 percent as a result of a base effect.

c) In the first three quarters of 2015, the **subsector of metal mining** grew 12.1 percent due to an increased production of copper, zinc, silver, and molybdenum, overcoming in this way the contraction of 1.8 percent recorded in the same period of 2014. Growth in the sector in year 2015 is revised up from 11.7 to 12.8 percent given the increased production of copper at mines Toromocho and Constancia, and the increased production of gold at Antapaccay. In 2016, the sector is estimated to grow 11.2 percent, a similar rate than the one forecast in our previous report.

Copper production grew 18.2 percent in the first nine months of 2015 (vs. 3.3 percent in the same period of 2014). Copper production is expected to reach a growth rate of 22.6 percent in the year due to higher production at Toromocho and Constancia mines, which would meet their annual production targets.

In 2016 copper production is expected to increase driven by the expansion of Cerro Verde and Las Bambas' first production operations. The growth forecast for 2017 considers higher production levels at Las Bambas, increased production



as a result of the expansion of Cerro Verde, and the expansion of Toquepala at the end of that year.

The **production of gold** during the first three quarters of 2015 grew 2.8 percent (vs. -15.1 percent in the same period of 2014), driven by the increased production of mining companies Yanacocha, Barrick, Anama and Antappacay. In 2016 and 2017, gold production would decrease due to the natural depletion of deposits, mainly by the decline of Yanacocha's production.

Zinc production in the first three quarters of 2015 grew 10.1 percent, which contrasted with the 4.8 percent production drop registered in the same period of the previous year. This higher output was due to increased production at mine El Brocal as well as due to the recovery of mineral grades at Antamina. Therefore, because of the increased output of zinc observed year-to date, the growth forecast of zinc production in 2015 is revised up from 7.5 percent in September to 8.5 percent.

Table 10 MINING PRODUCTION (% change)								
	2014	2015*	2016*	2017*				
Gold	-10.4	-1.9	-9.1	-2.2				
Copper	0.7	22.6	22.4	16.7				
Zinc	-2.4	8.5	1.4	0.3				
* Forecast								

d) On the other hand, after having increased by 2.3 percent during the period January - September 2014, production in the **subsector of hydrocarbons** fell 12.3 percent in the same period of 2015. This was associated with a lower production of crude (-16.0 percent) in response to the lower international prices of crude oil and with the stoppage of operations at Pluspetrol's Lot 192 for 15 days. Moreover, lower production of natural gas (-5.1 percent) and natural gas liquids (-12.8 percent) was also observed due to maintenance at Pluspetrol lots.

Because of this, the growth rate estimated for this sub-sector in 2015 has been revised down from -10.9 percent in our previous report to -11.7 percent. On the other hand, the growth forecast for 2016 remains unchanged at 8.1 percent given that this is the year when the compressor plant of Trasportadora de Gas del Perú should start operations.

e) **Manufacturing production** declined 2.5 percent in the first three quarters of 2015. During this period, primary manufacturing production dropped 2.0 percent, mainly due to lower refining of non-ferrous metals and to a lower production of canned and frozen fish products. Lower refining was due to Southern's lower production of copper anodes as a result of the suspension of one of its furnaces, while the decline in the production of frozen seafood products was associated with the reduced availability of scallops.

Moreover, non-primary manufacturing decreased 2.7 percent due to lower activity in the branches oriented to exports as well as due to a lower production of inputs and capital goods.

Because of the lower-than-expected performance of the manufacturing sector, the forecast growth rate of this sector in 2015 has been revised down from 0.4 percent (IR of September) to -1.6 percent.

- f) The growth rate of the construction sector forecast for 2015 has been revised down from -6.2 to -6.5 percent, which is consistent with the slower pace of physical implementation of public works.
- 18. The forecast of GDP growth for 2016 is revised down from **4.2** percent to **4.0** percent due to the slower growth projected in non-primary manufacturing, in line with the slowdown observed in this sector so far this year. The faster pace of growth anticipated in this sector in 2016 relative to 2015 is explained by an increased metal mining production driven by the expansion of copper.

Similarly, the forecast of GDP growth for 2017 is revised down from **5.0** to **4.8** percent. During 2017, growth would be driven by copper metal mining, whose output rate would be associated with a faster pace of production at Las Bambas, with an increased production at Cerro Verde following the expansion of this mine, and with the expansion of Southern's mine of Toquepala.

Expenditure-side GDP

The GDP growth forecast for 2015 has been revised down to 2.9 percent in this report (from a rate of 3.1 percent considered in our Report of September). This forecast is associated with the lower pace of growth of domestic demand without considering stocks. By expenditure components, public investment shows a weak performance with a more negative rate estimated for 2015 than that foreseen in the previous report due mainly to the decline of spending in gross capital formation at the levels of the national government and local governments. In 2016, public





investment would show greater dynamism as a result of a better management of spending by subnational governments.

Another component that maintains a weak performance in this cycle of low growth is private investment, whose growth rate continues to show a negative trend in 2015 as a result of the decline of consumers and investors' expectations and of the further decline of the terms of trade. Considering a gradual improvement in private expectations and the implementation of infrastructure projects, private investment is expected to gradually return to a higher growth rate in the next years.

On the other hand, public and private consumption would maintain a pace of growth similar to that foreseen in our previous report, in line with the behavior both components have shown in the first three quarters of 2015, although both will register lower growth rates than in 2014. An important factor to highlight is the increased accumulation of stock in the first three quarters of the year, whose variation represents 2.9 percent of GDP due to a lag between the production cycle and mining export. However, it is estimated that by the end of 2015 the accumulation of inventories would decrease to 1.6 percent of GDP, in line with the better performance of traditional exports foreseen in this report. Thus, the recovery of the economy in 2015 is associated with a boost from net exports, whose contribution to GDP is estimated at 0.3 percentage points.

Table 11 GDP AND DOMESTIC DEMAND (Real % change)									
	2014		2015*			2016*		2017*	
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15,	IR Sep.15	IR Dec.15
I. Domestic demand	2.2	2.2	2.7	2.7	2.5	3.1	3.0	3.7	3.8
Domestic demand excluding inventories	3.0	3.0	1.1	1.6	1.2	3.7	3.4	4.0	3.9
1. Private expenditure	1.6	1.4	3.0	2.5	2.7	2.5	2.2	3.6	3.7
Consumption	4.3	4.1	3.4	3.5	3.4	3.5	3.5	3.8	3.8
Private fixed investment	-2.3	-2.2	-5.4	-5.5	-5.5	2.0	0.0	4.4	4.0
Change on inventories**	1.0	0.3	2.9	1.3	1.6	0.8	1.3	0.6	1.1
2. Public expenditure	5.9	6.0	0.9	3.9	1.6	6.2	6.8	4.3	4.3
Consumption	8.6	10.1	6.3	6.5	7.4	5.3	5.3	4.0	4.0
Investment	-0.3	-2.0	-12.5	-2.0	-11.2	8.5	10.9	5.0	5.0
II. Net external demand									
1. Exports	-0.4	-1.0	1.1	0.1	1.9	7.0	5.4	9.5	7.9
2. Imports	-2.3	-1.5	1.4	-1.3	0.6	2.6	1.3	4.2	4.0
III. GDP	2.8	2.4	2.6	3.1	2.9	4.2	4.0	5.0	4.8
* Forecast. ** % GDP.									

IR: Inflation Report

	20	14	2015*			2016*		2017*	
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15,	IR Sep.15	IR Dec.1
I. Domestic demand	2.3	2.2	2.7	2.7	2.5	3.2	3.1	3.7	3.8
Domestic demand excluding inventories	3.1	3.0	1.1	1.6	1.2	3.7	3.4	3.9	3.9
1. Private expenditure	1.4	1.2	2.5	2.1	2.2	2.1	1.9	3.0	3.0
Consumption	2.7	2.5	2.1	2.1	2.1	2.2	2.2	2.3	2.3
Private fixed investment	-0.5	-0.5	-1.2	-1.2	-1.2	0.4	0.0	0.9	0.8
Change on inventories	-0.8	-0.8	1.6	1.1	1.3	-0.5	-0.3	-0.2	-0.1
2. Public expenditure	0.9	1.0	0.2	0.7	0.3	1.1	1.2	0.8	0.8
Consumption	0.9	1.1	0.7	0.8	0.9	0.7	0.7	0.5	0.5
Investment	0.0	-0.1	-0.6	-0.1	-0.6	0.4	0.5	0.3	0.3
ll. Net external demand									
1. Exports	-0.1	-0.3	0.3	0.0	0.5	1.7	1.3	2.3	2.0
2. Imports	-0.6	-0.4	0.4	-0.4	0.2	0.7	0.3	1.0	1.0
III. GDP	2.8	2.4	2.6	3.1	2.9	4.2	4.0	5.0	4.8

19. Considering that private investment would recover due to the implementation of projects under concession contracts and considering the investment projects announced, the growth of domestic demand is expected to show a process of gradual recovery in 2016 and 2017 with growth rates of 3.0 and 3.8 percent, respectively. Similarly, public investment will also be another important factor for the recovery of domestic demand and would show growth rates of 10.9 percent and 5.0 percent in 2016 and 2017, respectively. This forecast considers a scenario where regional and local governments improve their spending performance in gross capital formation.

On the exports side, exports would grow 5.4 percent in 2016 and 7.9 percent in 2017, driven by the onset of operations of mining projects, while imports would grow on average at a rate similar to that of domestic demand during 2016-2017. As a result, GDP is expected to grow 4.0 percent in 2016 and 4.8 percent in 2017.

20. Private consumption continued showing a moderate pace of growth until Q3-2015, but with growth rates below the average rate in 2008-2014. Some indicators that reflect the recent trend observed in private consumption are given below:




a. First of all, the consumer confidence index registered an optimistic level of 59 points in November 2015, a higher value than the one it recorded in November 2014 (56 points). Moreover, in the period of January-November, this indicator registered 60 points on average, a higher value than the one recorded in the same period in 2014 (57 points).



b. Secondly, output in mass production manufacturing industries show a growth rate of 2.1 percent in November 2015 and a growth rate of 0.5 percent in October, lower rates than those observed in June and July, when growth rates were above 5.0 percent.



c. The data of Instituto Nacional de Estadística e Informática (INEI) show a recovery in the growth rate of the salaried workforce employed in the private sector in 2015, which increased from 0.8 percent in January to 2.6 percent in November.



d. The rate of unemployment, indicator reflecting the percentage of the total labor force who are unemployed and looking for a paid job, registered 6.3 percent in November 2015, a higher rate than the one recorded in the same month in 2014 (5.9 percent).





e. Credit to individuals, which includes consumer loans and mortgage loans, continues to show a moderate pace of growth. Credit to individuals recorded an annual growth rate of 12.3 percent in October 2015, a similar rate to that observed in the period of January-to-October (12.2 percent).



f. The volume of imports of consumer durables accumulated a decline of 4.5 percent between January and October of this year.





g. Finally, sales of new family cars recorded a drop of 8.5 percent in October compared to the same period in 2014 and accumulated a decline of 3.4 percent in the period January-October 2015.



Considering these indicators, the forecast of the growth of private consumption for 2015 is similar to the one estimated in our previous report. A gradual increase in this rate of growth is expected in the following years, in line with the foreseen evolution of private income.

21. The estimated growth rate of private investment in 2015 remains at -5.5 percent. This negative rate is associated with the delay registered in the expected timeframe of implementation of several investment projects, with the deterioration observed in indicators of expectations, and with lower terms of trade.



The growth rate of private investment forecast for 2016 has been revised downward from 2.0 percent to zero. This forecast considers, on the one hand, a drop in investment in the mining sector, taking into account that Las Bambas project and the expansion of Cerro Verde would be culminating the investment stage to start their production



stage. Together with the implementation of investments in other projects awarded in concession contracts in 2015, investments in sectors such as infrastructure (Line 2 of Lima's Metro, the airports of Lima and Chinchero, Vías Nuevas de Lima, among other projects), the hydrocarbons and energy sector (Gasoducto Sur Peruano, Nodo Energético del Sur, among others), would offset this effect assuming that an improvement would be observed in terms of private expectations. A recovery of private investment is expected in 2017, with a growth rate of 4.0 percent. This recovery would be associated with the momentum provided by the investment projects announced and by those granted in concession. Thus, total fixed gross investment, which includes private and public sector investment, would go from 24.7 percent in 2015 to 24.1 percent in 2017.



- 22. As for private investment in 2015, some indicators reflecting its evolution 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 November. However, the indicator of

business expectations six months ahead recorded a level of 47 points in August, a low level not observed since June 2013. Moreover, business expectations about the economic situation three months ahead showed a level of 45 points in November, a lower level than the one observed early in 2015.









b. The volume of imports of capital goods –indicator of the demand for investment– fell 6.9 percent in October 2015 and accumulated a drop of 8.7 percent between January and October 2015.



c. The survey on expectations of GDP growth shows that all the economic agents expect GDP growth in 2015 to show a similar growth rate than that expected in September. Moreover, all the economic agents expect GDP to show a faster pace of growth in the next two years.

SURVEY ON MACR	Table 13 COECONOMIC EXPECTATION (% change)	NS: GDP GROWTH	
		Expectation about:	
	RI May. 15	IR Sep. 15	IR Dec. 15
Financial entities			
2015	3.0	2.8	2.8
2016	4.0	3.8	3.5
2017	4.8	4.5	4.0
Economic analysts			
2015	3.1	2.8	2.8
2016	4.2	3.7	3.2
2017	5.0	4.5	4.0
Non-financial firms			
2015	3.5	3.0	3.0
2016	4.0	3.5	3.5
2017	4.5	4.0	4.0

23. Private investment projects announced to be carried out in the period of 2016-2017 amount to US\$ 24.6 billion.

Table 14 PRIVATE INVESTMENT PROJECTS ANNOUNCED: 2015-2017 (Million US\$)							
		IR De	ec. 2015				
Sector	IR Sep. 2015	Total Investment	Number of projects				
Mining Hydrocarbons Electricity Industry Infraestructure Other sectors Total	7,954 4,501 2,911 1,384 3,083 3,923 23,756	7,888 3,912 3,016 1,564 3,452 4,784 24,616	27 17 30 10 22 97 203				

According to the Ministry of Energy and Mines, investments in the mining sector in the period of January to October amounted to US\$ 6.2 billion, with investments in the expansion of Cerro Verde (US\$ 1.5 billion) and the expansion of Las Bambas (US\$ 1.2 billion) standing out. It should be pointed out that these projects would begin operations in 2016. The first stage of the expansion of mine Marcona would be carried out in 2016 and the second stage would finish in 2018. In addition to this, the environmental impact assessment (EIA) of Pampa del Pongo (which involves an estimated investment of US\$ 1.5 billion) was approved and the EIA of mine San Gabriel (with an estimated investment of US\$ 450 million) should be submitted in December.

In the hydrocarbons sector, Consorcio Gasoducto Sur Peruano continues carrying out the project aimed at improving energy security in the country and developing the Gasoducto Sur (Mejoras a la Seguridad Energética del País y Desarrollo del Gasoducto Sur). The welding of the secondary pipeline that will take natural gas from Camisea to the City Gates of Cusco and Anta started in November and would soon involve financing for approximately US\$ 4.1 billion.

Infrastructure projects include the progress made in Lima Metro's Line 2, which include the construction of two ventilation wells between Ate and Santa Anita as part of the first stage that concluded in November. Consorcio Consierra Tramo II, led by Spanish company Sacyr Concesiones, has carried out works representing 31 percent of the total investment considered for the implementation of the highway Longitudinal de la Sierra, Section 2 (Ciudad de Dios-Cajamarca-Chiple-Cajamarca-Trujillo-Desvío Chilete-Emp PE-3N).

In the electricity sector, the project Nodo Energético del Sur includes the power plants of Puerto Bravo and Ilo, whose works have been implemented by 95 and 65 percent, respectively. Ilo's power plant would start operating in March 2017. The hydroelectric power plant of Cerro del Águila, which had been implemented by 80 percent in September, should start operations in June 2016. Finally, over 90 percent of physical progress has been carried out in the implementation of the hydroelectric power plant of Chaglla, which would start operating in February 2016.



Investments worth highlighting in other sectors include Grupo Falabella's investment focused mainly in the expansion of new malls and Sodimac, the investment of the Interbank group in the new headquarters of a technical university (UTP) in Lima and in mall Real Plaza Puruchuco, which would open in the second half of 2016, as well as the investment of Grupo Breca in malls Rambla in Lima and Huánuco, and Grupo San Pablo's investment in hotel Aranwa in Lima and in the construction of new clinics in Lima and provinces.

	Table 1 MAIN INVESTMENTS PR	5 OJECTS: 2016-2017
SECTOR	COMPANIES	PROJECT
Mining	China Minmetal Corp Chinalco Shougang Corporation Jinzhao Mining Southern Perú Copper Corporation AQM Copper Bear Creek Mining Corporation Compañía de Minas Buenaventura S.A.A. Southern Perú Copper Corporation Compañía de Minas Buenaventura S.A.A.	Las Bambas Expansion of Toromocho Expansion of Marcona Pampa del Pongo Expansion of Toquepala Zafranal Corani San Gabriel (Ex Chupacapa) Cuajone (Improvement in factory) Tambomayo
Hydrocarbons	Enagas, Odebrecht S.A.C. China National Petroleum Corporation, Repsol Ypf Graña y Montero Petrolera Pluspetrol Perú Corp. S.A. Calidda Gas Natural del Perú Karoon Gas Autralia; Vietnam American	Enhance energy security country and development of pipeline in the south Lot 57: Kinteroni Improvement: Lots III - IV Exploration of Lots 88 and 56 Massive use of Natural Gas Exploration: Lot Z - 38
Electricity	Enersur; Kallpa Generación Quimpac S.A.; Inkia Energy Inevarante Corsán-Corviam; Engevix y Enex Isolux de México;Isolux Ingeniería de España Odebrecht S.A.C. Generación Eléctrica Las Salinas Termochilca S.A.C. Interconexión Eléctrica Isa Perú SA. Endesa	Electric Node in the South of Peru Hydroelectric Power Plant of Cerro del Águila Hydroelectric Power Plant of Acco Pucará Hydroelectric Power Plant of Molloco 220 KV Moyobamba - Iquitos Transmission Line Hydroelectric Power Plant of Belo Horizonte Eolic Park Samaca Thermal Power Plant of Santo Domingo de Olleros - Combined cycle 500 KV Mantaro - Marcona - Socabaya - Montalvo Transmission Line and associated substations Hydroelectric Power Plant of Curibamba
Industry	Corporación JR Lindley Repsol YPF S.A. Mitsubishi; Hochschild Mining PLC Técnicas Reunidas S.A. Grupo Gloria Medrock	Expansion and new plants Expansion of La Pampilla plant Phospates projects Modernization of Talara refinery Investment projects 2011-2016 Production factory of medicine in Lima
Infrastructure	Consorcio Nuevo Metro de Lima Odebrecht S.A.C. Consorcio Consierra II Covisol Autopista Del Norte Covi Perú Dubai Ports World Lima Airport Partners Kuntur Wasi Consorcio Paracas	Line 2 Network Metro Lima (Electric Train) New highways in Lima Longitudinal de la Sierra road project, Section 2 Trujillo-Sullana: Sol Highway Highway network N° 4 Pativilca - Puerto Salaverry Highway network N° 6 Pucusana - Cerro Azul - Ica Muelle Sur (Phase 2) Expansion of international airport (Jorge Chávez) Expansion of international airport (Chinchero - Cusco) Expansion of General San Martín port
Other sectors	Grupo Telefónica Entel Grupo Salinas Grupo Romero Grupo Falabella Besalco S. A. Graña y Montero Vivienda (GMV) Grupo Interbank Grupo Suma	Expansion and facilities of net LTE-4G Development of services 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





Table 16 MAIN PROJECTS TO BE IMPLEMENTED THROUGH CONCESSION ARRANGEMENTS IN 2015-2016

	Estimated Investment
A. Awarded	331
Broadband Installation for Integral Connectivity and Social Development of Avacucho Region	55
Broadband Installation for Integral Connectivity and Social Development of Huancavelica Region	49
Broadband Installation for Integral Connectivity and Social Development of Adjustica Region	42
220 Kv Azangaro - Juliaca - Puno Transmission Line	37
Comprehensive Broadband Connectivity for the Social Development of the Northern Zone of the Country- Lambavegue Region	יב 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	1,603
Massive Use of Natural Gas - Distribution System through a Natural Gas Grid Across The Regions of Apurimac,	
Ayacucho, Huancavelica, Junin, Cusco, Puno and Ucayali	350
Longitudinal of the Sierra road project, Section 4: Huancayo-Izcuchaca-Mayocc-Ayacucho/Ayacucho-Andahuaylas-Puent	e
Sahuinto/Dv. Pisco - Huaytará - Ayacucho	340
Huancayo - Huancavelica Railway	194
Quillabamba Thermal Power Plant	180
Headworks for the Waters of the Chillón River	80
LNG Supply System for the Domestic Market 1/	250
Logistics Platform and Pre gate Parking & Service Center on Callao port 1/	158
Choquequirao Cable Car 2/	43
Huayday Ambara Mining Prospect 3/	8
1/ Suspended process (called) 2/ Awarded date is not defined. 3/ Suspended process (rescheduling)	

At November 2015, PROINVERSION has established 7 concession contracts for the implementation of projects amounting to US\$ 331 million and in 2016 it should establish concession contracts for the implementation of 9 projects amounting to a total investment of US\$ 1.60 billion.



24. The growth rate of **public investment** in 2015 has been revised down from -2.0 percent to -11.2 percent due mainly to sub-national governments' lower performance in the management of spending in investment. Because a scenario in which the rate of expenditure of the executing units foreseen for 2016 and 2017 would be greater than expected in 2015, a growth rate of public investment of 10.9 percent is projected for 2016 –this rate is higher than expected in the previous report due to a statistical effect for expenses accounted for in 2015, but implemented in early 2016–, while a rate of 5.0 percent is projected for 2017.



25. **Real exports** of goods and services grew 1.1 percent in the first three quarters of 2015 due mainly to increased exports of copper, gold, zinc, and greater exports of services. Given the better-than-expected performance of exports, they are estimated to show a growth rate of 1.9 percent in 2015, a higher rate than that estimated in our previous report. This rate in real exports represents an improvement compared to the rate observed in 2014 (-1.0 percent) and an improvement in exports' contribution to GDP growth (0.8 percentage points) relative to 2014.

In 2016 exports would grow 5.4 percent, less than estimated in our previous report due to a base effect resulting from the better performance of copper exports recorded in 2015 than that foreseen in the IR of September. Moreover, as in our previous report, the estimated growth rate of exports in 2016 considers 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 the recovery of production at Antamina. In 2017, exports would show a growth rate of 7.9 percent associated with increased mining exports as a result of the expansion of Toquepala and increased production at Las Bambas.





26. A growth rate of 0.6 percent is estimated for **imports of goods and services** in 2015 in this report. In 2016 and 2017, imports are expected to recover gradually, in line with the projected growth of GDP.





Box 1 DETERMINANTS OF TOTAL FACTOR PRODUCTIVITY (TFP)

Total factor productivity (TFP) summarizes the joint capacity or efficiency of production factors in an economy. The figure below shows the results of accounting potential growth in the period 1980-2014. As we can see, as from the 1990s the growth of TFP starts showing an upward trend and reaches a peak of 3.5 percent in 2006, but shows a slowdown in the last four years. An estimate of the variables that affect TFP is offered herein.



As pointed out by Levine and Renelt (1997) and Loayza et al. (2005), the determinants of TFP growth are classified into four groups: transitional convergence (GDP per capita as a determinant), structural policies (human capital, trade liberalization, public infrastructure, etc.), stabilization policies (stable growth) and external conditions (terms of trade).

In order to find the determinants of TPF for the Peruvian economy, we carried out a regression analysis of TFP growth of possible determinants, using data of the following variables: terms of trade (ToT), structural reforms index (SRI), and GDP growth. The only series with a quarterly frequency is GDP growth; the others have an annual frequency. The rate of structural reforms, collected from Lora (2012), reflects the degree of neutrality of economic policies within five areas of reform: (i) trade policy, (ii) financial policy, (iii) tax policy, (iv) privatization, and (v) labor legislation. The standard deviation of the rate of GDP growth within a year (4 quarters) is taken to have indicators of macroeconomic stability.



The contribution of each determinant based on these results is illustrated in the figure above. The following table shows the results of a regression exercise. Data of the main indicators -growth rate of TFP, terms of trade, and the indicator of structural reforms- are used to estimate the parameters through ordinary least squares. As we can see, macroeconomic instability in the Peruvian economy in the 1980s had a negative contribution to TFP growth, whereas a more predictable economic environment in the last two decades has had a positive contribution to growth.

Moreover, the reforms implemented in the 90s allowed the recovery of TFP during that period. Similarly, we can see that the growth of the terms of trade (ToT) generated significant improvements in TFP during the decade of the 2000, while the fall of this variable explains, in part, the fall in the growth of TFP in 2011-2014. In principle, we should not expect a strong impact in the terms of trade, since we are working with an estimate of potential TFP. This study shows that maintaining macroeconomic stability and making further progress in terms of structural reforms is required to achieve high rates of potential growth.

Growth to the TPF	Coefficient 2/
Constant SRI * dummy 1/ Macroeconomic stability	-0.003 0.170 * -0.013 ***
lol (log deviation)	0.071 **

1/ SRI: Structural Reform Index. Dummy: Variable 'dummy' is 1 since 1992. 2/ *It is significant as of 20 percent. **significant as of 10 percent., and significant as of 5 or 1 percent.

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Box 2 DEMOGRAPHIC BONUS AND EMPLOYMENT

Peru's population has changed a great deal over the past 60 years due mainly to the reduction observed in fertility rates and the increase observed in life expectancy, which has implied significant changes in the age structure of the population.

Peru's population was first characterized by high mortality and fertility levels, which resulted in low population growth rates. In 1950, for example, the rate of child mortality was 161 deaths per 1000 live births and a woman had 6.9 children on average. The process of demographic transition started with a decline in mortality, mainly in child mortality, which dropped 27 percent between 1950 and 1970. By 2000, it had fallen to 79 percent and infant mortality levels registered 34 deaths per 1000 live births. In 2014, the country's child mortality rate was 17 per thousand. This reduction in mortality was not coupled by an immediate reduction in fertility. It was only in the mid-sixties when fertility began to decline (the rate fell from 6.8 children per woman in 1964 to 2.9 children in 2000 and to 2.5 children in 2014).



The reduction of mortality and fertility rates has had an impact on the population's age structure. A drop in infant mortality results immediately in a growth in the population group aged 0-to-4 years, who will then become part of the group aged 5-to-9 years and so on. Improvements in health conditions not only resulted in lower infant mortality, but also in health improvements in other age groups so life expectancy increased. Finally, the decline in fertility observed subsequently also had an impact in the group aged 0-to-4 years because the growth rate in this group declined.



This increase in life expectancy and the changes observed in the age composition of the population are reflected in the change seen in the population pyramids since 1950. The graphs below show clearly how Peru has gone from being a country with a broad child population base in 1950 to being a country in which the population pyramid concentrates more in the adult population in 2015.



Demographic Bonus or Demographic Window of Opportunity

The change in the age structure of the population generated what is called the demographic bonus, a concept that refers to a situation in which the proportion of working-age population –15 to 64 years of age– grows steadily relative to those typically not in the labor force (people under 14 years of age and over 65 years of age), as a a result of which the ratio of dependency –the proportion of people depending economically on those who are in working ages– falls to rise thereafter as a result of the increase in the proportion of elderly people.

In Peru, the proportion of the population under 15 years of age and older than 64 years of age maintained a growing trend until 1970 with a rate of 47 percent of total population, which implied a dependency ratio of 91 percent. Since 1970, however, the number of dependent population began to decline and, according to INEI projections, people in this age group would reach its lowest level (32.6 percent) in 2030, which is the year when the dependency ratio would reach its lowest level.

The following graph shows the changes observed in terms of age structure, separating demographic dependency into its components (children and the elderly). The ratio of child dependency falls since 1970 and will continue to do so



until 2050, while the dependency ratio of the elderly shows a growing path which will intensify around 2030. These conditions have generated the so-called demographic bonus, which started in 1970 in Peru and will last until 2030, when the dependency ratio is foreseen to start rising again.



Different studies have indicated that this reduction in the dependency ratio creates a "demographic window of opportunity" for development due to the greater production generated as a result of temporarily having a higher proportion of working-age population. An example of this would be the experience of Southeast Asia, which showed high growth between 1960 and 2000.

Employment

As pointed out by Saad et al. (2008)¹, the benefits associated with this period are not automatically given. They depend on the adoption of policies that encourage productive investment, increase employment opportunities, and promote a stable social and economic environment. Authors point out particularly the need of strong investment in human capital, especially in the education of young people, so that the older generations may also become qualitatively more productive. In other words, the demographic bonus is a situation that combines a large, young and skilled workforce with a relatively small proportion of dependent population.

In this context, Saad points out that the demographic bonus is an opportunity to increase investment in education; for example, to increase investment in secondary education given the high social costs that the employability of young people without secondary education has in terms of the labor market. In Peru, the percentage of the working-age population with only elementary or primary education has dropped by 5.6 percentage points since 2004, increasing the percentage of population with secondary and higher education. However, this increase in coverage is required to be also coupled by an improvement in the quality of education.

¹ Saad, Paulo; Miller, Tim; Martínez, Ciro and Holz Mauricio (2008), Juventud y bono demográfico en Iberoamérica, Santiago de Chile, CEPAL.



In addition to this, it should be pointed out that middle income population has also grown significantly in Peru. Using the World Bank's definition of middle class², one can see that this sector of the population has grown from 16.4 percent in 2005 to 36.9 percent in 2014. This increase in the population with middle income levels is an important complement to the opportunity of taking advantage of the demographic bonus since it increases the demand for goods and services associated with human capital (health, education) that were previously out of their reach.



Moreover, changes have also been observed in the distribution of the population in urban and rural areas during the last decades. From being a country predominantly rural in the 1940s (64.6 percent of the population lived in rural areas), today Peru is predominantly an urban country, the degree of urbanization reaching 76.7 percent in 2015. The increased concentration of population in urban areas allows a better and more efficient provision of services as well as greater market integration, which contributes to increase productivity.

² Low income, middle income, and high income classes have been defined using the ranges proposed by the World Bank. The limits were defined based on the purchasing power parity in dollars in year 2005. If a household does not have a monthly income of S/ 263 per household member in 2014, it is located at the bottom of the income pyramid. Middle class refers to households with incomes between S/ 659 and S/ 3,292 per household member.





There is still a period of 14 years before the demographic bonus ends (2030). In this period, 8.4 million children are estimated to be born, so Peru can still take advantage of this window of opportunity. In order to do so, several actions are required:

- Better quality education. An effective increase in human capital is required in the short term to improve labor productivity and economic growth. Even though progress has been made in this regard in recent years in terms of increasing the coverage of education, they are still significant gaps in terms of quality. This is evident in the results of PISA tests, where Peru ranks way behind the advanced economies. Improving the quality of education requires improving teaching quality by raising the training standards of the new teachers that will replace those who will retire in the near future, as well as allowing other professionals to be part of the teaching body to allow the quality of education gap to close more rapidly.
- Improve the quality of life of newborns and infants with nutrition and early stimulation programs that will
 allow them to have an optimum neurological development. Chronic child malnutrition and anemia rates
 should be drastically reduced through programs such as the provision of micro-nutrients, which has been an
 effective program in the past. This will allow children to go through the education levels without limitations.

- Maintain high investment rates. Approximately 250,000 workers on average will enter the labor market each year until 2030, which requires a permanent expansion of economic activity and productive capacity. Considering an elasticity of employment to GDP of 0.4, GDP should grow at an annual rate of 4.0 percent to absorb the new labor supply.
- Increase flexibility in the labor market. Opportunities for economic growth will rise if new workers are integrated into the formal sector, which has a substantially higher productivity than the informal sector. Increasing productivity not only requires skilled workers, but also enough labor flexibility to encourage companies to hire new workers. Peru currently lags behind in the indicators of labor flexibility in international competitiveness indices. This lack of flexibility discourages hiring new workers and at the same time generates low growth of labor productivity because workers are not necessarily assigned to do what they are most efficient at doing.
- Review the sustainability of unfunded public pension systems. Projections show a progressive increase in the population of over 65 years of age, which means that by 2050, this age group would represent 25 percent of the working age population, that is, a dependency ratio 2.5 times greater than the current ratio. This would complicate the burden on pensions based on unfunded systems unless pension contributions are substantially increased. Otherwise, fiscal sustainability will be affected.



III.Balance of Payments

Current Account Balance

- 27. With information as of September, in the first nine months of the year the current account of the balance of payments recorded a deficit of US\$ 6.4 billion, a slightly lower deficit than the one observed in the same period in 2014 (US\$ 6.7 billion). The effect of the lower prices of exports in 2015 relative to 2014 (-14.9 percent vs. -6.9 percent) was more than offset by an increase in the volume of traditional exports (especially mining exports), by lower factor income (due to the decline of earnings), and by a decrease in imports of inputs and capital goods (which reflected both economic slowdown and the lower prices of crude oil and oil derivatives). Moreover, the volume of exports of non-traditional exports continued showing negative rates, the lower demand of countries in the region standing out.
- 28. The deficit in the current account of the balance of payments at end-**2015** would be equivalent to 4.1 percent of GDP (vs. 4.0 percent in 2014), higher than that estimated in the IR of September (3.2 percent). The deterioration in the deficit estimated for this year considers mainly the impact of the lower commodity prices observed in markets during the last quarter of the year. Furthermore, in line with market projections and considering the demand-supply balances available for the main commodities, the prices of the latter are expected to remain around their current levels afterwards (below those estimated in the September IR). Therefore, the projected current account deficit in **2016** has been revised up from 3.1 percent to 3.6 percent.

A strong increase is projected in mining exports in **2017** as a result of higher production levels of copper at important mines such as Las Bambas and Cerro Verde and as a result of a slight improvement in the terms of trade (1.7 percent), which would lead to a reduction in the balance of the current account. Because of this, the deficit is expected to decline to 2.6 percent this year (2.3 percent was estimated in the previous report)

Table 17 BALANCE OF PAYMENTS (Million US\$)											
		2014		2015	÷	2016*			2017		
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15		
I. CURRENT ACCOUNT BALANCE	-6,725	-8,031	-6,419	-6,081	-7,759	-6,222	-7,005	-4,949	-5,347		
% GDP	-4.5	-4.0	-4.5	-3.2	-4.1	-3.1	-3.6	-2.3	-2.6		
1. Trade Balance	-1,262	-1,276	-2,777	-2,107	-2,857	-2,036	-2,574	46	-588		
a. Exports	29,635	39,533	24,924	33,767	33,708	34,573	33,300	38,904	37,338		
b. Imports	-30 897	-40 809	-27,701	-35,874	-36,565	-36,609	-35,875	-38,859	-37,926		
2. Services	-1,309	-1,800	-1,291	-1,755	-1,708	-1,582	-1,458	-1,618	-1,488		
3. Investment income	-7,276	-9,328	-4,826	-5,636	-6,635	-6,112	-6,560	-7,007	-6,982		
4. Current transfers	3,122	4,374	2,475	3,418	3,441	3,507	3,588	3,631	3,711		
Of which: Remittances	1,952	2,639	2,003	2,851	2,763	2,924	2,890	3,018	2,978		
II. FINANCIAL ACCOUNT	6,173	5,853	6,280	5,529	8,489	8,222	8,005	5,949	5,847		
Of which:											
1. Private Sector	6,380	5,859	3,897	2,524	4,170	4,214	3,982	4,309	4,183		
a. Long-term	3,888	6,490	5,971	3,187	6,444	4,214	3,981	4,250	4,183		
b. Short-term ^{1/}	2,492	-631	-2,074	-664	-2,274	0	0	59	0		
2. Public Sector ^{2/}	-208	-6	2,384	3,005	4,319	4,008	4,024	1,639	1,665		
III. BALANCE OF PAYMENTS (=I+II)	-552	-2,178	-138	-552	730	2,000	1,000	1,000	500		
Memo:											
Long-term external financing of the											
private sector (% GDP) 3/	6.8	7.2	5.4	3.9	5.0	3.8	3.9	3.9	4.0		
GDP (Billion US\$)	150.7	202.7	142.3	192.7	191.5	200.5	192.1	215.2	203.2		

1/ Includes net erros and omissions.

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

* Forecast. IR: Inflation Report.

29. Long-term financing from private sources is expected to represent 4.0 percent of GDP in 2017. This level is lower than that 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 the interest rate adjustment implemented by the Federal Reserve in its meeting of December. However, private long-term financing would continue to exceed the gap in the current account in the period 2015-2017, foreign direct investment being the main component of this financing.





30. The decline in the current account deficit in 2015-2017 is consistent with a lower participation of investment, which would fall from 25.8 percent in 2014 to 23.9 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.

		SAVING	Table 55 -INVES (% GD	18 TMENT (P)	GAP				
	20	14		2015*		201	16*	20	17*
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15
1. Gross fixed investment	25.0	25.8	23.4	24.2	24.0	24.2	23.8	24.2	23.9
 2. Net domestic savings ¹/ a. Private b. Public 	20.5 13.6 7.0	21.9 16.6 5.2	18.9 14.1 4.8	21.1 18.1 3.0	20.0 17.2 2.8	21.0 18.3 2.7	20.1 17.8 2.3	21.9 19.0 2.9	21.2 18.8 2.5
3. External savings	4.5	4.0	4.5	3.2	4.1	3.1	3.6	2.3	2.6
1/ Excluding change on inventories. *Forecast. IR: Inflation Report.									

Trade Balance

31. Reports on global trade have been reflecting the dynamics of global growth pointing out that trade has been growing at rates far below the levels observed prior to the financial crisis and below its historical growth rates. This is reflected both in lower prices (affected also by the deflationary pressures arising from the appreciation of the dollar and low oil prices) and in volumes.





32. In January-September 2015, the trade balance showed a deficit equivalent to US\$ 2.8 billion. This deficit, which is higher than the one recorded in the same period in 2014, reflects a decrease of 15.9 percent in exports, while imports show a contraction 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 observed in this period.

This has been the general conduct in the region, where a decline has been observed in both exports of traditional products and exports of non-traditional products.





The decrease observed in exports in Peru and in Latin America between January and September of this year is explained by a deterioration of global external level conditions, and particularly by the deterioration of conditions in China, rather than by the depreciation of their currencies. In previous years, China's increased growth boosted the demand for raw materials and thus, for Peruvian and Latin American exports in general. However, in the period of January - October of this year, the trade balance has shown a deficit of US\$ 2.95 billion, which reflects a decrease in exports of US\$ 5.12 billion compared to the same period of 2014.

This lower dynamism of global demand has also been reflected in the drop of the value of exports in several Latin American countries.

33. The forecast of the trade balance in **2015** has been revised down from a deficit of US\$ 2.1 billion (IR of September) to a deficit of US\$ 2.9 billion in this report in a context of lower terms of trade. The revision takes into account the effect of lower non-traditional exports associated with an anticipated greater deterioration in the volumes of chemical products and textiles, as well as with a lower decline in imports

of inputs and supplies. The effect would be in part offset by higher volumes of traditional exports such as copper and gold.

In **2016** the deficit in the trade balance is expected to be slightly lower to that observed this year due to greater volumes of exports of both traditional goods (mainly copper) and non-traditional goods.

Traditional exports would grow considerably in **2017** due to the greater production capacity of several major copper projects, the stabilization of the prices of the metals Peru exports, increased volumes of fishmeal, and higher exports of non-traditional goods.

		TR	Table ADE BA	19 L ance JS\$)						
	2	2014		2015*		20	16*	201	17*	
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	
Exports Of which:	29,635	39,533	24,924	33,767	33,708	34,573	33,300	38,904	37,338	
Traditional products	21,009	27,685	17,055	22,492	22,915	22,903	22,289	26,378	25,720	
Non-traditional products	8,481	11,677	7,804	11,113	10 689	11,470	10 806	12,327	11,413	
Imports Of which:	30 897	40 809	27,701	35,874	36,565	36,609	35,875	38,859	37,926	
Consumer goods	6,512	8,896	6,414	8,686	8,704	8,992	8,633	9,391	8,988	
Inputs	14,403	18,815	12,096	14,733	15,641	14,202	14,220	15,218	15,170	
Capital goods	9,835	12,913	8,923	11,620	11,791	11,903	11,453	12,736	12,201	
Trade Balance	-1,262	-1,276	-2,777	-2,107	-2,857	-2,036	-2,574	46	-588	

* Forecast. IR: Inflation Report.

			Tal TRADE (% c	ole 20 BALANC Change)	E				
				2015*		20	16*	20	17*
		2014	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15
1.	Value:								
	Exports	-7.8	-15.9	-14.6	-14.7	2.4	-1.2	12.5	12.1
	Traditional products	-12.3	-18.8	-18.8	-17.2	1.8	-2.7	15.2	15.4
	Non-traditional products	5.5	-8.0	-4.8	-8.5	3.2	1.1	7.5	5.6
	Imports	-3.4	-10.3	-12.1	-10.4	2.0	-1.9	6.1	5.7
2.	Volume:								
	Exports	-1.0	-1.1	-1.2	0.2	7.2	5.2	10.0	8.3
	Traditional products	-3.2	1.3	-0.9	3.4	8.4	6.1	11.7	10.5
	Non-traditional products	6.2	-5.5	-2.2	-6.1	4.4	3.4	6.1	4.1
	Imports	-1.9	-0.8	-3.1	-1.3	2.2	0.8	4.0	3.8
3.	Price:								
	Exports	-6.9	-14.9	-13.4	-14.9	-4.5	-6.1	2.3	3.5
	Traditional products	-9.4	-19.9	-18.2	-20.0	-5.9	-8.3	2.7	4.4
	Non-traditional products	-0.7	-2.6	-2.4	-2.6	-1.1	-2.2	1.3	1.4
	Imports	-1.5	-9.7	-9.4	-9.2	-0.1	-2.7	2.0	1.8
* F	orecast.								

IR: Inflation Report.





34. Exports in **2015** would decline by 14.7 percent (vs. 14.6 percent estimated in our previous report), mainly due to the decrease of traditional exports. A greater contraction in the volume of non-traditional exports is estimated in this report, particularly in exports of chemical products and textiles due to economic slowdown in Latin America, one of the main destination markets for these products.

On the other hand, in **2015** traditional exports would grow at a higher rate than estimated in the Inflation Report of September due mainly to the trend observed in exports of fishmeal and copper in the last quarter.

35. A recovery is expected in mining exports in the **2016-2017** forecast horizon, and especially in copper exports which would reflect the positive impact on copper production of 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. In addition to this, a greater output is also foreseen in the fishing sector considering the normalization of climate conditions towards the end of 2016.

In **2016** and **2017** non-traditional exports would gradually grow as a result of the recovery of prices and as a result of increased demand, in line with the recovery of growth in our main trading partners.



Between 2012 and 2015 the value of exports has dropped by US\$ 13.7 billion, this figure being explained by a 83 percent reduction in prices.





36. In **2015** the level of imports would amount to US\$ 36.6 billion, a higher figure than that estimated in the Inflation Report of September. The forecast has been revised on the upside due mainly to the higher volumes of imports of industrial inputs (up from -3.9 to 1.1 percent) and to higher imports of crude oil and oil derivatives (up from 9.2 to 13.2 percent), in line with the persistent decline observed in the international price of crude.

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





Terms of Trade

At October 2015, Peru's terms of trade index registered an average level of 92.85 (5.8 percent lower than the one recorded in the same period of 2014). The export price index fell 14.9 percent while the import index fell 9.7 percent in the same period.

In general terms, both export and import prices have shown downward trends so far this year, affected by the appreciation of the dollar, fears of a lower demand from China, and the fall observed in the international price of oil. However, export prices have been affected more as a result of the significant drop registered in the prices of precious and industrial metals (copper, zinc, and gold). On the imports side, the price of oil also dropped quite significantly, while the prices of food products remain affected by downward pressures due to abundant global supply.

In this context, the terms of trade are estimated to decline 5.8 percent in 2015, 4.0 percent in 2016, and to start showing a correction in 2017 with a growth rate of 1.7 percent.

There are both risks on the downside in terms of factor prices and risks on the upside in terms of the international prices associated with a "super" El Niño event. On the one hand, a warmer winter in the northern hemisphere could reduce the demand for oil which would generate a greater accumulation of inventories and lower prices. On the other hand, an episode of floods in South America could imply losses in grain crops.

Table 21 TERMS OF TRADE 2013 - 2017 (Annual average data)										
	2042	2044	20)15*	20	16*	2017*			
	2013	2014	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15		
Terms of Trade	-5.7	-5.4	-4.4	-5.8	-4.5	-4.0	0.2	1.7		
Price of exports	-5.7	-6.9	-13.4	-14.6	-4.5	-6.4	2.3	3.5		
Copper (US\$ cents per pound)	332	311	252	251	234	215	237	216		
Zinc (US\$ cents per pound)	87	98	90	88	83	75	84	77		
Lead (US\$ cents per pound)	97	95	82	81	79	75	80	77		
Gold (US\$ per ounce)	1,411	1,266	1,163	1,161	1,126	1,075	1,137	1,083		
Price of imports	0.1	-1.5	-9.4	-9.4	-0.1	-2.5	2.0	1.8		
Oil (US\$ per barrel)	98	93	50	49	48	46	52	49		
Wheat (US\$ per ton)	266	243	191	187	193	182	211	203		
Maize (US\$ per ton)	235	155	143	141	155	149	163	159		
Sovbean oil (US\$ per ton)	992	812	668	662	626	623	645	644		

IR: Inflation Repo Source: BCRP.

It should be pointed out that the terms of trade are about 60 percent above their level in 2001, which is the year after which a price boom started.







Copper

38. The price of **copper** dropped 25.2 percent in the first eleven months of 2015, closing with a monthly average price of US\$ 2.18 per pound in November. The price of copper decreased rapidly until it reached a minimum low of US\$ 2.083 per pound on December 7.

The downward pressures on the price of copper are explained by prospects of a lower demand, particularly due to the strong slowdown registered in China's demand as well as due to the decline in the demand of Japan and the United States. The rapid adjustment in China's consumption of copper was mainly associated with lower investment in key sectors that affect demand, such as the real estate sector and energy grids. The former was affected by the reversal of the bubble in this sector, while investment in the latter was halted due to investigations of corruption in electric power companies. The contraction in demand was accompanied by an increase in copper production, despite the mine production cuts announced by the major mining companies given the fall of prices. All of this has reflected in an increase in global inventories.

China's demand in the forecast horizon would be revised down given that prospects of a higher demand have declined. In addition, supply is foreseen to increase due to the onset of production of several major projects next year. Copper production is expected to grow, especially in the next two years, due mainly to mining projects in Peru and Zambia. In line with these developments, the price of copper in the forecast horizon is revised on the downside.



A moderate recovery could still be observed associated with a likely recovery of China's demand as a result of the stimulus measures that the Chinese Government would be implementing, support to the expansion of credit for industrial activity and increased investment in infrastructure in the electricity sector being especially key factors. Further supply cuts to balance the market are also quite likely to be observed, as evidenced in the supply cut announced recently in China by the major producers of refined copper for 2016. The downside risks are associated with the possibility that China's copper consumption continues to deteriorate and with the possibility that the Fed's cycle of interest rate rises may be more aggressive.

Zinc

39. The average price of **zinc** dropped 27.1 percent in the first eleven months of the year, reaching a monthly average price of US\$ 0.72 per pound in November 2015. It is worth mentioning that the drop in the price of zinc intensified in November, as a result of which this price decreased from a maximum price of US\$ 1.09 a pound on May 6 to a minimum low of US\$ 0.67 per pound on November 19.

The fall in the price of zinc was supported by a global decline in the demand for zinc, especially in the U.S. and Chinese markets. Much of the reduction in consumption is explained by a lower use of zinc to galvanize steel as a result of lower demand in the sector of construction and the automobile industry, as well as by the replacement of zinc using other methods to prevent steel corrosion. The slowdown in the global demand for refined zinc has taken place in a context of a global oversupply observed in the first nine months of the year, although³ the supply cuts announced recently as well as the close of mine Century in Australia and mine Lisheen due to their exhaustion would generate market pressures when demand begins to stabilize.



In this context, because the global demand for zinc has weakened further, the price of zinc in the forecast horizon has been revised down. The forecast shows downside risks associated with an increased slowdown in the Chinese economy, while risks

³ The International Zinc and Lead Study Group (ILZSG) reported a global supply surplus of 188 thousand tons in the first nine months of the year due to the stagnation of global demand, associated especially with the contraction of China's demand.





on the upside risks are associated with a rapid recovery of global consumption in a context of supply cuts resulting from the closure of large mines.

Gold

40. The price of **gold** fell 9.6 percent in the first eleven months of 2015, closing November with a monthly average price of US\$ 1,086 per troy ounce. The downward trend in the price of gold steepened in November when it reached a minimum low price of US\$ 1,057 per troy on November 27.

The price of gold continued showing a downward trend over the past three months, affected by expectations that the Fed would initiate its cycle of interest rate hikes, this concern adding onto the fact that gold does not generate yields and that this could favor assets invested in dollars. In addition, the demand for gold was also affected by the depreciation of the currencies of the emerging market economies, as well as by fears of deflation associated with the fall in the price of oil which reduced the appeal of gold as a hedge asset. Despite this, the drop in the price of gold was offset by a recovery in the physical demand for this metal in the third quarter of the year.

The price of gold in the forecast horizon 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 improving.



Crude Oil

41. The price of **WTI oil** fell 28.6 percent in the first eleven months of 2015 and recorded a monthly average price of US\$ 42.7/barrel in November.

This downward trend is associated with a global oversupply of crude resulting mostly from increased global production. The OPEC member countries have continued producing over their quota, competing to maintain their market share, the aim of this strategy being that the oil producers with the higher costs will be the ones to reduce their supply (namely the producers of non-conventional crude oil). Moreover, some non-OPEC countries –i.e. Russia– have also continued increasing their oil production, although this has been in part offset by production drops in countries with high production costs, like Canada, for example. Furthermore, it is worth pointing out that the demand for oil has increased in response to low prices, but at a slower pace of growth than the growth of supply.

This surplus has resulted in an increase of global inventories of crude oil. The United States Energy Information Administration (EIA) estimates that inventories will continue to rise even in early 2016, although at a slower pace.

In this context, the forecast of the price of WTI oil is revised down relative to our previous Inflation Report. However, both downward and upward risk factors remain high. The downside risks are associated with a rapid return of Iran's production to the market, with the possibility of a decline in the demand as a result of a less cold winter in the Northern Hemisphere due to El Niño, with the possibility that the U.S. production does not decrease as estimated, and with a decline in China's consumption. On the other hand, risks on the upside include a rapid reduction of production in non-OPEC countries, which is reflected in the reduction in the number of oil rigs operating.



Maíz

42. In November, the average international price of **maize** was US\$ 140.9 per ton, 2.6 percent higher than the average price in August 2015. Thus, this price accumulates a reduction of 4.1 percent in the year.



This partial recovery in the price of maize is explained by the lower harvest yield estimated in October by the U.S. Department of Agriculture (USDA) for the 2015/2016 crop year (due to a reduction in the estimated area). However, this price recovery was offset in November by a good pace of harvests in the United States, which resulted in a well-supplied market, as well as by lower demand for the ethanol industry.

Based on the reasons discussed above, the price of maize is estimated to show lower levels than those foreseen in our previous report. This forecast is consistent with an expected lower demand from China.



Wheat

43. In November, the average international price of **wheat** showed a drop of 9.3 percent compared to August and closed with an average price of US\$ 154.9 per ton, thus accumulating a reduction of 33.1 percent in the year.

The price of wheat dropped mainly after the publication of the USDA reports of global demand and supply in the months of October and November confirmed record levels of global final inventories, as well as China's lower imports of wheat from the USA compared to 2014. Other factors that pushed the price down were the rains that fell over the southern part of the U.S. plains and contributed to the development of these crops and the appreciation of the dollar against the euro, which reduces U.S. exports' competitiveness with respect to European exports.

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

44. The average price of **soybean oil** in November was US\$ 579.0 per ton, 8.2 percent lower than in August 2015, as a result of which this price accumulates a decline of 18.7 percent in the year.

The international price of soybean oil was affected by the lower prices of crude oil and by fears of a lower demand from China, as well as by a good development of crops in the U.S. and South America (record harvest is expected in Brazil). Another factor that generated downward pressures on this price was forecasts of a greater harvest in the new crop year (the USDA estimated a new record of 108.35 million tons).

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




External Financing

45. In **2015**, the net flow of private long-term external financing would total US\$ 6.4 billion, with residents' investments abroad amounting to US\$ 2.0 billion and non-residents' investments in the country amounting to US\$ 8.5 billion. This level of net financing is higher than the one estimated in our previous report. This revision estimates mainly higher flows of foreign direct investment.

A more gradual net inflow of long-term capital than the one estimated in our previous report is foreseen for **2016-2017**, with positive net flows amounting to US\$ 4.0 billion (2.1 percent of GDP) and US\$ 4.2 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 the forecast for this period.

Table 22 FINANCIAL ACCOUNT OF THE PRIVATE SECTOR (Million US\$)									
	<u>2014</u> <u>2015*</u> <u>2016*</u>					2017*			
	JanSep.	rear	JanSep.	IK Sep.15	IK Dec.15	ік sep.15	IK Dec.15	IK Sep.15	IK Dec.15
A. Long-term % GDP	3,888 2.6	6,490 3.2	5,971 4.2	3,187 1.7	6,444 3.4	4,214 2.1	3,981 2.1	4,250 2.0	4,183 2.1
1. ASSETS	-3,634	-4,548	-1,199	-2,366	-2,045	-1,492	-1,516	-2,611	-2,374
2. LIABILITIES Foreign direct investment	7,522	11,038	7,170	5,553	8,490	5,707	5,498	6,861	6,557
in the country	5,377	7,885	6,578	5,935	7,879	4,867	4,625	4,930	4,847
Non-financial sector	1,731	3,023	1,369	-37	1,388	839	872	1,931	1,709
Long-term loans	559	1,078	1,657	185	1,693	-573	-498	180	15
Portfolio investment	1,172	1,945	-288	-222	-305	1,412	1,370	1,751	1,695
Financial sector	414	131	-777	-343	-777	0	0	0	0
Long-term loans	-312	-593	-772	-338	-768	-500	-500	-550	-550
Portfolio investment	726	723	-5	-5	-9	500	500	550	550
B. Short-term ^{1/}	2,492	-631	-2,074	-664	-2,274	0	0	59	0
C. Private Sector (A + B)	6,380	5,859	3,897	2,524	4,170	4,214	3,982	4,309	4,183
1/ Includes net erros and omissions. * Forecast.									

- IR: Inflation Report.
- 46. The positive flow expected in the **financial account of the public sector** in the next 3 years (nearly US\$ 10.0 billion) reflects major disbursements destined to finance several investment projects such as the expansion of the refinery in Talara and the development of Lima's Metro Line 2 in this period, as well as the treasury's funding needs.

- 47. At end-2014, the private sector' external indebtedness 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.
- 48. 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 23 NIR INDICATORS							
As a % of:	2005	2010	2015*				
GDP Short-term external debt ^{1/} Short-term external debt plus Current account deficit	19.0 292.7 385.5	29.7 506.9 360.2	32.5 575.2 335.2				

 $1/\,\mbox{Includes short-term debt balance plus redemption (1-year) of private and public sector.$ * Forecast.



Box 3 RECENT TRENDS OF BONDS ISSUED BY LATIN AMERICAN COMPANIES IN INTERNATIONAL MARKETS

One of the effects of the quantitative easing (QE) policies implemented by the central banks of developed countries between 2010 and early 2013 has been the rapid increase observed in capital flows to emerging economies in the form of a demand for private sector bonds⁴. This box describes the recent evolution of these bond issuances in a representative group of Latin American countries (Argentina, Brazil, Colombia, Chile, Paraguay, and Peru⁵) and discusses the financial statements of non-financial issuers with the aim of identifying a potential effect on the balance sheets of these companies due to the higher exchange rate volatility observed since May 2013.



The balance of bonds issued in the international bond market by financial companies and corporations of these countries has increased significantly, from US\$ 32.96 billion in 2005 to the balance of US\$ 132.45 billion observed today. In annual terms, bond issuances started growing more significantly in 2010, due mainly to the dynamism of bonds issued by Brazilian companies, in line with the rest of the emerging markets⁶. Although Brazilian and Chilean companies stand out as the main issuers of bonds in the last 10 years (with a share of 48 and 21 percent, respectively), a growing participation of Peruvian companies that use the external market to finance their activities has been observed since 2012 (the share of the latter has increased from 14 percent of total bond issuances in 2012 to 29 percent in 2015).

⁴ See Lo Luca et al. (2014) for a counterfactual analysis that shows that the amount of bonds issued in the emerging economies would have been half of what it actually was had it not been for the QE programs implemented in the developed countries.

⁵ Companies in Bolivia, Ecuador, Uruguay, and Venezuela have not yet obtained funding through the issuance of bonds in external markets.

⁶ See Branimir Gruic and Philip Wooldridge (2013), "Who is issuing international bonds denominated in emerging market currencies", BIS.

This trend would be reflecting not only changes in global financial conditions –which were highly expansionary until April 2013 and allowed Latin American companies to obtain external financing with very favorable conditions (both in terms of the return rates required by investors and in terms of the size of bond issuances)–, but also a better perception of the economic fundamentals which enabled such a development in the countries of the region, including, for example, better country risk ratings and high economic growth rates in the region, especially until 2013.



In addition to the characteristics mentioned above, most of the bonds issued have been bonds with a fixed coupon rate (86 percent), which offsets the impact that future changes in international interest rates could imply on the companies' financial costs. In addition to this, the issuing companies have high credit ratings (according to Fitch, 67 percent of the bonds issued has a rating higher than BBB), and the issuances include repurchase options that allow issuers to pay their debt in advance when market conditions allow them to get funding at lower rates.

An important characteristic which limits the risk of re-financing in this segment of the bond market is the maturity of the bonds issued, which has increased from 8 to 12 years between 2004 and 2015. Moreover, an important part of the bonds issued are backed by amortization funds that ensure the payment of the capital to the bondholders.

In the particular case of the bonds issued by Peruvian companies, another factor that reduces the risks of this market is that most maturities are distributed as from year 2020, so the potential pressure to refinance them is low in the short term. It is also worth pointing out that, according to a survey conducted recently by the BCRP, a significant part of the resources obtained through the issuance of bonds was used in the implementation of investment projects and in debt restructuring. Moreover, 48 percent was used to complement FDI (US\$ 5.30 billion), 40 percent was used to restructure debt (US\$ 4.42 billion), 6 percent was invested abroad (US\$ 625 million), and the remaining 6 percent was used in other investments (US\$ 611 million). Therefore, the growth trend of issuing bonds abroad has not resulted in a significant increase in the leverage of issuing companies in Peru.



MAIN CHARACTERISTIC OF BONDS ISSUED IN THE INTERNATIONAL MARKET (% annual issued)									
	2	013	20	14	20	015			
	LATAM	Peru	LATAM	Peru	LATAM	Peru			
Currency									
Foreign currency Local currency	93 7	94 6	92 8	100 0	98 2	93 7			
	47								
Spread with Treasury	4.7 258	4.8 175	5.4 260	5.9 383	5.5 296	5.6 319			
Sector*									
Tradable	27	31	23	19	29	86			
Non-tradable	34	40	56	55	56	6			
Financial	39	29	21	27	15	8			
Coupon rate									
Fixed	96	100	94	87	92	94			
Variable (Inc. tiered)	4		6	13	8	6			
Original term									
<5 years	22	100	18	11	14	24			
6-IU years	69		54	46	53	21			
>20 years	0		22	23	10	33 17			
In perpetuity	2		5	20	17	47			
	L								
Credit rating	76	0.2	70	62	70	100			
Investment grade	76	82	/9 21	63 27	/9 21	100			
speculative grade	24	10	21	57	21				
Guarantee		_				_			
Guaranteed (Secured)	1	2	13	25	13	6			
Non-guaranteed (Unsecured)	93	95	83	58	/9	94			
Supordinate	0	5	4	17	õ	0			
Repurchase option									
Callable	77	85	81	89	65	93			
Non Callable	23	15	19	11	35	7			
Sinkable	8	26	30	26	12	6			

* Tradable sector: Food, agribusiness, beverages, footwear, pulp, industrial, mining, paper, fishing, pharmaceutical and textile. Non-tradable sector: automotive, auto parts, cement, construction, communications, commerce, entertainment, energy, electronic, equipment, logistics, machinery, retail, tourism, transport and telecommunications.

USE OF FUNDS OF PERUVIAN BONDS ISSUED IN THE INTERNATIONAL MARKET (Million US\$)										
	2014	2042	2042	2014	2045	Total				
Use	2011 2012 2013 2014	2015	Mill.	%						
Complement EDI	320	950	2 151	724	1 155	5 300	18			
Debt restructured	520	550	1 960	1 6 7 0	200	3,300	40			
		000	1,009	1,079	209	4,417	40			
Investment abroad				625		625	6			
Other investments		200	133	278		611	6			
	320	1,810	4,153	3,306	1,364	10,953	100			
Source: BCRP.										



Notwithstanding, a vulnerability that has to be monitored constantly is the potential impact of foreign exchange depreciation on the financial position of issuers not only because 93 percent of the bonds issued are denominated in U.S. dollars, but also because 25 percent of the issuing companies operate in the non-tradable sector of the economy and therefore would face negative balance-sheet effects if the real exchange rate depreciates. Furthermore, if these issuers were not protected against currency risks though the use of financial instruments, they could increase their leverage and reduce their profitability in the event that the Peruvian currency would depreciate more or would depreciate faster.

Four financial indicators are used below to examine whether the depreciation of the currencies in the region and the increased country risk observed in the last two years in international financial markets have affected the financial statements of 118 non-financial companies of the above-mentioned countries which issued bonds in the international financial market. As the table below shows, of the four indicators analyzed, the indicator of profitability is the one that has shown greater reduction on average in the region⁷, while the indicator of financial leverage ratio has shown

⁷ The average ratios weighted by the level of assets observed prior to the period of the subprime crisis (2005-2008) and the period of greater growth of bond issuances in external markets (2009) are considered here.



a more modest reduction. In Peru, however, these indicators show a better financial position and less deterioration in recent years. For example, the indicator of leverage in Peruvian companies is not only below that of other countries, but it has also shown a marginal increase since 2009, which reflects lower risk of non-payment. Moreover, the profitability indicator, calculated as EBITDA relative to total assets, and the indicators of liquidity and solvency are better in the case of the Peru and have not deteriorated significantly, which reflects a relative soundness of this segment of the Peruvian credit market compared to the rest of the region.



The previous analysis suggests that despite the increase observed in the issuance of corporate bonds in international financial markets, this segment does not represent a significant source of risk. On the one hand, bond issuances have allowed the issuers to obtain long-term debt at low fixed rates and, at the same time, to have access to a more diversified base of investors. Furthermore, the companies that have issued bonds in the international capital market⁸ have also been the larger companies with better risk ratings. On the other hand, despite the important foreign exchange adjustments registered in the region and the increased volatility seen in international financial markets, no significant deterioration has been observed in the financial situation of issuing companies, particularly in the case of Peruvian issuing companies.

However, these results could change in the future in a risk scenario if the depreciation of the exchange rate increased or if external financial conditions became even tighter. Because of this, it is essential to constantly assess the evolution of issuers' hedge against foreign exchange risks as well as their links with the financial system in order to be able to anticipate potential spread effects via the negative effects of a higher foreign exchange depreciation or through the traditional mechanisms of credit and deposits or through the derivatives market. Preventive actions have to be taken to reduce the likelihood of stress in the financial system as a result of the dynamics of capital markets.

In this line, it is worth mentioning that in 2015 some local companies have repurchased part of the bonds placed abroad by issuing bonds in domestic currency.

⁸ The assets of non-financial issuers have increased from US\$ 811.8 billion in 2008 to US\$ 1.6 trillion in 2015.

IV. Public Finances

Economic Balance

49. In January-September 2015, the economic balance of the non-financial public sector was equivalent to 0.8 percent of GDP, lower than the balance recorded in the same period of 2014 (2.3 percent of GDP). While a rather marked slowdown is observed in public spending when comparing both periods, revenues also show a significant deterioration. The trend revenues show is explained in part by the impact of the tax measures implemented over the year, as well as by the fall in the prices of minerals and hydrocarbons and by the country's economic slowdown. The revenue of general government decreased 2.2 percentage points compared to that registered in September 2014, while non-financial spending, which amounted to 18.7 percent of GDP, was lower by 0.6 percentage points than that recorded in September 2014 due to lower capital expenditure, offset in part by increased current spending.

Table 24 NON-FINANCIAL PUBLIC SECTOR (% GDP)									
	20	2014 2015*			2016* 201)17*	
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15
1. General government current revenues ^{1/} Real % change	22.6 3.1	22.2 2.4	20.4 -7.8	20.0 -7.7	20.0 -8.0	20.0 3.5	19.8 2.2	20.0 4.3	19.6 4.2
2. General government non-financial expenditure ^{2/} Real % change Of which:	19.3 9.0	21.5 7.3	18.7 -0.7	21.3 1.4	21.2 0.3	21.5 4.4	21.3 4.3	21.2 3.3	21.0 3.6
Current expenditure Real % change	14.3 12.0	15.6 10.6	14.5 3.3	15.8 4.4	16.0 4.7	16.0 4.3	16.0 4.0	15.6 2.1	15.7 2.6
Gross capital formation Real % change	4.5 -1.0	5.5 -0.2	3.6 -18.2	4.9 -9.6	4.6 -15.1	4.9 5.1	4.7 5.9	5.1 7.3	4.8 7.3
3. Others	0.1	0.1	0.3	0.1	0.2	0.0	0.0	0.0	0.0
4. Primary balance (1-2+3)	3.4	0.7	2.0	-1.2	-1.0	-1.5	-1.6	-1.3	-1.4
5. Interests	1.1	1.1	1.2	1.0	1.0	1.2	1.3	1.3	1.3
6. Overall Balance	2.3	-0.3	0.8	-2.2	-2.1	-2.7	-2.9	-2.6	-2.7

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

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

* Forecast. IR: Inflation Report.



50. The fiscal balance maintains the path foreseen in our September report. Problems are still observed in the implementation of spending in the different government levels, especially in the implementation of spending in public investment, while the current revenues of the government have continued declining, reflecting the slower pace of growth of economic activity. Thus, at November the fiscal balance shows an accumulated deficit of 1.9 percent of GDP in the last 12 months.



Considering the balances observed in the period of January to September 2015, a slight reduction is projected in the fiscal deficit which would be equivalent to 2.1 percent of GDP. This balance would be explained mainly by non-financial expenditure, which has been revised slightly downwards –down 0.1 percentage points of GDP from the level foreseen in our IR of September–, due mainly to the lower spending expected in subnational governments, particularly in capital spending. The estimate of current revenue, on the other hand, remains unchanged at 20 percent of GDP.

The projected growth of the revenue of the general government in 2016 and 2017 has also been revised slightly down from 20.0 percent of GDP in our previous report to 19.8 percent of GDP in 2016 and to 19.6 percent of GDP in 2017. Similarly, fiscal expenditure would show a slight reduction in GDP terms (with a drop of 0.2 percentage points of GDP in each year), in line with the budget approved for 2016 and with an expected improvement in the implementation of budget spending at the level of subnational governments in this period. Considering these aspects, the fiscal balances in 2016 and 2017 would show fiscal deficits of 2.9 and 2.7 percent in these years, respectively.









Fiscal Impulse

51. 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 1.9 percent of GDP, while in 2016 it would show a structural deficit of 2.4 percent and in 2017 it would show a structural deficit of 2.5 percent.



The change in the structural balance determines the **fiscal impulse**. This indicator allows us to identify the effect of fiscal policy on economic activity isolating the effects of the business cycle. The estimated fiscal impulse for 2015 falls from 0.5 percent of GDP to 0.1 percent of GDP, a fiscal impulse of 0.7 being projected for 2016 after which it would decline to a neutral position in 2017.



The fiscal impulse can be broken down into its expenditure and revenue components, which in turn can be weighted by their multiplier effect on economic activity. In Table 25 we can see that fiscal policy had a contractionary impact of 0.9 percent of GDP in 2015 due to lower capital spending.

Table 25 FISCAL IMPULSE (% potential GDP)									
	2014	2015*	2016*	2017*					
Fiscal impulse	0.7	0.1	0.7	0.0					
By revenues	0.1	0.9	0.0	0.2					
By expenditures	0.6	-0.8	0.7	-0.2					
Current	1.0	0.1	0.4	-0.3					
Capital	-0.4	-0.8	0.2	0.1					
Weighted impulse	0.4	-0.9	0.8	-0.1					

* Forecast.



52. On August 28, 2015, the government enacted Emergency Decree 003-2015, which 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. This decree complements Emergency Decree 002-2015, which had set this ratio at 2 percent. Thus, the increased resources arising from the application of the new regulation will be used exclusively to finance public investment projects and for the maintenance of infrastructure. The regulation also established that the Executive will submit to Congress a draft law within a maximum period of 180 days establishing that the ex-ante 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

53. In the period of January to September 2015, the current revenues of the general government amounted to 20.4 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 7.8 percent in current revenues in real terms. This balance is explained mainly by a real decrease of 8.5 percent in tax revenues, whose ratio in GDP terms declined from 17.2 percent of GDP in the period of January-September 2014 to 15.4 percent of GDP in the same period in 2015. Moreover, this was reinforced by the drop recorded in non-tax revenues as a percentage of GDP (down from 5.4 percent of GDP in January-September 2014 to 5.0 percent of GDP in January-September 2015).

Table 26 CURRENT REVENUES OF THE GENERAL GOVERNMENT (% GDP)									
	20	14		2015*		201	6*	2017*	
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15
TAX REVENUES	17.2	17.0	15.4	15.1	15.2	15.2	15.0	15.1	14.9
Income tax	7.2	7.0	6.1	5.7	5.7	5.7	5.6	5.5	5.5
Value added tax	8.9	8.8	8.6	8.5	8.5	8.6	8.5	8.6	8.5
Excise tax	0.9	0.9	0.9	0.9	0.9	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	0.3
Other tax revenues	1.9	1.9	1.7	1.7	1.8	1.7	1.7	1.7	1.7
Tax returns	-2.0	-1.9	-2.2	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
NON-TAX REVENUES	5.4	5.2	5.0	4.9	4.8	4.8	4.7	4.9	4.7
TOTAL	22.6	22.2	20.4	20.0	20.0	20.0	19.8	20.0	19.6
* Forecast. IR: Inflation Report.									

Accumulated fiscal pressure in the last four quarters amounted to 20.6 percent of GDP. The current revenue of the general government was lower by 1.6 percentage points than that registered at end-2014. This reduction in revenues is associated with the fiscal measures implemented at the end of 2014, which included a reduction in the rate of the income tax, lowering tariff rates, reducing the excise tax on fuels, and modifying 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 prices of oil and our main export products, which directly affects the revenue

obtained from the canon and oil royalties, the special tax on mining, the special levy on mining, and mining royalties.

In **2015** the current revenues of the general government would drop 8.0 percent in real terms, a higher rate than that estimated in our previous report (7.7 percent). This drop would be mainly explained by lower revenues from the income tax, especially from the income tax of legal entities, as well as by the foreseen slower pace of growth in the economy. Because of this, the ratio of current revenue in GDP terms is estimated at 20.0 percent of GDP in 2015 and at 19.8 percent of GDP in 2016 considering that no extraordinary revenues are anticipated in these years. In 2017, current revenues would grow 4.2 percent, in line with an expected recovery of economic activity in this year which would be reflected in an increase of revenue to a ratio of 19.6 percent points of GDP.









Evolution of Government Spending

54. In January-September 2015, the non-financial spending of the general government was equivalent to 18.7 percent of GDP, which represents a decline of 0.7 percent compared to the same period in 2014. This result is explained by a decrease in gross capital formation (down by 18.2 percent), offset in part by an increase of 3.3 percent in current spending. Moreover, this result reflects mainly the decline of non-financial spending at the levels of regional and local governments, where government spending dropped 7.1 percent and 22.0 percent, respectively, especially as a result of a significant drop in capital spending. This decline was in part offset by an increase of 8.6 percent in the national government's non-financial spending resulting both from increasing current spending (up 6.4 percent) and capital spending (up 20.3 percent).

Table 27 NON-FINANCIAL EXPENDITURE OF THE GENERAL GOVERNMENT (Real % change)									
	2012	2013	2014	2015 JanSep.					
Current expenditure	5.3	10.5	10.6	3.3					
National Government	1.7	12.8	12.7	6.4					
Regional Governments	10.7	8.8	9.8	0.6					
Local Governments	16.7	2.1	0.7	-8.8					
Capital expenditure	15.0	12.4	-0.4	-12.2					
Gross capital formation	15.6	9.7	-0.2	-18.2					
National Government	-16.5	10.8	16.4	10.8					
Regional Governments	38.2	4.2	-14.5	-28.1					
Local Governments	39.8	12.0	-4.3	-33.6					
Others	7.0	54.5	-2.2	44.0					
TOTAL	8.0	11.0	7.3	- 0.7					
National Government	-1.2	13.7	12.9	8.6					
Regional Governments	18.3	7.4	1.9	-7.1					
Local Governments	27.8	7.7	-2.4	-22.0					

In **2015** non-financial government spending would grow by a real 0.3 percent, less than estimated in the Inflation Report of September (1.4 percent) due basically to the underperformance of regional and local governments. Despite this, the growth rate projected for 2015 considers a recovery of spending in Q4-2015.

Thus, in 2015 the non-financial expenditure of the general government would show a level equivalent to 21.2 percent of GDP, a lower ratio than in 2014 (21.5 percent) and a ratio lower by 0.1 percentage point of GDP than that estimated in the previous Inflation Report.

Table 28 NON-FINANCIAL EXPENDITURE OF THE GENERAL GOVERNMENT (% GDP)									
	20	2014 2015*					6*	2017*	
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15
Current expenditure	14.3	15.6	14.5	15.8	16.0	16.0	16.0	15.6	15.7
National Government	9.7	10.7	10.1	11.1	11.2	11.2	11.2	10.8	10.9
Regional Governments	2.9	3.0	2.8	3.0	3.0	3.1	3.1	3.0	3.1
Local Governments	1.8	1.8	1.6	1.7	1.7	1.7	1.7	1.7	1.7
Capital expenditure	5.0	6.0	4.3	5.5	5.2	5.5	5.3	5.6	5.4
Gross capital formation	4.5	5.5	3.6	4.9	4.6	4.9	4.7	5.1	4.8
National Government	1.4	2.0	1.5	2.3	2.0	2.3	2.0	2.3	2.0
Regional Governments	1.0	1.1	0.7	0.8	0.9	0.9	0.9	0.9	0.9
Local Governments	2.0	2.4	1.3	1.7	1.7	1.8	1.7	1.9	1.8
Others	0.5	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.6
TOTAL	19.3	21.5	18.7	21.3	21.2	21.5	21.3	21.2	21.0
National Government	11.5	13.2	12.3	14.0	13.8	14.0	13.8	13.7	13.5
Regional Governments	3.9	4.1	3.5	3.8	4.0	3.9	4.0	3.9	4.0
Local Governments	3.9	4.3	2.9	3.5	3.4	3.6	3.5	3.6	3.6

IR: Inflation Report.









In 2016 and 2017, non-financial spending is projected to grow 4.3 and 3.6 percent, respectively. Within the levels of expenditure projected, current expenditure would grow 4.0 percent in 2016 and slowdown thereafter to 2.6 percent in 2017, while gross capital formation would recover and show a faster pace with a rate of 5.9 percent in 2016 and a rate of 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.

Financial Requirements and Debt of the Non-Financial Public Sector

55. The economic balance projected for 2015 –a deficit of 2.1 percent of GDP– implies that financial requirements would amount to S/ 20.5 billion. This amount, which is slightly lower than that estimated in the IR of September, would be covered through external disbursements and bond placements.

FINANCIAL REQUIREM	Table 29 FINANCIAL REQUIREMENTS OF THE NON-FINANCIAL PUBLIC SECTOR AND ITS FUNDING								
	(Million S/)								
	2	2014 2015*					2016*)17*
	JanSep.	Year	JanSep.	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15	IR Sep.15	IR Dec.15
I. USES	-12,919	11,061	-6,661	21,554	20 505	23,719	24,681	26,658	28,356
1. Amortization	2,152	9,059	6,762	8,021	7,939	5,984	6,147	8,927	9,129
a. External	1,214	4,207	3,340	3,782	3,821	3,328	3,490	2,869	3,071
b. Domestic	500	4,160	2,936	3,549	3,456	2,026	2,026	5,349	5,349
Of which:									
Recognition bonds	437	692	486	690	662	631	631	709	709
2. Overall balance	-15,071	2,002	-13,423	13,533	12,566	17,735	18,534	17,731	19,227
(Negative sign indicates surplus)									
II. SOURCES	-12,919	11,061	-6,661	21,554	20 505	23,719	24,681	26,658	28,356
1. External	1,574	2,654	3,612	6,430	6,056	4,181	6,056	6,767	7,250
2. Bonds ^{1/}	3,127	13,002	12,197	16,316	16,866	17,569	17,497	7,263	7,310
3. Internal ^{2/}	-17,620	-4,595	-22,470	-1,192	-2,417	1,969	1,128	12,629	13,795
Memo:									
<u>% GDP</u>									
Gross debt balance	18.5	20.1	21.2	22.4	22.6	24.2	24.8	24.2	24.2
Net debt balance ^{3/}	1.7	3.9	3.8	6.5	6.3	9.2	9.4	11.7	11.7

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. * Forecast.

IR: Inflation Report.

56. In **2015** the public debt would increase to 22.6 percent of GDP, a rate higher than the 20.1 percent of GDP recorded at the end of 2014 and higher by 0.2 percentage points than the rate estimated in the IR of September. This result is in line with a context in which the Peruvian economy would show a fiscal deficit and a moderate pace of growth of economic activity (see Box 4).

It is worth mentioning that the Peruvian Government placed Global Bond 2026 on October 28, in accordance with Supreme Decree 295-2015-EF, dated October 26, 2015. Bonds for a total of EU \in 1.1 billion, equivalent to US\$ 1.25 billion were offered at a yield rate of 2.751 percent in euro, a coupon rate of 2.75 percent, and at a price of 99.998 percent. The total demand for the bonds issued amounted approximately to EU \in 4.25 billion, that is, 3.9 times the amount offered. The funds obtained will be used to pre-finance the FY 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.



Box 4 IMPACT OF PUBLIC INVESTMENT ON ECONOMIC ACTIVITY

The dynamism of government investment has been dropping significantly since mid-2013. While it grew at an average real rate of 15.3 percent in 2012 and in 2013, it fell 2.0 percent in 2014 and it is estimated to fall even further in 2015 (11.2 percent).



In Q4-2013 investment slowed down due mainly to lower investment at the levels of the national government and regional governments. In FY 2014, except for the first quarter, investment showed negative growth rates despite the efforts made in terms of national government spending, which were insufficient to offset the drop of subnational investment, a trend that intensified in 2015.

These developments are explained by events that include such things as interventions in several regional and local governments in 2014 because of corruption, lower revenues from mining and oil royalties (canon), and the impact that new authorities taking office in local and regional governments had on spending in these subnational governments, as happened in January this year. The latter triggered a severe contraction in subnational investment, offset only in part by a greater dynamism of investment at the level of the national Government, but which has not been big enough to prevent total public investment from dropping significantly during the first three quarters of 2015.





The indicator of public sector fiscal impulse for 2015 is estimated at 0.1 percent of GDP, which reflects both the tax measures taken at the end of 2014 –particularly, the reduction of the income tax– and the expected reduction of non-financial expenditure in GDP terms as a result of the evolution of public investment. In 2016, this indicator is expected to reach 0.7 percent of the potential output, due mainly to the expected increase in non-financial public sector spending.



The impact of fiscal policy on demand and on economic activity depends on the level of the revenue and fiscal expenditure multiplier. According to estimates included in the Inflation Report of October 2014, the level of the total public investment multiplier is 1.42, while current expenditures are 0.93 and the level of the tax multiplier would reach -0.25 in periods of low growth as those current observe⁹. This would mean that the combination of lower taxes and the slowdown of investment registered in 2015 would have had first-order effects on the growth rate of the Peruvian economy. If the contribution of government revenues and expenditures to the fiscal impulse indicator is used to measure the exogenous shocks of public spending and tax revenues, a negative impact of 0.9 percentage points on the potential GDP is estimated for this year and an impact of 0.8 percent of GDP for next year.



⁹ In a scenario of higher growth, the multiplier of total investment multiplier is only 0.73 while the multiplier of revenue would be zero.

V. Monetary Policy and Financial Markets

Monetary Policy Actions

57. Since the publication of our previous Inflation Report in September, the upside risks to the inflation forecast have been reflecting in an increase of the exchange rate and in inflation expectations. The effect of the increased depreciation of the PEN on prices has generated a rise in inflation, while supply shocks caused by climatic factors have had temporary but persistent effects on inflation.

Expectations of inflation in 2016 have gradually increased and are now above the upper band of the target range. In this context, the Board of the Central Bank decided to raise the benchmark interest rate to 3.50 percent in September and to 3.75 percent in December. The Board also reiterated that the Central Bank oversees the inflation forecasts and inflation determinants and stands ready, if it is necessary, to make adjustments in its monetary policy rate to lead inflation to the target range.

58. BCRP policy communiqués in recent months have pointed out that economic activity has been recovering gradually and that the rates of inflation expected for next year have reached levels similar 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 future decisions of adjustments in the monetary policy rate.





The BCRP's monetary policy stance is still expansionary considering that the increase in inflation reflects an adjustment in relative prices, associated with a higher foreign exchange rate. This effect would tend to disappear if inflation expectations are not contaminated and if no demand pressures are observed.

In addition to this, in order to continue promoting the de-dollarization of credit, in November the BCRP expanded its credit de-dollarization program, adjusting the limits used to calculate the rate of additional reserve requirements based on the reduction of banks' balance of credit in foreign currency at December 2016. In the case of total credit in foreign currency, the minimum reduction required now is 20 percent of the balance banks registered in September 2013 (the minimum reduction required previously was 10 percent), while in the case of car loans and mortgage loans, the minimum reduction required by 2016 is 30 percent of the balance recorded in February 2013 (the minimum reduction required previously was 15 percent). Thereafter, the reduction for car loans and mortgage loans will increase by 10 percentage points at the end of each year.

Monetary Operations

59. The monetary operations of the Central Bank were mainly oriented to maintaining adequate levels of liquidity in domestic currency in a context in which credit has been growing at a faster pace than deposits. To do so, the BCRP continued carrying out liquidity injection operations with different terms, especially through currency repos and auctions of public deposit funds. Thus, between August and November 2015, the balance of currency repos increased by S/ 4.00 billion, while the balance of auctions of public deposits increased by S/ 300 million. At the close of November, the balance of currency repos is S/ 28.66 billion, while the balance of auctions of the funds deposited by Banco de la Nación and the Treasury at the Central Bank is S/ 3.65 billion.

Table 30 AUCTION OF PUBLIC DEPOSIT OPERATIONS (Million S/)									
Date	Operation	Term	Amount	Average rate					
4-Sep-15 27-Nov-15	Treasury Treasury	6 months 6 months	300 300	6.25% 5.73%					
TOTAL			600	5.99%					







60. The BCRP also continued with its regular auctions of 6-month, 12-month, and 18-month BCRP-CDs three times a week, placing between S/ 30 million and 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 August and November, the Central Bank placed BCRP-CDs for a total of S/ 6.79 billion and maturities amounted to S/ 4.18 billion, as a result of which the balance of BCRP-CDs increased by S/ 2.61 billion to S/ 17.90 billion.

The yield curve of BCRP-CDs rose 85 basis points on average between August and November, in line with the increase of 25 basis points implemented in the BCRP policy rate in September and with expectations of future rate adjustments, as well as in line with the increased demand of financial intermediaries to attract funds in domestic currency.





61. As a result of these liquidity injection operations, the ratio of repos increased in terms of the BCRP assets. Net issuances of CDBCRP and CDRBCRP increased the share of BCRP instruments relative to the Central Bank's total liabilities from representing 9.8 percent of net liabilities in August to representing 10.8 percent in November. On the other hand, the ratio of banks' deposits increased slightly, both in soles and in dollars. Public sector deposits stopped being the largest source of sterilization due to the drop of deposits in soles as a result of increased government spending in recent months as well as a result of auctions of public deposits.

	Table 31 SIMPLIFIED BALANCE SHEET OF THE BCRP										
	(AS % OT NET ASSELS)										
	Dec.14 May.15 Nov.15										
I.	Net Net	t assets L International Reserves	100.0 99.5 (US\$ 62,307 mills.)	100.0 86.6 (US\$ 60,413 mills.)	100.0 82.5 (US\$ 62,196 mills.)						
	Rep	005	5.6	13.4	17.5						
П.	Net	t liabilities	100.0	100.0	100.0						
	1.	Total public sector deposits	36.7	39.3	32.8						
		In domestic currency	18.6	19.8	12.2						
		In foreign currency	18.1	19.5	20.6						
	2.	Total financial system deposits	26.9	34.9	34.7						
		In domestic currency	7.6	4.8	4.0						
		In foreign currency	19.3	30.1	30.7						
	3.	BCRP instruments	9.8	8.6	10.8						
		CD BCRP	7.9	6.9	7.2						
		CDR BCRP	1.3	0.3	3.0						
		Term deposits	0.0	0.7	0.4						
		Overnight deposits	0.5	0.7	0.2						
	4.	Currency and others	26.6	17.1	21.7						



Reserve Requirements

- 62. In order to continue consolidating the reduction in the levels of the dollarization of credit, the BCRP adjusted the limits of the reduction of banks' balance of total credit in foreign currency and the limits of the reduction for car loans and mortgage loans. In the case of total credit in foreign currency, a new limit of 80 percent of the balance recorded in September 2013 was set for the balance of total credit in foreign credit (excluding loans for foreign trade operations) as from December 2016 (the current limit for December 2015 being 90 percent of the balance recorded in September 2013).
- 63. As for car loans and mortgage loans, a new limit equivalent to the higher amount of either 70 percent of a bank's balance of this type of loans recorded in February 2013 or 15 percent of the bank's effective equity was set for December 2016. New limits were also set as from December 2017. These limits will decline at the end of each year by 10 percentage points from the relevant previous limit until the balance of car loans and mortgage loans is equivalent to 5 percent a bank's effective equity.

Table 32 ADDITIONAL RESERVE REQUIREMENT ACCORDING TO CREDIT IN FOREIGN CURRENCY							
CONCEPT	As of June 2015						
	Limits ^{2/}	Additional RR ^{3/}					
Total excluding foreign trade ¹⁷ (Base=Sep.13)	0,95 times from Sep.13 or 0,92 times from Dec.14 or 100% PE or US\$ 100 MM	$0, 3 \times \left(\frac{C_t}{C_{s13}} - 0, 95\right) \times PT$					
Car and mortgage (Base=Feb.13)	0,90 times from Feb. 13 ó 0,86 times from Dec. 14 ó 20% PE $0, 15 \times \left(\frac{CHV_t}{CHV_{f13}} - 0, 9\right)$						
CONCEPT	As of December	er 2015					
	Limits ^{2/}	Additional RR ^{3/}					
Total excluding foreign trade ¹⁷ (Base=Sep.13	0,90 times from Sep.13 or 0,85 times from Dec.14 or 100% PE or US\$ 100 MM	$0, 3 \times \left(\frac{C_t}{C_{s13}} - 0, 90\right) \times PT$					
Car and mortgage (Base=Feb.13))	0,85 times from Feb.13 or 0,75 times from Dec.14 or 20% PE	$0, 15 \times \left(\frac{CHV_t}{CHV_{f13}} - 0, 85\right) \times PT$					
CONCEPT	As of December	er 2016					
	Limits ^{2/}	Additional RR ^{3/}					
Total excluding foreign trade ¹⁷ (Base=Sep.13	0,80 times from Sep.13 or 100% PE or US\$ 100 MM	$0, 3 \times \left(\frac{C_t}{C_{s13}} - 0, 80\right) \times PT$					
Car and mortgage (Base=Feb.13)	0,7 times from Feb.13 or 15% PE	$0,15 \times \left(\frac{CHV_t}{CHV_{f13}} - 0,7\right) \times PT$					

1 / Excludes new loans from January 2015 (terms more than 3 years and higher than US\$ 10 million).

2 / These limits don't apply if the total balance of loans in foreign currency excluding foreign trade is less than the effective equity and the balance of car and mortgage loans if less than 20 percent of effective equity.

3 / C, average balance of total credit in foreign currency of reserve period. $C_{S12^{\mu}}$ balance of total credit in foreign currency in September 2013. CHV_{μ} average balance of car and mortgage foreign currency credit of reserve period. $CHV_{\mu3^{\mu}}$ balance of car and mortgage credit in foreign currency in February 2013.



In addition, the Central Bank raised the limit of the facility of credit expansion repos from 10 to 20 percent of total of liabilities subject to reserve requirements, which reduces mean reserve requirements up to a minimum of 25 percent. The aim of this measure is to provide the long term funding in soles required to continue with the de-dollarization of credit and avoid in this way the tightening of monetary conditions in domestic currency.

64. The effect of these measures was reflected in that all the banks began to reduce their loan portfolios in dollars and to replace them with loans in soles. As a result, total loans were reduced from a balance of US\$ 23.85 billion in December 2014 to a balance of US\$ 17.81 billion in October 2015 (down US\$ 6.04 billion). Such balance is equivalent to 75 percent of banks' balance of credit in September 2013 (a lower balance than the one banks were required to show in December 2015).



65. The reduction on the side of car loans and mortgage loans has been similar to that observed in total credit. Between December 2014 and August 2015, these loans have decreased by US\$ 977 million and reached a balance of US\$ 3.37 billion (equivalent to 70.7 percent of the balance in February 2013).





66. As a result of the measures taken by the BCRP to de-dollarize credit and reduce depreciation expectations, the ratio of the dollarization of credit has fallen from 38.3 percent in December 2014 to 29.2 percent in October 2015.



67. The ratio of dollarization in mortgage loans decreased from 33.9 in December 2014 to 25.3 percent in October 2015 and the dollarization ratio in car loans declined by 23 percentage points. Moreover, by type of business, the dollarization ratio of loans to corporate enterprises and large companies has fallen by 14.7 percentage points, while the dollarization ratio of loans to medium-sized companies has declined by 13.3 percentage points.

Table 33 DOLLARIZATION RATIO OF CREDIT TO THE PRIVATE SECTOR							
	Dec.13	Dec.14	Oct.15				
Businesses	52.9	48.5	37.3				
Corporate and large companies	67.4	59.9	45.2				
Medium-sized enterprises	63.7	59.3	46.0				
Small business and Microbusiness	13.0	11.5	7.9				
Individuals	23.1	20.0	14.9				
Consumer	10.5	9.5	7.4				
Car loans	75.9	68.9	46.2				
Credit cards	7.2	6.6	6.0				
Mortgage	40.0	33.9	25.3				
TOTAL	42.4	38.3	29.2				

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.



Credit and Liquidity

Credit

68. Credit to the private sector grew 10.4 percent in October 2015 (showing a higher rate than the rates recorded in Q1 and Q2 of this year). By currencies, credit in domestic currency continued to be more dynamic, with an annual growth rate of 29.3 percent, while credit in foreign currency continued declining (the rate of 18.5 percent it showed in October reflected the process of de-dollarization of credit supported by the measures taken by the BCRP at end-2014, as well as expectations of depreciation). At end-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.



69. Personal loans continue growing at a steady pace of around 12.3 percent. The more dynamic segment within this type of credit was consumer loans, which grew 14.8 percent in the last 12 months in October 2015, a higher rate than the one recorded in the previous quarters. On the other hand, mortgage loans showed a slower pace of growth in comparison with the previous quarters (mortgage loans grew 9.0 percent in October, vs. 9.5 percent in September 2015 and 11.4 percent in March 2015). This greater dynamism in the segment of consumer loans is mostly explained by the growth of the sub-segment of credit cards, which in October registered a year-on-year growth rate of 22.9 percent, a higher rate than those recorded in June and March of this year (21.8 and 18.2 percent, respectively).

As for business loans, the segment of corporate loans and loans to large enterprises grew at an annual rate of 17.8 percent in October, while the segment of loans to small- and micro businesses grew 1.7 percent and the segment of loans to medium-sized companies grew only 0.3 percent.

70. The slowdown in the growth of credit to small and micro businesses reflects an increase in the risk of non-payment in this segment. A similar scenario is observed in the evolution of credit to medium-sized companies, where the growth of credit in soles has offset very little the contraction of credit in dollars, and the risk of non-payment has grown significantly.

Table 34 CREDIT TO THE PRIVATE SECTOR (12-month % change)								
	Dec.14	Mar.15	Jun.15	Sep.15	Oct.15			
Businesses	9.7	7.9	6.5	9.6	9.3			
Corporate and large companies	11.6	15.2	15.1	18.8	17.8			
Medium-sized enterprises	13.7	1.1	-3.2	0.5	0.3			
Small business and Microbusinesses	1.6	1.5	0.3	1.0	1.7			
Individuals	11.8	12.1	12.0	12.5	12.3			
Consumer	11.4	12.6	13.8	14.8	14.8			
Car loans	6.7	2.8	0.5	-0.7	-0.8			
Credit cards	15.0	18.2	21.8	23.5	22.9			
Mortgage	12.4	11.4	9.6	9.5	9.0			
Total	10.4	9.4	8.4	10.6	10.4			

Table 35 LOANS TO SMALL BUSINESSES AND MICROBUSINESSES (12-month % growth rate)									
	Dec.14 Mar.15 Jun.15 Sep.15 O								
Banks	-8.4	11.2	11.7	14.6	17.4				
Domestic currency	-7.1	18.2	22.6	28.7	31.1				
Foreign currency	-14.4	-21.1	-35.1	-45.7	-44.7				
Rest	10.4	-6.6	-9.0	-9.7	-10.2				
Domestic currency	11.5	-6.6	-9.1	-10.1	-10.6				
Foreign currency	-1.6	-6.7	-7.1	-4.6	-4.2				
Total	1.6	1.5	0.3	1.0	1.7				
Domestic currency	3.4	3.9	4.0	5.6	6.1				
Foreign currency	-10.2	-16.1	-25.8	-32.4	-31.2				
Dollarization	11.5	10.3	9.3	8.2	7.9				

71. In October, credit to businesses showed a rate of default of 3.18 percent, a lower rate than in June (3.26 percent) and in March (3.24 percent). By credit segments, the default rate of credit to small companies fell 31 basis points compared to Q2-2015, while the default rate of credit to micro businesses dropped 44 basis points in the same period. This was offset by an increase in the default rate of credit to medium-sized and large companies, which rose by 13 and 20 basis points, respectively, compared to June 2015. On the other hand, the default rate in the segment of credit to individuals remained at a similar level



as the one observed in June 2015 (2.68 percent), whereas the rate of default in car loans rose from 4.73 percent in June to 5.15 percent in October 2015. Similarly, the rate of default in mortgage loans rose by 18 basis points to 1.78 percent.

INDEXS DE MGOLDSIDA	Table D DE LOS CRÉDIT((%)	36 DS DE LAS SOCIEE	DADES DE DEPÓSI	тоѕ
	Dec.13	Dec.14	Jun.15	Oct.15
Business	2.70	3.14	3.26	3.18
Corporate	0.00	0.00	0.01	0.02
Large companies	0.38	0.68	0.86	1.05
Medium-sized enterprises	3.72	4.82	5.44	5.58
Small business	7.56	8.97	9.63	9.32
Microbusiness	5.08	5.83	5.62	5.18
Individuals	2.32	2.46	2.68	2.68
Consumer	3.39	3.37	3.58	3.42
Car loans	3.37	4.25	4.73	5.15
Credit cards	4.71	4.23	4.31	4.11
Mortgage	1.04	1.44	1.60	1.78
Average delinquency	2.57	2.91	3.06	3.01

The flow of credit to the private sector in national currency at October 2015 (S/ 34.18 billion) was higher than the flow of credit to the private sector in 2014 (S/ 20.99 billion). This demand for credit has mainly been funded both through BCRP monetary instruments and by reducing the exchange position of financial institutions. Net placements of currency repos amounted to S/ 20.06 billion, of which S/ 7.90 billion was credit expansion repos, S/ 7.35 billion was regular repos, and S/ 4.81 billion was credit substitution repos. The exchange position of depository corporations contributed with S/ 7.73 billion to meet the demand for credit, while auctions of Treasury deposits provided S/ 3.05 billion. On the other hand, as a result of the global strengthening of the dollar, private deposits dropped by S/ 3.29 billion.





72. In 2016, credit would grow 9.0 percent, considering a growth rate of 12 percent in credit in soles, which is consistent with an increased preference for credit in soles and with the effect of the BCRP actions taken to promote the de-dollarization of credit. Since private sector deposits in domestic currency are expected to grow 4.3 percent in the year, financial deepening, that is, the ratio of credit-to-GDP, is expected to continue increasing during 2016 (rising from 41 percent in Q3-2015 to 41.4 percent at the end of 2016). In this context the BCRP would continue injecting long term liquidity through currency repos and through auctions of Treasury and the Banco de la Nación deposits, contributing in this way to support the process of de-dollarization of credit.



Liquidity

73. Currency in circulation grew 6.8 percent in October 2015 in the last twelve months, a higher rate than the one recorded in Q3-2015 (4.6 percent), reflecting a gradual recovery in the level of economic activity. At end-2015, currency would show an annual growth rate of about 8.0 percent, in line with the expected recovery of economic activity.



Registering a rate of 1.5 percent in October 2015, deposits in domestic currency continued growing at a quite slower pace than in the first part of the year (7.4 percent



in March 2015 and 4.5 percent in June 2015). This decline in deposits in domestic currency would be associated with the substitution of the savings portfolio in soles for a savings portfolio in dollars in a context marked by the global strengthening of the US currency. Reflecting this, the ratio of deposits denominated in foreign currency of non-financial private agents rose from 39.7 percent in December 2014 to 44.0 percent in October 2015.

A gradual recovery is expected in the growth pace of deposits in soles in 2016 as depreciation expectations subside and as public spending resumes a faster pace of growth, which would imply that the Treasury would withdraw part of the funds it has as deposits at the BCRP.

	Table 37 MONETARY ACCOUNTS (END-OF-PERIOD) (12-month % change)							
		Dec.14	Mar.15	Jun.15	Sep.15	Oct.15		
1	Currency in circulation	11.5	8.4	8.7	4.6	6.8		
2	Deposits in domestic currency	9.5	7.4	4.5	1.4	1.5		
3	Broad money in domestic currency	10.1	7.9	6.4	3.1	3.7		
4	Total broad money ^{1/}	6.5	5.3	5.7	7.8	6.8		
5	Credit to the private sector in domestic currency	18.2	19.2	24.5	29.6	29.3		
6	Credit to the private sector	10.4	9.4	8.4	10.6	10.4		
	test des fractions and							

1/ Includes foreign currency.

74. On the other hand, the levels of dollarization in private sector deposits has increased, although the level of dollarization observed in the deposits of individuals continues to be lower that the levels of dollarization observed in the deposits of companies and institutional investors. The ratio of dollarization of companies' deposits increased by 2.3 percentage points compared to Q2 –the increase being particularly noteworthy in term deposits and savings–, while the ratio of dollarization of institutional investors' deposits increased approximately by 5.3 percentage points. Moreover, the dollarization of deposits in the case of mutual funds decreased 1.8 percentage points compared to Q2.

Table 38 DOLLARIZATION RATIO OF DEPOSITS						
	Dec.11	Dec.12	Dec.13	Dec.14	Oct.15	
Business	59.0	52.2	53.8	50.8	55.6	
Demand deposits	49.2	47.1	48.7	47.9	50.0	
Savings deposits	59.9	43.5	45.6	63.9	67.7	
Term deposits	85.8	69.7	70.5	61.6	79.8	
Individuals	40.2	35.5	35.3	33.7	38.1	
Demand deposits	49.2	47.1	48.7	48.2	50.0	
Savings deposits	40.6	36.9	35.6	35.2	38.6	
Term deposits	38.5	32.9	33.3	30.8	36.2	
Pension funds	16.8	52.0	83.8	88.6	90.8	
Mutual funds	56.7	51.2	59.6	54.6	51.2	
Total	47.2	42.7	46.0	42.4	47.1	



75. In October 2015, the ratio of banks' loans-to-deposits showed a level of 103 percent, a lower level than the one observed at the end of Q3 (105 percent) and similar to that observed in December 2014. This ratio would be reflecting the recent recovery of private sector deposits –S/ 4.4 billion between September and October 2015– as well as the auction of public sector deposits by the BCRP (S/ 3.5 billion). Moreover, private sector deposits have increased both in domestic currency and in foreign currency, with increased deposits standing out in the case of companies and households (S/ 2.98 billion in total) and institutional investors (S/ 1.42 billion in total). Banks' sources of long-term funding (external liabilities) and currency repos with the BCRP) remained stable during this period.



Advanced indicators would be indicating that so far in Q4, total obligations subject to reserve requirements in national currency would have recovered significantly (up by S/ 5.80 billion between September and December 2015), the significant recovery of deposits of the non-financial private sector (S/ 3.45 billion) and of institutional investors (S/ 1.58 billion) being worth pointing out. Because of this, the ratio of loans-to-deposits is expected to continue showing its downward trend, even more so if the government increases the level of government spending for next year and if the BCRP continues carrying out auctions of Treasury deposits.







Interest Rates

76. Between September and November 2015, interest rates were influenced by the increase in the benchmark rate of the Central Bank. The level of the interbank overnight rate came very close to its benchmark level (3.52 percent). On the one hand, the rates of mortgage loans, loans to large enterprises, to micro business, to medium-sized companies and corporate loans showed an upward trend increasing by 57, 52, 32, 29, and 28 basis points, respectively. On the other hand, a decline was observed in the interest rates of the segments of consumer loans and loans to small business, which fell by 51 and 15 basis points, respectively.

The interest rates on deposits in domestic currency increased in all the maturity terms. Thus, the rates for deposits for less than 30 days, 31-to-180 day deposits, and 181-to-360 day deposits increased by 12, 45, and 24 basis points, respectively.

Table 39 INTEREST RATE BY TYPE OF LOANS IN DOMESTIC CURRENCY 1′ (%)								
	Interbank	Corporate	Large companies	Medium-sized enterprises	Small businesses	Microbusinesses	Consumer	Mortgage
Dec-14	3.80	5.6	6.8	9.5	20.6	33.0	43.3	9.0
Mar-15	3.47	5.2	6.6	9.8	21.2	34.4	40.6	8.5
Jun-15	3.42	5.1	6.6	9.7	20.8	34.6	43.8	8.4
Sep-15	3.67	5.9	7.2	10.2	20.4	33.5	42.4	8.6
Nov-15	3.52	5.8	7.4	10.3	20.7	34.4	42.9	9.1
Accumulated change (bps)								
Nov.15-Aug.15	-17	28	52	29	-15	32	-51	57
Nov.15-Dec.14	-28	19	60	87	13	141	-39	10
Nov.15- Dec.13	-64	39	35	18	-33	127	66	3

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 9 (%)	SOLES	
	Deposits up to 30-day	On 31 to 180-day term deposits	On 181 to 360-day term deposits
Dec-14	3.8	3.8	4.3
Mar-15	3.5	3.8	4.4
Jun-15	3.4	4.0	4.4
Sep-15	4.1	4.4	4.4
Nov-15	4.0	4.6	4.6
	Accumulated change	(bps)	
Nov. 15-Aug.15	12	45	24
Nov.15-Dec.14	19	81	25
Nov.15-Dec.13	24	106	69
Source: BCRP.			

77. As for interest rates on operations in dollars, most of the lending and deposit rates increased in the last three months, with the exception of the rates on deposits for terms of more than 181 days and loans to micro business, which fell by 5 and 28 basis points, respectively. The corporate prime rate for 90-day loans rose 32 basis points compared to August, recording a level of 1.06 percent, while the interbank interest rate remained at 0.15 percent.

Table 41 INTEREST RATE BY TYPE OF LOANS IN FOREIGN CURRENCY ^{۱/} (%)							
	Interbank	Corporate	Large companies	Medium-sized enterprises	Small businesses	Consumption	Mortgage
Dec-14	0.15	2.5	5.1	8.3	12.3	27.3	7.6
Mar-15	0.15	2.6	4.9	8.2	13.5	30.9	7.4
Jun-15	0.15	2.2	4.6	8.3	11.7	31.4	7.3
Sep-15	0.15	1.9	5.6	8.5	12.8	32.4	6.8
Nov-15	0.15	2.2	5.0	8.4	12.5	31.9	7.0
Accumulated change (bps)							
Nov.15-Aug.15	0	13	-28	21	126	66	7
Nov.15-Dec.14	0	-27	-6	12	25	467	-59
Nov.15- Dec.13	0	-18	-46	13	-66	588	-149
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					
Mar-15	0.2	0.5	0.8					
Jun-15	0.1	0.4	0.7					
Sep-15	0.1	0.3	0.6					
Nov-15	0.3	0.4	0.6					
	Accumulated change	(bps)						
Nov.15-Aug.15	16	10	-5					
Nov.15-Dec.14	10	-5	-23					
Nov.15-Dec.13	11	-33	-71					
Source: BCRP								

Exchange Rate and Foreign Exchange Interventions

78. Between August and November 2015, the exchange rate maintained its upward trend due to the likelihood that the Federal Reserve would soon raise its interest rate, uncertainty about the economic slowdown in China, and the drop of commodity


prices. Uncertainty about the magnitude of the impact of these factors reduced liquidity in the FC market, which resulted in an increased rise in the US dollar/sol exchange rate. Thus, the exchange rate went from S/ 3.237 per dollar at the end of August 2015 to S/ 3.377 per dollar at the end of October, which represents a depreciation of 4.3 percent.



- 79. The net demand for dollars observed between August and November, which amounted to US\$ 945 million, came mainly from the non-mining private sector (US\$ 3.92 billion in the period). On the other hand, the supply of non-residents (US\$ 1.37 billion) and the mining sector (US\$ 1.57 billion) contributed to reduce the net demand for FC. Moreover, the net supply was provided by the interventions of the BCRP, mainly through the net sale of dollars in the spot market (US\$ 825 million).
- In this context, the BCRP intervened in the foreign exchange market not only selling dollars in the spot market, but also continued with its interventions in the forward market through placements of FX swaps. Net maturities of FX swaps in this period amounted to US\$ 390 million, while net placements of CDRs amounted to an equivalent of US\$ 300 million.
- 80. The multilateral real exchange rate index (RER) increased 1.75 percent compared to November 2014, which reflects a multilateral nominal depreciation of 4.14 percent, a domestic inflation of 4.17 percent, and an estimated external inflation of 1.77 percent (YoY change). Thus, the current level of the RER is within the range of estimates of the equilibrium level of the real exchange rate (see Box 7).



Capital Market

81. The corporate fixed-income market showed a major slowdown between October and November of 2015. Securities for a total of S/ 29 million were issued in the local market, this figure being significantly lower than the amount issued in Q3-2015 (S/ 793 million). However, in annual terms, security issuances in 2015 are still higher than the bond amounts issued in the last five years.

Similarly, bonds issued in the local capital market by non-financial companies (S/ 87 million) were lower than in Q3-2015 (S/ 207 million).

A greater dynamism is expected to be seen in the local market in 2016 since the recent announcement of the Federal Reserve regarding its monetary policy rate is foreseen to generate greater certainty in terms of rates, which would have an effect on companies' decisions to issue securities. It is worth mentioning that securities pending registration in Registro Público del Mercado de Valores – the registry of the stock market– in October 2015 amount to US\$ 296 million (S/ 460 million and US\$ 153 million).





Table 43 BONDS ISSUED BY NON-FINANCIAL FIRMS (Millions)								
Month	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 Jul.15 Sep.15	111 1 62 0 0 20 50 21 0 10 0 6 0 154 0 16	90 0 85 220 434 0 160 0 116 500 300 0 502 0 435 306	401 3 260 220 434 56 304 61 116 531 300 19 502 489 435 358					
Oct.15 Nov.15	2 6	2 0	9 20					
Average 2010 Average 2011 Average 2012 Average 2013 Average 2014 Average 2015			158 104 138 87 145 242					

82. Peruvian companies did no issue securities in the international market between September and November. The high volatility of the exchange rate and uncertainty in financial markets would have discouraged new corporations from increasing their debt in foreign currency.

In 2015, companies Alicorp, Copeinca, Maestro, and Inretail repurchased a total of US\$ 1.02 billion of their bonds issued in foreign markets, financing these buybacks through the issuance of new securities in the local and international markets. Thus, for example, Alicorp issued bonds for a total of S/ 500 million in the local market, while Inretail chose to issue securities in the international market for a total of US\$ 250 million with longer maturities and lower coupon rates than those of the bonds redeemed.

BONDS ISSUED	Table 44	ATIONAL MARKE	г	
Business	Emission date	Amount (Million US\$)	Maturity (Years)	Rate
Year 2014		5,510		
Non-financial sector		3,306		
Compañía Minera Ares	15-Jan	350	7	7.75%
Minsur	31-Jan	450	10	6.25%
Abengoa Transmisión Sur	08-Apr	432	29	6.88%
Camposol	24-Apr	75	3	9.88%
Rutas de Lima**	27-Jun	370	22	8.38%
Rutas de Lima***	27-Jun	150	25	5.25%
InRetail Shopping Mall	01-Jul	350	7	6.50%
InRetail Consumer	07-Oct	300	7	5.25%
Unión Andina de Cementos	28-Oct	625	7	5.88%
Energia Eólica	15-Dec	204	20	6.00%
Financial sector		2,204		
Private financial sector		<u>1,025</u>		
Banco de Crédito	15-Jan	200	13	6.13%
Interbank	11-Mar	300	15	6.63%
Banco de Crédito	01-Jul	225	4	2.75%
BBVA Banco Continental	15-Sep	300	15	5.25%
Public financial sector		<u>1,179</u>		
Fondo MiVivienda	26-Mar	300	5	3.38%
Fondo MiVivienda*	15-May	279	4	1.25%
COFIDE	08-Jul	300	5	3.25%
COFIDE	08-Jul	300	15	5.25%
Year 2015		4,510		
Non-financial sector		3,361		
GyM Ferrovias***	03-Feb	206	25	4.75%
Southern Copper Corporation	17-Apr	500	10	3.88%
Southern Copper Corporation	17-Apr	1,500	30	5.88%
Consorcio Nuevo Metro de Lima	10-Jun	1,155	19	5.88%
Financial sector		1,149		
Private financial sector		<u>349</u>		
Intercorp	03-Feb	250	10	5.88%
Interbank**	03-Feb	99	15	7.66%
Public financial sector		<u>8</u> 00		
COFIDE	07-Jul	200	4	3.25%
COFIDE	07-Jul	600	10	4.75%

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





Box 5 EFFECTS OF THE CREDIT DE-DOLLARIZATION PROGRAM

The reversal of the extraordinary monetary expansion policies implemented by the developed economies in response to the global financial crisis requires policy actions to be taken in order that this reversal has the least impact on Peru's economy, where financial dollarization is still an important source of vulnerability for the financial system due to the currency mismatches it generates. Because of this, the Central Bank has preemptively implemented a series of measures with the aim of accelerating the process of financial de-dollarization observed in Peru for over a decade.

Thus, as from March 2013 the Central Bank established additional reserve requirements according to the behavior of mortgage loans and car loans in foreign currency with the aim of accelerating the process of de-dollarization and, as from October of the same year, it also established additional reserve requirements according to the evolution of total credit in foreign currency, excluding loans for foreign trade operations. These reserve requirements were initially established according to limits on the growth of such loans, but as from December 2014 the BCRP required banks' balance of such loans to be gradually reduced, establishing reduction goals for June and December of this year. Recently, the BCRP has established even lower limits for December 2016.

Using data as of the end of October 2015, we can see that these measures aimed at reducing the dollarization of credit have been effective not only because financial institutions have managed to meet the goals, but also because they have done so with ample margins in some cases. However, empirically identifying the impact of these measures on the degree of dollarization of credit poses a greater challenge, especially in a context of currency depreciation associated with the fall observed in the terms of trade.

In this box we offer a statistical evaluation of the impact of these measures on the dollarization ratio of credit, following the methodology of ex-post counterfactual policy evaluation proposed by Pesaran and Smith (2012). A first qualitative assessment of the impact of the de-dollarization program can be carried out comparing the pace of de-dollarization before and after the program. As one can see in the graph below, the change in the pace of credit de-dollarization observed since 2015 is evident. The rate of de-dollarization rises from an average of 0.40 percentage points per month between May 2013 and December 2014 to a monthly average of 1.13 percentage points in 2015.



In addition to this, if we also take into account the exchange rate, one can also see a marked increase in the pace of de-dollarization of credit as from 2015, which is reflected in the parallel displacement of the relationship between de-dollarization and quarterly depreciation of the exchange rate (see graph below).



The methodology proposed by Pesaran and Smith (2012) allows us to isolate the effect of policy instruments on the explained variable based on reduced form models, which use control variables that are invariant to the policy instruments used. These reduced form models are then used to generate counterfactual impacts of the variables analyzed –the ratio of dollarization, in our exercise– whose significance is then evaluated using a statistical hypothesis.

These impacts consider two scenarios, one scenario being the one observed and the other is an alternative scenario in which it is assumed that the policy instruments were not activated. Then, using a hypothesis test designed by Pesaran and Smith (2012), we evaluate the average difference of these impacts to see if it is statistically different from zero. If this is the case, there is statistical evidence of the effectiveness of the policies implemented.

Auxiliary regression equations used in this analysis control the effect of the exchange rate on the process of dedollarization using control variables that are correlated with the evolution of this variable and do not depend on the policy of reserve requirements, such as the international price of copper and an exchange rate index of a sample of Latin American economies (Brazil, Chile, Colombia and Mexico).

The graph below shows the result of a counterfactual exercise. The difference of both lines captures the effect of the de-dollarization measures (implemented in 2015), controlling the effect of the foreign exchange rate. As one can see, the average effect of the program was a further reduction of 0.883 percent in the ratio of dollarization per month. This figure is statistically significant.





This result indicates that the policies adopted by the BCRP have been effective in de-dollarizing the economy. This achievement is extremely important, especially in the current international context in which the imminent normalization of the Federal Reserve monetary policy –rising its policy interest rates– is generating strong pressures on the foreign exchange rate. The reduction achieved in the dollarization of credit not only contributes to reduce currency mismatches in the private sector, but also increases the soundness of the financial system face severe external shocks that may generate abrupt changes in the foreign exchange rate.

Box 6 EXCHANGE RATE AND THE BALANCE-SHEET EFFECT

Since mid-2013, the US dollar has been strengthening worldwide. In this context, the sol has been depreciating against the U.S. dollar.

This box discusses the possible effects of the depreciation of the sol on economic activity in Peru. But one could ask the following question: Does this depreciation of the sol observed since 2012 have a contractionary effect or an expansionary effect on economic activity?

In the conventional economic theory of an open economy, such as the theory proposed by Mundell-Fleming, a currency depreciation has a positive effect on the output because export products become relatively cheaper and, therefore, the country gains competitiveness in terms of international trade.

In the Peruvian economy, an important part of the debt that businesses and families have are expressed in dollars (see the following graph on the evolution of the dollarization of credit), even if they generate income in soles. Therefore, a depreciation of the sol increases the costs of debt and reduces the resources available to meet financial obligations, which could translate into a greater credit risk for banks.



For companies, these balance-sheet effects have a negative impact on their investment and production plans. In this context, the depreciation of the sol against the dollar may have contractionary effects at the aggregate level, which could offset or affect the competitiveness effect if companies are highly indebted in dollars.

Other important channels through which a depreciation of the sol affects companies' decisions of investment and production should be pointed out. If companies have assets in dollars, then a depreciation of the sol will benefit them. On the other hand, if the companies import inputs from other countries, a depreciation of the sol increases the cost of their imported inputs expressed in domestic currency.

An important literature on the balance-sheet effects has been developed based on the work of Bernanke et al. (1999). In these models, when there is a significant currency mismatch (liabilities are significantly greater than the assets and



income in foreign currency), a sharp depreciation can deteriorate the net value of companies. As the risk of companies increases, loans become more expensive and restrictive, which eventually affects investment.

The BCRP Financial Stability Report (2015) says that currency mismatches have been observed in companies oriented mainly to the domestic market. These firms have borrowed in dollars (either locally or abroad) and have not taken foreign exchange hedges.

In this line, studies based on the balance sheets of non-financial companies listed in the Lima Stock Exchange (LSE) found evidence of the negative effects of a depreciation of the sol on business investment in a context of high depreciation (Carranza et al., 2011) or in a context of companies that register strong currency mismatches (Ramírez 2015).

Ramirez (2015) studied a sample of 76 companies listed in the Lima Stock Exchange in the period 2002-2014 and found evidence that a depreciation of the sol has a negative effect on business investment when the company's currency mismatch is below -10 percent (the currency mismatch being defined as the difference between liabilities less assets in dollars as a percentage of total assets).

Therefore, in order to reduce the vulnerability to the negative effects of an exchange rate depreciation, the BCRP has been taking a series of measures to reduce the ratio of dollarization in the economy. As one can see in the previous graph, dollarization in the Peruvian economy has been falling steadily in recent years.

Similarly, it should be pointed out that companies with incomes in soles that decide to keep debt in dollars or show strong mismatches in their currency composition –a negative exchange position in dollars – should evaluate the convenience of using derivative instruments to cover the future flows they must disburse for issuing debt in dollars or borrowing dollars, or evaluate the convenience of repurchasing part of their own debt in dollars through the issuance of new debt in soles.

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Box 7 UPDATE OF THE ESTIMATION OF THE EQUILIBRIUM REAL EXCHANGE RATE

In our Inflation report of May 2015, we discussed the results of the estimation of the equilibrium real exchange rate (ERER) using the methodology of the behavioral effective exchange rate (BEER) and data as of April 2015¹⁰. This report provides an update of these estimates using data as of November 2015.

There is some consensus in the literature on the fundamental variables of the ERER based on different theoretical models (see Caputo et al. (2007) for a complete review of the literature on this subject). Four fundamentals of the ERER are considered in this article for Peru: relative productivity, terms of trade, trade liberalization, and public spending.

- Relative productivity: An improvement in domestic productivity relative to the level of external productivity
 would lead to an increase in the demand for labor and, therefore, to higher real wages. In turn, higher wages
 would lead to an increase in the demand for local goods that would increase domestic prices. As a result, a
 real appreciation of the domestic currency would be observed.
- Terms of trade: In a primary export-oriented economy, an increase in the terms of trade translates into higher incomes that tend to increase aggregate demand. This pushes the price of domestic goods upwards and, given the prices of foreign goods, there is a real appreciation.
- Trade liberalization: the effect of this fundamental is ambiguous. First, an increase in trade liberalization
 associated with a reduction of tariffs generates an increase in the demand for importable goods and
 hence pushes prices upwards. Since the prices of these goods are determined in external markets, a real
 depreciation would be expected. Second, the import-price elasticity may be low, in which case there would
 be a positive income effect that would increase the demand for domestic goods which would induce a real
 appreciation.
- Government spending: Public sector purchases are typically oriented to goods produced in the country. Thus, a fiscal expansion would generate demand pressures for these goods, increase their price, and would tend to appreciate the currency.

Recent Trend of the ERER

Given the degree of uncertainty characteristic of econometric estimations to measure the average impact of fundamentals in the ERER, we estimate several specifications of the ERER model to make these estimations more robust. The results provided in the table below are averages of the estimates of all the specifications used.

¹⁰ It is worth pointing out that this methodology seeks to estimate long term relationships between the ERER and its fundamentals. Therefore, the data used is that recorded in the period of 1993 to 2015 under the assumption that these long-term relationships are stable in time.



AVERAGE ESTIMATED ELASTICITY 1/								
Variable	Estimated up to							
	IR May.15	IR Dec.15						
Relative productivity Peru / Trading partners 2/ Terms of Trade Ratio Public Expenditure Trade opening 3/	-0.6 -0.1 -0.1 -0.0	-0.5 -0.1 -0.2 -0.0						

1 / These are obtained averaging the estimates of all tested models. 2 / Productivity Relative Peru / trading partners: Ratio of GDP per person employed in Peru over partners.

3 / Tariff effective as import duties / total imports. An increase in trade openness would drop the tariff indicator.

57 faint effective as import duties / total imports. An increase in trade openness would drop the tarih indicator.

The estimated elasticities do not show significant changes relative to those provided in our previous Inflation Report. The fundamental with the greatest impact on the ERER is relative productivity, followed by the terms of trade and public spending, both of which have lower impacts. For example, when relative productivity in our economy grows one percentage point, it generates a reduction of 0.5 percent in the ERER. As we can see in the graph, the real exchange rate (RER) was below its equilibrium level in 2012. However, since 2013 the RER has increased and converged towards its equilibrium level. The estimates for 2014 and 2015 show that the RER is within the confidence bands in the estimates made.



It should be highlighted that the results of the estimation of the RER show that it is in line with the evolution of its fundamentals. Therefore, an abrupt adjustment in the nominal exchange rate would not be consistent with maintaining the external and internal balance in the economy. At the same time, a rapid exchange rate depreciation would generate the effect known as the "balance sheet" effect. Dollar-denominated liabilities would become more costly with a negative wealth effect that would lead to a fall in consumption. Considering that the BCRP policy of interventions in the foreign exchange market has no effect on the long-term RER (determined by fundamental variables), but only on its short-term volatility, foreign exchange intervention may be an effective instrument to prevent a disorderly adjustment of the economy to its long-term equilibrium level.

VI. Inflation

- 83. The rate of inflation accumulated in the last twelve months increased from 3.22 percent in December 2014 to 4.17 percent in November 2015.
- 84. This rate reflected mainly rises in the prices of foodstuffs and electricity rates, the food and energy component increasing by 5.02 percent. Inflation without food and energy –that is, the rate of inflation isolating the impact of these goods with high price volatility– registered 3.46 percent, due mainly to the rises observed in education costs and water supply rates, as well as due to the rises in some items whose prices are associated with the foreign exchange rate, such as car prices and house rents.



			Tabl INFLA (% ch	e 45 ATION hange)						
			2000	2040	2044	2042	2042	2044	20	15
	weight	2008	2009	2010	2011	2012	2013	2014	JanNov.	12-month
CPI	100.0	6.65	0.25	2.08	4.74	2.65	2.86	3.22	3.93	4.17
1. CPI excluding food and energy	56.4	4.25	1.71	1.38	2.42	1.91	2.97	2.51	2.95	3.46
a. Goods	21.7	3.21	2.31	1.07	2.37	1.60	2.62	2.43	3.28	3.51
b. Services	34.8	4.97	1.24	1.58	2.45	2.10	3.18	2.55	2.75	3.43
2. Food and energy	43.6	8.58	-0.86	2.98	7.70	3.55	2.73	4.08	5.10	5.02
a. Food and beverages	37.8	9.70	0.57	2.41	7.97	4.06	2.24	4.83	4.96	5.30
b. Fuel and electricity	5.7	1.65	-10.40	6.80	6.01	0.22	6.09	-0.85	6.10	3.12
Fuel	2.8	-0.04	-12.66	12.21	7.54	-1.48	5.95	-5.59	-5.55	-10.71
Electricity	2.9	6.31	-4.56	1.36	4.30	2.19	6.23	4.37	17.75	17.73



		(We	Tabl INFLA eight co	e 46 TION ntribut	ion)					
	Peso	2008	2009	2010	2011	2012	2013	2014	20 JanNov.	14 12-month
CPI	100.0	6.65	0.25	2.08	4.74	2.65	2.86	3.22	3.93	4.17
1. CPI excluding food and energy	56.4	1.88	0.74	0.78	1.36	1.05	1.62	1.37	1.60	1.87
a. Goods	21.7	0.62	0.43	0.23	0.51	0.34	0.54	0.50	0.67	0.72
b. Services	34.8	1.24	0.30	0.55	0.85	0.71	1.08	0.87	0.92	1.15
2. Food and energy	43.6	4.80	-0.49	1.30	3.38	1.60	1.24	1.86	2.34	2.31
a. Food and beverages	37.8	4.67	0.28	0.91	3.03	1.59	0.89	1.91	1.99	2.12
b. Fuel and electricity	5.7	0.13	-0.77	0.38	0.35	0.01	0.35	-0.05	0.35	0.19
Fuel	2.8	0.00	-0.68	0.34	0.23	-0.05	0.18	-0.18	-0.16	-0.33
Electricity	2.9	0.13	-0.09	0.04	0.12	0.06	0.17	0.12	0.51	0.51

85. Electricity rates showed an accumulated increase of 18 percent, due mainly to the various adjustments authorized by Osinergmin in the frame of current regulation. Thus, generation, distribution, and transmission costs, which were affected by the increase in the exchange rate, were updated. The main factors accounting for the price rise in electricity rates were the exchange rate and the new investments made in this sector which translated into higher transmission tolls in Sistema de Transmisión Principal.

Table 47 DETERMINANTS OF ELECTRIC TARIFF CHANG (Dec. 2014 - Nov. 2015)	E
Item	Contribution to growth (%)
Exchange rate	9
Special charges to finance investments	5
Transmission charges	2
Others	2
TOTAL	18

Source: GART, OSINERGMIN.

Special costs to finance new investments would be used to develop renewable energy plants (with a contribution of 2.5 percent), the projects of Gasoducto Sur Peruano (0.9 percent), transmission lines (0.8 percent) lines, and Reserva Fría in Puerto Eten (0.8 percent).

86. **Meals outside the home**, which was the item with the highest contribution to inflation, increased by 5.0 percent. This increase was associated with higher food prices (4.9 percent).



ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION: JANUARY - NOVEMBER 2015											
Positive	Weight	% Chg.	Contribution	Negative	Weight	:% Chg.	Contribution				
Meals outside the home	11.7	5.0	0.66	Citric fruits	0.5	-15.5	-0.12				
Electricity	2.9	17.7	0.51	Gasoline and lubricants	1.3	-6.5	-0.09				
Education costs (tuition and fees)	8.8	4.9	0.46	Gas	1.4	-5.5	-0.08				
Potatoes	0.9	51.6	0.44	National transportation	0.3	-16.8	-0.07				
Purchases of vehicles	1.6	9.1	0.14	Telephone rates	2.9	-2.7	-0.06				
Water consumption	1.6	8.1	0.14	Other cereal	0.1	-28.9	-0.02				
Toiletries	4.9	2.4	0.11	Eggs	0.6	-2.8	-0.02				
Sugar	0.5	19.1	0.10	Рарауа	0.2	-5.2	-0.01				
Medicine products	2.1	4.5	0.09	Peach	0.1	-5.0	-0.01				
Urban fare	8.5	1.1	0.09	Other fresh fruits	0.4	-1.0	0.00				
Total			2.74	Total			-0.48				

Table 48

Education costs –**tuition and fees**– increased by 4.9 percent, reflecting mostly the adjustments made in March in private schools (6.4 percent) and private universities (3.6 percent). The rises recorded thereafter reflected increases in tuition and fees in private institutes.

Water rates increased 8.1 percent due to the rise authorized by the regulating entity Sunass. Another factor considered was meeting Sedapal management goals aimed at increasing the coverage of water supply.

The **prices of vehicles** rose 9.1 percent as a result of the depreciation of the nuevo sol against the dollar (12.3 percent).

87. Year-to-date, the average price of gasohol fuels has declined 6.5 percent, less than the international benchmark prices of ethanol fuels (or gasohol), which have fallen 23 percent in dollars and 14 percent in the equivalent price in domestic currency. It is worth pointing out that the local refinery price has decreased only 3 percent.

The following table shows that consumers have seen a reduction 6.5 percent in fuel prices, while the price of international benchmark of ethanol fuels have dropped by 14.0 percent, which takes into account the rise recorded in the exchange rate.



Table 49 GASOHOL PRICES (S/ per gallon)										
	Dec.14	Nov.15	Var.%							
1. Import parity price of gasohols (US\$)*	1.99	1.54	-22.8%							
2. Exchange rate	2.96	3.30	11.4%							
3. Import parity price of gasohols (S/)(=1*2)	<u>5.91</u>	5.08	-14.0%							
4. Price in advance	0.54	1.19	122.4%							
5. <u>Refinery price (=3+4)</u>	<u>6.44</u>	<u>6.27</u>	<u>-2.7%</u>							
6. Taxes	3.30	3.17	-4.0%							
7. Commercial margin	2.26	1.79	-20.8%							
8. Final price(=5+6+7)	12.01	11.23	-6.5%							
* Corresponds to international prices calculated by OSINERGMIN.										

 Corresponds to international prices calculated by OSINERGMIN Source: INFL and OSINERGMIN.

Foodstuffs

Weather anomalies affected the supply of perishable produce such as potatoes and tomatoes in the period of January-November.

Rises were observed in the prices of all the varieties of **potatoes**, this category recording an accumulated increase of 51.6 percent in the period. Warmer temperatures in the valleys of Lima affected planting decisions early in the year. This was later on followed by an irregular supply of potatoes from Huánuco, whose crops were affected by rains. As a result, the price of potatoes rose 17.2 percent in the month of January. Rainfall and landslides in the following months resulted in further, but lower increases in potato prices, after which this situation reversed as from April when the market received the supply of potatoes from Junín and Ayacucho, which led the price to drop until July, the end of the large farming season. Strong price increases were then observed in the following months, the price of potatoes recording a rise of 18.7 percent in November. In addition to lower yields and scarce rainfall in many areas of the central highlands, temperature increases and expectations of a strong El Niño child event have discouraged sowings in the valleys of Lima and Huánuco recently.

The price of **tomatoes** rose 32.8 percent, reflecting also supply problems resulting mainly from weather anomalies. The national production of tomatoes fell 18.7 percent in the period January-October. Moreover, higher temperatures in the valleys of Lima, the major suppliers of the area of Metropolitan Lima, resulted in lower yields and in pest problems.

The prices of "**other vegetables**" rose 14.1 percent. Prices in this category, which includes products like broccoli (36.2 percent) grown in the valleys of Lima, were affected by temperature increases that resulted in the emergence of pests and affected crops.

As for food prices which are usually affected mostly by the evolution of international prices, in the period of analysis, these prices were affected mostly by domestic factors.

The price of **sugar** rose 19.1 percent due to lower supply. In January-October the production of sugar cane dropped 11.7 percent, due mainly to lower yields caused by water shortages in 2014. Strikes and technical stops in some companies also contributed to this result. On the other hand, the price of sugar in the international market showed a moderate increase (1.4 percent in the case of sugar contract N° 5 and 3.7 percent contract in the case of sugar contract N° 16).

The price of **chicken meat**, which increased 2.1 percent, showed a fluctuating behavior throughout the period associated mainly with the greater or lesser availability of fish, its main substitute. The national production of poultry increased 8.4 percent in the period of January-October. As for production costs, the rise in the exchange rate was in part offset by the fall in the international prices of hard yellow maize (-4.2 percent).

WEIGHTED CONTRIBU	Table 50 TION TO INFLATION: J	ANUARY-NOVEMBER 20	15
	Weight	% Chg.	Weighted cont.
INFLATION	100.0	3.9	3.93
Foodstuffs	37.8	5.0	1.99
Associated to international prices	10.0	2.6	0.26
Sugar Poultry meat	0.5 3.0	19.1 2.1	0.10 0.06
Associated to domestic supply shocks	4.95	10.7	0.57
Potato Other vegetables Tomato	0.9 0.4 0.2	51.6 14.1 32.8	0.44 0.07 0.06
Meals outside the home	11.7	5.0	0.66
Rest of foodstuffs	11.1	4.2	0.49
Gasoline, urban fare, and electricity	<u>14.3</u>	<u>3.1</u>	<u>0.44</u>
Gasoline Urban fare Electricity	2.8 8.5 2.9	-5.6 1.1 17.7	-0.16 0.09 0.51
Associated to exchange rate	<u>4.5</u>	<u>6.0</u>	<u>0.24</u>
Purchase of vehicles House rent Airplane fare	1.6 2.4 0.4	9.1 3.2 9.0	0.14 0.07 0.04
Education	<u>9.85</u>	<u>5.1</u>	<u>0.53</u>
Education costs (tuition and fees) Education in diverse areas Textbooks and schoolbooks	8.8 0.3 0.7	4.9 14.8 4.5	0.46 0.04 0.03
Rest	33.58	2.3	0.73





Accumulated Inflation between January and November is in part explained by the 14.1 percent increase of the US dollar-to-sol exchange rate, the impact of which was mainly reflected in the prices of vehicles, airfares, and house rents (the latter is largely expressed in dollars). Moreover, adjustments in electricity rates were also associated with higher costs resulting from the impact of the exchange rate. As for fuel prices, although these prices have fallen due to the drop in the international price of oil, the price fall was significantly reduced by the depreciation of the foreign exchange rate.

Another factor accounting for the rate of accumulated inflation between January and November is the 5 percent rise observed in food prices (versus 4.5 percent in the same period of 2014). Some price rises worth pointing out were the rise in the prices of potatoes (51.6 percent), other vegetables (14.1 percent), and tomatoes (32.8 percent) as a result of adverse weather conditions.

Box 8 DOMESTIC FUEL PRICES

In this box, we analyze the evolution of the international prices of fuels and their impact on prices in the country. As pointed out in previous reports,¹¹ while the domestic prices of gasohol fuels have fallen over the past 18 months, there are still rigidities in the transmission of international prices to local prices.

If we take the price of the 90-octane gasohol, for example, the international prices of this fuel including customs and related costs, as published by OSINERGMIN, have fallen by 24.1 percent in dollars since December 2014. Taking into account the effect of the depreciation of the sol, the price reduction has been 14.4 percent. However, local refinery prices have only adjusted this price by 3.2 percent. The table below shows that at November 2015 there is still a reduction of S/ 1.22 per gallon pending to reflect the complete reduction of the international price observed mainly since the month of June of 2014.

MONTHLY AVERAGE PROCE OF GASOHOL FUEL (S/ per gallon)										
	Jun.14	Jun.14 Dec.14	n.14 Dec.14 Nov.1	Nov.15	7.15 % Chg.					
	(A)	(B)	(C)	C/A	C/B					
1. Import parity price of gasohols (US\$) 1/	2.95	2.00	1.52	-48.5%	-24.1%					
2. Exchange rate	2.79	2.96	3.34	19.5%	12.7%					
3. Import parity price of gasohols (S/)(=1*2)	<u>8.24</u>	<u>5.93</u>	<u>5.07</u>	<u>-38.5%</u>	-14.4%					
4. Additional margin (=5-3)	0.26	0.57	1.22	361.0%	113.3%					
5. <u>Refinery price</u> ^{2/}	<u>8.51</u>	<u>6.50</u>	<u>6.29</u>	<u>-26.1%</u>	-3.2%					
6. Taxes	2.86	2.34	2.20	-23.0%	-5.7%					
7. Distribution margin(=8-6-5)	2.94	3.08	2.66	-9.6%	-13.6%					
8. <u>Final price</u> ^{3/}	<u>14.31</u>	<u>11.91</u>	<u>11.15</u>	<u>-22.1%</u>	<u>-6.4%</u>					

1/ Price in Gulf Coast given by OSINERGMIN. Adds 4% in commercial margin.

Published by Petroperú.
 Source INEI, OSINERGMIN and Petroperu.

Fuentes: INEI. OSINERGMIN and PetroPeru.

This delay in the transmission of the reduction in international fuel prices to local prices can be checked using different methodologies. It is also possible to approximate the cost of importing crude oil derivatives based on the information of Customs (SUNAT). With this information we can infer the cost of importing (90 octane) gasohol using the payment amounts declared by importers (in CIF terms) to the tax authority. With this method, we find a similar result, that is, the fall in import prices in soles (17 percent) has been greater than the price reduction in the refinery prices (3.2

percent) relative to December of the previous year.



¹¹ October 2014 and September 2015.





If we compare the refinery list prices (in US\$ per gallon) of regular gasoline in Chile, Colombia, and Peru, we can see that the price in our market is higher in recent months. The average refinery price of regular gasoline in dollars in Peru decreases 14.1 percent compared to December 2014, while in Chile it falls 19.2 percent. Moreover, since the local price of regular gasoline in Peru was 2.9 percent lower than in Chile in June 2014, in November of 2015 this price is higher by 11.9 percent in Peru.







Moreover, as pointed out in our Inflation Report of October 2014, a systematic advancement has been observed relative to Osinergmin parity since September 2013. Thus, in most gasohol fuels, this advancement expressed as a percentage of the reference price has risen from 7 percent in June 2014 to 24 percent in November 2015, with a growing deviation being observed since July 2015¹².



This price advancement has been reflected in a considerable increase in the profits of the major refineries, which in Q3-2015 amounted to S/ 522 million, a substantially greater amount than that recorded in the same period of when there was no significant price advancement.

¹² Despite the fact that in November 2014 the Ministry of Energy (MINEM) approved a methodological change which resulted in raising the benchmark prices calculated by OSINERGMIN and therefore in a reduction in the extra margin of refinery prices.



In short, various comparison exercises using different comparison methodologies show that the refinery prices of fuels in the country are high and do not reflect the reduction observed in the international prices of oil derivatives.

		С	OMPARI	SON OF RE	FINERY PRI	CES			
	Cou (Gasoho	Countries of LATAM (Gasohol 90 US\$ per gallon)			Prices OSINERGMIN Prices CIF verage gasoholes S/ per gallon) (Gasohol 90 S/ per gallo			gallon)	
	Peru	Chile	Dif.%	Refinery	Reference	Dif %	Refinery	CIF	Dif %
Jun 2014 Nov 2015	3.04 1.88	3.13 1.68	-2.9 11.9	8.56 6.27	7.99 5.08	7.1 23.5	8.51 6.29	8.17 4.75	4.1 32.4

VII. Inflation Forecast and Balance of Risks

Forecast

- 88. 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.
- 89. In this context, inflation is forecast to gradually come closer to the target range in the 2015-2017 horizon, but showing a slower pace of convergence to the target than estimated previously in the Inflation Report of September. This slower pace would be mainly reflecting a greater-than-expected nominal depreciation of the sol and increased expectations of inflation. These effects would be offset in part by an output gap that is still negative, but that would be converging to its equilibrium level 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 level closer to the BCRP target range.
- 90. Some aspects of the determinants of the inflation forecast are discussed below:
 - a) The **output gap** has remained negative during 2015, but is expected to recover gradually towards the end of the forecast horizon, although at a slower pace than estimated in the Inflation Report of September. The lower output gap this year would be explained by the effect of lower business confidence, the slower pace of growth observed in our trading partners, and by the further deterioration of the terms of trade.



The factor that had a positive impact on the output gap in 2015 was expansionary monetary conditions in soles. This effect, together with a positive fiscal impulse and with the recovery of the output in the primary sectors (especially in the sectors of mining and fishing), are expected to favor a gradual recovery in business confidence and consequently, in investment next year.

A slightly more negative average output gap than that observed in 2015 is expected for 2016 due to the lower terms of trade and to the slower pace of growth of our trading partners. Despite this, the output gap shows a recovery pattern, converging towards a position of equilibrium by the end of 2017.



b) Expectations of inflation in 2016 are slightly above the inflation target range, but show a declining pattern towards the end of the forecast horizon (2015-2017). This convergence is slower than that considered in our previous Inflation Report due to the expected effect of the depreciation of the sol in Q4-2015 on the rate of inflation in 2016. 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.





Table 51 SURVEY ON MACROECONOMIC EXPECTATIONS: INFLATION (% change)											
	Expectations about:										
		IR Jan.15	IR May.15	IR Sep.15	IR Dec.15*						
Financial entities											
	2015	2.5	2.9	3.3	3.8						
	2016	2.5	2.8	3.0	3.3						
	2017		2.9	2.8	2.8						
Economic analysts											
	2015	2.7	2.9	3.5	3.8						
	2016	2.5	2.6	3.0	3.2						
	2017		2.5	2.6	3.0						
Non-financial firms											
	2015	3.0	3.0	3.3	3.5						
	2016	3.0	3.0	3.0	3.1						
	2017		3.0	3.0	3.0						

c) **Imported inflation** reflects the evolution of import prices and the evolution of the exchange rate. As regards **international prices**, a partial reversal is foreseen

the exchange rate. As regards **international prices**, a partial reversal is foreseen in the prices of the main imported commodities. However, the anticipated trend in the exchange rate would have an upward effect on inflation and on expectations of inflation.

The BCRP survey on expectations about the dollar-nuevo sol exchange rate shows that economic agents expect a moderate depreciation of the sol for 2016, which would be indicating that the depreciation observed in the last quarter reflects market anticipation of the withdrawal of monetary stimulus by the U.S. Federal Reserve.

Table 52SURVEY ON MACROECONOMIC EXPECTATIONS: EXCHANGE RATE(%)				
		Expectations about:		
	IR Jan.15	IR May.15	IR Sep.15	IR Dec.15*
Financial entities				
2015	5 3.10	3.22	3.35	3.40
2016	5 3.15	3.25	3.45	3.50
2017	7	3.25	3.45	3.50
Economic analysts				
2015	5 3.10	3.25	3.35	3.40
2016	5 3.15	3.30	3.45	3.50
2017	7	3.30	3.45	3.53
Non-financial firms				
2015	5 3.00	3.20	3.30	3.40
2016	5 3.10	3.25	3.40	3.50
2017	7	3.30	3.45	3.50

* Survey conducted during the second fortnight of November 2015.





- d) The following stand out among the main **supply shocks** that would affect inflation in 2016: i) the annual revision of electricity rates, and ii) the impact of El Niño. The combination of these factors would cause an increase on the average **prices of food and energy**, which is estimated at 2.8 percent in 2016. This increase would be due mostly to the evolution of energy prices (which includes fuel prices and electricity rates) and food prices.
- 91. 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. Based on the information available today, the negative output gap estimated would be indicating a lack of inflationary pressures on the side of demand. A gradual reversal from its current negative level to a neutral position is foreseen in the output gap in the 2015-2017 forecast horizon. The main determinants of the forecast of the output gap include the following:
 - a) **Business confidence**: a slower recovery is foreseen in business confidence due to uncertainty about the evolution of external factors, particularly the evolution of the terms of trade and economic slowdown in China.
 - b) **External conditions**: more restrictive external conditions than those foreseen in the IR of September are now expected due to the lower rates estimated in terms of global growth and in the growth of our trading partners (a weaker level of economic activity is expected in the United States and in China). 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 September are now estimated.
 - c) **Fiscal Impulse**: The fiscal impulse estimated for next year would be equivalent to 0.7 percent of GDP, considering an improvement in the implementation of public investment projects by subnational governments. In the forecast horizon, the fiscal impulse is expected to show a gradual reduction towards its neutral position.
 - 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 2016 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.

92. The growth forecast for the 2015-2017 forecast horizon (2.9 percent, 4.0 percent, and 4.8 percent) is consistent with the gradual recovery of the output gap and the potential output.



93. The risk factors that imply higher inflation have materialized. This has been the case of higher food prices due to transitory supply shocks, as well as a higher depreciation of the sol and a greater exchange rate-to-inflation pass-through. Because of this, inflation is foreseen to show a slower convergence to the inflation target range in the forecast horizon than that considered in our IR of September.



Balance of Risks in the 2015 – 2017 Horizon

94. 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.

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 September due mainly to lower growth in the United States and 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 materialize if the withdrawal of monetary stimulus by the U.S. Federal Reserve brought about volatility in international financial markets. Such a scenario could generate capital outflows from the emerging market countries and depreciation pressures on their currencies. The additional increase in the exchange rate would imply higher inflation in the forecast horizon.

d. Supply shocks

A more severe El Niño event than the one considered so far could generate upward pressures on the prices of some food products, especially in the first half of 2016.

95. Even though the balance of the above-mentioned risks remains neutral for the inflation forecast, a higher risk is foreseen in a scenario of high volatility in financial and foreign exchange markets. At the same time, however, the risk of occurrence of a "super" El Niño is considered to be lower.



Conclusions

96. Inflation is still forecast to continue declining and to converge towards the inflation target range in the 2015-2017 horizon, which is consistent with expectations of declining inflation, fewer supply shocks, and with the gradual closing of the negative output gap in the forecast horizon.

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 necessary, to ensure inflation's convergence to the inflation target range.



