

# INFLATION REPORT

# September 2016

Recent trends and macroeconomic forecasts 2016-2018

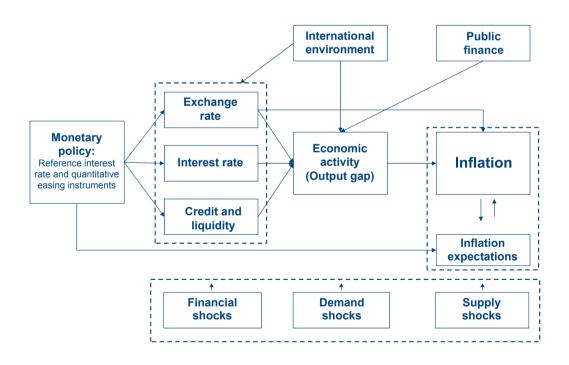


CENTRAL RESERVE BANK OF PERU

## **INFLATION REPORT:**

### Recent trends and macroeconomic forecasts 2016-2018

### September 2016



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INFLATION REPORT Recent trends and macroeconomic forecasts

### Inflation Report: Recent Trends and Macroeconomic Forecasts 2016 - 2018

### September 2016

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This *Inflation Report* was prepared using data on the Balance of Payments as of the second quarter of 2016, data on Gross Domestic Product as of June 2016, data on Monetary Accounts as of July, and data on the operations of the Non-Financial Public Sector, Inflation, Financial Markets, and the Exchange Rate as of August 2016.

# 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 benchmark rate for the interbank lending market. Since this interest rate, which is the monetary operational target, affects the rate of inflation through several channels with time lags, this rate is set on the basis of inflation forecasts and forecasts of inflation determinants.
- Inflation may transitorily deviate from the target range due to shocks that may temporarily
  affect the supply of goods and services, such as fluctuations in the prices of imported
  products or domestic climate factors. It should also be pointed out that the effectiveness
  of monetary policy is also assessed in terms of the success in returning and maintaining
  inflation expectations within the target range.
- 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 and composition of 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 an analysis of the risk factors that can modify such forecasts.
- This Inflation Report was approved by the Board of Directors of BCRP on September 8, 2016.



# Summary

- i. Since June when our last Inflation Report was released–, international markets have been affected mainly by the referendum in the United Kingdom which determined the exit of the UK from the European Union, as well as by expectations that the Federal Reserve would start normalizing its policy interest rate in the United States. However, since the resulting financial volatility has had a moderate impact on indicators of world economic activity, the global GDP growth rates projected for 2016 and 2017 have been revised slightly down: from 3.1 to 3.0 percent in 2016 and from 3.5 to 3.4 percent in 2017.
- ii. Peru's GDP has been growing at a rate closer to its potential output level, recording a growth rate of 4.0 percent from January to July as a result of the dynamism of traditional exports and sub-national governments' investment. In contrast, private investment, particularly mining investment, continued showing a decline in the first half of the year (-4.6 percent). On the other hand, recent surveys have been showing a favorable trend in business confidence, which is explained mostly by indicators pointing to a more sustainable recovery in production, employment, and income, as well as by changes promoting the implementation of private and public projects.

The projected growth rate of GDP in 2016-2018 is consistent with a gradual closing of the output gap, which would be reflecting that activity is reaching its potential level. In 2016 GDP would grow 4.0 percent and in 2017 and 2018 it is projected to grow 4.5 and 4.2 percent, respectively, this growth trend being sustained by the dynamism of consumption which would show growth rates of 3.8 and 4.0 percent, respectively. Private investment, on the other hand, would start to recover in the next 2 years with growth rates of 5 percent.

iii. Inflation has maintained a clear downward trend due to the reversal of price rises in some foodstuffs affected by El Niño as well as due to the strengthening of the domestic currency by 0.6 percent in the first eight months of the year. Another factor contributing to this has been the anchoring of inflation expectations within the inflation target range –between 1 and 3 percent–, which also reflects the economy's response to the increases in the BCRP benchmark interest rate in the months of September and December 2015 and in January and February 2016.

The rate of inflation has dropped from 4.4 percent in December 2015 to 2.9 percent in August 2016. It is projected to converge to the upper band of the inflation target in the next months, following a declining path thereafter and reaching a rate of 2 percent by the end of 2017.





iv. The balance of payments continues showing a downward trend in the current account deficit, which declined from 5.4 percent of GDP in the first half of 2015 to 4.4 percent in the first half of 2016. This adjustment was observed particularly in imports, which dropped 10 percent in this period, while exports, on the other hand, showed an increase of 9 percent in terms of volume. The increase observed in exports, which was particularly noteworthy in exports of minerals, was offset by the lower prices of exports (down by 11 percent).

The deficit in the current account is projected to continue declining in 2016, as well as in 2017 and 2018, and to reach 3.3 percent of GDP in 2018, coupled by a gradual improvement in both the volumes and prices of exports. A significant flow of long-term external capital oriented to investment is still foreseen, together with an increase in the BCRP international reserves as from the third quarter of 2016.

v. An expansionary position is considered in 2016 in the fiscal scenario projected in this Inflation Report, followed by a correction in 2017 and 2018 to ensure fiscal sustainability. In accordance with the Multiannual Macroeconomic Framework, the deficit in the economic balance would be equivalent to 3 percent of GDP in 2016, converging thereafter to 2.5 percent in 2017 and to 2.3 percent in 2018. Moreover, this gap would imply an increase in the public debt, which would represent 27.5 percent of GDP in 2018.

The current revenue of the General Government is projected considering a passive scenario characterized by the existing scheme of tax rates, with which revenue would come to represent 19.2 percent in 2017 and 19.4 percent in 2018.

Moreover, General Government spending would tend to strengthen the capital expenditure component with respect to current expenditure, and would reach 20.8 percent of GDP in 2016, 20.5 percent in 2017, and 20.4 percent in 2018.

- vi. In view of the convergence of inflation and inflation expectations to the inflation target range (between 1 and 3 percent), the Central Bank has maintained the policy interest rate at 4.25 percent since March 2016.
- vii. Credit to the private sector has evolved in line with the pace of activity, recording an annual growth rate of 9.4 percent in real terms in December 2015 and a rate of 7.7 percent in July 2016. The balance of currency repos issued to promote the substitution of credit in dollars for credit in soles declined from S/ 28.51 billion in June 2016 to S/ 27.91 billion in August 2016, the growing dynamism of deposits in soles accounting for the lower demand for these operations.

A strengthening of the domestic currency has been observed since the end of February of this year, as a result of which the ratios of de-dollarization of credit

and deposits have continued decreasing, recording rates of 26.0 percent and 41.7 percent in the month of July, respectively. A noteworthy reduction has also been observed in non-residents' demand for dollar forwards (down by US\$ 8.04 billion) between March and August 2016, which has allowed the Central Bank to reduce the aggregate balance of foreign exchange swaps and BCRP-CDR by US\$ 10.40 billion in this period.

viii. Inflation forecasts for 2016-2018 show no bias on the upside or on the downside. The two diversion factors considered –lower global economic activity and increased financial volatility in international markets– are counterbalanced in terms of their impact on inflation in Peru.



			20	16 <sup>1/</sup>	20	17 <sup>1/</sup>	20	181/
		2015	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16
		Var. % rea	I					
1.	Gross Domestic Product	3.3	4.0	4.0	4.6	4.5	4.2	4.2
2.	Domestic demand	2.9	2.5	1.8	3.8	4.0	3.8	4.0
	a. Private consumption	3.4	3.5	3.5	3.8	3.8	4.0	4.0
	b. Public consumption	9.5	4.7	5.7	1.0	3.0	0.8	3.5
	c. Fixed private investment	-4.5	-1.0	-4.3	4.0	5.0	4.2	5.0
	d. Public investment	-7.5	10.3	10.3	7.9	4.5	6.0	6.2
3.	Exports (good and services)	3.5	6.4	6.9	6.4	5.5	4.9	4.6
4.	Imports (good and services)	2.1	0.3	-1.7	3.5	3.6	3.5	3.7
5.	Economic growth in main trading partners	3.1	2.8	2.7	3.1	3.1	3.3	3.2
Mem		45.05	45.00	45.00	10.00		05 00	
0	Output gap <sup>2/</sup> (%)	-1.5 ; -0.5	-1.5 ; 0.0	-1.5 ; 0.0	-1.0 ; 0.0	-1.0 ; 0.0	-0.5 ; 0.0	-0.5 ; 0.
		Var. %						
5.	Inflation	4.4	2.7 - 3.2	2.6 - 3.1	2.0 - 2.2	2.0 - 2.2	2.0 - 2.2	2.0 - 2.
7.	Expected inflation 3/	-	3.5	2.9	3.0	2.8	2.8	2.7
8.	Expected depreciation 3/	-	2.9	0.4	1.9	2.3	1.7	1.2
9.	Terms of trade 4/	-6.3	-2.6	-2.2	0.9	1.0	0.0	0.0
	a. Export prices	-14.9	-4.8	-4.8	2.8	3.7	0.9	1.2
	b. Import prices	-9.2	-2.3	-2.6	1.9	2.7	0.9	1.3
		Var. % nomi	nal					•
10.	Currency in circulation	3.8	5.5	5.4	6.0	6.0	6.0	6.0
11.	Credit to the private sector 5/	9.4	7.0	6.5	7.0	7.0	6.5	6.5
		% GDP						
12.	Gross fixed investment	24.4	24.0	23.4	24.3	23.7	24.4	24.1
13.	Current account of the balance of payments	-4.8	-3.8	-3.8	-3.0	-3.4	-2.8	-3.3
14.	Trade Balance	-1.6	-0.8	-0.2	-0.2	0.2	0.0	0.3
15.	Long-term external financing of the private sector 6/	5.8	4.1	4.5	4.3	4.9	4.1	4.7
16.	Current revenue of the general government	20.0	19.3	18.9	19.3	19.2	19.3	19.4
17.	Non-financial expenditure of the general government	21.3	21.1	20.8	20.7	20.5	20.4	20.4
18.	Overall balance of the non-financial public sector	-2.1	-3.0	-3.0	-2.8	-2.5	-2.5	-2.3
19.	Balance of total public debt	23.3	25.5	25.4	26.6	25.9	28.0	27.5
20.	Balance of net public debt	6.6	10.1	9.2	13.1	11.7	15.5	13.8

1/ Forecast.

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

3/ Survey on expectations to the economic agents.

4/ Average.

5/ Includes loans made by banks' branches abroad.

6/ Includes net direct investment, portfolio investment and private sector's long term disbursement.

IR: Inflation Report.



# I. International Environment

#### Output

1. The global growth forecast has been revised slightly down relative to our Inflation Report of June, especially since growth is projected to be lower in the developed countries (down from 1.8 percent to 1.5 percent in 2016 and from 1.9 percent to 1.7 percent in 2017). The forecast of growth in the emerging market economies remains unchanged at 4.1 percent in 2016 and at 4.7 percent in 2017. With these trends, the global output would grow 3.0 percent in 2016 (3.1 percent in the Inflation Report of June) and 3.4 percent in 2017 (3.5 percent in the previous report).

The main changes in the forecasts have been the growth rates projected for the United States and the United Kingdom. In the former country, the growth rate has been revised down from 2.0 to 1.5 percent in 2016, due basically to the indicators of activity recorded in the first and second quarter of the year. In the case of the latter, the forecast have been revised from 1.9 to 1.7 percent in 2016 and from 2.1 to 1.0 percent in 2017 due to the uncertainty generated by the *Brexit* –the UK's exit from the European Union–, which will require that negotiations be made to replace the existing trade and integration agreements. It is worth pointing out, however, that the indicators of economic activity in August and September –that is, after the referendum that decided the exit of the UK from the European Union– have been better than expected, which could be indicating a possible lower impact.

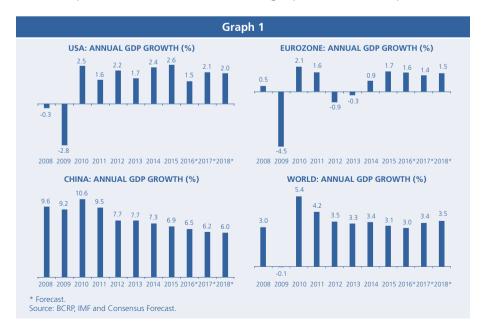




	Table 1         WORLD GDP GROWTH       (Annual % change)											
	% <sup>1/</sup> Structure	Trading Peru <sup>2/</sup>	2015		016* 5 IR Sep.16		)17* IR Sep.16		<u>18*</u> IR Sep.16			
Advanced economies	42.4	47.4	2.0	1.8	1.5	1.9	1.7	1.9	1.9			
Of which:												
1. United States of America	15.8	17.5	2.6	2.0	1.5	2.0	2.1	2.2	2.0			
2. Eurozone	11.9	11.0	1.7	1.6	1.6	1.7	1.4	1.6	1.5			
Germany	3.4	2.8	1.5	1.7	1.7	1.6	1.4	1.5	1.4			
France	2.3	0.9	1.3	1.4	1.3	1.6	1.2	1.6	1.5			
Italy	1.9	1.7	0.8	1.1	0.8	1.2	0.9	1.1	1.0			
Spain	1.4	2.5	3.2	2.8	2.9	2.2	1.9	2.0	1.9			
3. Japan	4.3	3.0	0.5	0.5	0.5	0.6	0.8	0.6	0.8			
<ol><li>United Kingdom</li></ol>	2.4	1.1	2.2	1.9	1.7	2.1	1.0	2.2	1.7			
5. Canada	1.4	4.4	1.1	1.7	1.4	2.3	2.1	2.2	2.2			
Emerging market and developing Of which:	economies 57.6	52.6	4.0	4.1	4.1	4.6	4.6	4.8	4.8			
1. Developing Asia	30.6	26.9	6.6	6.4	6.4	6.3	6.3	6.3	6.3			
China	17.1	22.2	6.9	6.5	6.5	6.2	6.2	6.0	6.0			
India	7.0	2.2	7.6	7.4	7.4	7.6	7.6	7.6	7.6			
2. Commonwealth of Indepen		0.7	-2.8	-0.3	-0.1	1.5	1.4	1.9	1.9			
Russia	3.3	0.5	-3.7	-0.8	-0.6	1.2	1.1	1.4	1.4			
3. Latin America and the Caril		23.2	0.0	-0.6	-0.4	1.9	1.8	2.4	2.4			
Brazil	2.8	4.1	-3.8	-3.8	-3.4	0.2	0.4	1.2	1.2			
Chile	0.4	3.2	2.1	1.8	1.7	2.5	2.2	2.7	2.7			
Colombia	0.6	3.0	3.1	2.4	2.2	3.0	2.9	3.7	3.7			
Mexico	2.0	3.4	2.5	2.6	2.3	2.7	2.5	2.8	2.7			
Peru	0.3	-	3.3	4.0	4.0	4.6	4.5	4.2	4.2			
World Economy	<u>100.0</u>	<u>100.0</u>	<u>3.1</u>	<u>3.1</u>	<u>3.0</u>	<u>3.5</u>	<u>3.4</u>	<u>3.6</u>	<u>3.5</u>			
Memo: Peru's trading partners <sup>2/</sup>	65.7		3.1	2.8	2.7	3.1	3.1	3.3	3.2			

1/ 2015. 2/ Basket of Peru's 20 main trading partners.

\* Forecast.

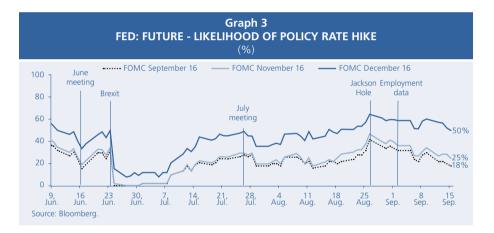
Source: Bloomberg, IMF and Consensus Forecast.

2. The favorable result obtained by the Brexit position in the referendum of June 23 in the UK generated greater volatility in international financial markets, although it began to subside as information on the scope of Britain's exit from the European Union and the timeframe in which this decision would be implemented began to be internalized. Volatility also declined as a result of the actions taken by the Bank of England.

The degree of risk aversion in international financial markets has also been associated with changes in expectations of whether the Fed FOMC would raise the Fed interest rate. Expectations of a rate rise have been affected by the publication of economic indicators in the United States as well as by the statements of the members of the FOMC emphasizing that it was necessary to withdraw monetary stimulus gradually. The information available on the closing date of this report indicated that expectations that the Fed would raise its rate in September was 18 percent (versus a probability of 36 percent at the end of August) and that expectations of a rate rise in December was 50 percent (versus 60 percent at the end of August).



Source: Bloomberg



3. The indicators of inflation and unemployment in the United States have been showing levels close to those estimated by the Fed as long term equilibrium levels. Thus, between June and August, 232 thousand new jobs were created on average and the rate of unemployment fell from 5.0 to 4.9 percent, although without evidence of rising wage pressures being observed. On the other hand, the rate of inflation has remained stable due to the combined effect of the appreciation of the dollar and the lower price of fuels.

Table 2           MEMBERS OF THE FED: PROJECTIONS           (June 2016)										
	Executed Median									
	2015	2016	2017	2018	Long-term					
1. Growth <sup>1/</sup>	1.9	2.0	2.0	2.0	2.0					
2. Unemployment rate <sup>2/</sup>	5.0	4.7	4.6	4.6	4.8					
3. Inflation <sup>3/</sup>	0.4	1.4	1.9	2.0	2.0					
4. Core inflation <sup>3/</sup>	1.4	1.7	1.9	2.0	-					
5. Policy interest rate 4/	0.4	0.9	1.6	2.4	3.0					

1/ YoY on real GDP in Q4.

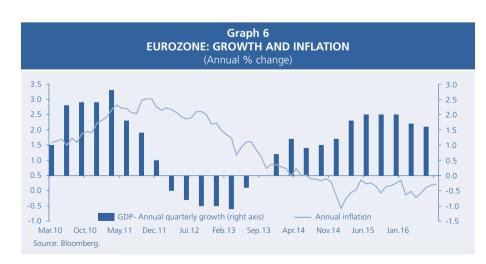
2/ % in Q4.3/ YoY on Personal Consumption Expenditure (PCE) in Q4.

4/ End-of-period. Source: Fed.





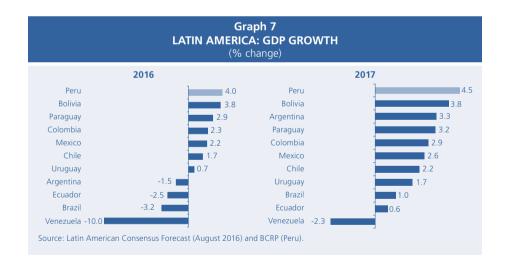
4. Macroeconomic conditions in the Eurozone and Japan remain similar to those foreseen in the Inflation Report of June. Although inflation in the Eurozone has left the negative terrain since June, it still remains close to zero percent while GDP is projected to grow 1.6 percent this year and 1.4 percent in 2017.



5. In **Latin America**, the main countries with inflation targeting schemes registered lower dynamism in economic activity (and even negative growth rates) during the second quarter of 2016. It is estimated that growth in the region would fall 0.4 percent in 2016 and that it would record a recovery with an estimated rate of 1.8 percent in 2017, considering a scenario with an orderly adjustment of international financial markets and some stabilization in commodity prices.

Table 3           LATIN AMERICA: QUARTERLY GDP GROWTH           (Seasonally adjusted quarterly rates)										
	Brazil	Chile	Colombia	Mexico	Peru					
Q1.15	-1.0	1.0	1.0	0.4	0.9					
Q2.15	-2.3	0.2	0.7	0.8	1.2					
Q3.15	-1.5	0.5	0.8	0.7	0.9					
Q4.15	-1.3	0.0	0.7	0.4	1.3					
Q1.16	-0.4	1.1	0.2	0.5	0.8					
Q2.16	-0.6	-0.4	0.2	-0.2	0.8					

Source: Central banks and statistical institutions.

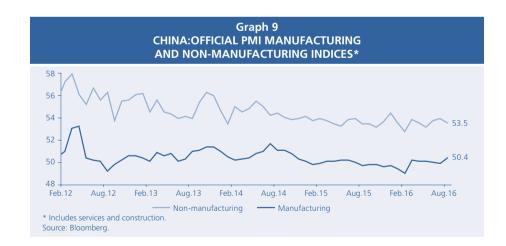


Lower depreciation pressures on the domestic currencies, associated with a gradual adjustment in the Fed rates and with a stabilization of commodity prices, have been observed in recent months, encouraging a decline of inflation in Brazil, Chile, and Peru. In fact, inflation has converged to the target range in both Chile and Peru. In Mexico, inflation remains within the target range, but shows a slight upward trend, whereas in Colombia, inflation has maintained an upward trend, recording a rate of 9 percent in August –five points above the upper band of the target range– due mainly to the higher prices of food.



#### **Financial Markets**

6. The normalization of financial markets in China, particularly the forex and the stock markets, has also helped to reduce risk aversion risky assets such as currencies and the debt of emerging markets, as well as vis-à-vis raw materials. Economic activity in China has been tending to converge to growth rates of 6.5 percent, substantially reducing in this way the risk of an abrupt adjustment.



7. China's demand for imports of raw materials has maintained its dynamism, which has provided support to the prices of commodities (between January and August, China's imports of copper concentrates rose 34.5 percent compared to the same period in the previous year). It should be pointed out that, according to information available at June, the value and the volume of global trade show signs of stabilization after the contraction observed in 2015.

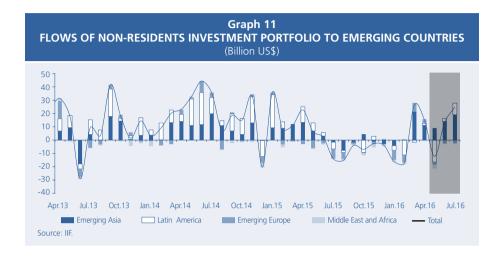


	(	OMMODITY	le 4 QUOTATION 5\$)	IS		
	Dec.14	Dec.15	Jun.16	Aug.16		nange
					Aug.16/Jun.16	Aug.16/Dec.1
Metals						
Gold (US\$ per troy ounce)	1,201	1,068	1,276	1,340	5.0	25.5
Silver (US\$ per troy ounce)	16	14	17	20	17.6	42.9
Copper (US\$ cents per pound)	291	210	210	216	2.9	2.9
Zinc (US\$ cents per pound)	99	69	92	104	13.0	50.7
Energy						
WTI oil (US\$ per barrel)	60	37	49	45	-8.2	21.6
Natural gas (US\$ per M Btu)	2.99	2.31	2.90	2.94	1.5	27.3
Agriculture						
Corn (US\$ per ton)	145	141	154	121	-21.4	-14.2
Wheat (US\$ per ton)	235	164	157	128	-18.5	-22.0
Soy oil (US\$ per ton)	718	656	669	688	2.8	4.9
Rice (US\$ per ton)	425	373	457	518	13.4	38.8
Coffee (US\$ per ton)	4,395	3,296	3,656	3,754	2.7	13.9
Sugar (US\$ per ton)	544	571	602	618	2.7	8.2
Cotton	66	65	64	66	2.2	1.3

Source: Bloomberg.

8. Capital flows to the emerging market countries have been showing renewed dynamism since the second quarter of the year due to the low yields of assets in the developed countries (as a result of the monetary stimulus policies implemented in these economies). In addition to this, the developing economies have been giving evidence of greater resilience to financial volatility associated with shocks such as the Brexit and the greater likelihood of a Fed rate increase.





In a context of relative moderation of risk aversion, the return on global sovereign bonds has been showing a downward trend while stock markets have been showing an upward trend. This appreciation of assets has had episodes of reversal as signs of the conclusion of the monetary stimulus programs implemented by the central banks of developed economies became more and more evident.

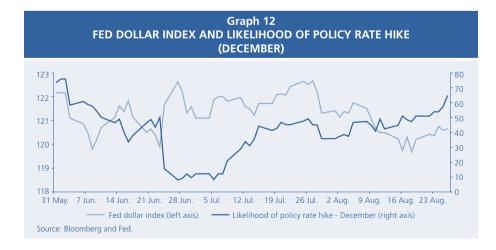
YI	Table 5           YIELDS ON 10-YEAR SOVEREIGN BONDS IN LOCAL CURRENCY           (%, end-of-period)										
	Dec.14	Dec.15	Jun.16	Aug.16	Public debt (% GDP 2015)						
United States of America	2.17	2.27	1.47	1.58	106						
Germany	0.54	0.63	-0.13	-0.07	71						
France	0.82	0.99	0.18	0.18	97						
Italy	1.88	1.59	1.26	1.14	133						
Spain	1.60	1.77	1.16	1.01	99						
Greece	9.42	8.07	8.18	8.01	178						
United Kingdom	1.76	1.96	0.86	0.64	89						
Japan	0.32	0.26	-0.22	-0.07	248						
Brazil	12.36	16.51	12.07	12.08	74						
Colombia	7.10	8.66	7.59	7.50	49						
Chile	3.99	4.66	4.45	4.36	17						
Mexico	5.83	6.26	5.89	5.83	54						
<b>Peru</b>	<b>5.41</b>	<b>7.31</b>	<b>6.08</b>	<b>5.65</b>	<b>23</b>						
South Africa	7.96	9.76	8.82	9.05	50						
Israel	2.31	2.10	1.63	1.73	65						
Turkey	7.86	10.46	9.03	9.60	33						
China	3.65	2.86	2.86	2.81	44						
South Korea	2.63	2.08	1.47	1.48	36						
Indonesia	7.75	8.69	7.42	7.09	27						
Thailand	2.69	2.49	1.95	2.26	43						
Malaysia	4.12	4.19	3.74	3.59	57						
Philippines	3.83	4.22	4.22	3.42	37,						

Source: Bloomberg and FMI.

9. The currencies of the emerging economies have tended to appreciate this year, in line with the stabilization of growth in China, the limited effect of the Brexit so far this year, and evidence of a rather gradual withdrawal of monetary stimulus in the United States. However, markets remain highly sensitive to any relevant information that could signal an adjustment in the Fed interest rate.

			Table 6 EXCHANGE RATE										
		Dec.15	Jun.16	Aug.16		nange* 5 Aug.16/Dec.15							
FED Index	C.U. per US\$	122.98	121.58	121.86	0.2	-2.3							
Eurozone	Euro	0.921	0.901	0.896	-0.5	-2.7							
Japan	Yen	120.34	103.33	103.43	0.1	-14.0							
United Kingdom	Pound	0.679	0.752	0.761	1.3	12.2							
Brazil	Real	3.962	3.214	3.228	0.4	-18.2							
Chile	Peso	709	663	681	2.8	-4.2							
Colombia	Peso	3,180	2,921	2,974	1.8	-6.9							
Mexico	Peso	17.19	18.29	18.79	2.7	9.7							
Peru	Sol	3.42	3.29	3.39	3.1	-0.7							
Israel	Shekel	3.90	3.86	3.78	-2.1	-2.8							
South Africa	Rand	15.49	14.73	14.74	0.1	-5.0							
Turkey	Lira	2.92	2.88	2.96	2.8	1.5							
China	Yuan	6.50	6.65	6.68	0.5	2.9							
Philippines	Peso	46.95	47.14	46.67	-1.0	-0.6							
Indonesia	Rupee	13,790	13,288	13,220	-0.5	-4.1							
Malaysia	Ringgit	4.30	4.03	4.05	0.6	-5.7							
Thailand	Bath	36.04	35.14	34.64	-1.4	-3.9							

 $\star$  A rise in the index means an appreciation of the US dollar. Source: Reuters and FED.







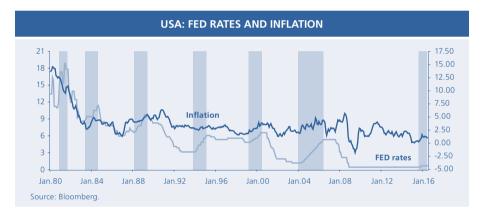
#### BOX 1

#### CYCLES OF FED RATE INCREASES AND THE EVOLUTION OF THE US DOLLAR IN INTERNATIONAL MARKETS

Since May 2013, the dollar has appreciated against most currencies, which is explained mostly by market expectations that the Fed will undertake more restrictive monetary policy actions, as opposed to the expansionary policies applied by other developed economies (like the Eurozone, Japan, and the United Kingdom). The behavior of the dollar during other episodes when the Fed raised its interest rates are discussed below.

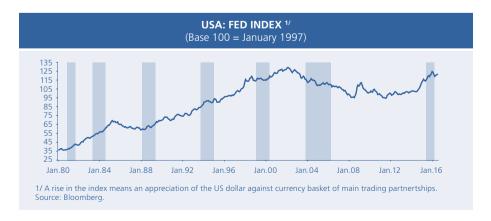
#### **Episodes of rate increases**

Since the 1980s, the Fed has launched six major rate-hike cycles: (i) October 1980 - June 1981, (ii) March 1983 - August 1984, (iii) May 1988 - May 1989, (iv) February 1994 - February 1995, (v) June 1999 - May 2000, and (vi) June 2004 - June 2006. All the episodes of rising rates were carried out in a context of rising inflation, although the duration and magnitude of the adjustments differ substantially among them.



#### The evolution of the dollar in the episodes of rate adjustments

An increase (or expectations of an increase) in the Fed rate should lead, ceteris paribus, to the strengthening of the dollar in international financial markets. A stylized fact of the episodes mentioned above –the episodes of 1983-1984, 1994-1995 and 1999-2000– is that the dollar tends to strengthen during the months prior to the first rate increase (due to the expectation of higher rates rather than due to the rate increase itself) and that it stabilizes during the cycle of rate adjustment. Thus, for example, in the episodes of 1994-1995 and 1999-2000, more than 80 percent of the appreciation of the dollar occurred before the first spike in rates.



The current episode shows a similar behavior to the one observed during these periods, with the dollar having appreciated 20 percent during the 2014-2015 period, in line with the expectations of an upcoming interest rate rise by the Fed. Once the rate adjustment has started, at August the dollar has accumulated a slight depreciation of 1.4 per cent.

	CHANGE OF THE FED INDEX DURING EPISODES OF RATE INCREASES										
		% c	% change on the FED index*								
N°	Cycle of rate hikes	During 24-month before the first hike (I)	During 24-month after the first hike (II) <sup>1/</sup>	Total variation (I) + (II)							
(i)	Oct 80 - Jun 81 2/	2,4	5,5	8,0							
(ii)	Mar 83 - Aug 84	31,7	17,7	55,1							
(iii)	May 88 - May 89	-5,9	22,2	17,0							
(iv)	Feb 94 - Feb 95	21,5	3,6	25,8							
(v)	Jun 99 - May 00	13,8	2,8	17,1							
(vi)	Jun 04 - Jun 06	-7,9	-6,9	-15,3							
Actual	Dec 15	20,2	-1,4	18,5							

\* A rise in the index means an appreciation of the US dollar against currency basket of main trading partners.

1/ In some periods consider less than 24 months due to the cycle of rate hike is a less duration.

2/ This period only considers 14 months before and 5 months later Source: Federal Reserve.

The periods in which the dollar experienced significant appreciation pressures after the first hike were periods in the 1980s when the emerging economies showed weak macroeconomic fundamentals and the Fed communications policy was not as developed as today.



# II. Balance of Payments

10. The deficit in the current account of the balance of payments fell from 5.4 percent of GDP in the first half of 2015 to 4.4 percent in the same period of 2016 due mainly to a decline of imports (down 9.8 percent), especially imports of durable consumer goods and capital goods. In the same period, the boost of 9 percent observed in the volume of traditional exports –especially copper, fish meal, and coffee– did not offset the 11 percent reduction registered in the prices of exports, nor the fall in the volume of non-traditional exports (down 4 percent).

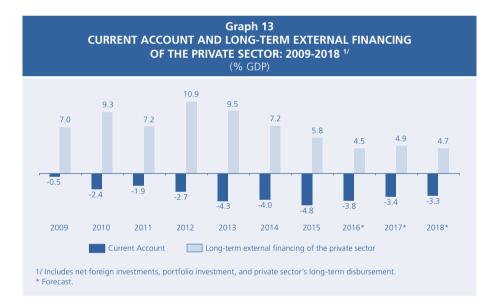
BALANCE OF PAYMENTS (Million US\$)												
		2	015		2016*		20	17*	20	2018*		
		H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.1		
ι.	CURRENT ACCOUNT BALANCE	-5,109	-9,210	-4,076	-7,308	-7,476	-6,035	-6,964	-5,902	-7,124		
	% GDP	-5.4	-4.8	-4.4	-3.8	-3.8	-3.0	-3.4	-2.8	-3.3		
	1. Trade Balance	-2,162	-3,150	-826	-1,584	-442	-465	367	41	649		
	a. Exports	16,438	34,236	15,951	34,834	35,299	37,859	38,524	39,970	40,675		
	b. Imports	-18,601	-37,385	-16,777	-36,418	-35,741	-38,324	-38,156	-39,929	-40,025		
	2. Services	-938	-1,732	-774	-1,574	-1,507	-1,260	-1,257	-1,395	-1,423		
	3. Investment income	-3,570	-7,659	-4,382	-7,769	-9,145	-7,905	-9,670	-8,191	-9,994		
	4. Current transfers	1,561	3,331	1,906	3,619	3,619	3,595	3,595	3,644	3,644		
	Of which: Remittances	1,295	2,725	1,392	2,818	2,818	2,921	2,921	2,936	2,936		
11.	FINANCIAL ACCOUNT	3,267	9,282	1,768	8,192	8,089	7,535	8,464	7,402	8,624		
	Of which:							<i></i>	5 0 4 7			
	1. Private Sector	3,453	5,326	855	4,749	5,506	4,859	6,134	5,017	6,515		
	a. Long-term	3,795	8,043	366	4,627	4,428	4,859	6,134	5,017	6,515		
	<ul> <li>b. Short-term <sup>1/</sup></li> <li>2. Public Sector <sup>2/</sup></li> </ul>	-343	-2,717	489	122	1,078	0	0	0	C 2 100		
	2. Public Sector 2	-186	3,956	913	3,443	2,583	2,676	2,331	2,385	2,109		
111.	BALANCE OF PAYMENTS (=I+II)	-1,843	73	-2,308	885	613	1,500	1,500	1,500	1,500		
Lor	emo: ng-term external financing the private sector (% GDP) <sup>3/</sup>	5.7	5.8	4.3	4.1	4.5	4.3	4.9	4.1	4.7		

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

IR: Inflation Report.

\* Forecast.

Since this decreasing trend in the current account deficit is projected to continue in the next years, the deficit would decline from 3.8 percent of GDP in 2016 to 3.4 percent in **2017** and to 3.3 percent in **2018** (this forecast takes into account the increase of mining exports as well as a moderate recovery in export prices). In addition, long-term financing from private sources in 2017 and 2018 is expected to be at around 5 percent of GDP. Even though this level of financing is lower than that observed in recent years –which is explained by the completion of a cycle of large mining investment–, it will still continue to exceed the current account gap, foreign direct investment being the main component of long-term financing.



#### **Trade Balance**

11. In the first half of the year, the trade balance registered a deficit of \$826 million –a lower deficit than that recorded in the same period of 2015 (US\$ 2.16 billion)– due to the reduction observed in the volume and prices of imports (down by 4.5 and 5.5 percent, respectively). As a result of this adjustment, the projection of the trade balance in 2016 has been revised from a deficit of US\$ 1.58 billion to a deficit of US\$ 442 million. Similarly, the forecasts for the years **2017** and **2018** have also been revised on the upside, a trade surplus now being projected in these years.



			TRADE	ole 8 BALANCE on US\$)	:						
<u>    2015        2016*                                    </u>											
	H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16		
<b>Exports</b> Of which:	16,438	34,236	15,951	34,834	35,299	37,859	38,524	39,970	40,675		
Traditional products Non-traditional products	11,156 5,239	23,291 10,857	11,045 4,862	24,222 10,506	24,871 10,328	26,831 10,915	27,628 10,793	28,268 11,585	29,091 11,476		
Imports Of which:	18,601	37,385	16,777	36,418	35,741	38,324	38,156	39,929	40,025		
Consumer goods Inputs	4,144 8,109	8,791 15,923	4,008 7,100	8,782 15,314	8,786 15,157	9,046 16,338	9,112 16,405	9,270 17,151	9,393 17,252		
Capital goods	5,968	12,007	5,512	12,019	11,426	12,868	12,580	13,489	13,297		
Trade Balance	-2,162	-3,150	-826	-1,584	-442	-465	367	41	649		
IR: Inflation Report.											

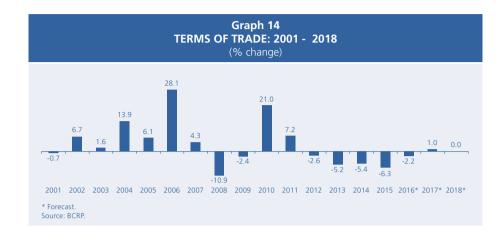
\* Forecast.

14.7 -	<b>Year</b> 13.4	H1	2016* IR Jun.16	IR Sep.16	20 <sup>2</sup> IR Jun.16		201	8*	
14.7 -		H1	IR Jun.16	IR Sep.16	IR Jun.16			2018*	
	13.4					IR Sep.16	IR Jun.16	IR Sep.16	
	13.4								
17.9 -		-3.0	1.7	3.1	8.7	9.1	5.6	5.6	
	15.9	-1.0	4.0	6.8	10.8	11.1	5.4	5.3	
-6.1	-7.0	-7.2	-3.2	-4.9	3.9	4.5	6.1	6.3	
-9.5	-8.7	-9.8	-2.6	-4.4	5.2	6.8	4.2	4.9	
-2.0	1.8	9.1	6.9	8.1	5.8	5.0	4.7	4.4	
-0.7	5.7	15.8	11.3	13.7	6.8	5.5	4.6	4.6	
-4.1	-5.3	-4.1	-2.2	-3.4	3.0	2.9	5.0	4.3	
0.2	0.9	-4.5	-0.6	-2.2	3.2	3.4	3.3	3.6	
12.9 -	14.9	-11.2	-4.8	-4.8	2.8	3.7	0.9	1.2	
17.3 -2	20.4	-14.7	-6.6	-6.1	3.7	5.3	0.7	0.7	
-2.1	-1.8	-3.2	-1.0	-1.5	0.8	1.6	1.0	2.0	
-9.3	-9.2	-5.5	-2.3	-2.6	1.9	2.7	0.9	1.3	
-	0.7 4.1 0.2 2.9 - 7.3 - 2.1	0.7 5.7 4.1 -5.3 0.2 0.9 2.9 -14.9 7.3 -20.4 -2.1 -1.8	0.7 5.7 15.8 4.1 -5.3 -4.1 0.2 0.9 -4.5 2.9 -14.9 -11.2 7.3 -20.4 -14.7 2.1 -1.8 -3.2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	

\* Forecast.

#### Terms of trade

12. The negative trend observed in the terms of trade since the fourth quarter of 2011 has begun to show signs of stabilization as from the second quarter of this year. Because of this, the projection of the terms of trade has been revised up from -2.6 to -2.2 percent in **2016** and from 0.9 to 1.0 percent in **2017**.



	2014 2015		2016*		2017*		2018*	
	Year	Year	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.1
Terms of Trade	<u>-5.4</u>	<u>-6.3</u>	-2.6	<u>-2.2</u>	<u>0.9</u>	<u>1.0</u>	<u>0.0</u>	<u>0.0</u>
Price of exports	-6.9	-14.9	-4.8	-4.8	2.8	3.7	0.9	1.2
Copper (US\$ cents per pound)	311	250	215	214	216	215	220	220
Zinc (US\$ cents per pound)	98	88	81	90	83	98	85	100
Lead (US\$ cents per pound)	95	81	79	80	77	80	76	80
Gold (US\$ per ounce)	1,266	1,160	1,232	1,268	1,209	1,280	1,200	1,280
Price of imports	-1.5	-9.2	-2.3	-2.6	1.9	2.7	0.9	1.3
Oil (US\$ per barrel)	93	49	43	42	47	47	48	47
Wheat (US\$ per ton)	243	186	171	155	197	175	207	191
Maize (US\$ per ton)	155	141	147	136	159	141	164	154
Soybean oil (US\$ per ton)	812	667	697	677	726	708	725	755

#### a) Copper

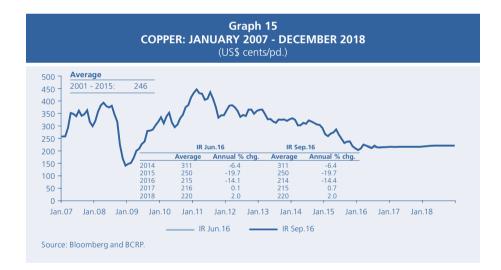
The price of **copper** accumulated a growth rate of 3 percent in the first eight months of 2016.

The rise in the price of copper is explained by the return of investors to commodity markets and by China's sound demand for this metal in the first half of the year, favored by the stimulus measures adopted by the Chinese government which reflected in an increase in



public investment. However, investors' appetite has reversed in part since August due to the increased likelihood that the Fed will raise its interest rate this year. In addition to this, the price of copper is being affected by doubts regarding China's demand in the following months (due to the weak dynamism of private investment) and by expectations of an increased supply due to the new production resulting from mining projects that have started operations in Peru (Las Bambas), Zambia (Sentinel), Indonesia (Grasberg), and Chile (La Escondida).

In the forecast horizon, the estimated prices of copper in 2016 continue to be those pointed out in our previous report, while the prices estimated for 2017 have been revised down slightly. China's demand is expected to continue being favored by the public sector's high investment in infrastructure and by some recovery of real estate investment. This demand would allow the market to absorb the higher available supply mentioned above.



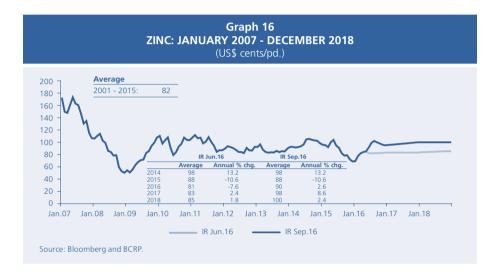
#### b) Zinc

The average price of **zinc** rose 51 percent between January and August 2016, reaching a monthly average price of US\$ 1.04 per pound in August. The price of zinc increased at a faster pace in the last three months (22 percent) as signals of a shortage associated with a greater supply deficit became more evident.

The rise in the price of zinc was supported by the decline of production associated with the definite closing of Vedanta's mine Lisheen and MMG's Century mine, by the production cuts announced by several producers, and by the absence of new



supply in the near future. On the side of demand, the price of zinc was favored by by China's increased government spending in infrastructure, which showed a pace of growth not seen since the global financial crisis, as well as by the strong demand for galvanized steel, which uses zinc as coating.



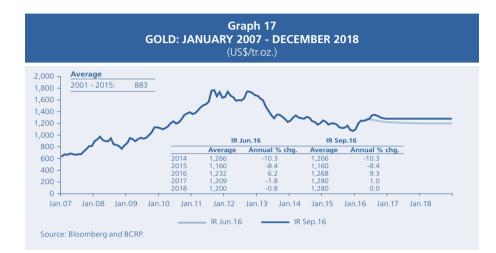
#### c) Gold

The price of **gold** rose 26 percent in the first eight months of 2016, reaching a monthly average price of US\$ 1,340 per troy ounce in August (up 7 percent from May). The increase in the price of gold so far this year is explained mostly by the strong growth recorded in investment demand, which accounts for almost 50 percent of the global demand for gold in the first 6 months of 2016. The price rise was offset in part by the fall in the demand for gold for jewelry and by the decrease recorded in central banks' purchases of gold.

Investors' return to gold is explained by the depreciation of the dollar associated with expectations that the Fed rate adjustments will be moderate and by the stimulus measures implemented by the European Central Bank and by the Bank of Japan. Another factor that contributed to this was increased uncertainty due to the Brexit.

The price of gold in the forecast horizon has been revised up in accordance with the data and in line with expectations that the Fed cycle of rate hikes will be gradual. The risks to this forecast are associated mostly with the evolution of the dollar and, therefore, with the future decisions of the Fed.

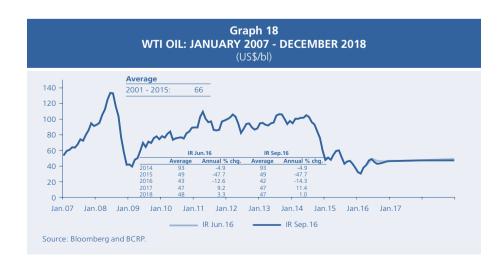




#### d) Crude Oil

The price of **WTI oil** dropped 22 percent between January and August 2016 and closed with a monthly average price of US\$ 45 per barrel in August.

The drop in the oil price in recent months is associated with greater prospects that there will be an oversupply once the season with higher seasonal consumption ends. This expectation is supported by the return of Canada's production, as well as by indications of a likely return to production in Nigeria, Iraq, and Libya, where oil production has been interrupted due to several geopolitical conflicts. However, the global market is expected to continue converging towards equilibrium in the forecast horizon as a result of the drop of production in non-OPEC countries and the recovery of demand. The forecast of the price of WTI oil for the forecast horizon remains unchanged.

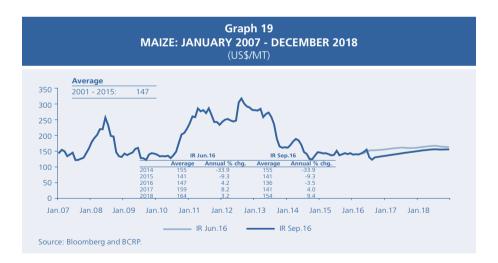


#### e) Maize

The international price of **maize** fell 14 percent in the first eight months of the year.

Among the factors accounting for the fall in the price of maize, it is worth highlighting that the estimated world production of this grain was revised up due to the unexpected positive impact of climate on maize crops in the United States. The U.S. Department of Agriculture (USDA) has estimated a record production of maize in the 2016-2017 crop year due to the positive impact of El Niño episode on this crop. Another factor contributing to this is the anticipated increase of maize production in Argentina, India, and Mexico, which has more than offset lower production would exceed the significant growth of global demand estimated for 2016-2017 due mainly to the increased use of maize in the United States.

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



#### f) Wheat

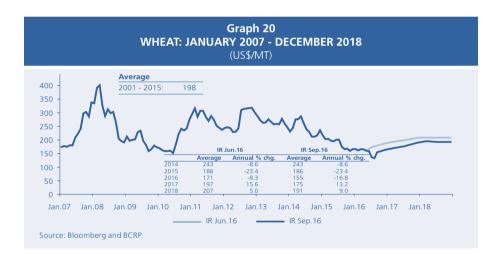
In August, the international price of **wheat** registered a drop of 22 percent compared to December 2015 and closed at an average price of US\$ 129 per ton.

The price of wheat dropped as a result of the evolution of wheat supply. The USDA raised its estimates of global production for 2016-2017 due to the expected increase



of production in Russia, Ukraine, and Kazakhstan as a result of weather conditions that favor greater yields and also estimated an increase of production in Australia and Canada. Moreover, estimates of a higher supply were offset by the fall of production in the European Union due to excessive rainfall during the flowering and grain-filling periods in the producing regions, especially in France. It should be pointed out that in June, when the previous inflation report was published, the USDA projected a reduction of total production for the 2016-2017 crop year, but that this situation has reversed due to the favorable harvest obtained and due to signals of a well-supplied global market.

As a result of these factors, the price of wheat in the following years is estimated to show lower levels to those foreseen in our previous report.



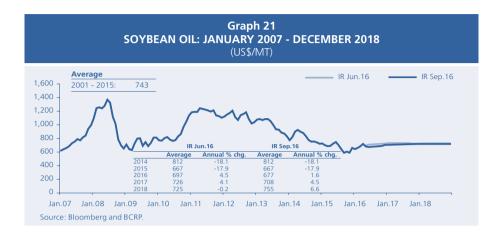
#### g) Soybean Oil

The average price of **soybean oil** has increased 5 percent.

The price of soybean oil fell in the last three months due to estimates of a record harvest of soybean in the United States. However, the decrease in the price was not enough to reverse the accumulated increase in the year resulting from a greater demand for soybean oil as a substitute for palm oil, whose production in Asia was affected by El Niño. The National Oilseed Processors Association reported that the supply of soybean oil in the United States continues to be tight since the grinding of soybean has declined over the past month.

It is estimated that in the forecast horizon the price of soybean oil will show lower levels in 2016 than those considered in our previous Inflation Report, but that they will remain stable in 2017.





#### **External Financing**

13. The flow of foreign direct investment declined from US\$ 4.62 billion in the first half of 2015 to US\$ 2.60 billion in the same period of this year.

According to information from the Ministry of Energy and Mines, in the first half of 2016 mining investments amounted to US\$ 2.01 billion, which represents a decline of 44 percent compared to the same period of the previous year. This decrease is explained mainly by the completion of the expansion projects of Cerro Verde and Las Bambas, which started operations in 2015. On the other hand, progress continues to be made in projects such as the expansion of Toquepala, with disbursements in this project amounting to US\$ 431 million at June.

	Table 11 FINANCIAL ACCOUNT OF THE PRIVATE SECTOR (Million US\$)									
	2015		2016*		2017*		2018*			
	H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	
Private Sector (A + B) % GDP	<b>3,453</b> <i>3.</i> 6	<b>5,326</b> 2.8	<b>855</b> 0.9	<b>4,749</b> 2.5	<b>5,506</b> 2.8	<b>4,859</b> 2.4	<b>6,134</b> <i>3.0</i>	<b>5,017</b> 2.3	<b>6,515</b> <i>3.0</i>	
A. Long-term 1. Assets	3,795 -988	8,043 -433	366 -1,257	4,627 -770	4,428 -1,184	4,859 -1,498	6,134 -1,500	5,017 -1,688	6,515 -1,471	
2. Liabilities Foreign direct investment	4,784	8,476	1,623	5,397	5,613	6,357	7,634	6,705	7,987	
in the country	4,616	7,817	2,597	4,596	5,098	4,849	5,593	4,996	5,723	
Non-financial sector Long-term loans	510 790	1,828 2,410	90 275	1,445 688	1,477 1,126	1,675 532	2,275 1,036	1,852 701	2,461 1,018	
Portfolio investment	-280	-582	-185	757	351	1,143	1,239	1,151	1,443	
Financial sector	-343	-1,169	-1,063	-644	-963	-167	-235	-144	-198	
Long-term loans Portfolio investment	-342 -1	-1,155 -14	-1,056 -7	-644 0	-956 -7	-228 61	-296 61	-194 50	-248 50	
B. Short-term 1/	-343	-2,717	489	122	1,078	0	0	0	0	





The amount of foreign direct investment projected for this year has been revised up, from US\$ 4.60 billion in the Inflation Report of June to US\$ 5.10 billion. Similarly, increased foreign direct investment is foreseen for 2017 and 2018, in line with the greater dynamism expected in the development of investment projects.

The country's mining potential is confirmed by an estimated portfolio of mining projects in the prospection stage that amount to US\$ 23.7 billion, according to the Ministry of Energy and Mines. Among other projects, this portfolio includes projects such as Los Chancas, Haquira, Hierro Apurimac, Cotabambas and Trapiche (Apurimac), Galeno, La Granja and Michiquillay (Cajamarca), Cañariaco (Lambayeque), Río Blanco (Piura), and Zafranal (Arequipa).

As for the progress carried out in each project, the copper project Los Chancas, operated by Southern Copper Corporation, has already carried out a semi-detailed environmental impact study (EIS) and the feasibility study and is currently preparing the final EIA, while the copper of Cotabambas, operated by the Canadian company Panoro Minerals, already has the semi-detailed EIS in place and has invested \$5 million in optimizing its Preliminary Economic Study which was completed in August. Moreover, the gold project of Los Calatos (Moquegua), operated by the Australian mining company Metminco, began drilling works in March.

Other projects that are not quite as large as those mentioned above have made operations for explorations and studies, including private stock placements and strategic agreements. The Invicta gold project, operated by the Canadian company Lupaka Gold, established an agreement for US\$ 6 million with PLI Huaura Holdings LP, to finance the construction of the project facilities, while Zincore Metals, the operator of mining project Accha, obtained financing through the issuance of shares, with a private placement of US\$115 thousand.

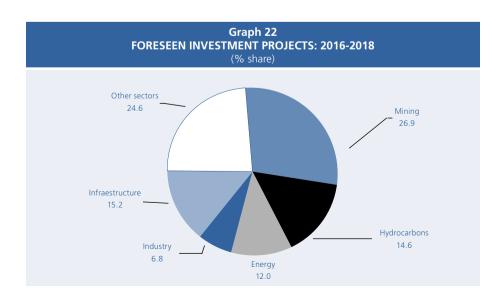




	Table 12 MAIN INVESTMENTS PROJECTS: 2016-2018							
SECTOR	COMPANIES	PROJECT						
	Southern Perú Copper Corporation	Expansion of Toquepala						
	Chinalco	Expansion of Toromocho						
Mining	Shougang Corporation	Expansion of Marcona						
	AQM Copper	Zafranal						
	Compañía de Minas Buenaventura	Tambomayo						
	Enagas, Odebrecht	Enhance energy security country and development						
		of pipeline in the south						
	China National Petroleum Corporation, Repsol YPF S.A.	Lot 57: Kinteroni						
Hydrocarbons	Pluspetrol Perú Corp.	Exploration: Lot 88 and 56						
	Calidda Gas Natural del Perú	Massive use of gas						
	Karoon Gas Natural	Exploration: Lot Z - 38						
	Enersur	Electric Node in the South of Peru						
	Corsán-Corvian	Hydroelectric Power Plant of Molloco						
Energy	Odebrecht	Hydroelectric Power Plant of Belo Horizonte						
	Generación Eléctrica Las Salinas	Eolic Park Samaca						
	Endesa	Hydroelectric Power Plant of Curibamba						
	Corporación Lindley	Storages and infraestructures						
	Repsol YPF	Expansion of La Pampilla plant						
	Técnicas Reunidas	Modernization of Talara refinery						
ndustry	SAB Miller	Investment projects						
	Medrock	Production factory of medicine in Lima						
	Precor	Plant in Chilca						
	Grupo Romero	Warehouses and cryogenic plant						
	Consorcio Nuevo Metro de Lima	Line 2 Network Metro Lima (Electric Train)						
	Odebrecht, Brookfield	New highways in Lima						
	Consorcio Consierra II	Longitudinal de la Sierra road project, Section 2						
	APM Terminals	Modernization of North Pier						
Infrastructure	Lima Airport Partners	Expansion of international airport (Jorge Chávez)						
	Covisol	Trujillo-Sullana: Sol Highway						
	Kuntur Wasi	International airport (Chinchero)						
	Graña y Montero	South Expressway						
	Grupo Telefónica	Expansion and facilities of net LTE-4G						
	Entel	Development of services 4G						
	America Movil	Expansion of net 4G						
Other sectors	Grupo Romero	Storages for minerals						
	Grupo Falabella	Expansion and New shopping centers						
	Besalco S. A.	Real Estate projects						
	Graña y Montero Vivienda (GMV)	Projects of houses						
	Grupo Interbank	Expansion and new shopping centers						

Source: Information of companies and media press.

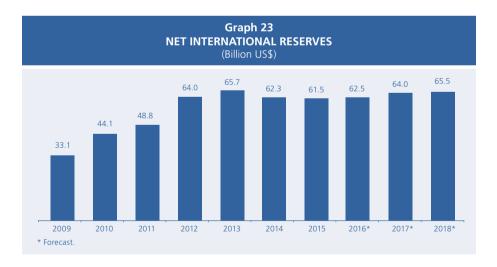




14. The soundness of the balance of payments to face negative events in the global economy is reflected in the position of Peru's international reserves relative to the balance of its short term external liabilities or comparing the total of these liabilities with the country's current account deficit.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

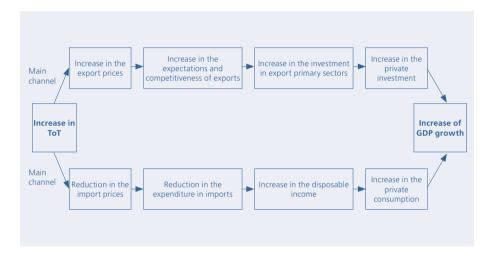
Table 13 NIR INDICATORS							
	2006	2011	2016*				
NIR as a % of:							
a. GDP	19.6	28.6	32.1				
b. Short-term external debt <sup>1/</sup>	166	471	544				
c. Short-term external debt plus Current account deficit	230	360	329				
Medium- and long-term external debt (as a % GDP)	28.7	24.4	31.6				
a. Private	4.1	10.2	18.0				
b. Public	24.6	14.2	13.7				

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



#### BOX 2 TRANSMISSION MECHANISMS OF EXPORT AND IMPORT PRICES

Variations in the terms of trade (TOT) affect economic activity and inflation in a small open economy through various channels, especially in countries like Peru whose exports are mostly raw materials. The results obtained after estimating the impact of unexpected changes in export prices and import prices on GDP growth are discussed herein.



The TOT index measures the ratio between nominal export prices and import prices. Therefore, variations in the TOT may be explained by movements in the prices of exports, imports, or in the prices of both exports and imports. Evidence shows that, in Peru, increases in the price of exports, such as copper or gold, do not have a direct effect on inflation, whereas increases in the prices of imports such as crude oil or maize do generate inflation rises. Similarly, export and import prices would also have differentiated effects on economic activity.

In order to show empirical evidence on these differentiated effects, we estimated vector autoregressive models (VAR) and calculated medium-term and long-term elasticity values to estimate the impact of changes in export and import prices on economic growth. We estimated alternative models using quarterly data (Q1-2002 – Q1-2016) of the following variables<sup>1</sup>: four-quarter GDP growth; year-to-year variations in fixed gross investment; four-quarter variations in the Fed dollar index, as well as the annual variations in the international price of copper, in our export prices, in the Commodity Research Bureau food index, and in the IMF fuel price index. The calculated elasticities  $\eta_s$  are the accumulated response of GDP growth at quarter T after a shock in export or import prices, divided or standardized by the response of the export or import prices to such idiosyncratic shock.

As one can see in the table below, the elasticities of growth-variation in export prices in one year vary from 0.03 to 0.06, while the elasticities of growth-variation in import prices are located in the interval of -0.03 to -0.01. Moreover, the estimated elasticities in two years are in the range of 0.05 to 0.11 and -0.09 to -0.02, respectively.

<sup>1</sup> The import price index was not included in the models as a variable correlated with the prices of exports because import prices respond to common global factors, which hinders their identification.



#### **ELASTICITY OF GDP GROWTH - CHANGE IN EXPORT** AND IMPORT PRICES

Quarters (Q)	4	8	12	LP
Model 1:				
Variables: GDP, investment, copper	prices, food prices, dollar index			
Export prices	0.025	0.051	0.067	0.072
Import prices	-0.005	-0.022	-0.027	-0.020
Model 2:				
Variables: GDP, investment, copper	price, fuel prices, dollar index			
Export prices	0.024	0.048	0.061	0.063
Import prices	-0.008	-0.019	-0.026	-0.028
Model 3:				
Variables: GDP, investment, export p	prices, food prices, dollar index			
Export prices	0.058	0.107	0.134	0.135
Import prices	-0.026	-0.085	-0.117	-0.099
Model 4:				
Variables: GDP, investment, export p	prices, fuel prices, dollar index			
Export prices	0.059	0.111	0.140	0.146
Import prices	-0.004	-0.030	-0.092	-0.106

GDP: GDP growth - 4 quarters

Investment: Gross Fixed Investment growth - 4 guarters

Food prices: Change on CRB Index foods - 4 quarters US Dollar index: Change on Fed Index - 4 quarters

Copper prices: Change on copper prices - 4 quarters

Fuel prices: Change on Fuels Index Fund - 4 quarters

Export prices: Change on export prices - 4 quarters Variables used in order for Cholesky identification.

The impacts associated with export prices are greater than those of import prices. The models that use the variations of the export price index reveal, in general, higher elasticities, although the difference between the elasticities of export prices and import prices is relatively stable. Results are robust to changes in the proxy variable of both export and import prices, as well as to the inclusion of additional variables, such as the rate of growth in Peru's trading partners, changes in the international price of gold, and/or the yield on the 10-year US Treasury bonds.

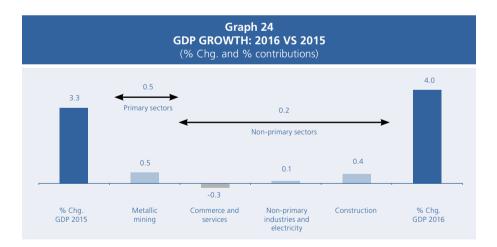
According to VAR models with similar specifications to the ones described above, export prices would affect growth through their impacts on private investment: higher export prices would encourage investment in primary export-oriented sectors -the most sensitive sectors to commodity exports-, which would boost the other sectors of the economy. Robustness exercises provide evidence that the prices of imports affect economic activity through consumption since lower import prices would generate an increase in the available income (via the reduction of food prices) and would reduce production costs (via fuel prices). In addition, export and import prices would have different tax effects: increases in export prices would increase fiscal spending, thus contributing to higher growth, whereas this second channel driver of growth is not observed in the case of import prices.

The results of these models provide evidence supporting the differential effects of export and import price on the rate of GDP growth, since they would show that economic activity is less sensitive to changes in import prices. These effects are reflected in aggregate data which could conceal some heterogeneity between sectors. Therefore, disaggregated and/or sector data of activity and price indices are required to identify the transmission channels with greater accuracy.

# **III.Economic Activity**

#### Sector GDP

- 15. In the first half of the year, production was driven by primary activities, which altogether grew 8.0 percent, while the output in the non-primary sectors grew 3.0 percent. Thus, GDP grew 4.1 percent (versus 2.5 percent in the first half of 2015). Within the primary sector, the output in the sub-sector of metal mining grew 26.9 percent, an outcome associated with the start of operations at mine Las Bambas and with the expansion of Cerro Verde. On the other hand, the growth of the sectors of trade and services –which grew 2.5 and 4.3 percent respectively– stands out in terms of increased activity in the non-primary sectors.
- 16. The projection of GDP growth shows an acceleration between 2015 and 2016, the increase from 3.3 to 4.0 percent in the pace of growth in this period being explained mostly by the contribution of the sub-sector of metal mining, while the contributions of the rest of primary sectors are mutually offset.



17. The projection of GDP growth for this year is still 4.0 percent, a rate similar to that of the output's potential growth rate. The annual growth rate reflects the greater dynamism of primary activities (8.9 percent) compared to non-primary activities (2.6 percent). The main difference of this projection with the one of the June report is explained by the subsectors of agriculture and metal mining due to the lower production of rice and the higher output of gold and silver, respectively. In addition, on the side of the non-primary sectors, the growth rate projected for the sub-sectors



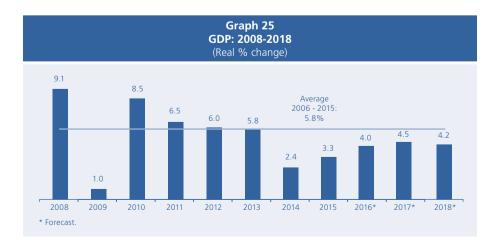
of construction and trade has been corrected on the downside, in line with the lower domestic demand estimated for this year.

Moreover, the GDP growth rate projected for 2017 has been revised slightly down mostly because a lower growth rate is projected in the subsector of hydrocarbons since it is estimated that the rupture of the pipeline would continue affecting the production of hydrocarbons until the first half of 2017.

Table 14           GDP BY PRODUCTION SECTOR           (Real % change)									
	20	15		2016*		20	17*	201	8*
	H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16
Agriculture and livestock	2.9	3.3	1.0	2.3	1.4	3.9	3.8	5.0	5.0
Agriculture	1.6	1.8	0.2	1.8	0.1	4.0	3.9	5.5	5.5
Livestock	5.5	5.5	2.4	2.9	3.3	3.7	3.8	4.2	4.2
Fishing	19.2	15.9	-41.9	-2.4	-2.4	29.7	24.8	4.3	4.1
Mining and hydrocarbons	6.0	9.5	19.8	14.1	14.7	8.3	8.2	4.5	4.8
Metallic mining	10.5	15.5	26.9	18.2	19.0	8.4	8.7	5.1	4.6
Hydrocarbons	-9.4	-11.5	-8.9	-4.1	-4.6	8.5	5.9	1.5	6.8
Manufacturing	-2.7	-1.7	-5.3	-1.8	-1.6	3.8	3.2	4.0	4.0
Based on raw materials	0.4	1.7	-14.5	-0.9	-0.1	10.3	7.7	4.0	4.0
Non-primary industries	-3.5	-2.7	-1.8	-2.0	-2.0	2.0	2.0	4.0	4.0
Electricity and water	5.0	6.1	8.9	7.8	7.9	5.5	5.5	5.0	5.0
Construction	-7.7	-5.8	1.5	0.0	-0.8	3.5	4.0	5.5	6.0
Commerce	3.7	3.9	2.5	3.2	2.4	3.8	3.8	3.8	3.8
Services	4.1	4.2	4.3	3.9	3.9	3.9	3.9	3.9	3.9
GDP	2.5	3.3	4.1	4.0	4.0	4.6	4.5	4.2	4.2
Memo:									
Primary GDP	4.6	6.8	8.0	8.7	8.9	7.9	7.4	4.6	4.8
Non-Primary GDP	2.0	2.4	3.0	2.8	2.6	3.6	3.7	4.0	4.0

IR: Inflation Report.

\* Forecast.





a) Growth in the **sector of agriculture** slowed down from a rate of 2.9 percent in the first half of 2015 to 1.0 percent in the same period of 2016 due mainly to the lower production of rice. The latter was caused mainly by the deficit of rain, an unexpected scenario in the weather conditions anticipated amidst the El Niño episode. This lack of rain also affected crops that grow in dry lands, such as potatoes and Andean products, which also registered a lower production during this period. However, this lower dynamism was offset by an increased production of poultry and an increased production of some agro-export crops, such as coffee, cocoa, and grapes.

The growth rate of the sector in 2016 is revised down from 2.3 to 1.4 percent, taking into account the data of rice production in the first half of the year. On the other hand, a progressive recovery of agricultural activity is expected for 2017 and 2018 since the forecast scenario considers that the climatic conditions that affected the farming season in 2015-2016 will dissipate. Moreover, the output would also be boosted by a greater production of sugarcane associated with the Olmos project.

b) In the first half of 2016, output in the **fishing sector** shrank 41.9 percent given that the start of the first fishing season was postponed. As a result, the lower extraction of anchovy for industrial consumption is the factor that explains the fall in this sector during the first half of the year. Since a first short fishing season that would take place between July and August had already been anticipated in our previous report, the projected growth rate of this sector in 2016 (-2.4 percent) remains unchanged.

A recovery is foreseen in the output of the sector in the following months given that sea temperatures would resume neutral conditions, which would increase the availability of anchovy and anchovy catch. The sector is therefore projected to reach a rate of growth of 24.8 percent in 2017 and to normalize thereafter in 2018 with a growth rate of 4.1 percent.

c) The growth rate projected in the **sector of metal mining** in 2016 is revised up due to the improved performance of the sector observed in the first half of the year, which is expected to continue in the next months. Thus, the sector is estimated to grow 19.0 percent in 2016 due mainly to a greater extraction of copper in Cerro Verde and Las Bambas. As pointed out in our previous report, the boost of copper would subside after 2017, year when a lower extraction of gold would also be observed as a result of the maturity and exhaustion of mines Yanacocha and Barrick.

The **production of copper**, which grew 54.1 percent during the first semester of 2016, accounts mostly for all of the growth registered in the sector during this period. This faster pace of production is explained by the expansion of Cerro Verde, by the progressive increase of production of Las Bambas, and, to



a lesser extent, by the recovery of Antamina. These three mining companies are expected to continue increasing their production in the second part of the year, especially considering that Las Bambas only reached its level of commercial production at the beginning of July and that the increasing production of this mine would be the engine of the growth of this ore in 2017. In 2018, on the other hand, the production of copper would be driven mainly by the expansion of Southern Peru's Toquepala mine.

Table 15           COPPER PRODUCTION           (Thousand MTF)									
	2015	2016*	2017*	2018*					
Antamina	412	421	450	450					
Southern	298	294	300	366					
Cerro Verde	208	513	575	575					
Antapaccay	203	214	210	210					
Toromocho	182	160	192	200					
Constancia	106	128	130	130					
Las Bambas	7	293	462	500					
Rest	212	214	223	229					
TOTAL	1,628	2,237	2,542	2,660					
* Forecast.	1,628	2,237	2,542	2,660					

The **production of gold** in the first half of the year grew 7.3 percent compared to 2015, supported mainly by the production of gold in Madre de Dios and in new gold mining projects, such as Immaculada, Shahuindo, and Anama. The production of this mineral is expected to increase 4.8 percent in the year and to collapse thereafter in 2017 due to the natural exhaustion of the mines of Yanacocha and Barrick. Furthermore, the growth of gold production in 2018 would be driven by new projects, such as Tambomayo, San Gabriel, Invicta and Ollachea.

Table 16           GOLD PRODUCTION           (Thousand troy ounce)									
	2015	2016*	2017*	2018*					
Yanacocha	890	650	400	400					
Barrick Misquichilca	614	558	463	463					
Madre de Dios <sup>1/</sup>	391	544	540	540					
Buenaventura	218	199	208	208					
nmaculada	59	155	147	147					
Anama	74	91	89	89					
Shahuindo	0	56	85	85					
nvicta	0	21	101	118					
Tambomayo	0	4	72	119					
Rest	2,420	2,611	2,402	2,537					
TOTAL	4,666	4,890	4,507	4,704					

1/ Corresponds to the informal production estimated by MINEM.



**Zinc production** declined by 8.0 percent in the first semester of 2016 due to the lower production of Los Quenuales, associated with the closing of the mining unit of Iscaycruz, and with the lower production of Antamina, due to the lower grades of mineral ores. A recovery of production in Antamina is foreseen for 2017, which would be reflected in a growth of 11.2 percent in the production of zinc.

Table 17       MINING PRODUCTION       (% change)									
	2015	2016*	2017*	2018*					
Copper	25.8	37.5	13.6	4.7					
Gold	3.6	4.8	-7.8	4.4					
Zinc	8.1	-11.4	11.2	0.1					

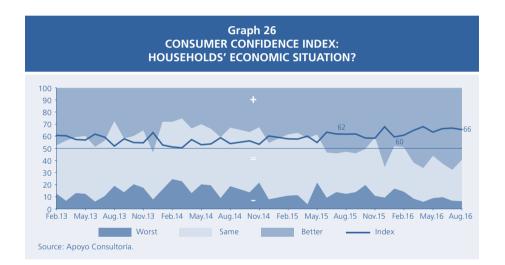
- d) Output in the **sub-sector of hydrocarbons** fell 8.9 percent in the first half of 2016. The main cause accounting for this fall in the sector continues to be the cracks in the Oleoducto Norperuano pipeline (the pipeline was affected by cracks in January, February, and June), which are preventing the exploitation of oil lot 192 by Pacific Stratus and have reduced operations at lot 8. This problem is expected to be solved in the second half of 2017, after which higher rates of growth could be obtained towards 2018.
- e) **Manufacturing production** shrank in the first half of the year due mainly to a lower production of investment-oriented goods and non-traditional exports, as well as due to the limited availability of anchovy for the production of fishmeal and fish oil, which is consistent with the lower private investment and with the lower fishing activity registered in this period, respectively. However, the recovery of the fishing sector in the second part of the year would offset to some extent the drop recorded in primary manufacturing in 2016, so the projected growth rate of the manufacturing sector for this year is revised up from -1.8 to -1.6 percent.

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

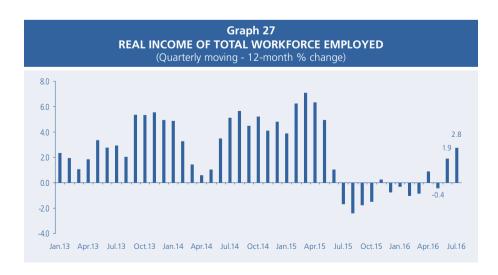
18. The high growth of mining production has had a significant impact on exports, which increased 8.3 percent in the first semester of 2016. In contrast, the negative trend of private investment continued within the domestic demand with a fall of 4.6 percent, reflecting the completion of important mining projects. Consumer spending in the private sector maintained its dynamism, with a growth rate of 3.5 percent, while the government's expansionary position was reflected in increased consumer spending and public investment.



- 19. The indicators of domestic demand show a favorable trend in the levels of consumers and investors' confidence, as well as also favorable signs regarding the determinants of private consumer spending (income and credit). In contrast, current indicators of private investment still reflect a negative evolution of investment.
  - a) The consumer confidence index showed a rising trend between January and August 2016, recording 66 points in August, a higher level than in August 2015 (62 points).



b) The real income of the workforce employed grew 2.8 percent in July and recorded a positive rate for the second consecutive month.



Apr.16 Jul.16

Graph 28 REAL CONSUMER LOANS (12-month % change)

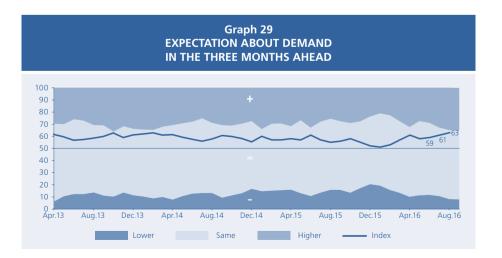
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Jan.13 Apr.13

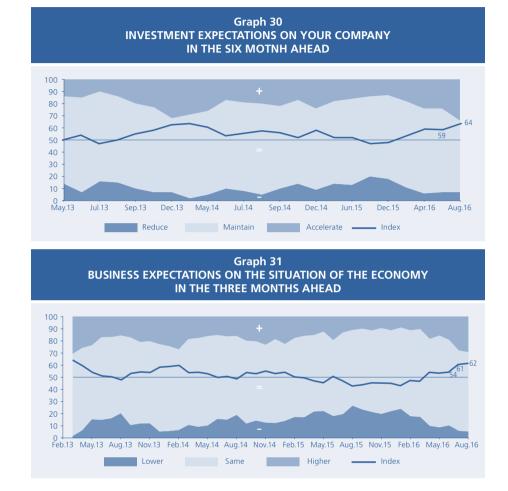
Source: BCRP.

c) Consumer loans in real terms, which recorded a growth rate of 7.7 percent in July 2016, continued showing higher growth rates than incomes.

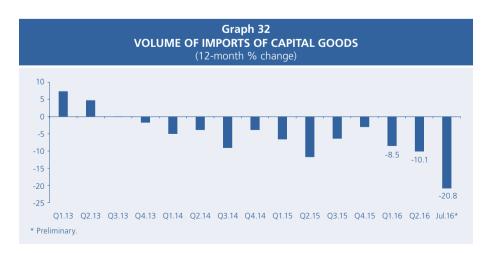
d) Firms' expectations of demand in three months' time remain on the optimistic side and registered 63 points in August. Employers' expectations regarding the status of the economy in three months recorded 62 points in August, a higher level than that recorded at the end of 2015. Moreover, the indicator of expected investment in six months' time shows a positive trend with a level of 64 points in August (versus 59 points in June 2016).







e) The volume of imports of capital goods, indicator of the demand for investment, declined 20.8 percent in July 2016 and accumulated a fall of 15.2 percent between May and July of this year.





20. The GDP growth forecast for 2016 is maintained at 4.0 percent. In comparison with our June report, this forecast considers a greater dynamism of exports, as well as a better performance of public investment given the evolution of capital spending at the level of the sub-national governments in the first half of the year. The current forecast also considers a greater decline in private investment, in line with the decrease observed in mining investment in the first half of the year, although a greater dynamism is estimated in other sectors associated with infrastructure.

	C		<b>DOME</b> Real % c	STIC DEN hange)	IAND				
	201	15		2016*		20	17*	201	8*
	H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16
I. Domestic demand	3.1	2.9	1.1	2.5	1.8	3.8	4.0	3.8	4.0
1. Private expenditure	3.2	2.7	-0.3	1.7	0.7	4.0	4.1	4.1	3.9
Consumption	3.4	3.4	3.5	3.5	3.5	3.8	3.8	4.0	4.0
Private fixed investment	-6.1	-4.5	-4.6	-1.0	-4.3	4.0	5.0	4.2	5.0
Change on inventories**	3.2	1.6	1.7	1.1	0.9	1.2	0.9	1.3	0.7
2. Public expenditure	2.2	4.2	9.0	6.3	7.0	3.0	3.4	2.4	4.3
Consumption	9.0	9.5	6.8	4.7	5.7	1.0	3.0	0.8	3.5
Investment	-16.1	-7.5	16.5	10.3	10.3	7.9	4.5	6.0	6.2
II. Net external demand									
1. Exports	-0.6	3.5	8.3	6.4	6.9	6.4	5.5	4.9	4.6
2. Imports	1.7	2.1	-3.7	0.3	-1.7	3.5	3.6	3.5	3.7
III. <u>GDP</u>	<u>2.5</u>	<u>3.3</u>	<u>4.1</u>	<u>4.0</u>	<u>4.0</u>	<u>4.6</u>	<u>4.5</u>	<u>4.2</u>	<u>4.2</u>

Forecast.

% GDP. IR: Inflation Report.

A gradual recovery of domestic demand is expected in 2017 and 2018, with growth rates of 4.0 percent, for both periods, since private investment would gradually resume a greater rate of growth, supported by the reduction of obstacles that hinder the development of reforms and by the implementation of projects given in concession. Public investment would also contribute to boost greater dynamism in the domestic demand with the execution of infrastructure projects. On the exports side, a slower pace of growth is expected in 2017 and 2018 due mainly to a lower growth of mining exports, while imports would grow in 2017 and 2018 at rates consistent with the expected performance of domestic demand and with the recovery of private investment. As a result of this, GDP is expected to grow 4.5 percent in 2017 and 4.2 percent in 2018.

21. The survey on expectations of GDP growth shows that expectations of growth in 2016 have been adjusted upwards: Financial entities have raised their estimates of



GDP growth from 3.5 to 3.7 percent between June and August 2016 and economic analysts have raised their estimates from 3.7 to 3.8 percent, while the representatives of non-financial firms expect the GDP growth rate to be higher than the one they expected in June 2016. All the economic agents expect GDP to show higher growth rates in 2017 and 2018.

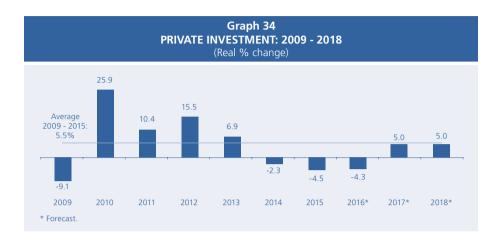
SURVEY ON MAC	ROECONOMIC EXPECTATIONS: GE (% change)	OP GROWTH	
		Expectations about	t:
	IR Mar.16	IR Jun.16	IR Sep.16*
Financial entities			
2016	3.3	3.5	3.7
2017	4.0	4.0	4.2
2018	4.0	4.4	4.3
Economic analysts			
2016	3.2	3.7	3.8
2017	4.0	4.2	4.2
2018	4.2	4.2	4.2
Non-financial firms			
2016	3.5	3.5	3.8
2017	4.0	4.0	4.1
2018	4.5	4.5	4.5

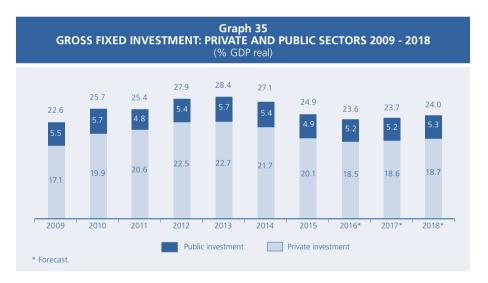
\* Survey conducted during the second fortnight of August 2016

22. The growth rate of private investment projected for 2016 has been revised down from -1.0 percent to -4.3 percent, with the completion of mining projects, such as Las Bambas and Cerro Verde, and the impact of lower levels of terms of trade accounting mainly for this reduction in private investment. On the other hand, investment is expected to recover and to show rates of 5.0 percent in the period of 2017 – 2018, which would be associated with the momentum of the investment projects announced and the projects granted in concession. Thus, total fixed gross investment, which includes investment in both the private and the public sectors, would be around 24 percent of GDP between 2016 and 2018.









A total of 235 private investment projects, amounting altogether to US\$ 33.1 billion, have been announced as projects that will be carried out in the period of 2016-2018.

Table 20           PRIVATE INVESTMENT PROJECTS ANNOUNCED: 2015-2017           (Million US\$)								
	IR Dec.15	IR Jun.16	IR Sep.16					
Mining	12,038	9,982	8,911					
Hydrocarbons	5,317	5,168	4,821					
Energy	3,675	3,920	3,985					
Industry	2,269	2,200	2,240					
Infraestructure	4,443	4,821	5,028					
Other sectors	5,734	7,742	8,142					
TOTAL	33,476	33,833	33,127					

Source: media and Information of companies.





Moreover, estimated investment in projects awarded in concession between 2015 and 2016 would reach US\$ 2.6 billion. Year-to-day, concession contracts standing out include the Broad Band 698-806 MHz telecommunications projects, involving investment for a total of US\$ 1.68 billion and the power station San Gabán III, which would require an investment of US\$ 371 million.

## Table 21 MAIN PROJECTS TO BE IMPLEMENTED THROUGH CONCESSION ARRANGEMENTS IN 2015-2016 (Million US\$)

	Estimated investment
A.Awarded	2,588
Nationwide 698-806 MHz band	1,680
Hydroelectric Power Plant San Gabán III	371
Broadband Installation for Integral Connectivity and Social Development of Tumbes-Piura-Cajamarca-Cusco Regions	250
Broadband Installation for Integral Connectivity and Social Development of Ayacucho Region	55
Broadband Installation for Integral Connectivity and Social Development of Huancavelica Region	49
First Stage of the Carapongo Substation and Conexion Links to Associated Lines	43
Broadband Installation for Integral Connectivity and Social Development of Apurimac Region	42
220 Kv Azangaro - Juliaca -Puno Transmission Line	37
Comprehensive Broadband Connectivity for the Social Development of the Northern Zone of the Country- Lambayeque Region	on 32
220 Kv Montalvo - Los Héroes Transmission Line and associated substations	20
Electronic surveillance services through the use of electronic devices	9
B. Called	2,070
Headworks and Conduction for the Drinking Water Supply in Lima	600
Longitudinal of the Sierra road project, Section 4: Huancayo-Izcuchaca-Mayocc-Ayacucho/Ayacucho-Andahuaylas-	
Puente Sahuinto/Dv. Pisco - Huaytará - Ayacucho	446
Massive Use of Natural Gas - Distribution System through a Natural Gas Grid Across The Regions of Apurimac,	
Ayacucho, Huancavelica, Junin, Cusco, Puno and Ucayali	300
Liquid Petroleum Gas Supply System for Lima and Callao	250
Huancayo - Huancavelica Railway	204
Quillabamba Thermal Power Plant	180
The Amazon Waterway	70
138 Kv Aguaytia-Pucallpa Transmission Line (second circuit)	20
Source: Proinversión.	

23. The growth rate of public investment in 2016 is maintained at 10.3 percent in this report. During the first seven months of the year, public investment has shown a greater dynamism, explained mainly by the better performance of subnational governments in terms of investment spending, which would be reflecting that the



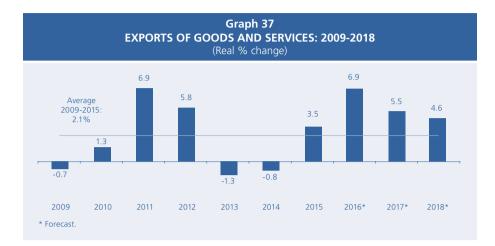
new authorities in office in local and regional governments have completed the learning process of the State administrative procedures. The scenario foreseen for 2017 and 2018 considers that the pace of expenditure in the executing units would moderate compared to 2016, and therefore public investment would show growth rates of 4.5 and 6.2 percent in 2017 and 2018, respectively, in line with the process of fiscal consolidation.

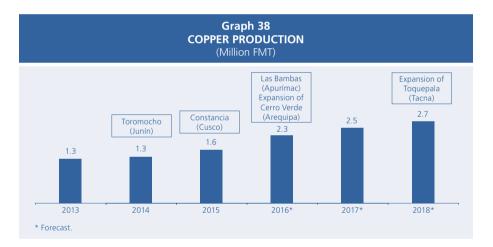


24. In the first half of 2016, the volume of exports of goods and services recorded an increase of 8.3 percent, due mainly to higher shipments of coffee, copper, and fishmeal. On the other hand, non-traditional exports registered a decline, which reflected lower global demand and especially lower demand in the region, the lower volumes of exports of fishing products and textiles standign out. A greater volume of traditional exports and a slight recovery in non-traditional exports is expected in the next few months, in line with the gradual recovery of economic activity projected in Latin America. Therefore, the growth rate projected for exports for 2016 is revised up from 6.4 percent to 6.9 percent considering increased traditional exports.

The pace of growth of exports would moderate between 2017 and 2018 given that the growth of copper production would be lower than projected in 2016, which in turn would offset the impact on the growth of exports and the GDP. On the other hand, the normalization of climate conditions would result in higher levels of anchovy fisheries and agricultural production and have a positive effect on exports in this period.



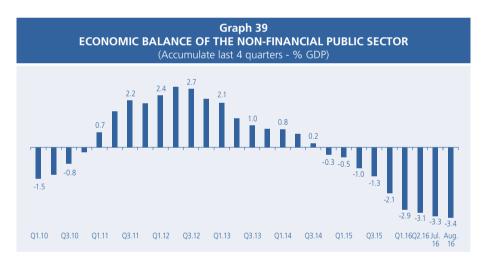


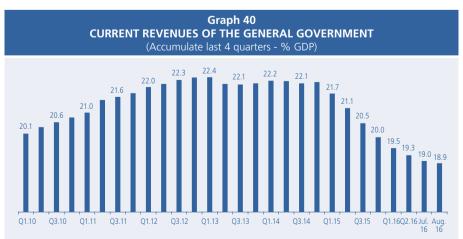




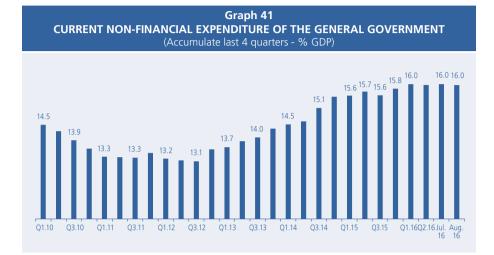
# **IV. Public Finances**

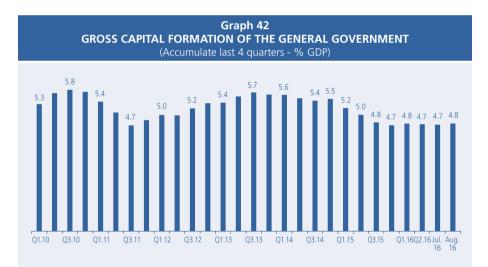
25. The economic deficit of the non-financial public sector continues showing a rising trend, having increased in accumulated annual terms from a rate of -1.0 percent of the GDP in August 2015 to -3.4 percent in August 2016. This is explained both by a reduction of tax revenue –down from 20.8 percent of GDP to 18.9 percent of GDP– and by an increase in the current expenditure of the general government –up from 15.5 percent to 16.0 percent of GDP–. The reduction in tax revenue is explained by the effect of the tax measures implemented at end-2014 and by the slowdown of economic activity.











26. The fiscal projections of this report are based on the baseline fiscal scenario of the MEF's (revised) Multiannual Macroeconomic Framework. Therefore, the Economic Balance of the Non-Financial Public Sector would go from -2.1 percent of GDP in 2015 to -3.0 percent in 2016, to -2.5 percent in 2017, and to -2.3 percent in 2018, similar rates to those estimated in the Inflation Report of June.

These projections configurate an expansionary fiscal position in 2016 and a slightly contractionary fiscal position in 2017 and 2018, which is consistent with economic activity's convergence towards its potential level.

	N	ON-FINA	Table NCIAL (% G	PUBLIC S	ECTOR				
	20	15		2016*		20	17*	201	8*
	H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16
1. General government									
current revenues 1/	21.3	20.0	19.8	19.3	18.9	19.3	19.2	19.3	19.4
Real % change	-6.9	-7.5	-4.3	0.2	-2.2	4.2	6.6	4.1	5.0
2. General government									
non-financial expenditure	17.8	21.3	18.1	21.1	20.8	20.7	20.5	20.4	20.4
Real % change	2.1	1.4	5.0	3.1	1.4	2.6	3.4	2.3	3.8
<u>Of which:</u>									
Current expenditure	14.0	15.8	14.4	16.0	15.6	15.4	15.3	14.9	15.1
Real % change	6.3	4.5	6.1	4.5	2.2	1.0	2.6	1.0	2.9
Gross capital formation	3.2	4.7	3.4	4.7	4.9	4.9	4.9	5.0	5.1
Real % change	-19.7	-12.5	8.4	4.9	7.8	8.2	6.0	6.8	6.7
3. Others	0.4	0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	0.1
4. Primary balance (1-2+3)	4.0	-1.1	1.8	-1.9	-1.9	-1.5	-1.3	-1.2	-1.0
5. Interests	1.0	1.0	1.1	1.2	1.1	1.3	1.3	1.3	1.3
6. Overall Balance	2.9	-2.1	0.7	-3.0	-3.0	-2.8	-2.5	-2.5	-2.3
Memo: Structural overall balance	-0.2	-1.9	-1.5	-2.8	-2.9	-2.5	-2.4	-2.3	-2.2

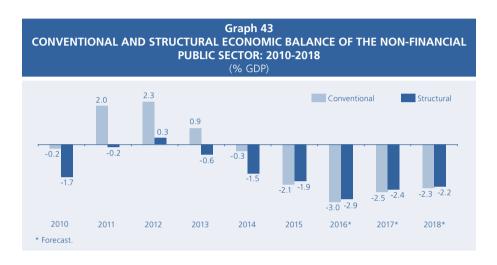
1/ The general government includes the ministries, national universities, public agencies, regional governments, social security, regulators and supervisors, government charity organizations and local governments.IR: Inflation Report. \* Forecast.

After adjusting the economic balance by the economy's cyclical position and by the prices of commodities, we obtain the Structural Economic Balance, which gives information about the fiscal policy stance. In this Inflation Report, the Structural Economic Balance is estimated at -1.9 percent of GDP in 2015, at -2.9 percent in 2016 (versus -2.8 percent in the IR of June), at -2.4 percent in 2017 (-2.5 percent in the IR of June), and at -2.2 percent in 2018 (-2.3 percent in the IR of June). As one can see, the fiscal impulse, measured by the increase in the structural deficit, is expansionary at 1.2 percent of GDP in 2016 and reverses in the following years to a negative impulse (-0.6 percent in 2017 and -0.3 percent in 2018).

Additionally, in order to calculate more precisely the impact of the fiscal policy on the economic cycle, we can see the effects separately from changes in structural income and expenditure and adjust them by their multiplier effect on aggregate demand. In this way, we obtain the Weighted Fiscal Impulse, which would go from



a contractionay position of 0.5 percent of GDP in 2015 to an expansionary position of 0.2 percent in 2016. In 2017 and 2018, the fiscal position would be slightly contractionary.



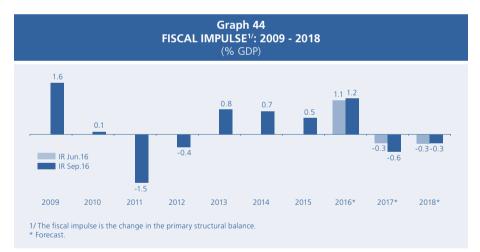


Table 23 FISCAL IMPULSE (% potential GDP)									
		2014	2015	2016*	2017*	2018*			
1.	Fiscal impulse	0.7	0.5	1.2	-0.6	-0.3			
	a. By revenues	0.2	1.0	1.2	-0.5	-0.2			
	b. By expenditures <sup>2/</sup>	0.5	-0.5	0.0	-0.1	-0.1			
2.	Weighted fiscal impulse	0.3	-0.5	0.2	-0.2	-0.1			
	a. By revenues <sup>1/</sup>	0.0	0.2	0.3	-0.1	0.0			
	b. By expenditures <sup>1/2/</sup>	0.3	-0.7	-0.1	0.0	0.0			

1/ According to estimate of fiscal multiplier.

2/ Includes public enterprises.

\* Forecast.

### **Tax Revenues**

27. The projection of tax revenue at end-2016 has been revised down by 0.4 percentage points of GDP from the projections of the IR of June to 18.9 percent of GDP.

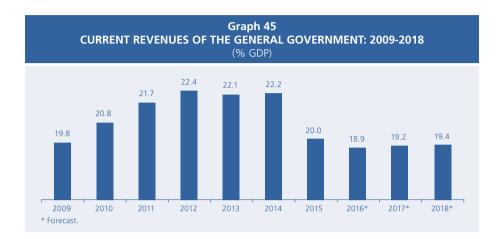
The reduction of revenue is explained by 3 factors: (i) a greater-than-estimated amount of tax rebates in the year due to increased requests for an early reimbursement of the VAT and higher outstanding balances. It is worth pointing out that while rebates increased 5.4 percent in 2015, in 2016 they have increased by 33 percent in real terms just between January and August. Based on these results, the amount of rebates has increased from S/ 14.4 billion to S/ 15.9 billion; in other words, by 0.2 percentage points of GDP; (ii) lower revenue from the VAT, which is adjusted down by 0.2 percentage points of GDP taking into account the data for the last months. This lower revenue reflects the fall observed in revenue from the external VAT resulting from lower imports of capital goods, associated with the negative evolution registered by private investment, and from lower imports of consumer goods, and (iii) lower income from the income tax (down by 0.1 percentage points of GDP) as a result of lower revenue from the income tax of legal entities.

Tax revenues in **2017** and **2018** are projected to be equivalent to 19.2 and 19.4 percent of GDP, respectively, considering the current national structure of tax rates, coverage and exceptions. This type of passive forecast does not take into account any modification and serves as a baseline scenario.

			(% G	UF)					
	20^	15		2016*		20	17*	201	8*
	H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16
TAX REVENUES	16.1	15.2	15.1	14.8	14.4	14.7	14.7	14.7	14.8
Income tax	6.6	5.7	6.8	5.7	5.7	5.5	5.7	5.5	5.7
Value added tax	8.6	8.4	8.2	8.3	8.1	8.2	8.1	8.2	8.1
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	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Other tax revenues	1.6	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.8
Tax returns	-2.0	-1.9	-2.7	-2.2	-2.4	-2.0	-2.1	-2.0	-2.0
NON-TAX REVENUES	5.3	4.8	4.7	4.5	4.5	4.6	4.5	4.6	4.5
TOTAL	21.3	20.0	19.8	19.3	18.9	19.3	19.2	19.3	19.4

IR: Inflation Report. \* Forecast.

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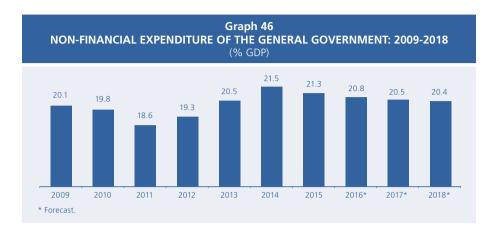


#### **Evolution of public spending**

28. The downward revision of the general government's non-financial expenditure by 0.3 percentage points is explained by the fact that this projection incorporates the new level of expenditure considered in the revised Multiannual Macroeconomic Framework that was published in August. The evolution of spending projected for 2017 and 2018 considers an average growth of about 3.6 in real terms, with which the level of spending would be equivalent to 20.4 percent of GDP in 2018. Thus, a rising path is foreseen in the general government's spending in public investment, as it would increase from 4.9 to 5.1 percent of GDP while current expenditure would decline from 15.6 to 15.1 percent of GDP at the same time.

Table 25           NON-FINANCIAL EXPENDITURE OF THE GENERAL GOVERNMENT           (% GDP)											
	20 <sup>-</sup>	15	2016*			20	17*	2018*			
	H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16		
Current expenditure	14.0	15.8	14.4	16.0	15.6	15.4	15.3	14.9	15.1		
National Government	9.7	11.1	9.9	11.1	10.8	10.7	10.5	10.4	10.3		
Regional Governments	2.7	3.0	2.8	3.1	3.1	3.0	3.1	2.9	3.1		
Local Governments	1.5	1.7	1.6	1.7	1.7	1.7	1.7	1.6	1.7		
Capital expenditure	3.8	5.4	3.7	5.2	5.2	5.3	5.2	5.4	5.3		
Gross capital formation	3.2	4.7	3.4	4.7	4.9	4.9	4.9	5.0	5.1		
National Government	1.5	2.0	1.4	1.9	2.1	2.0	2.1	2.1	2.2		
Regional Governments	0.7	0.9	0.7	0.9	0.9	0.9	1.0	1.0	1.0		
Local Governments	1.0	1.8	1.3	1.9	1.9	1.9	1.9	1.9	1.9		
Other	0.6	0.7	0.3	0.4	0.3	0.4	0.3	0.4	0.3		
TOTAL	17.8	21.3	18.1	21.1	20.8	20.7	20.5	20.4	20.4		
National Government	11.8	13.8	11.6	13.4	13.1	13.1	12.9	12.9	12.8		
Regional Governments	3.4	3.9	3.5	4.0	4.1	4.0	4.0	3.9	4.1		
Local Governments	2.6	3.5	3.0	3.7	3.6	3.6	3.6	3.6	3.6		

IR: Inflation Report. \* Forecast.



As for the operations of public enterprises, the forecast scenario considers Petroperu's investment in the modernization of the Refinery in Talara, the implementation of which currently shows a progress of 43 percent.

#### **Public Debt**

29. The funding required to cover the fiscal deficit and the amortization of the public debt rises from S/ 21 billion in 2015 to S/ 28 billion in 2016, to S/ 22 billion in 2017, and to S/ 24 billion in 2018. In GDP terms, this means that this financial requirement rises from 3.4 percent of GDP in 2015 to 4.2 percent of GDP in 2016, and to 3.2 percent of GDP in 2017 and 2018.

FINANCIAL REQUIRE	MENTS	OF THE I	<b>Table</b> NON-FIN (Millio	ANCIAL	PUBLIC S	ECTOR A	ND ITS I	UNDING	;
	20	)15		2016*		20	17*	2018*	
	H1	Year	H1	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16	IR Jun.16	IR Sep.16
I. USES	-2,578	20,961	845	26,566	27,669	28,038	22,181	27,689	23,931
1. Amortization	6,021	7,963	2,976	6,564	7,796	8,143	4,295	8,824	6,503
a. External	2,842	3,859	2,086	3,847	3,562	3,093	3,081	4,276	4,301
b. Domestic Of which:	2,863	3,437	625	1,883	3,531	4,299	421	3,754	1,388
Recognition bonds	315	666	264	833	703	750	792	793	814
<ol> <li>Overall balance (Negative sign indicates surplus)</li> </ol>	-8,599	12,998	-2,130	20,003	19,873	19,895	17,886	18,865	17,428
II. SOURCES	-2,578	20,961	845	26,566	27,669	28,038	22,181	27,689	23,931
1. Change on debt stocks	14,968	27,445	26,091	27,445	24,032	20,267	15,121	22,360	23,493
2. Change on deposits and other <sup>1/</sup>	-17,546	-6,483	-25,245	-878	3,637	7,771	7,061	5,329	438
Memo:									
% GDP									
Gross debt balance	19.9	23.3	22.2	25.5	25.4	26.6	25.9	28.0	27.5
Net debt balance <sup>2/</sup>	2.5	6.6	5.6	10.1	9.2	13.1	11.7	15.5	13.8

1/ A positive sign indicates a reduction of deposits.

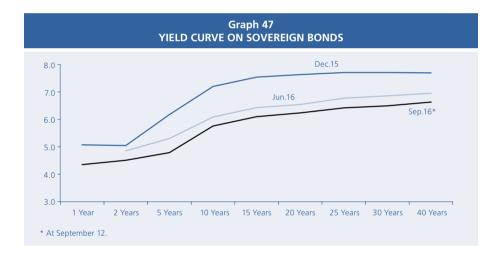
2/ Defined as the difference between gross public debt and NFPS deposits.

IR: Inflation Report. \* Forecast.

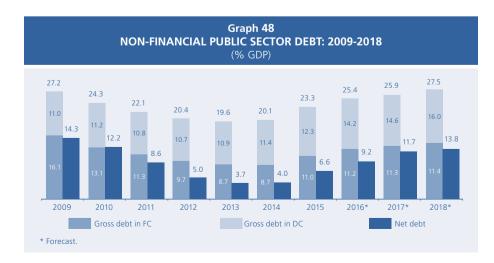


The possible alternatives to cover this financial requirement include resorting to debt with international agencies, issuing bonds in the international markets and in the local market, and using deposits placed in the national financial system, particularly deposits placed at BCRP. A possible scenario in which public financing comes from using S/ 4 billion and S/ 7 billion of deposits in 2016 in 2017, respectively, is proposed in this report.

The debt structure will tend to include issuances of bonds in soles with different maturities to obtain a more balanced composition of the public debt in terms of currencies. This projection is also passive in terms of operations of recomposition of the maturities of the public obligations, which are carried out to enhance the profile and concentration of debt maturities.



The gross debt of the non-financial public sector would be equivalent to 27.5 percent of GDP at the end of the forecast horizon, while the net debt would increase to 13.8 percent of GDP by **2018**.





#### BOX 3 2017 BUDGET BILL

The Executive Branch has submitted to the Congress of the Republic the bill for the budget of fiscal year 2017 (Bill 173/2016-PE), which amounts to S/ 142.47 billion, a sum equivalent to 20.1 percent of GDP, which represents an increase of the budget of 2.9 percent in nominal terms and an increase of 0.1 percent in real terms compared to the public budget approved for 2016 through Law 30372.

	Budge	Budget 2016		ast 2017	% chg.	
	Amount <sup>1/</sup>	% structure	Amount	% structure	Nominal	Real
1. NON FINANCIAL EXPENDITURE	126,760	91.5	129,984	91.2	2.5	-0.2
(% GDP)	19.7		18.4			
Current	89,756	64.8	95,100	66.7	6.0	3.1
a. Remunerations	37,136	26.8	40,693	28.6	9.6	6.6
<li>b. Goods and services</li>	28,550	20.6	30,853	21.7	8.1	5.1
c. Pensions and social benefits	11,993	8.7	12,241	8.6	2.1	-0.7
d. Other current expenditures	8,263	6.0	8,240	5.8	-0.3	-3.0
e. Contingency reserve	3,814	2.8	3,073	2.2	-19.4	-21.6
Capital	37,004	26.7	34,884	24.5	-5.7	-8.3
a. Acquisition of non financial assets	27,320	19.7	26,552	18.6	-2.8	-5.5
b. Other capital expenditures	5,835	4.2	7,681	5.4	31.6	28.0
c. Contingency reserve	3,849	2.8	651	0.5	-83.1	-83.5
2. FINANCIAL EXPENDITURE	11,731	8.5	12,487	8.8	6.4	3.5
TOTAL	138,491	100.0	142,472	100.0	2.9	0.1

1/ Information of SIAF-MEF and according to the approved numbers of "Budget Bill 2016". Source: SIAF -MEF and "Budget Bill 2017".

Non-financial spending would increase by 2.5 percent in nominal terms, the nominal increase of 6 percent in the current spending component standing out (allocated basically to salaries and goods and services). This increase contrasts with the nominal reduction of capital spending (5.7 percent) in the budget (which is explained by a lower allocation of resources through the contingency reserve), while financial spending, on the other hand, would increase by 6.4 percent in nominal terms.

This Budget Bill prioritizes the following actions:

- a. Access to water and sanitation basic public services. Resources for up to S/ 6.03 billion would be allocated to this, of which S/ 2.00 billion would be used to the establishment of the creation of the "Fondo para el financiamiento de proyectos de inversión pública en materia de agua y saneamiento y otras materias" (Fund to finance public investment projects in the areas of water and sanitation and other areas).
- b. **<u>Citizen security and fight against corruption</u>**. The budget bill allocates S/ 9.36 billion for Public Order and Security actions and S/ 4.99 billion to strengthen Justice actions.
- c. **Quality public education**. The bill proposes allocating S/ 26.18 billion to strengthen teachers' skills and capabilities and to enhance learning by providing comprehensive education, as well as to reduce the gap in education infrastructure and to strengthen higher education, among other actions.
- d. **People-oriented health services**. The proposed budget allocates funds to strengthen human resources in health services, insurance and integrated health system, hospital infrastructure, and to enhance child development.





e. Infrastructure to enhance development and productivity. A total of S/ 15.39 billion would be allocated to capital spending in the following sectors:

Transport and Communications: The bill proposed allocating S/ 11.05 billion to increase access to national e international markets, as well as to solve progressively the problem of congestion in passenger transport through the development of a transport system. The main projects standing out include Lima's Metro Line 2 (S/ 2.18 billion), Lima's Metro Line 1 (S/ 305 million), road corridors (S/ 1.19 billion), and the construction of the International Airport of Chinchero, in Cusco (S/ 212 million).

Moreover, S/ 2.47 billion would be assigned to the sector of Agriculture for the development of infrastructure, particularly irrigation projects. The main projects include: Chavimochic Third Stage (S/ 334 million), Majes Siguas (S/ 234 million), Alto Piura (S/ 62 million), and the execution of 51 projects (S/ 300 million) through Fondo Mi Riego.

In the sector of Housing and Urban Development, the bill proposes allocating S/ 1.41 billion to implement projects in urban marginal areas, such as the improvement of streets, street roads, and sidewalks and the refurbishment of parks.

Resources would be allocated in the sector of Energy and Mining to provide electric energy and encourage the use of electricity in isolated rural communities.

The functional budget distribution reflects the areas of intervention that are given priority in 2017 budget, as shown in the table below.

	Budge	et 2016	Budge	et 2017		
	Amount	% structure	Amount	% structure	Difference	% chg
1 Legislative	595	0.4	588	0.4	-7	-1.1
2 Foreign affairs	558	0.4	714	0.5	156	28.0
3 Planning, management and contingency reserve	22,201	16.0	18,236	12.8	-3,965	-17.9
4 Defense and national security	5,376	3.9	4,886	3.4	-490	-9.1
5 Public order and safety	8,336	6.0	9,361	6.6	1,025	12.3
6 Justice	4,574	3.3	4,997	3.5	423	9.2
7 Labor	357	0.3	414	0.3	57	15.9
8 Foreign Commerce	418	0.3	517	0.4	99	23.7
9 Tourism	412	0.3	495	0.3	83	20.3
10 Agriculture and irrigation	3,460	2.5	3,635	2.6	175	5.0
11 Fishing	357	0.3	415	0.3	58	16.3
12 Energy	982	0.7	996	0.7	14	1.5
13 Mining	130	0.1	127	0.1	-3	-2.1
14 Industry	312	0.2	223	0.2	-89	-28.5
15 Transport	12,878	9.3	14,083	9.9	(1,205)	9.4
16 Communications	305	0.2	407	0.3	102	33.5
17 Environment	2,331	1.7	2,463	1.7	132	5.7
18 Sanitation	3,593	2.6	6,032	4.2	2,439	67.9
19 Housing and urban development	2,833	2.0	2,080	1.5	-753	-26.6
20 Health	13,471	9.7	13,776	9.7	305	2.3
21 Culture and sport	1,086	0.8	1,738	1.2	652	60.1
22 Education	24,960	18.0	26,181	18.4	1,221	4.9
23 Social protection	5,638	4.1	5,780	4.1	142	2.5
24 Social Welfare	12,183	8.8	12,614	8.9	431	3.5
25 Public debt	11,147	8.0	11,712	8.2	565	5.1
TOTAL	138,491	100.0	142,472	100.0	3,979	2.9

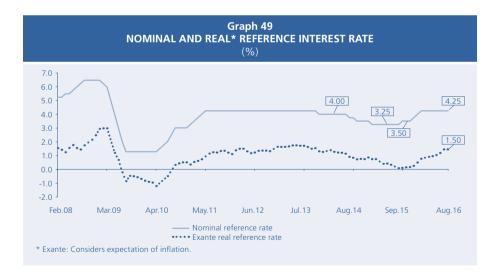
Source: SIAF-MEF and "Budget Bill 2017".

# V. Monetary Policy and Financial Markets

#### **Monetary Policy Actions**

30. Inflation has continued declining and converging to the target range as a result of the reversal of the supply shocks and of the monetary policy actions taken previously. The inflationary effect of the depreciation of the sol against the dollar has moderated and inflation expectations have continued showing a declining trend.

In this context, the Board of the Central Bank has maintained the benchmark interest rate at 4.25 percent since March (after adjusting it in December, January, and February) and has reiterated that the Central Bank oversees the inflation forecasts and inflation determinants to evaluate the possibility of adjusting its monetary policy rate.



Between July and August, the monetary operations of the Central Bank were mainly oriented to withdrawing the greater availability of liquidity that banks had generated due to net maturities of CDR-BCRP (S/ 2.27 billion) and to purchasing foreign currency (US\$ 2.09 billion, or S/ 6.86 billion) with the purpose of reducing volatility in the exchange rate. In this scenario, the BCRP increased the volume of its placements of BCRP-CDs and extended their maturity terms.

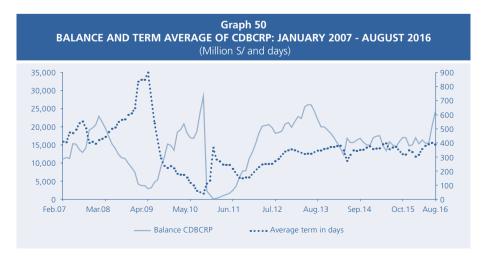


		Ba	lance			Flows	
	20	)15	20	16	20	)16	Year
	31 Aug.	31 Dec.	30 Jun.	31 Aug.	Jan-Aug	Jul-Aug S	ep.15-Aug.1
. NET INTERNATIONAL RESERVES	196,385	209,663	195,966	208,022	-1,641	12,057	11,637
(Million US\$)	60,613	61,485	59,564	61,728	243	2,164	1,115
1. Net international position	26,358	25,858	25,367	27,342	1,484	1,975	984
2. Deposits of financial intermediaries	21,099	22,477	20,238	19,624	-2,853	-614	-1,475
a. Current account	7,924	12,062	7,607	7,951	-4,111	344	27
b. Overnight deposits	5,107	1,718	3,785	3,036	1,317	-750	-2,072
c. Restricted deposits	8,068	8,697	8,846	8,637	-60	-208	569
3. Deposits of the public sector	13,739	13,683	14,466	15,305	1,623	840	1,567
a. Fiscal Stabilization Fund	9,168	7,902	8,165	8,256	353	90	-912
b. Rest	4,571	5,780	6,300	7,050	1,270	749	2,479
4. Others	-583	-533	-507	-544	-11	-37	39
I. NET DOMESTIC ASSETS (1+2+3)	158,639	-169,021	-157,353	-167,790	1,230	-10,437	-9,152
1. Credit to the financial sector	-67,057	-77,181	-64,802	-71,522	5,659	-6,719	-4,465
a. Reverse repos	3,845	2,500	1,015	800	-1,700	-215	-3,045
Of which: Special repos	0	1,900	0	0	-1,900	0	0
b. Currency repos	24,655	27,605	28,505	27,905	300	-600	3,250
i. Fx- Repo Regular	13,950	14,900	15,800	15,200	300	-600	1,250
ii. Fx- Repo Expansion	5,900	7,900	7,900	7,900	0	0	2,000
iii. Fx- Repo Substitution	4,805	4,805	4,805	4,805	0	0	0
c. Securities issued	-17,110	-18,873	-16,645	-21,477	-2,604	-4,832	-4,367
i. CDBCRP	-10,866	-11,624	-13,595	-20,697	-9,072	-7,102	-9,831
ii. CDRBCRP	-6,244	-7,249	-3,051	-780	6,469	2,271	5,464
d. Reserve requirement in domestic currency	-9,025	-10,649	-9,351	-8,823	1,825	527	202
e. Other deposits in domestic currency	-1,061	-1,115	-1,741	-3,874	-2,759	-2,133	-2,813
f. Deposits in foreign currency	-68,361	-76,648	-66,584	-66,133	10,515	451	2,227
2. Net assets on the public sector	-80,745	-78,455	-79,785	-81,574	-3,118	-1,789	-829
a. Banco de la Nacion	-10,833	-11,121	-9,194	-9,288	1,833	-95	1,545
i. Domestic currency	-6,392	-6,926	-5,699	-3,272	3,653	2,427	3,120
ii. Foreign currency (Million US\$)	-60	-82	-293	-436	-355	-143	-377
iii. Securities owned by the Public Sector	-4,248	-3,917	-2,529	-4,545	-629	-2,017	-297
b. Central Government	-69,666	-67,257	-70,541	-72,358	-5,101	-1,817	-2,692
i. Domestic currency	-27,397	-22,835	-25,928	-24,294	-1,459	1,633	3,102
ii. Foreign currency (Million US\$)	-13,046	-13,027	-13,560	-14,221	-1,194	-660	-1,175
c. Other (Includes COFIDE)	-245	-77	-50	-68	10	-18	178
3. Other Net Accounts	-10,837	-13,384	-12,766	-14,695	-1,311	-1,929	-3,858

As a result of this, the ratio of BCRP-CDs in terms of the Central Bank's assets increased from 7.3 percent to 10.8 percent between June and August 2016, while the ratio of repo operations declined slightly in terms of the BCRP balance.

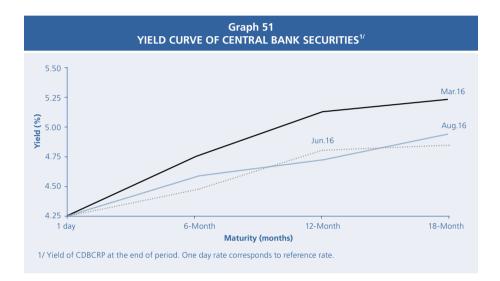
			Table 28           BALANCE SHEET OF THE           (As % of Net Assets)	BCRP	
			Dec.14	Dec.15	Aug.16
١.	Net	t assets	100.0%	100.0%	100.0%
	Net	t International Reserves	94.9%	87.4%	87.9%
			(US\$ 62,307 mills.)	(US\$ 61,485 mills.)	(US\$ 61,728 mills.)
	Rep	005	5.1%	12.6%	12.1%
п.	Net	t liabilities	100.0%	100.0%	100.0%
	1.	Total public sector deposits	36.9%	32.7%	33.8%
		In domestic currency	18.7%	13.0%	12.3%
		In foreign currency	18.2%	19.7%	21.5%
	2.	Total financial system deposits	27.0%	37.1%	32.8%
		In domestic currency	7.7%	4.5%	3.8%
		In foreign currency	19.4%	32.6%	29.0%
	3.	BCRP instruments	9.8%	10.0%	12.8%
		CD BCRP	8.0%	6.5%	10.8%
		CDR BCRP	1.3%	3.0%	0.3%
		Term deposits	0.0%	0.4%	1.5%
		Overnight deposits	0.5%	0.1%	0.2%
	4.	Currency and others	19.7%	15.7%	15.0%
	5.	Others	6.5%	4.5%	5.7%

The BCRP also continued with its weekly auctions of 6-month, 12-month, and 18-month BCRP-CDs placing S/ 50 million each time in order to increase the volume of these certificates and to contribute to the development of the short-term yield curve in soles. Between June and August, the Central Bank placed BCRP-CDs for a total of S/ 15.04 billion while maturities amounted to S/ 6.00 billion, as a result of which the balance of BCRP-CDs increased by S/ 9.04 billion to S/ 25.24 billion (of which BCRP-CDs amounting to S/ 16.05 billion are held by entities in the financial system and BCRP-CDs amounting to S/ 9.20 billion are held by other entities). In addition to this, the residual term of these certificates has increased from 379 days to 388 days in this period.





Between July and August, the yield curve of BCRP-CDs declined 5 basis points on average, influenced by lower expectations of future hikes in the BCRP policy rate together with lower expectations of inflation, as well as by increased competition in the primary market of these instruments due to the increased participation of the AFPs.



In view of banks' greater availability of liquidity in local currency, the BCRP has been renewing in part repo transactions and the deposits of Banco de la Nación and the Treasury. Thus, between June and August the net maturity of currency repos amounted to S/ 500 million and the net maturity of the deposits of the Treasury and Banco de la Nación amounted to S/ 600 million.

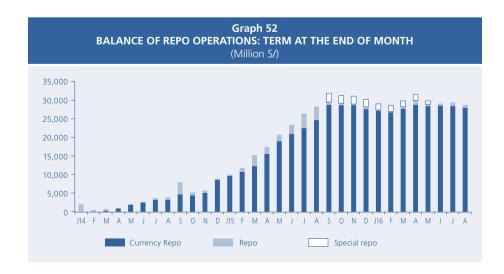




Table 29           AUCTION OF PUBLIC DEPOSIT           (Million S/)								
Date	Operation	Term	Amount	Average rate				
Jun 16, 2016	Treasury	6-month	300	6.67%				
Jun 17, 2016	Treasury	6-month	200	5.92%				
Jun 17, 2016	Treasury	12-month	300	6.93%				
Jul 5, 2016	Treasury	12-month	500	6.60%				
TOTAL			1,300	6.59%				

#### **Interest Rates**

31. The moderation of inflation expectations and depreciation contributed to reduce the interest rates on lending and deposits in domestic currency. On the other hand, the interest rates on operations in foreign currency maintained their levels with the exception of the rates on corporate loans.

Table 30           INTEREST RATE IN DOMESTIC CURRENCY           (%)									
		Sep.15	Dec.15	Jun.16	Aug.16				
	Deposits up to 30-day	4.12	4.01	4.76	4.15				
Pasive	On 31 to 180-day term deposits	4.41	4.67	5.07	5.15				
	On 181 to 360-day term deposits	4.41	4.74	5.24	5.25				
	Corporate	5.87	6.18	6.34	6.13				
	Large companies	7.16	7.12	7.47	7.35				
A	Medium-sized enterprises	10.19	10.23	10.68	10.51				
Active	Small businesses	20.36	20.45	20.88	21.71				
	Consumer	42.40	44.03	43.59	44.24				
	Mortgage	8.59	8.95	9.06	8.94				

Source: BCRP and SBS.

INTEREST RATE IN FOREIGN CURRENCY (%)										
		Sep.15	Dec.15	Jun.16	Aug.16					
	Deposits up to 30-day	0.15	0.23	0.26	0.32					
Pasive	On 31 to 180-day term deposits	0.31	0.45	0.44	0.53					
	On 181 to 360-day term deposits	0.60	0.57	0.55	0.54					
	Corporate	1.94	2.33	1.81	3.54					
	Large companies	5.55	5.54	5.14	5.58					
Activo	Medium-sized enterprises	8.48	8.06	8.30	7.40					
Active	Small businesses	12.82	11.26	10.39	9.43					
	Consumer	32.40	32.07	32.87	32.50					
	Mortgage	6.81	6.71	6.52	6.49					

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### Liquidity

32. Currency in circulation grew 6.5 percent in August 2016 in the last twelve months, recording a higher rate than the one registered at end-2015 (3.8 percent) and in the first half of 2016 (4.9 percent). This would be reflecting a gradual recovery in the level of economic activity.



33. Deposits in domestic currency grew at an annual rate of 10.1 percent in July 2016, showing a higher growth rate than that observed at the end of 2015 (2.8 percent) and higher than that observed in June 2016 (8.9 percent). This dynamism in deposits in domestic currency is associated with a greater preference for saving in soles in a context of lower expectations of depreciation of this currency. The higher growth of deposits in soles also reflects the dedollarization of the deposits of the AFPs –administrators of private pension funds–, which between May and July reduced their deposits in dollars from US\$ 3.40 billion to US\$ 1.83 billion and increased their deposits in soles from 5/ 1.93 billion to 5/ 3.44 billion. The AFPs did this in response to their greater demand for liquidity in soles to meet retired pensioners' withdrawal of up to 95 percent of their pension funds and active pensioners' withdrawal of up to 25 percent of their funds to purchase a first property.

In 2016, deposits in soles are expected to continue increasing their pace of growth as public spending resumes a faster pace of growth and the Treasury withdraws part of its deposits at the BCRP.

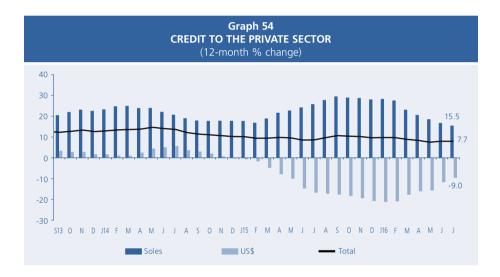
	Table 32           MONETARY ACCOUNTS (END-OF-PERIOD)           (12-month % change)										
	Dec.14	Mar.15	Jun.15	Sep.15	Dec.15	Mar.16	Jun.16	Jul.16			
1 Currency in circulation	11.5	8.4	8.7	4.6	3.8	4.1	4.9	8.5			
2 Deposits in domestic currency	10.4	6.8	4.9	1.6	2.8	4.0	8.9	10.1			
3 Broad money in domestic currency	10.6	7.2	5.8	2.3	3.0	4.1	7.9	9.7			
4 Total broad money <sup>1/</sup>	7.3	5.4	5.5	7.7	6.3	6.8	7.2	8.0			
5 Credit to the private sector in domestic currency	17.7	18.9	24.2	29.5	28.0	23.1	16.7	15.5			
6 Credit to the private sector	10.1	9.2	8.2	10.6	9.4	8.8	7.7	7.7			
1/ Includes foreign currency.											

The ratio of dollarization of private sector deposits has declined compared to the end of the first semester of 2016 (43.5 percent). By type of deposits, dollarization in most segments has decreased compared to the first six months of 2016, this decline being especially noteworthy in pension funds and mutual funds, corporate deposits (sight deposits and term deposits), and personal deposits (sight deposits and term deposits).

Table 33 DOLLARIZATION RATIO OF DEPOSITS								
	Dec.14	Mar.15	Jun.15	Sep.15	Dec.15	Mar.16	Jun.16	Jul.16
Business	50.8	53.6	53.6	57.0	52.2	56.5	53.0	52.7
Demand deposits	47.1	49.2	50.1	52.0	47.2	51.9	53.7	52.8
Savings deposits	63.6	62.1	62.2	75.6	66.0	65.4	64.5	82.6
Term deposits	61.8	69.1	64.6	71.2	68.9	70.6	59.7	55.3
Individuals	33.7	35.2	36.4	38.0	37.1	37.0	35.7	35.1
Demand deposits	48.2	49.7	50.3	52.1	47.2	51.9	53.7	52.7
Savings deposits	35.2	36.6	38.2	38.8	37.5	39.1	42.1	41.0
Term deposits	30.8	32.3	33.1	35.6	35.4	33.0	32.3	33.0
Pension funds	88.6	82.3	85.5	94.2	92.3	94.5	81.2	58.2
Mutual funds	54.6	57.3	53.0	56.0	48.7	43.4	41.8	40.6
Total	42.4	44.2	44.8	47.9	45.4	46.4	43.5	41.7

### Credit

34. Credit to the private sector grew 7.7 percent in annual terms in July 2016, showing a lower growth rate than that recorded during 2015 (9.4 percent), but higher than the one registered in the first half of 2016 (7.3 percent). This conduct of credit would be associated with the slowdown of private investment which has been reflected in the lower dynamism of credit to the corporate sector and with the lower demand for durable consumer goods, which is reflected in the slowdown of car loans.



By currencies, credit in domestic currency continued showing a greater dynamism, with an annual growth rate of 15.5 percent, while credit in foreign currency continued declining although at a slower pace (9.0 percent in July 2016), reflecting the process of de-dollarization of credit supported by the measures taken by the BCRP at end-2014. At end-2016, total credit to the private sector is expected to show growth rates around 6.5 percent, in line with the evolution of economic activity.

Between July 2015 and July 2016, the flow of credit to the private sector in domestic currency amounted to S/ 24.91 billion, which represents a growth rate of 15.5 percent compared to July 2015. This demand for credit has been funded mainly through private sector deposits (S/ 13.75 billion) and by a higher foreign exchange position (S/ 5.20 billion). In addition, through its monetary instruments, the BCRP has withdrawn liquidity for a total of S/ 2.06 billion.

Table 34 CREDIT IN DC OF DEPOSITORY CORPORATIONS: SOURCES OF EXPANSION (Million S/)									
		2014	2015	2016*					
		Year	Year	Jul.15-Jul.16					
Credit i	n domestic currency	20,950	39,775	24,909					
12-month % change		17.7	28.0	15.5					
Source	of expansion	20,950	39,775	24,909					
1.	Private sector deposits	8,627	3,309	13,751					
2.	Public sector deposits	-2,292	2,576	700					
	2.1. Public sector deposits	-2,292	26	30					
	Of which: Auctions of Treasury deposits	0	2,550	-500					
3.	BCRP	13,823	23,741	272					
	3.1. Monetary instruments	11,723	19,698	-2,056					
	a. CD+DP to day	2,252	-507	-4,656					
	b. Repos	350	1,200	-3,300					
	c. Currency repos	8,600	19,005	5,900					
	3.2. Reserve requirements	2,100	4,044	2,328					
4.	Accounting exchange position	-2,422	6,427	5,200					
5.	Rest	2,990	3,722	4,986					

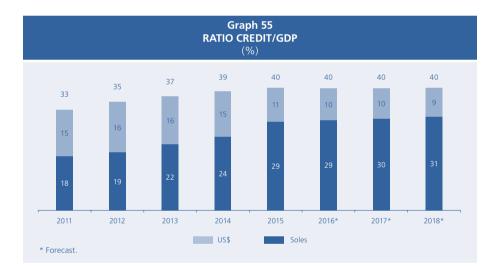
By types of credit, personal loans continued growing at a steady pace of around 9.9 percent. The more dynamic segment was consumer loans, which recorded a year-to-year growth rate of 10.9 percent in July 2016. On the other hand, mortgage loans grew 8.6 percent, a similar growth rate than that observed at end-2015. On the side of business loans, the segment of corporate loans and loans to large enterprises grew at an annual rate of 6.8 percent in July, while the segment of loans to small-and micro businesses grew 6.0 percent and the segment of loans to medium-sized companies recovered compared to December 2015 (6.2 percent versus -0.8 percent).

Table 35,           CREDIT TO THE PRIVATE SECTOR           (12-month % change)								
	Dec.14	Mar.15	Jun.15	Sep.15	Dec.15	Mar.16	Jun.16	Jul.16
Business	9.2	8.2	6.6	10.0	8.4	8.1	6.3	6.5
Corporate and large companies	10.5	16.0	15.5	19.7	16.1	12.8	7.6	6.8
Medium-sized enterprises	13.7	1.1	-3.2	0.5	-0.8	3.0	4.3	6.2
Small business and Microbusinesses	1.6	1.5	0.3	1.0	3.2	3.4	5.9	6.0
Individuals	11.8	12.1	12.0	12.5	12.2	10.8	10.0	9.9
Consumer	11.4	12.6	13.8	14.8	14.8	13.0	10.9	10.9
Car loans	6.7	2.8	0.5	-0.7	-5.0	-4.7	-5.6	-6.1
Credit cards	15.0	18.2	21.8	23.5	23.9	21.3	15.5	14.2
Mortgage	12.4	11.4	9.6	9.5	8.6	8.0	8.6	8.6
Total	10.1	9.6	8.5	10.9	9.7	9.1	7.7	7.7



In 2016, credit is forecast to grow 6.5 percent, considering a growth rate of 8.7 percent in credit in soles associated with a lower dynamism in investment and in the consumption of durable goods as well as with the amortization of loans by economic agents who opted for the release of their pension funds. Because of these reasons, the ratio of credit-to-GDP is foreseen to remain at 40 percent in 2016.

The growth of credit to the private sector in the 2017-2018 forecast horizon is expected to be close to the rate of growth of nominal GDP, with credit in domestic currency showing greater dynamism. In addition to this, total liquidity is foreseen to show a greater degree of de-dollarization, which would be explained by a greater dynamism of deposits in domestic currency as expectations of depreciation of the sol stabilize.



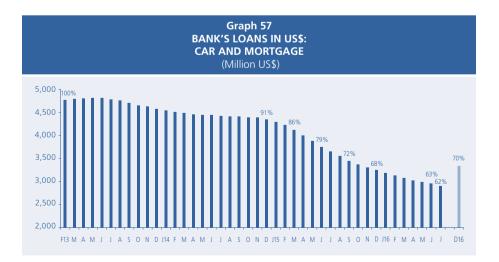
#### Progress made in the de-dollarization of credit

35. At the end of 2014, the BCRP established the Credit De-dollarization Program with the aim of reducing economic agents' risks associated with the high levels of dollarization of credit in the country. The program establishes additional reserve requirements in foreign currency with the aim of increasing the cost of funding in this currency. Particularly, the program sought to reduce banks' balances of loans in dollars: (i) in the case of total loans, banks had to show in December 2015 a balance of loans in dollars equal to 90 percent of such balance at September 2013, while for end-2016 the requirement was 80 percent of the balance of September 2013; and (ii) in the case of car loans and mortgage loans, banks were required to show in December 2015 a balance equal to 85 percent of the balance of these loans in February 2013, while at the end of 2016 the required balance was 70 percent of the balance recorded in February 2013.



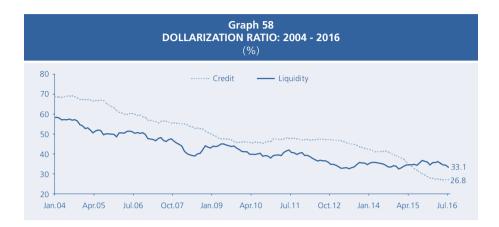
As a result of these measures and of the depreciation registered, the balance of credit in dollars declined and these loans were replaced by loans in soles. The balance of total loans fell from a balance of US\$ 23.47 billion in December 2014 to US\$ 16.18 billion in July 2016 (a contraction of US\$ 7.30 billion). Such balance is equivalent to 70 percent of the credit balance that banks had in September 2013 (which reflects that the requirements set for both December 2015 and 2016 have been met). It should be pointed out that since banks have already met the de-dollarization requirement set for end-2016 and that given the lower pace of depreciation of the sol registered since March, the total balance of total loans in dollars has been maintained around 70 percent of such balance in September 2013 while the balance of car loans and mortgage loans has been maintained at 62 percent of the balance of these loans in February 2013.





As a result of these credit measures, the ratio of the dollarization of credit has dropped from 38.3 percent in December 2014 to 26.8 percent in July 2016.





By type of credit, lower ratios of dollarization are now observed in all the segments of credit. In mortgage loans, the ratio of dollarization declined from 33.9 in December 2014 to 21.1 percent in July 2016, while car loans registered a de-dollarization of 34 percentage points in the same period. As for business loans, the dollarization ratio of loans to corporate enterprises and large companies has dropped by 18 percentage points since December 2014, although it declined from 43 to 42 percent between December 2015 and July 2016. On its side, the ratio of dollarization of loans to medium-sized companies declined by 20 percentage points between December 2014 and July 2016.

It is worth mentioning that 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.

Table 36 DOLLARIZATION RATIO OF CREDIT TO THE PRIVATE SECTOR											
	Dec.13	Dec.14	Sep.15	Dec.15	Mar.16	Jun.16	Jul.16				
Business	51.1	48.4	40.0	38.7	37.8	37.4	38.0				
Corporate and large companies	65.7	59.8	48.1	46.5	46.2	46.1	47.0				
Medianas Business	62.3	59.3	49.0	47.6	45.2	44.7	44.6				
Small business and Microbusiness	12.3	11.5	8.8	8.8	7.7	7.3	7.1				
Individuals	22.0	20.0	16.3	15.9	14.6	13.8	14.0				
Consumer	9.9	9.5	8.1	7.9	7.2	6.9	7.0				
Car loans	74.8	68.9	50.3	44.6	38.2	33.6	32.8				
Credit cards	6.8	6.6	6.3	6.4	6.1	6.2	6.4				
Rest	5.9	5.9	5.8	6.0	5.6	5.3	5.5				
Mortgage	38.5	33.9	27.5	26.8	24.8	23.5	23.6				
TOTAL	40.7	38.2	31.5	30.5	29.3	28.7	29.2				
At constant exchange rate	42.2	38.2	29.9	27.7	27.1	26.7	26.8				



# Non-performing Loans

36. In July, the rate of non-performing loans was 3.19 percent, a slight rising trend being observed. The ratio of default in credit to businesses registered 5.08 percent, a higher rate than in December 2015 (4.65 percent), while the default rate of credit to individuals registered 3.04 percent, although the latter rate is higher by 39 basis points than that recorded in December 2015 (2.65 percent). By components, however, the increase in the rate of default in car loans and credit cards stands up (100 basis points and 84 basis points, respectively).

Table 37 CREDITS DELINQUENCY INDEX OF THE DEPOSITORY CORPORATIONS											
	Dec.14	Dec.15	Mar.16	Apr.16	May.16	Jun.16	Jul.16				
Business	3.14	4.65	4.84	4.94	5.09	5.08	5.08				
Corporate	0.00	0.02	0.03	0.16	0.15	0.08	0.04				
Large companies	0.68	1.00	1.08	1.14	1.09	1.09	0.98				
Medium-sized enterprises	4.79	5.28	5.71	5.79	6.07	6.05	6.17				
Small business	8.72	8.51	9.14	9.19	9.20	9.00	9.27				
Microbusinesses	5.39	4.66	5.14	5.14	5.17	4.88	5.03				
Individuals	2.46	2.65	2.88	2.88	3.05	3.08	3.04				
Consumer	3.34	3.32	3.60	3.60	3.82	3.84	3.74				
Car loans	4.25	4.41	4.75	4.85	5.12	5.17	5.41				
Credit cards	4.23	4.10	4.61	4.71	4.97	5.02	4.94				
Mortgage	1.44	1.84	2.00	2.01	2.12	2.16	2.19				
Average delinquency	2.91	2.87	3.07	3.12	3.23	3.20	3.19				

By currency, the default rate in loans in dollars has increased at a faster pace than that observed in total credit, especially in the case of personal loans in the segments of car loans and mortgage loans (up by 415 and 63 basis points, respectively). Thus, the rate of default of personal loans in dollars increased from 3.28 percent in December 2015 to 3.95 percent in July 2016. A similar conduct was observed in the segment of credit to small and micro businesses, where the rate of default of loans in soles increased by 70 and 35 basis points and the rate of default of loans in dollars increased by 415 and 163 basis points, respectively. The higher rate of delinquency in the segment of personal loans in foreign currency is explained by the higher foreign exchange risk assumed by people when they borrow money since they do not have such as much access to hedge instruments against foreign exchange risk as large companies and enterprises do.



#### Table 38 CREDITS DELINQUENCY INDEX OF THE DEPOSITORY CORPORATIONS: DOMESTIC CURRENCY

	Dec.14	Dec.15	Mar.16	Jun.16	Jul.16
Business	4.03	5.11	5.31	5.62	5.67
Corporate	0.00	0.03	0.04	0.14	0.03
Large companies	0.47	0.48	0.50	0.48	0.44
Medium-sized enterprises	5.63	5.04	5.43	5.86	5.94
Small business	8.55	7.83	8.41	8.25	8.53
Microbusinesses	5.44	4.61	5.07	4.86	4.96
Individuals	2.57	2.53	2.73	2.94	2.89
Consumer	3.33	3.23	3.49	3.74	3.64
Car loans	4.61	1.91	1.97	2.24	2.36
Credit cards	4.31	4.20	4.73	5.17	5.09
Mortgage	1.33	1.46	1.59	1.73	1.78
Average delinquency	3.40	2.87	3.07	3.22	3.23

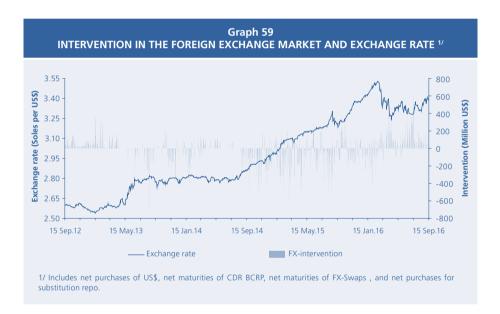
Table 39 CREDITS DELINQUENCY INDEX OF THE DEPOSITORY CORPORATIONS: FOREIGN CURRENCY Dec.15 Jun.16 Jul.16 Dec.14 Mar.16 Business 2.14 3.89 4.00 4.13 4.05 0.01 0.00 0.00 0.00 0.05 Corporate 0.81 1.52 1.74 Large companies 1.73 1.52 5.55 6.04 6.29 Medium-sized enterprises 4.22 6.47 Small business 9.90 16.33 19.29 21.02 21.05 Microbusinesses 4.01 7.91 10.49 5.40 9.54 Individuals 2.06 3.28 3.73 4.00 3.95 Consumer 3.42 4.58 5.33 5.53 5.39 Car loans 4.09 7.52 9.26 10.98 11.67 Credit cards 3.07 2.62 2.90 2.87 2.78 Mortgage 1.64 2.88 3.25 3.53 3.51 Average delinquency 2.13 2.87 3.06 3.15 3.10

## **Exchange Rate and BCRP Interventions in the Forex Market**

37. Between June and August, the sol registered a slight depreciation of 0.4 percent against the dollar, as a result of which the dollar/PEN exchange rate went from S/ 3.378 to S/ 3.393 per dollar, but showing a differentiated evolution during this period.

Thus, between early June and the third week of July, the sol appreciated 1.8 percent against the dollar due mainly to two factors: global expectations that the major

central banks, including the US Federal Reserve (Fed), would continue implementing accommodative monetary policies and due to the greater supply of the dollars of the AFPs in the local market as a result of the law passed by the Congress which allows employees to withdraw 25 percent of their pension funds to pay the mortgage of a first property and allows retired people to withdraw up to 95 percent of their pension funds. Later on, between the last week of July and the end of August, the sol depreciated 2.3 percent against the dollar as a result of the fall recorded in commodity prices and of the increased likelihood that the Fed would continue with its process of interest rate hikes.



The net supply of dollars observed between June and August 2016 amounted to US\$ 8.03 billion. This supply came mainly from the sector of non-residents (US\$ 4.59 billion, of which US\$ 4.02 billion corresponds to the derivatives market) and from the AFPs (US\$ 2.44 billion, of which US\$ 1.53 billion corresponds to the spot market). The demand came from the BCRP intervention in the foreign exchange market through the net maturities of FX swaps (US\$ 5.02 billion), purchase of dollars (US\$ 2.09 billion), and net maturities of BCRP-CDR (US\$ 917 million).

As for the unwinding of currency swaps initiated on March 29 by BCRP –through which banks willing to do so may reduce their positions in dollars more rapidly–, the amount of these operations between June and August was equivalent to US\$ 4.43 billion, which contributed to reduce the balance of FX swaps to the equivalent of US\$ 746 million. Since the close of March, the overall balance of BCRP-CDR and Swaps has declined from US\$ 9.99 billion to US\$ 978 million at the end of August.



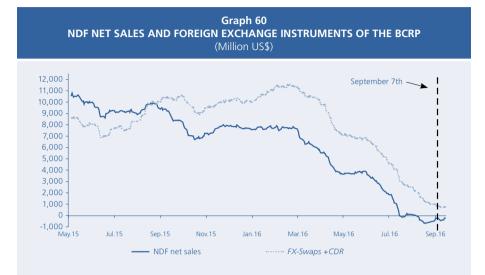


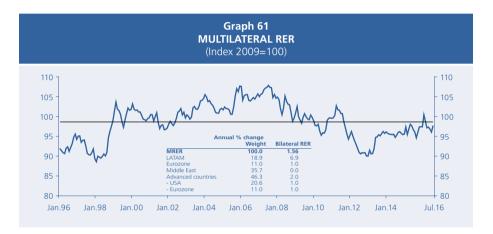
Table 40 FOREIGN EXCHANGE FLOWS (Million US\$)									
	2015		2016						
	2015	Jan-Feb	Mar-May	Jun-Aug					
Net demand in FC <sup>1/</sup>									
1. Reduction on credits in FC	5,968	496	-49	-544					
2. Increase on deposits in FC	3,853	807	-1,228	-428					
3. Non-residents	388	695	-4,494	-4,593					
4. AFPs	2,304	97	93	-2,444					
5. Financial sector	1,594	-2	-108	-216					
6. Non-financial sector	-952	-608	1,446	199					
BCRP Intervention 2/									
1. Net sale spot	8,064	332	164	-2,090					
2. Net placement of FX-Swaps	2,320	1,027	-3,360	-5,019					
3. Net placement of CDR BCRP	1,241	126	-1,144	-917					
4. Sale for substitution repo	1,529								
TOTAL 1/	13,154	1,485	-4,340	-8,026					
Balance of FX swaps (end-of-period)	7,906	9,063	5,674	746					

1/ Negative sign means supply of US\$.

2/ Positive sign means supply of US\$.

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38. The multilateral real exchange rate index (RER) registered a level of 97.5 in August relative to the 2009 base period, which is a level 1.1 percent lower than the average level in the last 20 years, but higher by 1.6 percent than the one recorded in August 2015. The increase observed in the RER index in the last 12 months has occurred mainly in comparison with Latin America (6.9 percent).



# **Capital Market**

39. Securities issued in the local capital market by non-financial companies so far in Q3 amount to S/ 748 million. These securities have been issued mainly in soles (99 percent of total bonds issued), which reflects in part business perception of the higher risk entailed by borrowing dollars.

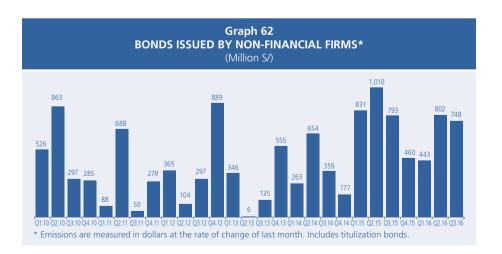




	Table 41           BONDS ISSUED BY NON-FINANCIAL FIRMS (Millions)								
Month	US\$	S/.	Total S/.						
Dec.13	111.0	90.0	400.8						
Jan.14	1.0		2.8						
Feb.14	62.5	85.0	259.9						
Apr.14		220.0	220.0						
Jun.14		434.0	434.0						
Jul.14	20.0		55.9						
Sep.14	50.0	160.0	303.5						
Nov.14	21.0		61.3						
Dec.14		116.0	116.0						
Jan.15	10.0	500.0	530.6						
Feb.15		300.0	300.0						
Apr.15	6.0		18.8						
May.15		502.0	502.0						
Jun.15	154.0		489.3						
Jul.15		435.0	435.0						
Aug.15	0	0	0						
Sep.15	16.0	306.0	357.6						
Oct.15	2.0	2.0	8.6						
Nov.15	6.0		20.2						
Dec.15	117.0	32.0	431.1						
Jan.16		1.2	1.2						
Feb.16	26.0	2.0	93.6						
Mar.16		348.0	348.0						
Apr.16	1.0		3.3						
May.16	50.0		168.6						
Jun.16	0.0	630.0	630.0						
Jul.16	3.8	440.0	452.7						
Aug.16		295.0	295.0						

#### BOX 4

#### STYLIZED FACTS IN THE PERUVIAN FINANCIAL SYSTEM: EXCHANGE RATE AND SOURCES OF CREDIT EXPANSION

In a partially dollarized economy like the Peruvian economy, movements in the exchange rate generate changes in private agents' portfolio, modifying the composition of banks' deposits and, therefore, banks' availability of funding sources. Because of this, the Central Bank has to use a broader set of operational instruments to avoid undesired effects in monetary and credit conditions. This box discusses these portfolio changes by type of deposits and by type of depositors.

The following table shows the correlation between the cyclic component of the exchange rate and the cyclic component of deposits in soles and dollars for different types of deposits and agents. A first stylized fact that is corroborrated is the negative correlation that exists between deposits in soles and the exchange rate. As we can see in the table, this correlation is stronger in the case of the deposits of companies –where we find a correlation of -0.7 with the exchange rate– than in the case of people's deposits. In the case of the latter, the highest negative correlation is observed in savings deposits, and with a lag of one quarter. This would be indicating that the portfolio decisions of companies are reflected to a greater extent in demand deposits whereas, in the case of households, this occurs in savings deposits.

CROSS CORR	CROSS CORRELATIONS OF CYCLICAL COMPONENTS OF TYPES OF THE DEPOSITS AND EXCHANGE RATE*												
	Exchange rate in the period:												
-	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4				
Individuals													
Soles	-0.4	-0.6	-0.6	-0.6	-0.4	-0.1	0.1	0.1	0.2				
US\$	-0.2	0.0	0.4	0.5	0.6	0.4	0.1	-0.1	0.0				
Demand deposits													
Soles	0.0	-0.1	-0.2	-0.3	-0.1	0.1	0.2	0.2	0.1				
US\$	-0.2	0.0	0.2	0.2	0.3	0.2	0.1	0.0	0.1				
Term deposits													
Soles	-0.5	-0.6	-0.5	-0.4	-0.2	0.0	0.2	0.2	0.2				
US\$	-0.3	-0.1	0.2	0.4	0.6	0.5	0.3	0.2	0.1				
Savings deposits													
Soles	-0.2	-0.5	-0.7	-0.8	-0.6	-0.3	0.0	0.1	0.1				
US\$	0.3	0.4	0.5	0.6	0.4	0.1	-0.2	-0.4	-0.4				
Business													
Soles	0.2	-0.1	-0.5	-0.6	-0.6	-0.3	-0.1	0.1	0.0				
US\$	-0.2	-0.1 -0.3	-0.2	-0.1	-0.2	-0.3	-0.1 -0.3	-0.3	-0.2				
Demand deposits	-0.2	-0.5	-0.2	-0.1	-0.2	-0.5	-0.5	-0.5	-0.2				
Soles	0.2	-0.2	-0.5	-0.7	-0.7	-0.5	-0.2	0.0	-0.2				
US\$	0.2	-0.2	0.0	0.0	-0.1	-0.3	-0.2	-0.5	-0.2 -0.4				
Term deposits	0.0	-0.1	0.0	0.0	-0.1	-0.5	-0.4	-0.5	-0.4				
Soles	0.2	0.0	-0.3	-0.5	-0.5	-0.3	-0.1	0.0	0.0				
US\$	-0.3	-0.3	-0.3	-0.1	-0.2	-0.3	-0.2	-0.3	-0.2				
Savings deposits	-0.5	-0.5	-0.5	-0.1	-0.2	-0.5	-0.2	-0.5	-0.2				
Soles	0.0	-0.2	-0.4	-0.4	-0.2	0.0	0.0	-0.1	-0.2				
US\$	0.0	0.2	0.1	0.3	0.5	0.5	0.4	0.2	0.0				
nstitutions	0.2		0.2	0.7	0.0	0.7	0.4	0.7	0.7				
Soles	-0.3	-0.3	-0.3	-0.3	-0.6	-0.3	-0.4	-0.3	-0.3				
US\$	-0.5	-0.4	-0.2	0.0	0.0	0.0	0.0	0.1	0.2				

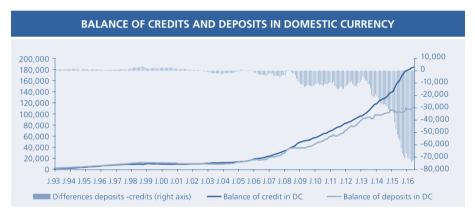
\* Statistically significant at 10% in bold and if the sign makes economic sense is shaded.

The table above also shows a positive correlation between deposits in dollars and the exchange rate. The correlation is particularly high in the case of families, reaching 0.6 when the correlation is measured in the current period of time. Interestingly, the correlation between the cyclic component of the exchange rate and deposits in dollars is not positive or significant in the case of most types of companies' deposits in dollars, with the exception of savings deposits in dollars which show a positive and significant correlation.



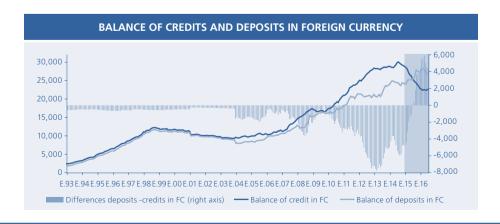
This difference in the correlation of deposits in dollars between families and businesses could be indicating that companies do not only change their portfolios from deposits in soles to deposits in dollars, but also that they reduce the total volume of their deposits in the local financial system, which happens to a lesser extent in the case of families since they usually have less access to investment alternatives outside the local financial system than firms.

This pattern of change was clearly observed in the deposit portfolio in the recent depreciation period –from 2013 to Q1-2016–, period during which the deposits in domestic currency practically showed no growth (they increased only 0.9 percent), affected by their cyclic component which reacts to movements in the exchange rate, while credit in domestic currency grew 30 percent in the same period. The Central Bank was required to carry out liquidity injection operations to offset the slower growth of deposits in order to meet the growth of credit and avoid pressures on the interest rate. This was carried out through currency repos, regular repos, and credit expansion and credit substitution repos which amounted to the equivalent of S/ 28.0 billion, with maturities of up to 5 years, all of which allowed not only to offset the gap between the demand for credit in soles and the growth of deposits in this currency, but also to reduce banks' liquidity risk since the average term of bank liabilities was increased from 7 to 13 months between 2014 and 2016.



Moreover, due to the rapid growth of credit during the period of appreciation, particularly between 2011 and Q1-2013, the BCRP implemented prudential measures to avoid a further increase of credit in foreign currency that could generate greater risks of currency mismatch in economic agents: the BCRP raised the rate of reserve requirements in foreign currency, established additional reserve requirements for credit in foreign currency in 2013, and started the program of de-dollarization of credit at the end of 2014.

The impacts of the BCRP de-dollarization program can be observed in the following graph –in the shaded area–, which illustrates that, as a result of this program, credit in foreign currency shows a sharp downward trend for the first time since the end of 2014.



Typically, before the program of de-dollarization of credit was implemented, the correlation between the cyclical component of the exchange rate and of credit in dollars was negative, but lower than that observed recently. This was due to the fact that, in periods of foreign exchange depreciation, the lower demand for credit in dollars –associated with the greater risk this type of credit implies– was offset by banks' increased supply of this type of credit so that they could match the greater availability of deposits in dollars that are typically observed during these episodes. After the de-dollarization program started in September 2013, the negative impact of the depreciation of the exchange rate observed on credit in dollars was greater, which is consistent with the impact of the measures of credit de-dollarization taken by BCRP.

CROSS CORRELATIONS OF EXCHANGE RATE AND CYCLICAL COMPONENTS									
Date	Credit in FC	Credit in DC	Deposits in FC	Deposits in DC					
Q1.04-Q2.16 Q1.04-Q3.13	-0.7 -0.5	0.4 0.4	0.3 0.4	-0.6 -0.5					

Corroborating this, the following table shows the results of a regression that seeks to capture the importance of the BCRP de-dollarization program (through a dichotomous variable associated with the period in which the program is in effect) in the variation of credit in foreign currency.

EXPLANATION OF CHANGE ON CREDIT IN FC BY EXCHANGE RATE AND BCRP PROGRAM DE-DOLLARIZATION (Change on quarter against quarter of the previous year)						
BCRP Program Dedollarization **	-1.148 (0.404)					
Change on Exchange Rate ***	-0.956 (0.206)					
Constant***	0.085 (0.012)					
R-squared Adjusted R-squared Observations	0.063 0.585 46					
Standard errors in parentheses.						

\*\*, \*\*\* Indicate significance at 95% and 99% respectively.

Fluctuations in the exchange rate generate changes in depositors' portfolios that affect the composition of credit funding in partially dollarized economies. Because of this, the Central Bank is required to manage liquidity in a more active manner and to use a greater variety of operating instruments to limit the effects of these portfolio changes on liquidity and credit and to maintain an orderly evolution of both liquidity and credit.



# VI. Inflation Forecast and Balance of Risks

40. The rate of accumulated inflation in the last twelve months returned to the target range in July, after 16 months of being above this range due to supply shocks and to the effect of the exchange rate pass-through. Inflation's return to the inflation target results also from the pre-emptive actions taken by BCRP to prevent the de-anchoring of inflation expectations, as a result of which inflation dropped from 3.5 percent in May to 2.9 percent in August.

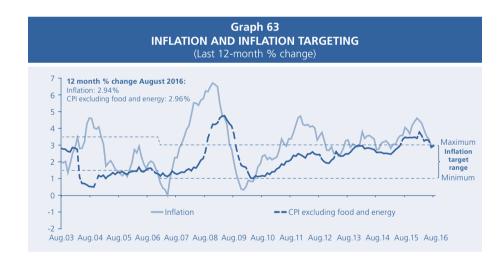


	Table 42 INFLATION (% change)						
		2042	2042	2044	2045	20	16
	Weight	2012	2013	2014	2015	JanAug.	12-month
СРІ	100.0	2.65	2.86	3.22	4.40	1.96	2.94
1. CPI excluding food and energy	56.4	1.91	2.97	2.51	3.49	2.09	2.96
a. Goods	21.7	1.60	2.62	2.43	3.57	2.81	3.90
b. Services	34.8	2.10	3.18	2.55	3.44	1.65	2.38,
2. Food and energy	43.6	3.55	2.73	4.08	5.47	1.81	2.93
a. Food and beverages	37.8	4.06	2.24	4.83	5.37	2.04	3.46
b. Fuel and electricity	5.7	0.22	6.09	-0.85	6.20	0.19	-0.70
Fuel	2.8	-1.48	5.95	-5.59	-6.33	-2.85	-6.74
Electricity	2.9	2.19	6.23	4.37	18.71	2.59	4.34

In the period January - August, the items with the higher positive contribution to inflation were education costs (tuition and fees) and meals outside the home. On the other hand, the items with the higher negative contribution to inflation were potatoes, gasoline, and chicken meat.



ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION: JANUARY - AUGUST 2016										
Positive	Weight	% chg.	Contribution	Negative	Weight	t% chg.	Contribution			
Education costs (tuition and fees)	8.8	5.1	0.48	Potato	0.9	-13.5	-0.18			
Meals outside the home	11.7	3.6	0.48	Gasoline and lubricants	1.3	-8.4	-0.10			
Fresh and canned fish	0.7	18.8	0.14	Poultry meat	3.0	-2.8	-0.09			
Toiletries	4.9	2.8	0.13	Fresh legumes	0.2	-20.1	-0.07			
Other fresh fruits	0.4	25.5	0.10	National transportation	0.3	-15.0	-0.06			
Electricity rates	2.9	2.6	0.08	Citrus fruits	0.5	-7.4	-0.05			
Medicinal products	2.1	4.0	0.08	Olluco and alike	0.1	-33.0	-0.04			
Eggs	0.6	15.2	0.08	Airplane fare	0.4	-9.0	-0.04			
Cigarettes	0.1	44.9	0.08	Рарауа	0.2	-15.7	-0.03			
Banana	0.3	17.2	0.06	Avocado	0.1	-16.6	-0.03			
Total			1.71	Total			-0.69			

## a) Education Costs (5.1 percent)

Prices in the category "**Education: tuition and fees**" increased 5.1 percent, the highest rises being observed in the months of February (1.4 percent) and March (3.1 percent) due to the increase in the tuition and fees in private schools and universities as well as in the education fees in public schools. Education fees in universities and





higher education institutes were raised in subsequent months and tuition registered a new increase in private and state universities in August. As a result of these rises, the variation in the prices of this category in the last twelve months is 5.4 percent.

# b) Meals Outside the Home (3.6 percent)

Prices in the category "**meals outside the home**" rose 3.6 percent, showing a higher increase than that recorded in the prices of food consumed in the household (1.3 percent) and than that observed in the general price index (1.96 percent). Consumers' greater preference for this service is reflected in the increase of 5.20 percent registered in the last twelve months, which is higher than the increase registered in food consumed in the household (2.62 percent).

# c) Fish (18.8 percent)

The price of **fish** showed an accumulated variation of 18.8 percent in January-August and a variation of 7.9 percent in the last twelve months.

Abnormal waves and lower temperatures were observed since July and contributed to increase the prices of species such as sea bass (11.1 percent), liza (6.4 percent), bonito (17.7 percent), horse mackerel (5.7 percent), and tollo (12.5 percent).

## d) Electricity rates (2.6 percent)

In line with the adjustments approved by the regulatory body Osinergmin, **electricity rates** increased 2.6 percent in the first eight months of the year and 4.3 percent in the last twelve months.

The annual adjustment of the service provided by the main transmission system reset was carried out in May (0.7 percent) and the distribution component was also adjusted due to the revision of the balance of power and energy factors. In addition, the transmission component was also increased in June (0.5 percent) due to the onset of operations of the dual thermal power plant (gas and diesel) of Puerto Bravo (Mollendo, Arequipa), which is part of the project "Nodo Energético del Sur del País". Thus, the rise in August (1.3 percent) was associated with the new generation price level which is set every three months and which results from the revision of the weighted prices of the exchange rate, fuels, and the prices of copper and aluminum, among other variables.

# e) Cigarettes (44.9 percent)

In May the Government increased the rate of the excise tax on tobacco and black tobacco (D.S. 112-2016-EF, enacted on May 5, 2016) from S/ 0.07 to S/ 0.18 per cigarette (157 percent). This increase had an impact on the price of **cigarettes**, which rose 23.0 percent in May and 12.3 percent in June, and registered a variation of 45.4 percent in the last twelve months.

# f) Potatoes (-13.5 percent)

The price of **potatoes** dropped 13.5 percent in the January-August period. Factors contributing to this included the greater supply recorded in the months of February to April as result of earlier crops in some areas of Huánuco as well as the substantial contribution of potatoes from Junín and Ayacucho to this supply. Thus, in comparison with the previous crop year, potato crops increased since November and, in addition to this, they were favored by better weather conditions (light rainfall and lower temperature variations), all of which led to negative price variations until the month of June.

However, the negative price trend reversed in July, when the price of potatoes increased 9.4 percent, influenced by the end of the major farming season in the Central Sierra region. Finally, a strong price rise was recorded in August (11.2 percent), especially in the variety of yellow potatoes (16.8 percent) that comes mainly from Huanuco, where sowings in the current crop year of August-June have decreased 9 percent compared to the previous year due to the lack of rain. In addition to this, the delay in the sowing of potatoes in Lima as well as lower crops in Ica due to climate alterations have also affected the price of this crop, whose price registered an increase of 32.4 percent in the last twelve months.

## g) Gasoline and Lubricants (-8.4 percent)

The prices in the category **gasoline and lubricants**, on the other hand, decreased on average 8.4 percent in January-August and 6.7 percent in the last 12 months, in line with the evolution of the *ex plant* prices set by local refineries. Another factor that influences fuel prices is the benchmark prices set by Osinergmin based on the international price of crude oil and the evolution of fuel prices in the U.S. market.

In July (-0.5 percent), the prices of gasoline and natural gas for cars (NGV) decreased 1.4 percent and 0.1 percent, respectively. The international price of WTI oil fell from US\$ 48.7/barrel in June to US\$ 44.9/barrel in July, which led Osinergmin to reduce its benchmark prices. Similarly, in August (-1.2 percent), the prices of gasoline and NGV fell 1.5 percent and 0.3 percent, respectively, inline with the evolution of *ex plant* prices during that month.





# h) Chicken meat (-2.8 percent)

The price of chicken meat decreased 2.8 percent in August and 0.9 percent in the last twelve months, in a context of lower prices of hard yellow maize, the main food of chicken (the price of maize fell from US\$ 142.4 per ton in December 2015 to US\$ 121.2 in August 2016). The price of chicken meat was also influenced by the increased placement of baby chickens corresponding to the supply of this period (approximately 2.0 percent).

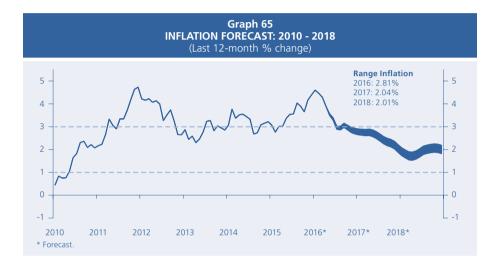
As in previous periods, the price of chicken meat showed a fluctuating trend associated with the availability of substitute products and with supply problems. In the first months of the year, the rise in poultry prices was associated with the increase in the price of highly consumed fish species, such as bonito, mackerel, and parrot fish, and with the lower availability of chickens after the December campaign. In addition to this, apparently the poultry feed was affected by the higher temperatures registered which resulted in a lower weight of farm live chicken. Then, the price of chicken fell in the months of April to July, supported not only by better farm breeding conditions as a result of milder temperatures that allowed a greater weight of live poultry in farms, but also by the lower price of some fish species. This situation reversed in August (3.7 percent) due mainly to the higher price of fish.

## Forecast

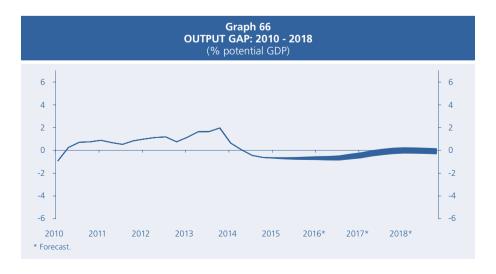
41. Monetary policy actions are taken anticipating the most likely scenarios on the basis of inflation forecasts and projections of inflation determinants. Indicators standing out as inflation determinants include inflation expectations, imported inflation, and inflationary pressures, all of which are quantified through the concept of the output gap (the difference between GDP and its potential level).

**Inflation** is forecast to fall around the **upper band of the target range** in the following months and show a rate of 2.8 percent at the end of the year. Inflation would continue showing a declining trend in 2017, closing the year with a rate around 2.0 percent. Inflation's convergence to the target during the forecast horizon is consistent with a sustained decline of inflation expectations towards the target range during the period as a result of monetary policy actions, with the absence of supply shocks on food prices, and with economic growth without inflationary pressures on the side of demand.

42. The **risk** that inflation may divert from the target range has become more moderate in comparison with the Inflation Report of June. The central forecast considers that the convergence of inflation expectations towards the target range and the measures taken by the Central Bank will ensure that inflation remains within the inflation target range during the monetary policy horizon. This process would be supported particularly by the absence of supply shocks, the decline in expectations of depreciation, and the rise in the policy interest rate. It should be pointed out that you the rate of inflation is expected to register a slighter decline in the rest of the year and during 2017 than that observed in the rate of inflation between the second and third quarters of this year.



43. The inflation forecast for 2016-2018 is supported first of all on projections indicating that the economy would grow at a similar pace to that of the potential output. External conditions would continue to be adverse, but are expected to improve during 2017 and 2018 as the prices of commodities stabilize and economic growth in our trading partners shows a faster pace of growth. A positive fiscal impulse on aggregate demand and still expansionary monetary conditions in domestic currency are also expected in 2016.

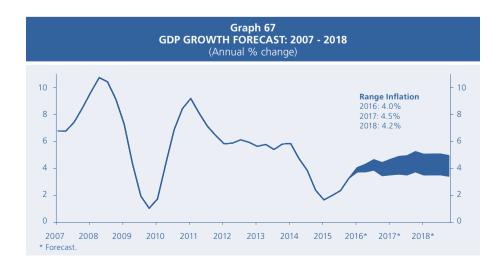




Based on the information available to date, it is estimated that the economy will head towards a neutral economic cycle in the forecast horizon. The main determinants of the forecast of the **output gap** include the following:

- **Business confidence**: A faster recovery in business confidence than that estimated in our previous report is foreseen for 2016 due to the recent evolution of the domestic economy and the international environment.
- **External conditions**: Similar external conditions to those considered in the Inflation Report of June are foreseen. Lower growth rates are estimated in the world economy and in Peru's trading partners (especially in the United States), although this lower growth would be offset by a lower deterioration of Peru's terms of trade than that foreseen in our previous report.
- **Fiscal impulse:** The fiscal impulse estimated for 2016 would be positive and higher than that estimated in the Inflation Report of June, in line with higher-than-expected spending in recent months. In the forecast horizon, the fiscal impulse is expected to show a gradual reversal as from 2017.
- **Monetary conditions**: Monetary conditions in soles continue being one of the factors that contribute to the recovery of the output gap. On the other hand, conditions in dollars are expected to be less restrictive than those foreseen in our previous report due to the decline of depreciaton expectations.

The growth forecast for the 2016-2018 forecast horizon is consistent with a growth trend without inflationary pressures on the side of demand and with a growth rate of the potential output of around 4.0 percent.





44. **Expectations of inflation** in 12 months have been within the inflation target range since the third quarter of this year and are expected to continue showing a declining in the following quarters.

The Central Bank will continue to pay close attention to the evolution of inflation expectations in the forecast horizon and will take appropriate monetary policy measures that contribute to maintain inflation within the target range.



Table 44           SURVEY ON MACROECONOMIC EXPECTATIONS: INFLATION           (% change)									
		Expectation about	:						
	IR Mar.16	IR Jun.16	IR Sep.16*						
Financial entities									
2016	3.5	3.4	2.8						
2017	3.2	2.9	2.6						
2018	3.0	2.5	2.5						
Economic analysts									
2016	3.5	3.5	3.0						
2017	3.0	3.0	2.8						
2018	2.9	2.9	2.6						
Non-financial firms									
2016	3.5	2.5	3.0						
2017	3.5	3.2	3.0						
2018	3.0	3.0	3.0						

\* Survey conducted during the second fortnight of August 2016.

45. **Imported inflation** reflects the evolution of import prices and the evolution of the exchange rate. Imported inflation is foreseen to be lower than expected in the Inflation Report of June since the estimated nominal depreciation has been revised down.



As regards **international prices**, in contrast with the forecast of our previous report, the prices of the main imported commodities are now foreseen to show a downward trend.

46. As for **expectations of depreciation**, the latest survey on expectations about the dollar-nuevo sol exchange rate shows that economic agents expect lower rates of depreciation of the sol during the forecast horizon. The change observed in terms of expectations regarding the rise of the Fed policy interest rate during 2016 have continued favoring the currencies of commodity-exporting emerging countries. This has become tangible with non-resident investors' adjustment of their positions in dollars as well as with residents' lower demand for dollars.

Table 45           SURVEY ON MACROECONOMIC EXPECTATIONS: EXCHANGE RATE           (Soles per US\$)								
		Expectation about	:					
	IR Mar.16	IR Jun.16	IR Sep.16*					
Financial entities								
2016	3.65	3.50	3.40					
2017	3.70	3.60	3.48					
2018	3.70	3.65	3.53					
Economic analysts								
2016	3.65	3.45	3.40					
2017	3.70	3.53	3.45					
2018	3.75	3.58	3.53					
Non-financial firms								
2016	3.60	3.50	3.40					
2017	3.70	3.52	3.50					
2018	3.70	3.60	3.50					

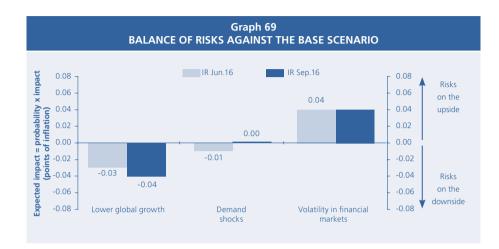
\* Survey conducted during the second fortnight of August 2016.

#### Balance of Risks in the 2016 – 2018 Horizon

- 47. 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.
- 48. The balance of risks remains neutral for the inflation forecast, so the probability that factors will affect inflation on the upside is equal to the probability that factors will imply a lower price increase.



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# Lower global growth

The baseline scenario considers a slightly lower growth in the world economy in 2016-2018 than the one estimated in our Inflation Report of June, due mainly to lower dynamism in the economy of the United States and in other developed countries. However, if such recovery were to take even longer, the resulting lower external impulse would translate into a lower output gap and into a lower rate of domestic inflation.

## Volatility in international financial markets

This risk could materialize if an unanticipated rise in the policy rate of the U.S. Federal Reserve brought about volatility in international financial markets. In such case, this could generate capital outflows from the emerging markets and depreciation pressures on the currencies of these countries, which could lead to higher inflation.

#### Conclusions

49. Inflation is still forecast to be within the inflation target range in the 2016-201 forecast horizon, which is consistent with economic growth without demand inflationary pressures, with a declining trend in inflation expectations, and with lower rates of imported inflation.

The Central Bank will continue to pay careful attention to the evolution of inflation expectations and other inflation determinants. The BCRP stands ready to adjust its monetary stance, should it be necessary, to ensure inflation's convergence to the inflation target range.



#### BOX 5 **EVOLUTION OF INFLATION IN COUNTRIES WITH INFLATION TARGETING**

A temporary diversion of inflation from the inflation target may be due to idiosyncratic shocks or to global shocks. The latter have been quite relevant over the past three years through the trade channel (the drop of commodity prices) and the financial channel (instability in capital flows associated with the proximity of the Fed's withdrawal of monetary stimulus).

		Dec.14	Dec.15	Aug.16	Target
		Over inflation target rar	ige		
1	Ghana	17.0	17.7	16.9	6.0-10
2	Uruquay	8.3	9.4	9.4	3.0-7.0
3	Brazil	6.4	10.7	9.0	2.5-6.5
ļ	Colombia	3.7	6.8	8.1	2.0-4.0
5	Turkey	8.2	8.8	8.0	3.0-7.0
5	Norway	2.1	2.3	4.0	< 2.5
		Under inflation target ra	nge		
1	Indonesia	8.4	3.4	2.8	3.0-5.0
2	Philippines	2.7	1.5	1.8	2.0-4.0
}	Serbia	1.7	1.5	1.2	2.5-5.5
Ļ	Australia*	1.7	1.7	1.0	2.0-3.0
,	Iceland	0.8	2.0	0.9	1.0-4.0
5	Czech Republic	0.1	0.1	0.6	1.0-3.0
,	United Kingdom	0.5	0.2	0.6	1.0-3.0
	Korea	0.8	1.3	0.4	2.0
	New Zealand*	0.8	0.1	0.4	1.0-3.0
0	Thailand	0.6	-0.9	0.3	1.0-4.0
1	Switzerland	-0.3	-1.3	-0.1	< 2.0
2	Hungary	-0.9	0.9	-0.1	2.0-4.0
13	Romania	0.8	-0.9	-0.2	1.5-3.5
4	Israel	-0.2	-1.0	-0.7	1.0-3.0
15	Poland	-1.0	-0.5	-0.8	1.5-3.5
		Within inflation target ra	nge		
1	South Africa**	5.3	5.2	6.0	3.0-6.0
2	Guatemala	3.0	3.1	4.7	3.0-5.0
	Chile	4.6	4.4	3.4	2.0-4.0
	Peru	3.2	4.4	2.9	1.0-3.0
	Mexico	4.1	2.1	2.7	2.0-4.0
5	Canada**	1.5	1.6	1.3	1.0-3.0
7	Sweden	-0.3	0.1	1.1	2.0

Elaborated: BCRP.

These shocks have affected inflation to such a great extent that inflation in many countries has reached rates outside the target range. As one can see in the table above, 21 countries (75 percent) of a sample of 28 countries have failed

PERCENTAGE OF COUNTRIES OUTSIDE THE TARGET RANGE					
	Total	Developed	Emerging		
As of Dec.14	75	82	71		
As of Dec.15	75	73	76		
As of Aug.16	75	82	71		

to meet the inflation target at the end of 2014, 2015, and at August of this year, and failure to meet the target occurred in a similar proportion in the developed countries and in the emerging market economies.

Most of the countries which have not met the inflation target because they have recorded inflation rates below the target range are developed countries and some emerging countries, particularly European and Asian countries which are net importers of commodities. Many of these economies even register deflationary pressures.

Downward pressures on inflation in these economies are explained by the drop of oil prices and of other commodities and by a weak domestic demand. It should be pointed out that, in order to reverse this situation, the central banks of several of these countries have reduced their interest rates significantly, lowered them even to negative levels in some cases (e.g. Sweden and Switzerland). Two commodity exporting countries –New Zealand and Australia– have joined this group of countries, since the depreciation pressures associated with the low prices of export products in these economies were offset by capital inflows, the drop of the oil price, and a significant contraction in domestic demand.

INFLATION RATE IN DEVELOPED COUNTRIES (12-month % change)				
	Aug.16	Target		
1 Norway	4.0	< 2.5		
2 Canada**	1.3	1.0-3.0		
3 Sweden	1.1	2.0		
4 Australia*	1.0	2.0-3.0		
5 Iceland	0.9	1.0-4.0		
5 Czech Republic	0.6	1.0-3.0		
7 United Kingdom	0.6	1.0-3.0		
8 Korea	0.4	2		
9 New Zealand*	0.4	1.0-3.0		
10 Switzerland	-0.1	< 2.0		
11 Israel	-0.7	1.0-3.0		

Source: Bloomberg.

Conversely, countries whose inflation rates were above the target include several Latin American economies and South Africa, where the decline in the terms of trade and expectations regarding the Fed policy rate have led to a depreciation of the local currencies. Other economies importers of commodities (e.g. Turkey and Indonesia) that had a weak external position have also registered a depreciation of their currencies, with depreciation affecting not only inflation but also inflation expectations. In response to this, most central banks have raised their policy interest rates.



Elaborated: BCRP

	Aug.16	Target
Ghana	16.9	6.0-10
2 Uruguay	9.4	3.0-7.0
B Brazil	9.0	2.5-6.5
1 Colombia	8.1	2.0-4.0
5 Turkey	8.0	3.0-7.0
5 South Africa**	6.0	3.0-6.0
7 Guatemala	4.7	3.0-5.0
3 Chile	3.4	2.0-4.0
9 Peru	2.9	1.0-3.0
10 Indonesia	2.8	3.0-5.0
1 Mexico	2.7	2.0-4.0
2 Philippines	1.8	2.0-4.0
3 Serbia	1.2	2.5-5.5
l 4 Thailand	0.3	1.0-4.0
5 Hungary	-0.1	2.0-4.0
6 Romania	-0.2	1.5-3.5
7 Poland	-0.8	1.5-3.5

However, the recent reduction observed in depreciation pressures –associated with market expectations of a more gradual adjustment in the Fed rates and with the stabilization of commodity prices– has contributed to reduce inflation and, in some cases in the region (Chile and Peru), has contributed to lead inflation to converge again towards the inflation target range.

