



# INFLATION REPORT

*December 2017*

**Recent trends  
and macroeconomic  
forecasts  
2017-2019**

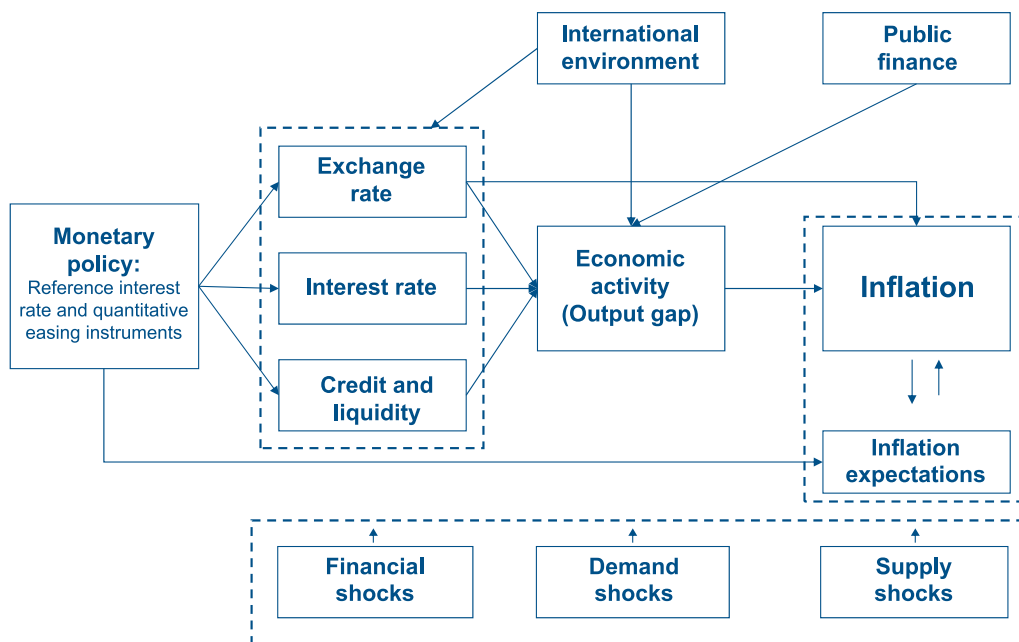


CENTRAL RESERVE BANK OF PERU

# INFLATION REPORT

## Recent Trends and Macroeconomic Forecasts 2017 - 2019

*December 2017*



INFLATION REPORT  
Recent trends and macroeconomic forecasts

CENTRAL RESERVE BANK OF PERU

# INFLATION REPORT

## Recent Trends and Macroeconomic Forecasts 2017 - 2019

December 2017

### CONTENT

	Page
Foreword .....	5
Summary .....	7
I. International environment .....	11
- Global economy .....	11
- Financial markets .....	19
- Terms of trade .....	23
II. Balance of payments .....	33
- Current account .....	33
- Trade balance .....	34
- External financing .....	35
III. Economic activity .....	39
- Expenditure-side GDP .....	39
- Sector GDP .....	52
IV. Public finances .....	57
- Tax income .....	59
- Public expenditure .....	61
- Structural balance and fiscal impulse .....	63
- Public debt .....	64
V. Monetary policy and financial markets .....	72
- Monetary policy actions .....	72
- Exchange rate and foreign exchange interventions .....	85
- Financial markets .....	86
VI. Inflation forecast and balance of risks .....	98
- Inflation at November 2017 .....	98
- Forecast for 2017-2019 .....	108
- Balance of risks in the 2017-2019 horizon .....	113
 <b>BOXES</b>	
1. Reconstruction with Changes .....	66
2. Determinants of the decline of the current revenue of the General Government .....	69
3. Credit dollarization heterogeneity .....	92
4. Pass-through of the policy rate to market interest rates .....	95
5. Supply shocks and inflation persistence .....	115

This **Inflation Report** was prepared using data on the Balance of Payments and the Gross Domestic Product at the third quarter of 2017, and data on Monetary Accounts, the operations of the Non-Financial Public Sector, Inflation, Financial Markets, and the Exchange Rate at November 2017.



## 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 December 7, 2017.





## Summary

- i. **Global growth** this year will be the highest since 2011, both in the developed economies and in the emerging market economies. The dynamism of domestic demand, supported by higher employment rates and expansionary monetary conditions, stands out in the developed countries during the year, while growth in the developing countries has been favored mostly by international financial conditions and higher commodity prices. Because of these better than expected outcomes, the projection of global growth for 2017 has been revised up from 3.6 in the previous report to 3.7 percent, in line with recent data of some global indicators on manufacturing activity, services, and global trade. This level of growth is foreseen to continue in 2018 and to fall then slightly to 3.6 percent in 2019.

Moreover, because the recovery of commodity prices –particularly the prices of metals– has also been higher than estimated in the September report, the increase in the **terms of trade** is also corrected up from 7.0 percent to 8.2 percent in 2017. The terms of trade would continue showing a recovery in 2018 (2.8 percent), stabilizing thereafter in 2019.

- ii. Year-to-date, the deficit in the **current account of the balance of payments** has continued to decline basically due to the recovery in the terms of trade, higher mining production, and the low dynamism of domestic demand observed during the first half of the year. In the forecast horizon, export prices are expected to remain high and growth in our trading partners is also expected to continue showing a faster pace, which would imply a current account deficit of 1.6 percent of GDP in 2017 and 2018, and a current account deficit of 1.7 percent of GDP in 2019, in line with the expected recovery of domestic demand. The **long term financial account** will continue to be the main source of financing of the balance of payments, exceeding largely the requirements of the current account.
- iii. **Economic activity** has been recovering since the second quarter of the year after the reversal of the shocks that affected the economy at the beginning of this year. In the third quarter, **domestic demand** grew 2.4 percent, driven by the recovery of private investment (after it showed 14 consecutive quarters of decline) in a context of higher terms of trade and increased public expenditure (after it recorded 3 consecutive quarters of decline). At the sector level, the growth of the construction sector –which had been declining for 4 consecutive quarters– is worth pointing out, in line with the better evolution of public and private investment.







This recovery of activity is in line with the projections discussed in the Inflation Report of September, with some adjustments on the upside for private investment and exports. However, taking into account the anticipated impact of the recent cooler sea temperatures on the fishing industry in the fourth quarter of this year, the growth rate projected for this year has been revised slightly down, from 2.8 to 2.7 percent. The GDP growth forecast for the next two years remains unchanged at 4.2 percent, in a context of accelerating private investment and increased public expenditure associated with the Reconstruction Plan and the Pan American Games.

- iv. In November, the **fiscal deficit** accumulated in the last 12 months was equivalent to 3.0 percent of GDP, higher than the deficit of 2.6 percent of GDP registered in December 2016. This higher deficit reflects mainly the reduction of current revenues resulting mostly from the decline of tax revenues and from higher tax rebates, which showed historic levels. In addition to this, after staying close to 15.0 percent in the first three quarters of the year, current expenditure rose to 15.1 percent of GDP while gross capital formation reached 4.0 percent, showing a recovery from the third quarter of the year.

Revenue is expected to recover in the forecast horizon, driven by the better performance of domestic demand and by the repatriation of capital. The growth of public investment will also show a faster pace due to the beginning of the reconstruction works after the damages caused by El Niño Costero as well as due to the works to be carried out for the Pan American Games. Thus, the fiscal deficits projected for 2017 and 2018 remain at 3.0 and 3.5 percent of GDP, respectively. In 2019, the deficit is expected to decrease to 2.9 percent of GDP, in line with fiscal consolidation. This projection implies a positive weighted fiscal stimulus in 2017-2018 (concentrated in the next year), which would reverse with fiscal consolidation in 2019, coinciding with the closure of the output gap.

- v. **Credit to the private sector** grew 5.6 percent year on year in October, this growth rate being explained mainly by the growth of personal loans (7.9 percent), particularly mortgages, in a context of recovery in the demand of the private sector. The growth of credit to the private sector in the 2017-2019 forecast horizon is expected to evolve in line with the pace of growth of domestic demand.
- vi. **Inflation** decreased from 3.17 percent in August to 1.54 percent in November due mainly to the rapid reversal of the persistent supply shocks that affected agricultural products, i.e. the water deficit registered in late 2016 and El Niño Costero in the first quarter of 2017. Moreover, expectations of inflation in twelve months have also continued to decline and remain within the inflation target range since March of this year. In this context, the Board of BCRP lowered the benchmark rate, for the fourth time this year, to 3.25 percent in November. This reduction in the benchmark interest rate is consistent with a convergence of inflation to 2.0 percent, once the effect of

the reversal of the supply shocks that led inflation to the lower band of the target range disappears.

- vii. **Inflation** would continue showing levels below 2.0 percent at end 2017 and during the first half of 2018 due to the correction of the supply shocks that increased prices at the end of 2016 and during the first half of 2017. Moreover, inflation without food and energy and inflation expectations are also expected to continue declining to 2 percent, in a context which would show no inflationary pressures on the side of demand and moderate levels of imported inflation.

The **risk factors** considered in this Report –demand shocks (a more gradual recovery of private and public investment), greater volatility in international financial markets, and a decline in the terms of trade– have a slight downward bias on the inflation forecast. In other words, the impact of factors that could affect inflation on the downside is higher than the impact of factors that could affect inflation on the upside.





**SUMMARY OF INFLATION REPORT FORECAST**

	2015	2016	2017 <sup>1/</sup>		2018 <sup>1/</sup>		2019 <sup>1/</sup>	
			IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>Real % change</b>								
1. GDP	3.3	4.0	2.8	2.7	4.2	4.2	4.2	4.2
2. Domestic demand	2.9	1.1	2.3	2.2	4.2	4.4	4.2	4.3
a. Private consumption	4.0	3.3	2.6	2.5	3.3	3.3	3.8	3.8
b. Public consumption	9.8	-0.5	2.3	2.4	3.6	3.6	2.0	2.0
c. Fixed private investment	-4.3	-5.9	-1.0	0.6	5.3	6.5	7.5	7.5
d. Public investment	-9.5	0.6	7.0	6.0	15.0	12.5	4.0	4.0
3. Exports (good and services)	4.0	9.5	5.0	6.4	3.8	3.5	4.4	3.8
4. Imports (good and services)	2.4	-2.2	3.3	4.7	4.1	4.3	4.6	4.3
5. Economic growth in main trading partners	3.2	2.8	3.3	3.4	3.3	3.4	3.2	3.3
<b>Memo:</b>								
Output gap <sup>2/</sup> (%)	-1.0 ; 0.0	-1.0 ; 0.1	-1.5 ; -0.5	-1.0 ; -0.5	-1.0 ; 0.0	-0.5 ; 0.0	-0.5 ; 0.0	-0.5 ; 0.0
<b>% change</b>								
6. Inflation	4.4	3.2	2.0 - 2.5	1.3 - 1.7	2.0	2.0	2.0	2.0
7. Expected inflation <sup>3/</sup>	-	-	2.8	2.2	2.7	2.5	2.7	2.7
8. Expected depreciation <sup>3/</sup>	-	-	-2.5	-3.2	1.6	1.4	1.3	0.6
9. Terms of trade <sup>4/</sup>	-6.3	-0.7	7.0	8.2	2.0	2.8	0.0	0.0
a. Export prices	-14.9	-3.6	12.0	13.8	2.2	4.0	1.0	1.0
b. Import prices	-9.2	-3.0	4.7	5.1	0.1	1.2	1.0	1.0
<b>Nominal % change</b>								
10. Currency in circulation	3.8	6.5	5.0	5.0	5.9	6.0	5.9	6.0
11. Credit to the private sector <sup>5/</sup>	8.0	5.6	5.5	5.5	7.0	7.0	7.0	7.0
<b>% GDP</b>								
12. Gross fixed investment	24.3	22.6	21.6	21.9	22.2	22.5	22.9	23.1
13. Current account of the balance of payments	-4.8	-2.7	-2.0	-1.6	-2.0	-1.6	-2.1	-1.7
14. Trade balance	-1.5	1.0	2.3	2.6	2.8	3.1	2.7	2.9
15. Long-term external financing of the private sector <sup>6/</sup>	6.6	4.6	5.0	5.2	4.0	4.1	4.2	4.2
16. Current revenue of the general government	20.0	18.5	18.1	18.1	18.3	18.3	18.4	18.5
17. Non-financial expenditure of the general government	21.3	19.9	20.0	20.1	20.4	20.5	19.9	20.0
18. Overall balance of the non-financial public sector	-2.1	-2.6	-3.0	-3.0	-3.5	-3.5	-2.9	-2.9
19. Balance of total public debt	23.3	23.8	24.9	24.5	26.9	26.2	27.7	27.4
20. Balance of net public debt	5.5	6.9	10.0	9.6	13.0	12.6	15.4	15.0

1/ Forecast.

2/ Differential between GDP and potential GDP (as a percentage of potential GDP).

3/ Survey on expectations to the analysts and financial entities.

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

## Economía global

1. Showing the highest growth rate observed since 2011, the global economy is estimated to grow 3.7 percent in 2017. This recovery of the world economy, relative to 2016, is observed in both the developed countries and the developing countries.

The projection of global growth for 2017 has been revised slightly up from the forecast of the Inflation Report of September (from 3.6 percent in to 3.7 percent), in line with recent data of some global indicators on manufacturing activity, services, and global trade. The dynamism of domestic demand, supported by higher employment rates and expansionary monetary conditions, stands out in the developed countries during the year, while growth in the developing countries has been favored mostly by international financial conditions, higher commodity prices, and China's growth.

**Table 1**  
**WORLD GDP GROWTH**  
(Annual % change)

	PPP% <sup>1/</sup>	Trading Peru % <sup>2/</sup>	2016	2017*		2018*		2019*	
				IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>Advanced economies</b>	<b>41.9</b>	<b>47.3</b>	<b>1.7</b>	<b>2.0</b>	<b>2.2</b>	<b>1.9</b>	<b>2.0</b>	<b>1.8</b>	<b>1.9</b>
<i>Of which:</i>									
1. United States of America	15.5	18.0	1.5	2.2	2.3	2.1	2.3	2.0	2.0
2. Eurozone	11.8	11.2	1.8	1.9	2.1	1.7	2.1	1.6	1.8
Germany	3.3	2.7	1.8	1.8	2.1	1.6	2.1	1.4	1.8
France	2.3	0.7	1.2	1.5	1.6	1.6	1.8	1.5	1.7
Italy	1.9	1.7	0.9	0.9	1.3	1.0	1.3	0.9	1.0
Spain	1.4	2.6	3.2	3.0	3.0	2.3	2.3	2.2	2.1
3. Japan	4.4	3.1	1.0	1.3	1.5	1.0	1.1	1.0	1.0
4. United Kingdom	2.3	1.2	1.8	1.5	1.5	1.3	1.3	1.4	1.3
5. Canada	1.4	3.2	1.4	2.3	2.8	2.0	2.1	1.8	1.9
<b>Emerging market and developing economies</b>	<b>58.1</b>	<b>52.7</b>	<b>4.2</b>	<b>4.8</b>	<b>4.8</b>	<b>4.9</b>	<b>4.9</b>	<b>4.8</b>	<b>4.9</b>
<i>Of which:</i>									
1. Developing Asia	31.6	28.0	6.4	6.6	6.6	6.4	6.5	6.3	6.4
China	17.8	22.9	6.7	6.7	6.8	6.2	6.4	6.0	6.2
India	7.2	2.4	7.1	7.4	7.0	7.6	7.6	7.6	7.9
2. Commonwealth of Independent States	4.5	0.6	0.4	1.8	2.1	2.2	2.2	2.2	2.2
Russia	3.2	0.5	-0.2	1.6	1.8	1.7	1.7	1.7	1.7
3. Latin America and the Caribbean	7.9	21.9	-0.5	1.4	1.4	2.4	2.4	2.6	2.7
Brazil	2.6	4.5	-3.4	0.6	0.7	1.8	2.5	2.0	2.4
Chile	0.4	3.0	1.7	1.5	1.5	2.7	2.9	2.7	2.7
Colombia	0.6	2.6	1.6	1.8	1.8	2.9	2.9	3.0	3.0
Mexico	1.9	2.9	2.4	2.0	2.1	2.3	2.0	2.7	2.5
Peru	0.3	-	4.0	2.8	2.7	4.2	4.2	4.2	4.2
<b>World economy</b>	<b>100.0</b>	<b>100.0</b>	<b>3.1</b>	<b>3.6</b>	<b>3.7</b>	<b>3.6</b>	<b>3.7</b>	<b>3.5</b>	<b>3.6</b>
Memo:									
Peru's trading partners 2016 <sup>1/2/</sup>	64.8		2.8	3.3	3.4	3.3	3.4	3.2	3.3

1/ 2016

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

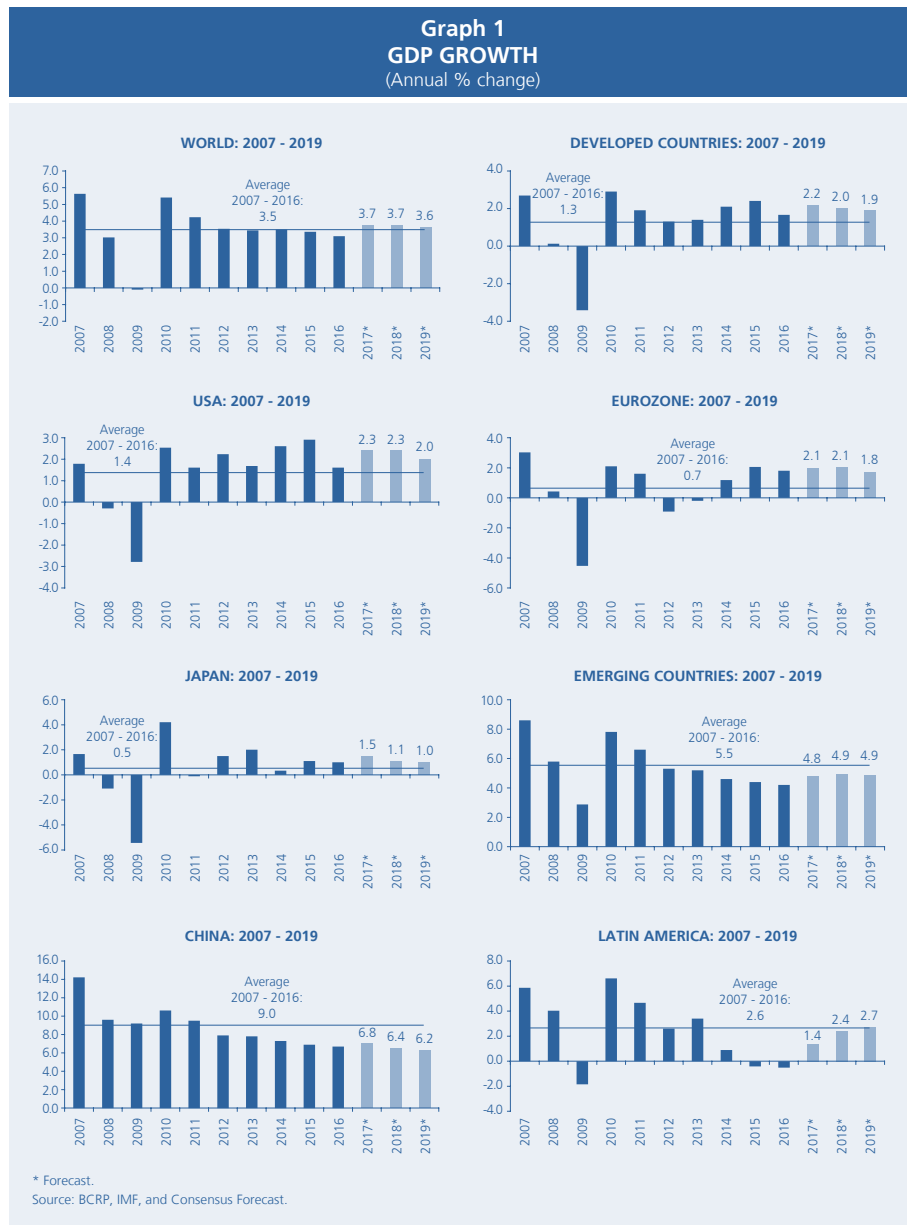
\* Forecast.

Source: Bloomberg, IMF, and Consensus Forecast.





Growth rates of 3.7 and 3.6 percent are projected for 2018 and 2019, respectively, the better economic performance expected in most developed countries and China accounting mainly for this slight revision on the upside of the rates projected in the report of September.



Despite these advances, some of the risks pointed out in our report of September remain. In financial markets, there is still a risk that a more aggressive withdrawal

of monetary stimulus by the Fed and other central banks will cause a disorderly adjustment of imbalances. Moreover, in a context of lower global liquidity, there is also the possibility of a sharp correction in the asset markets, particularly in those markets where prices are reaching record levels.

On the trade side, there is still the risk that China will show an abrupt economic slowdown, although the probability that this will happen is lower. On the other hand, determining the conditions of integration within the framework of the Brexit and the North American Free Trade Treaty (NAFTA) is still pending.

2. In the **United States**, data show a slightly better-than-expected evolution: the growth of GDP in the third quarter (3.3 percent) exceeded market expectations and showed a positive performance in most of the components of expenditure. Because of this, the growth projection for 2017 is revised up from 2.2 to 2.3 percent and the growth projection for 2018 is revised up from 2.1 to 2.3 percent, in line with a slightly more expansionary fiscal scenario consistent with the tax reform that would be implemented as from 2018.

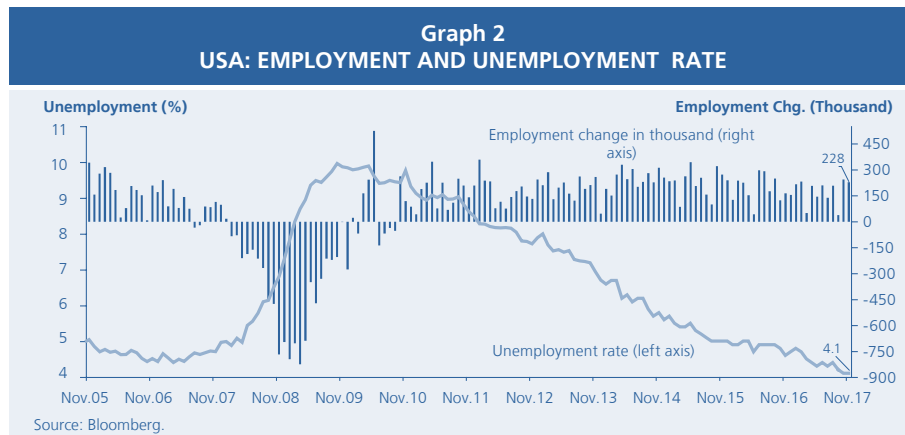
**Table 2**  
**USA: GDP**  
(Annual % change)

	2014	2015	2016					2017		
			Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3
Personal consumption	2.9	2.5	1.8	3.8	2.8	2.9	2.7	1.9	3.3	2.3
Gross fixed investment	5.5	0.9	-4.0	-2.7	2.4	8.5	-1.6	-1.2	3.9	7.3
Non-residential investment	6.9	2.3	-4.0	3.3	3.4	0.2	-0.6	7.2	6.7	4.7
Change on inventories *	-0.1	0.2	-0.6	-0.7	0.2	1.1	-0.4	-1.5	0.1	0.8
Exports	4.3	0.1	-2.6	2.8	6.4	-3.8	-0.3	7.3	3.5	2.2
Imports	4.5	-0.8	-0.2	0.4	2.7	8.1	1.3	4.3	1.5	-1.1
Government expenditure	-0.6	0.3	1.8	-0.9	0.5	0.2	0.8	-0.6	-0.2	0.4
<b>GDP</b>	<b>2.6</b>	<b>2.9</b>	<b>0.6</b>	<b>2.2</b>	<b>2.8</b>	<b>1.8</b>	<b>1.5</b>	<b>1.2</b>	<b>3.1</b>	<b>3.3</b>

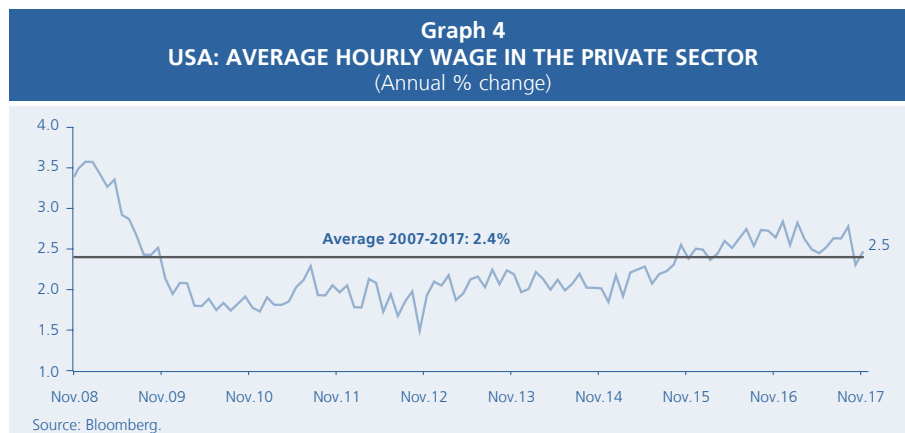
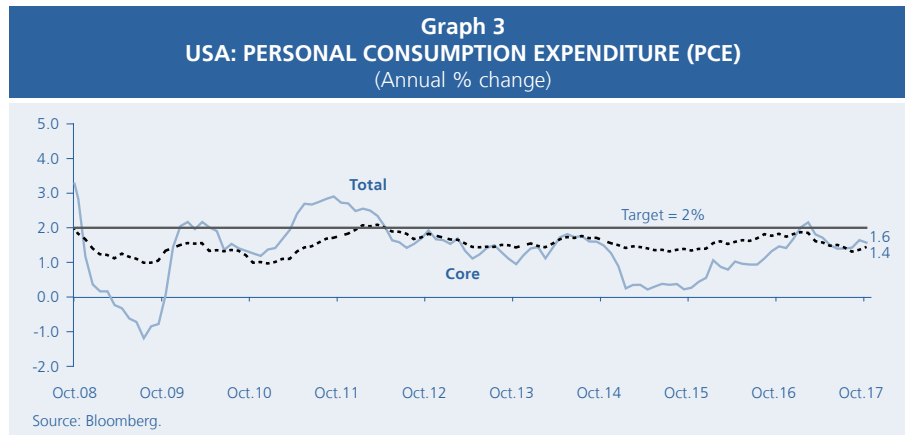
\* Contribution to growth.  
Source: BEA.

As pointed out in previous reports, the domestic demand is showing a sustained recovery in the United States. The evolution of consumption has been supported by the favorable conditions observed in the labor market: between September and November, an average of 236 thousand jobs were created per month, unemployment fell from 4.2 to 4.1 percent –its lowest level since 2000–, and the participation rate rose to 62.7 percent. On the other hand, investment, particularly non-residential investment, has shown a significant expansion, which is reflected in higher spending on machinery and equipment, in line with the positive trend observed in corporate returns.

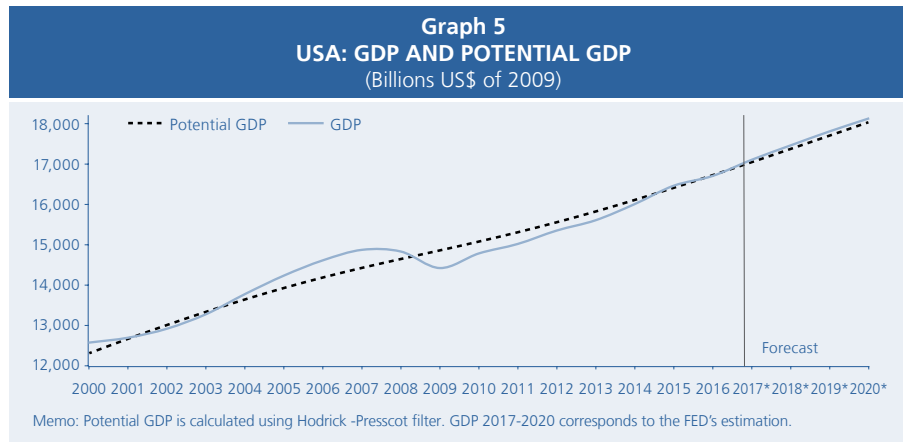




Inflation has remained below the target (2 percent) despite the recent improvement of the labor market. In October, the personal consumption expenditure price index (PCE) recorded an annual rate of 1.6 percent. The core PCE price index was 1.4 percent, similar to that recorded in September. In addition to this, in November the average wage per hour increased 2.5 percent compared to same month of the previous year.



The recovery of economic activity, the improvement of the labor market indicators, and the evolution of inflation suggest that the output of the United States would be close to exceeding its potential level, reversing in this way the negative output gap observed since 2009 as a result of the international financial crisis.



In this context, the Fed decided to raise its range of rates to 1.25 - 1.50 percent at its December meeting after having maintained the rate unchanged in the meetings of September and October. The projections of the Committee members, published in December, showed a correction on the upside on the growth outlook whereas unemployment and inflation were revised slightly down, in line with the latest data. In line with this, the Fed is expected to make three more adjustments during 2018.

**Table 3**  
**FED: FORECASTING\***

	2017		2018		2019		2020		Long-term	
	Sep.17	Dec.17	Sep.17	Dec.17	Sep.17	Dec.17	Sep.17	Dec.17	Sep.17	Dec.17
<b>Growth</b>	2.4	2.5	2.1	2.5	2.0	2.1	1.8	2.0	1.8	1.8
<b>Unemployment rate</b>	4.3	4.1	4.1	3.9	4.1	3.9	4.2	4.0	4.6	4.6
<b>Inflation (PCE)</b>	1.6	1.7	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
<b>Core Inflation (Core PCE)</b>	1.5	1.5	1.9	1.9	2.0	2.0	2.0	2.0	-	-
Memo: Core PCE excluding food and energy.										
<b>Interest rate (%), end-of-period</b>	1.4	1.4	2.1	2.1	2.7	2.7	2.9	3.1	2.8	2.8

\* It adds data from 16 individual projections of the FED's members .

It should be pointed out that, given the strengthening of the labor market, the possible pass-through of wage pressures on inflation acquires greater importance and could become a factor that could influence the speed and magnitude of the interest rate adjustments. Another important factor that could affect the Fed decisions is the expansionary fiscal policy (via tax reform) being promoted by the Republican administration.







3. The growth projection for the **Eurozone** has been revised up from 1.9 to 2.1 percent in 2017, from 1.7 to 2.1 percent in 2018, and from 1.6 to 1.8 percent in 2019.

During the first half of the year, the region's economy surpassed the expectations of economic expansion in most of its member countries. This expansion was driven by private consumption, the recovery of global growth, more flexible financial conditions, and a healthy improvement of the labor market. A rising pace of growth was also observed in investment throughout the region. In a context of a more moderate uncertainty, indicators of consumer confidence and business confidence suggest that the region will continue to show a sound economic performance in the remainder of the year. The Eurozone economy would reach its highest rate of expansion since 2008.

Domestic demand is expected to continue being a boost to economic growth in the Eurozone for the next two years. Consumption would continue to grow, although at a slower pace due to the moderation of employment generation and to households' purchasing power. Similarly, investment would continue showing its recovery trend due to the reduction of uncertainty, favorable conditions, and to a lesser extent, to lower deleveraging requirements. The external front would also be favored by the better prospects for global growth.

On the other hand, inflation, which registered rates around 0.5 percent in 2016, has been around 1.5 percent in much of this year, influenced by the dynamism of the price of oil prices. In this context, the European Central Bank (ECB) decided to extend its bond purchase program until September of 2018 and to reduce the amount of purchases (from €60 to €30 billion monthly), while it maintained its interest rates.

Despite this scenario, economic recovery faces risks associated, on the one hand, with the fact that the dynamism observed in the region has taken place in a context of an expansionary monetary policy, and on the other hand, with the presence of fragility –a lag effect of the crisis– in the financial and/or fiscal sector of some economies. Additionally, there is still uncertainty associated with a number of factors: the dull and slow progress of the Brexit negotiations, the resurgence of political noise (the situation of Catalonia in Spain, pending elections in Italy, and the composition of the government in Germany), and terrorist threats.

4. **Japan** recorded a GDP growth rate of 1.7 percent in the third quarter of 2017, a higher rate than the rates observed in the two previous quarters (1.5 and 1.4 percent, respectively). Non-residential investment and exports have been the most dynamic components of demand. In line with this, the growth projection for 2017 has been revised up from 1.3 to 1.5 percent. Likewise, the growth projection for 2018 has been raised from 1.0 to 1.1 percent, although the possibility of a gradual withdrawal of fiscal stimulus is still considered. In 2019, the growth projection is still 1.0 percent.

5. In **China**, the economy grew 6.8 percent in the third quarter, less than in the first two quarters of the year (6.9 percent in each quarter) but more than estimated in the previous Inflation Report. Despite the slight slowdown seen in the third quarter, which coincides with a more moderate growth of exports and the moderation of other short-term indicators, growth continues to be driven by the dynamism of credit and public investment, especially public investment in infrastructure. Taking these elements into account, the growth projection for 2017 has been revised up from 6.7 to 6.8 percent.

**Table 4**  
**CHINA'S ECONOMIC INDICATORS**

Indicadores	December				2017			
	2013	2014	2015	2016	Mar.	Jun.	Sep.	Oct.
Annual GDP(%) <sup>1/</sup>	7.8	7.3	6.9	6.7	6.9	6.9	6.8	--
Industry <sup>1</sup> Production (Annual % change)	9.7	7.9	5.9	6.0	7.6	7.6	6.6	6.2
Investment in fixed assets (Accum. annual % change)	19.6	15.7	10.0	8.1	9.2	8.6	7.5	7.3
Investment in infrastructure (Accum. annual % change)	n.d.	21.5	17.2	17.4	23.5	21.1	19.8	19.6
Retail sales (Annual % change)	13.6	11.9	11.1	10.9	10.9	11.0	10.3	10.0
Exports (Annual % change)	4.3	9.7	-1.6	-6.2	16.4	11.3	8.1	6.9
Imports (Annual % change)	8.3	-2.4	-7.4	3.1	20.3	17.2	18.7	17.2
Copper imports (Volume, Annual % change)	11.2	17.3	12.6	13.5	19.8	5.9	6.1	n.d.
Total new financing (Annual % change)	19.0	15.2	12.4	12.7	12.3	12.8	13.0	13.0
Consumer Price Index (Annual % change)	2.5	1.5	1.6	2.1	0.9	1.5	1.6	1.9

<sup>1/</sup> Percentage change of each year respect to the previous year until 2016. Since 2017, considers annual % change-last quarters.  
Source: Bloomberg and IMF.

In 2018 and 2019, the slowdown of growth, in line with the reforms required to curb excessive private and public debt, would be more gradual. Because of this, the growth projections for the next two years have also been revised up, from 6.2 to 6.4 percent and from 6.0 to 6.2 percent in 2018 and 2019, respectively.

**Graph 6**  
**CHINA: INDEBTEDNESS OF THE PRIVATE SECTOR<sup>1/</sup>**  
(% GDP)





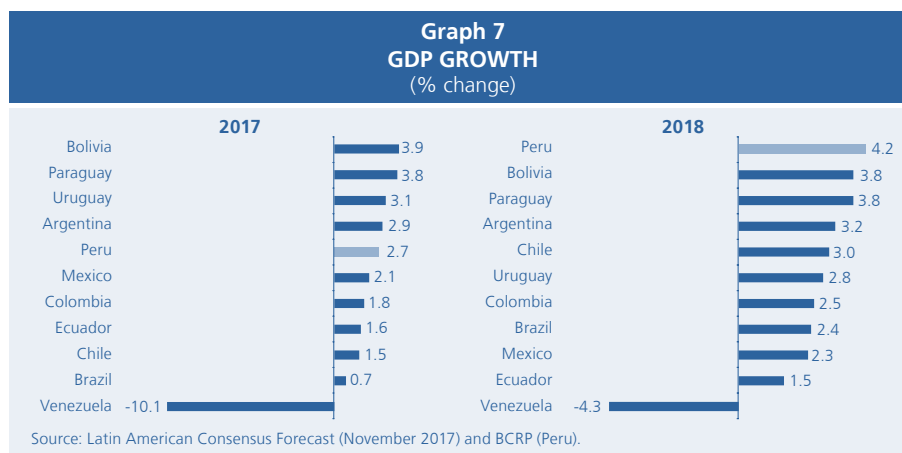
6. Growth estimates in **Latin America** remain at the levels projected in the September Inflation Report: 1.4 percent in 2017 and 2.4 percent in 2018. During the second quarter of 2017, the pace of economic activity remained in the positive side in all the countries of the region with inflation targeting regimes. Moreover, in several of them, the growth rate was slightly higher than in the previous quarter.

**Table 5**  
**GDP: QUARTERLY GROWTH RATE**  
(%)

	Brazil	Chile	Colombia	Mexico	Peru
Q1.15	-1.8	2.6	2.6	3.5	1.9
Q2.15	-3.0	2.1	3.0	3.0	3.2
Q3.15	-4.5	2.4	3.3	3.9	3.3
Q4.15	-5.8	1.9	3.4	2.7	4.6
Q1.16	-5.4	2.5	2.5	3.0	4.6
Q2.16	-3.6	1.7	2.5	3.3	3.9
Q3.16	-2.9	1.8	1.2	2.1	4.7
Q4.16	-2.5	0.5	1.7	3.3	3.1
Q1.17	-0.4	0.1	1.3	3.2	2.2
Q2.17	0.3	1.0	1.2	1.9	2.4
Q3.17	1.3	2.2	2.0	1.5	2.5

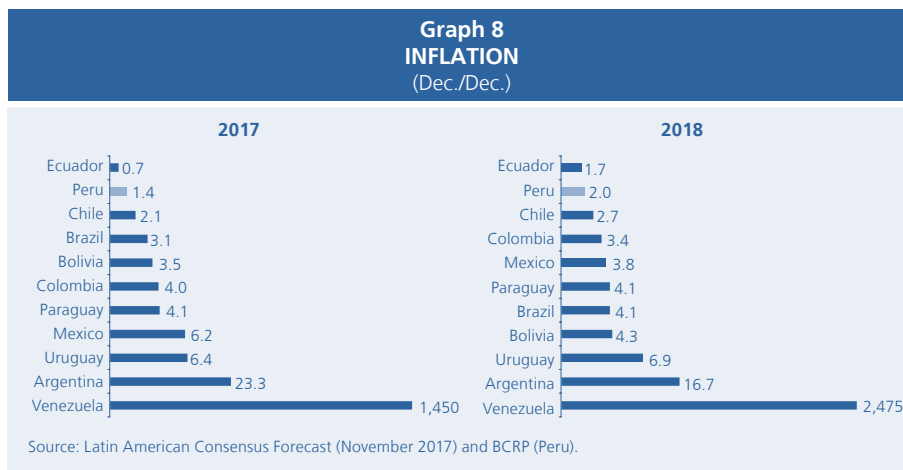
Source: Central banks and statistic institutions.

The recovery of commodity prices and a more expansionary monetary policy account for the recent improvement in activity as well as for the growth prospects for 2018 and 2019. With respect to commodities, higher prices for copper, oil, and grains are considered in this report. As for monetary policy, the reduction of interest rates in most countries of the region (Brazil, Colombia, Chile, Peru) has taken place in a context of a sustained decline in the rate of inflation, which in some cases has even reached levels below the target range.



In recent months, inflation dropped in Peru, Brazil, and Chile. In the former two countries, the reduction of inflation was influenced by adjustments in food prices. In addition, the recovery of economic activity in Brazil remains moderate and has

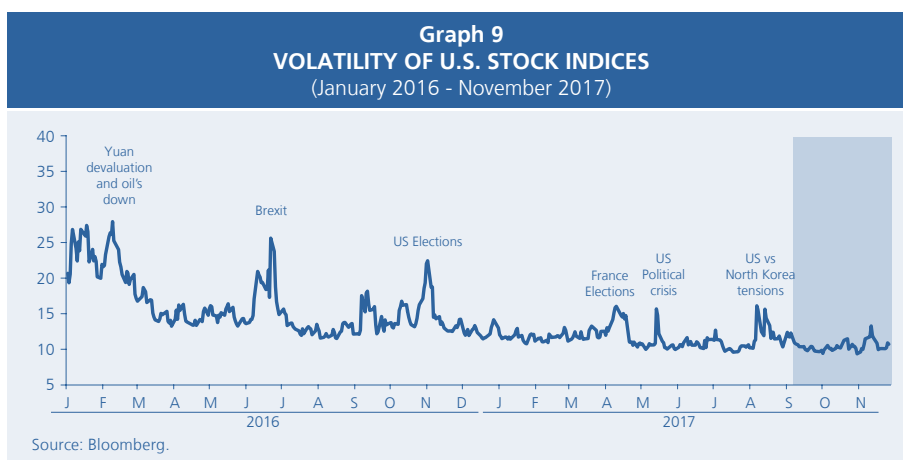
not generated pressures yet. In Chile, the appreciation of the peso generated downward pressures on the tradable component of the consumer basket. In contrast, inflation in Colombia has accelerated due to the correction of the food price index, although this effect has been offset by the slowdown of demand. In Mexico, inflation remains high due to the seasonal increase in electricity rates.



A risk factor to take into account in this projection is the political landscape (with presidential elections in Mexico and Colombia) and the potential impact that investigations about the Brazilian companies may have on investment projects. In addition to this, the renegotiation of the NAFTA treaty may also affect growth prospects in Mexico.

### Financial Markets

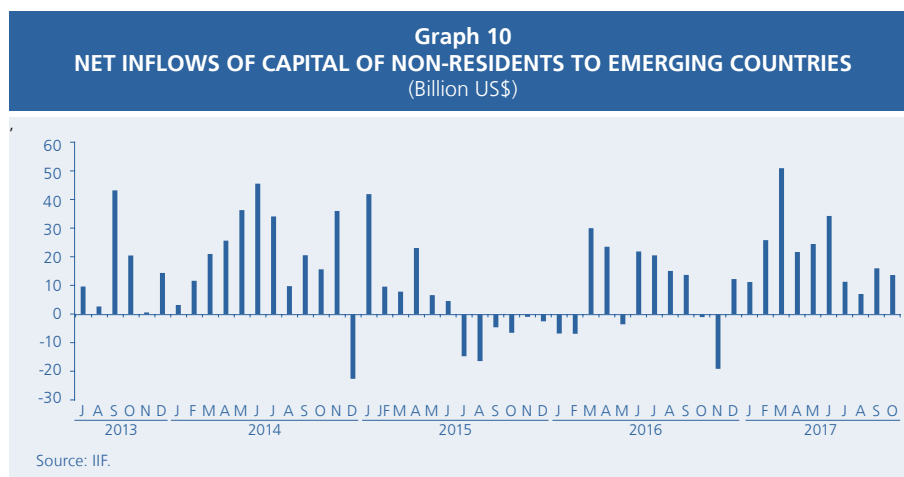
7. Since September, volatility has remained low and near historic lows due to the decline of geopolitical risks and other events that temporarily raised risk aversion until that month.





The markets were also favored by lower uncertainty about monetary policy in the major developed economies. In the particular case of the Fed, a gradual rate adjustment is expected during 2018 (although the lack of definition about the tax policy remains as a factor of uncertainty). In this context of gradual adjustment, the dollar appreciated slightly against the currency basket, most of the stock exchange markets of the developed economies registered gains, supported by favorable developments in corporate profits, and the yields of sovereign bonds of most of the developed economies declined.

On the other hand, capital flows to the emerging economies continued to be positive, but showed a more moderate pace compared with the capital flows seen in the previous quarters. In the region, the volume of capital flows is still moderate, the election results in Latin America and the development of the fiscal reforms in Brazil being the main determinants for capital inflows in the following quarters.



8. So far in the fourth quarter of the year, the **dollar** has shown a volatile trend. Initially, the dollar was favored by positive data of activity in the United States and by expectations that the Fed would raise rates for the third time in the year. However, doubts regarding the results of the tax reform and the trajectory of inflation caused uncertainty about the course of monetary policy and weakened the dollar against the major currencies. Thus, the dollar weakened 0.5 percent against the euro (the latter currency was favored by data of activity in the Eurozone and by the decline of political noise in Spain and Germany). The pound depreciated initially because of political instability within the United Kingdom and because of the slow pace of the rate adjustments projected by the Bank of

England, but the favorable perception of developments in the Brexit negotiations have reversed this trend.

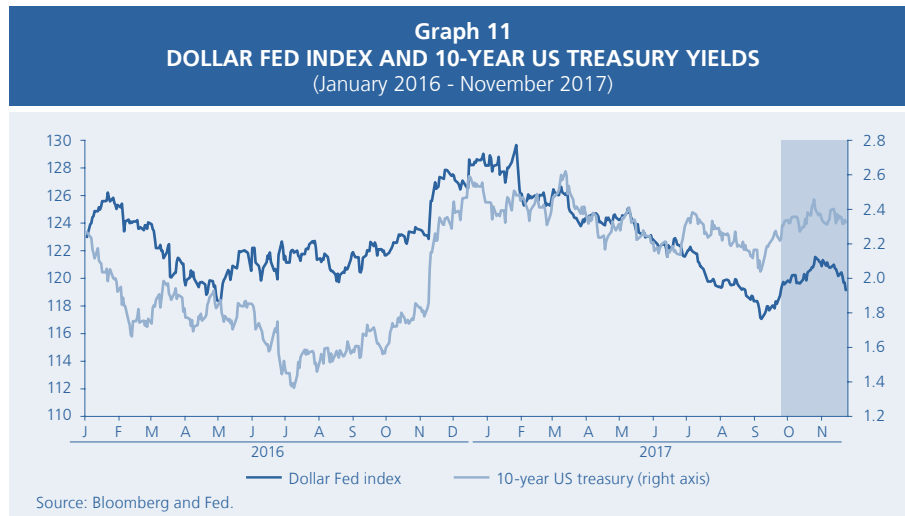
		Table 6 EXCHANGE RATE (Monetary unit per US\$)				
		Dec.16 (1)	Sep.17 (2)	Nov.17 (3)	Accum. % change	
					(3)/(2)	(3)/(1)
Dollar Index*		102.21	93.08	93.29	0.2	-8.7
Eurozone**	Euro	1.051	1.181	1.187	0.5	12.9
Switzerland	Swiss franc	1.018	0.968	0.985	1.8	-3.2
Japan	Yen	116.92	112.51	112.20	-0.3	-4.0
United Kingdom**	Pound sterling	1.234	1.340	1.346	0.5	9.1
Brazil	Real	3.256	3.162	3.265	3.2	0.3
Chile	Peso	670	641	644	0.6	-3.9
Colombia	Peso	3,003	2,941	3,006	2.2	0.1
Mexico	Peso	20.74	18.26	18.58	1.7	-10.4
Peru	Sol	3.36	3.27	3.23	-1.0	-3.7
Russia	Ruble	4.49	4.22	4.09	-3.1	-8.8
South Africa	Rand	13.75	13.57	13.66	0.7	-0.6
Turkey	Lira	3.53	3.56	3.94	10.5	11.6
China	Yuan	6.95	6.65	6.62	-0.5	-4.7
South Korea	Won	15.88	17.34	17.41	0.4	9.6
India	Rupee	61.27	57.60	58.48	1.5	-4.6
Indonesia	Rupee	13,455	13,315	13,527	1.6	0.5
Malaysia	Ringgit	4.49	4.22	4.09	-3.1	-8.8
Thailand	Bath	35.86	33.34	32.62	-2.2	-9.0

\* Increase in the index means an US dollar appreciation.  
 \*\* It considers US dollar per currency unit for euro and pound.  
 Source: Reuters and Fed.

The dollar appreciated against most of the emerging currencies. In Latin America, the Mexican peso was affected by the position of the United States in the renegotiation of NAFTA. In Brazil, the depreciation of the real was caused by the perception that the government has less political support to implement the reform of the Pension system. Finally, moderating the appreciation trend it showed in the last twelve months, the Chilean peso depreciated in response to expectations that the presidential elections would have a narrow result.

9. **Fixed-income** markets were affected by expectations about monetary policy in the United States and Europe. In the United States, long-term yields were also affected by expectations of a gradual adjustment of rates and by the lack of progress on the tax agenda to boost growth.





In Europe, yields were influenced by the repeated comments from the European Central Bank about the need to maintain low interest rates. These views were supported by the moderate advance of inflation in the union. On the other hand, the yields in the United Kingdom fell influenced by the initial uncertainty over the negotiations of the Brexit, although this trend has begun to reverse in recent weeks.

**Table 7**  
**YIELDS ON 10-YEAR TREASURY BONDS**

	Dec.16	Sep.17	Nov.17	Accum. change (bps.)	
	(1)	(2)	(3)	(3)-(2)	(3)-(1)
USA	2.45	2.33	2.38	5	-6
Germany	0.20	0.46	0.37	-10	16
France	0.68	0.74	0.68	-6	0
Italy	1.81	2.11	1.75	-36	-7
Spain	1.38	1.60	1.44	-15	6
Greece	7.02	5.60	5.37	-23	-166
Switzerland	-0.19	-0.02	-0.11	-9	8
Japan	0.04	0.06	0.03	-3	-1
United Kingdom	1.24	1.36	1.33	-3	10
Brazil	11.40	9.73	10.30	56	-110
Colombia	7.11	6.57	6.55	-2	-56
Chile	4.36	4.40	4.59	19	23
Mexico	7.42	6.86	7.26	40	-16
Peru	6.36	4.84	4.98	13	-138
Russia	4.46	4.05	3.98	-6	-48
South Africa	8.91	8.55	9.33	78	42
Turkey	11.08	10.68	12.06	138	98
China	3.06	3.62	3.92	29	86
South Korea	2.07	2.38	2.47	9	40
India	6.52	6.66	7.06	40	54
Indonesia	7.91	6.45	6.50	4	-142
Malaysia	4.19	3.91	3.91	-1	-28
Thailand	2.65	2.29	2.36	7	-29

Source: Bloomberg.

10. The equity markets showed, in most of the cases, an upward trend associated with the positive third-quarter corporate reports. Thus, stock markets in the major developed economies showed gains and even reached record highs in the United States. In the Eurozone, however, despite the results of the third quarter and the good pace of economic growth, some indices fell affected by political instability in Spain.

**Table 8**  
**STOCK MARKETS**

		Dec.16 (1)	Sep.17 (2)	Nov.17 (3)	Accum. % change	
					(3)/(2)	(3)/(1)
VIX <sup>1/</sup>	S&P 500	14.04	9.51	10.70	1.2	-3.3
USA	Dow Jones	19,763	22,405	23,941	6.9	21.1
Germany	DAX	11,481	12,829	13,062	1.8	13.8
France	CAC 40	4,862	5,330	5,398	1.3	11.0
Spain	IBEX 35	9,352	10,382	10,268	-1.1	9.8
Italy	FTSE MIB	19,235	22,696	22,326	-1.6	16.1
Greece	ASE	644	756	738	-2.3	14.7
Switzerland	SMI	8,220	9,157	9,304	1.6	13.2
Japan	Nikkei 225	19,114	20,356	22,597	11.0	18.2
United Kingdom	FTSE 100	7,143	7,373	7,394	0.3	3.5
Brazil	Bovespa	60,227	74,294	72,700	-2.1	20.7
Mexico	IPC	45,643	50,346	47,623	-5.4	4.3
Chile	IGP	20,734	26,682	25,217	-5.5	21.6
Colombia	IGBC	10,106	11,097	10,807	-2.6	6.9
Peru	General Index	15,567	18,538	19,783	6.7	27.1
Russia	TRSI\$	1,152	1,137	1,145	0.7	-0.7
South Africa	JSE	50,654	55,580	60,418	8.7	19.3
Turkey	XU100	78,139	102,908	102,342	-0.5	31.0
China	Shangai C.	3,104	3,349	3,338	-0.3	7.5
South Korea	Seul C.	2,026	2,394	2,513	4.9	24.0
India	CNX Nifty	8,186	9,789	10,361	5.9	26.6
Indonesia	JCI	5,297	5,901	6,061	2.7	14.4
Malaysia	KLSE	1,642	1,756	1,720	-2.0	4.8
Thailand	SET	1,543	1,673	1,705	1.9	10.5

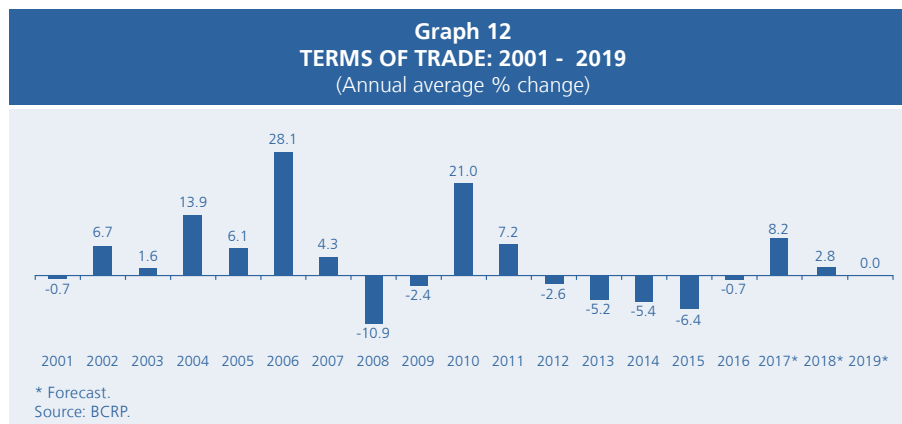
<sup>1/</sup> Change in percentage points.  
Source: Bloomberg.

## Terms of Trade

11. In 2017, Peru's **terms of trade** would grow 8.2 percent, recording a higher increase than that estimated in September due to the recent rise in the prices of basic metals and gold. The price of exports would increase 13.8 percent while the price of imports would increase 5.1 percent. In line with this, the terms of trade projected for 2018 have been revised up (from 2.0 to 2.8 percent). In 2019, the terms of trade would remain stable.







**Table 9**  
**TERMS OF TRADE: 2016 - 2019**

	2016	2017*		2018*		2019*	
		IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>Terms of Trade (Annual % chg.)</b>	<b>-0.7</b>	<b>7.0</b>	<b>8.2</b>	<b>2.0</b>	<b>2.8</b>	<b>0.0</b>	<b>0.0</b>
<b>Price of exports (Annual % chg.)</b>	<b>-3.6</b>	<b>12.0</b>	<b>13.8</b>	<b>2.2</b>	<b>4.0</b>	<b>1.0</b>	<b>1.0</b>
Copper (US\$ cents per pound)	221	274	279	293	300	295	300
Zinc (US\$ cents per pound)	95	126	131	129	137	127	133
Lead (US\$ cents per pound)	85	103	105	107	108	108	108
Gold (US\$ per troy ounce)	1,248	1,252	1,258	1,286	1,288	1,295	1,295
<b>Price of imports (Annual % chg.)</b>	<b>-3.0</b>	<b>4.7</b>	<b>5.1</b>	<b>0.1</b>	<b>1.2</b>	<b>1.0</b>	<b>1.0</b>
Oil (US\$ per barrel)	43	49	51	49	54	49	51
Wheat (US\$ per ton)	143	150	145	169	153	183	171
Maize (US\$ per ton)	135	139	132	156	145	161	157
Soybean oil (US\$ per ton)	696	712	710	754	754	755	755
Whole milk (US\$ per ton)	2,471	3,181	3,085	3,189	2,959	3,158	3,010

\* Forecast.  
IR: Inflation Report.  
Source: BCRP.

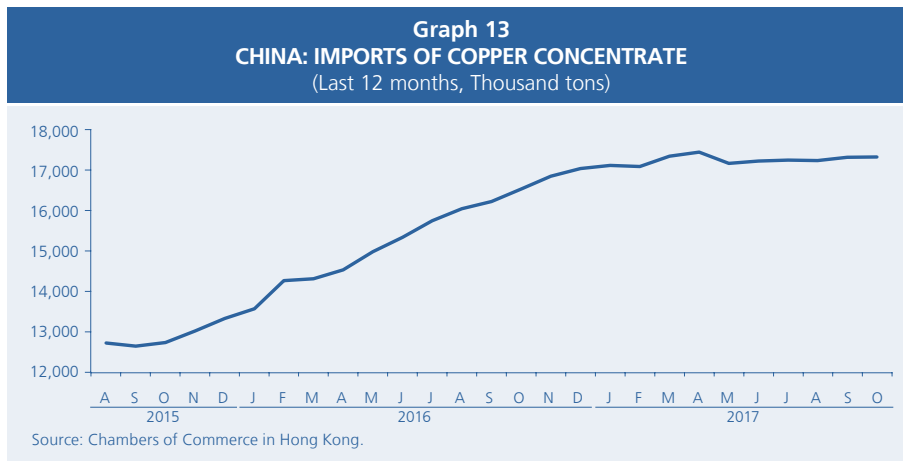
a. **Copper**

In November, the price of **copper** reached a monthly average of US\$ 3.09 a pound, up 5 percent from the average price level in August, and accumulated an increase of 21 percent in the first eleven months of the year.

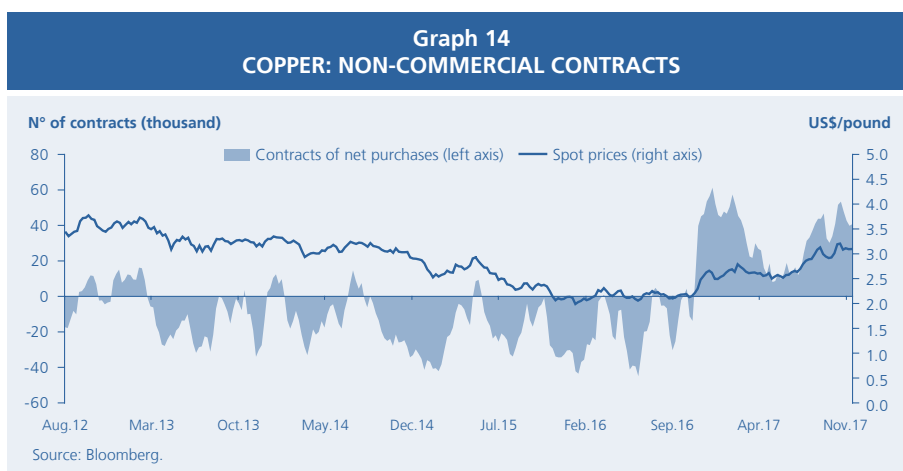
The upward pressures seen in recent months are mainly explained by improved demand conditions. Data of activity in China have been more favorable than expected and the slowdown of credit has been more focused on reducing risks rather than on reducing real demand. Supply constraints also affected the market: unexpected production cuts in the first half of the year contributed to generate a market shortfall. The major mines in Chile, Indonesia, Peru, Congo, and Zambia, recorded cuts above the average of recent years. Another factor that affected the

prospects of supply were expectations that China would limit its imports of recycled copper next year.

The recent rise in the price of copper was also supported by the return of investors to the futures markets, which reflects expectations of a rise in the price of this metal supported by the positive figures of China’s consumption of copper and by the decline of inventories in stock exchange markets. China’s imports of copper concentrate maintained an upward trend until April 2017. Since then, they have remained at relatively stable levels: in October and November of this year, imports of copper concentrate grew at a year to year rate of 0.3 and 0.1 percent, respectively.

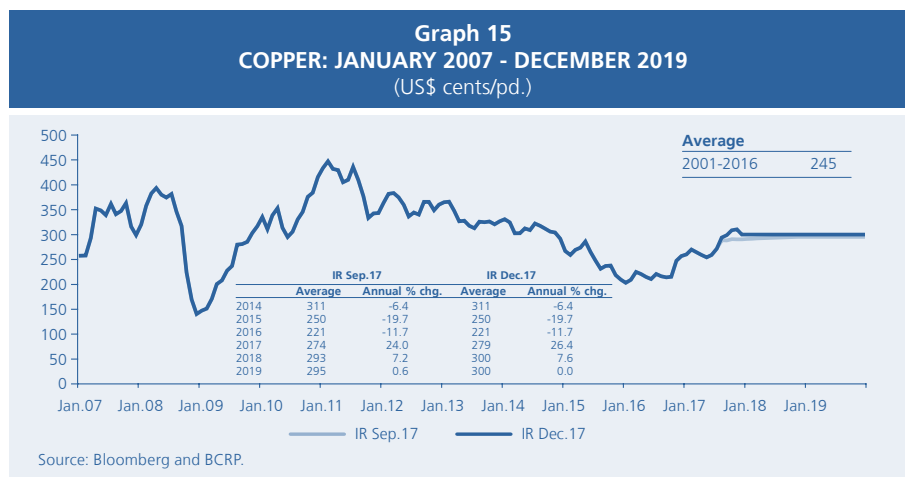


On the other hand, the total net long positions of fund managers reached record highs in September and non-commercial net long positions increased and reached levels close to the record high seen in December 2016 in that month.





A slight downward correction of prices is expected in the forecast horizon, although prices would remain above the level estimated in the previous report. This projection is consistent with the expected incorporation of new capacity in 2018 and assumes that unplanned production cuts would decrease to their historical average level. The main factors of uncertainty in the forecast are associated with the evolution of China’s demand and with unforeseen strikes that could reduce the supply.



**b. Zinc**

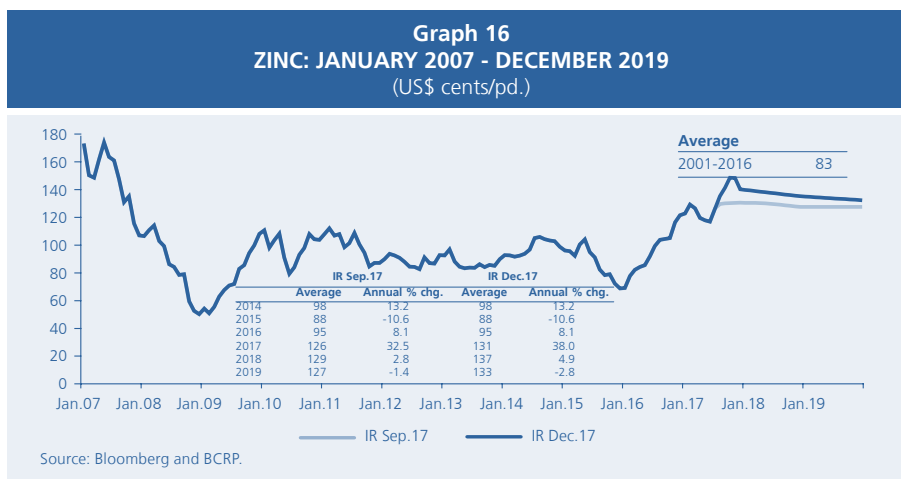
The average price of **zinc** increased 21 percent in the first eleven months of the year, mainly as a result of the rise recorded in the past 5 months. After reaching a minimum yearly price of US\$ 1.17 a pound in June –influenced mainly by China’s weak economic data– the price of zinc has increased and reached a monthly average price of US\$ 1.47 a pound in November.

The recent price rise is explained by signals of a market shortfall during 2016 and 2017 as a result of the closure of mines after the exhaustion of minerals. In addition to this, the increase in mine production (in response to these higher prices) is not being reflected immediately in a greater production of refined zinc due to the difficulty faced by refineries in adapting to new environmental standards in China. On the demand side, greater global growth and the damage and impact associated with hurricanes in the United States could support the growth in zinc consumption in the short term.

However, the new production capacity that will enter the market as from the next year would keep the price of zinc relatively stable over the forecast

horizon, although at higher levels than those estimated in the previous Inflation Report.

The forecast introduces risks associated with China’s demand and unforeseen changes in the supply (e.g. restart of operations in some mines that had stopped production, the expansion of operations, and the acceleration of investment in projects that are currently underway).



**c. Gold**

In November, the monthly average price of **gold** reached a level of US\$ 1,279 a troy ounce, 11 percent higher than the level recorded in December 2016. In the last three months, the price of gold has been subject to volatility, although showing little variation from the price observed in August.

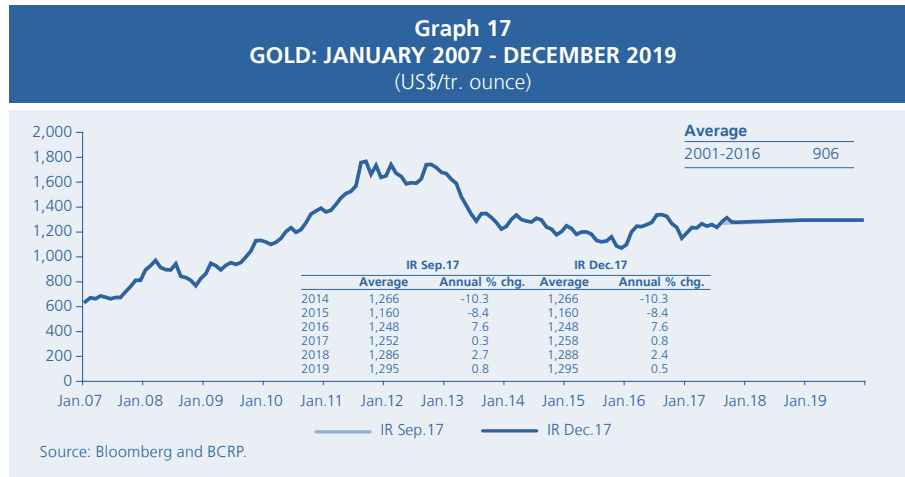
The increase in the price of gold is explained by greater geopolitical risks (which increase the demand for safe assets), by the depreciation of the dollar, and by prospects that real interest rates will remain low due to the gradual adjustment policy implemented by the Fed. Another factor that has contributed to the increase in the price of gold has been the growth of demand for investment in bars and coins, jewelry, and technology.

The price of gold in 2018-2019 would remain at similar levels to those observed today. The risks in this forecast are mostly associated with the evolution of the dollar and therefore to the future decisions of the FED that are not anticipated by the market (although Jerome Powell, successor of Janet Yellen at the Fed, has declared that he will maintain the gradual adjustment of monetary policy). As for





the physical demand for gold, the evolution of this demand depends on the growth prospects of China and India.



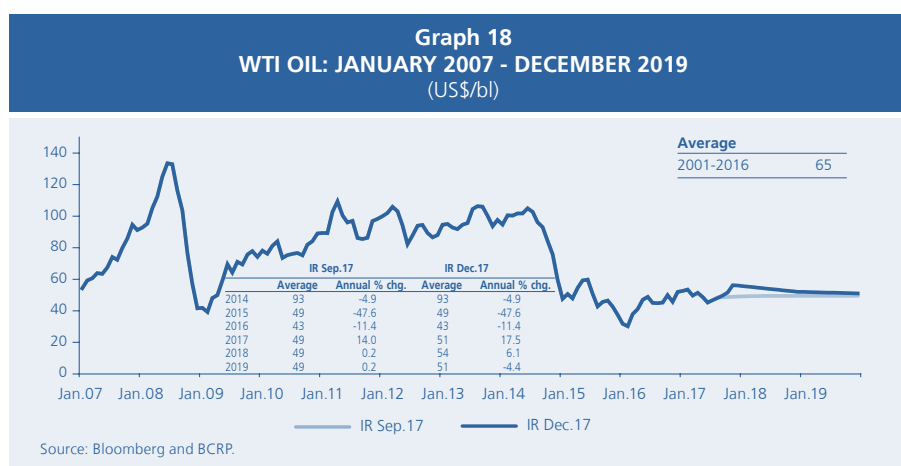
d. **Crude Oil**

In the last three months, the price of **WTI oil** rose 17 percent and showed an average price of US\$ 56 a barrel in November. Thus, the price of oil reversed the decline it registered in the first half of the year and accumulated an increase of 8 percent during the first eleven months of the year.

The strong increase recorded in the price of oil in the past three months reflected the gradual reduction of the oversupply as a result of the hurricanes that affected the United States and the production cuts of the OPEC and other major oil producers (e.g. Russia). Other geopolitical factors that influenced this rise included political uncertainty in Saudi Arabia, militia attacks on oil operations in Nigeria, and the escalation of tensions between the government of Iraq and Kurdish separatists. However, this price increase was offset by expectations that U.S. oil production continues to grow and counteracts the OPEC efforts oriented to balance the global market (On November 30, the OPEC agreed to extend production cuts until December of 2018). Because of these developments, the projection of the price of WTI oil has been revised on the upside.

Risk factors remain high, both on the downside and on the upside. The downside risks are associated with the estimates of growth in the production of crude oil in the United States and with the possibility that the increase in production could

exceed expected production in countries with lower costs (e.g. Iran, Iraq, Saudi Arabia, Kuwait, and Russia). The risks to the upside, on the other hand, include a rapid recovery of the demand (particularly in Asia) and additional decisions of the OPEC about production cutbacks.



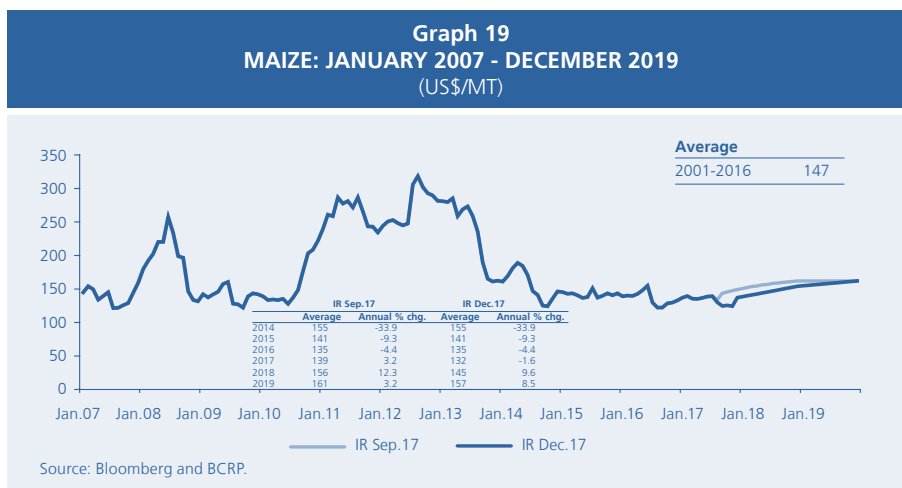
**e. Maize**

In November, the average international price of **maize** fell 5 percent from August and reached a monthly average price of US\$ 123 per ton. Thus, the price of maize shows a decline of 7 percent so far this year.

In recent months the drop in the price of maize deepened due to the better outlook for global production after yield records were recorded in U.S. harvests. In addition to this, the high global inventories reported in the previous harvest maintained a slack market despite the growth in demand. As a result, maize prices reversed the rising price trend of the first half of the year caused by adverse weather conditions and by the reduction of cultivation areas for this crop in the United States.

In line with these developments, the average price of maize in the forecast horizon is projected to increase, although at a lower rate than expected in the September Inflation Report. This forecast has a risk on the downside associated with the negotiations of the NAFTA involving Canada, the United States, and Mexico (the major consumer of U.S. maize).



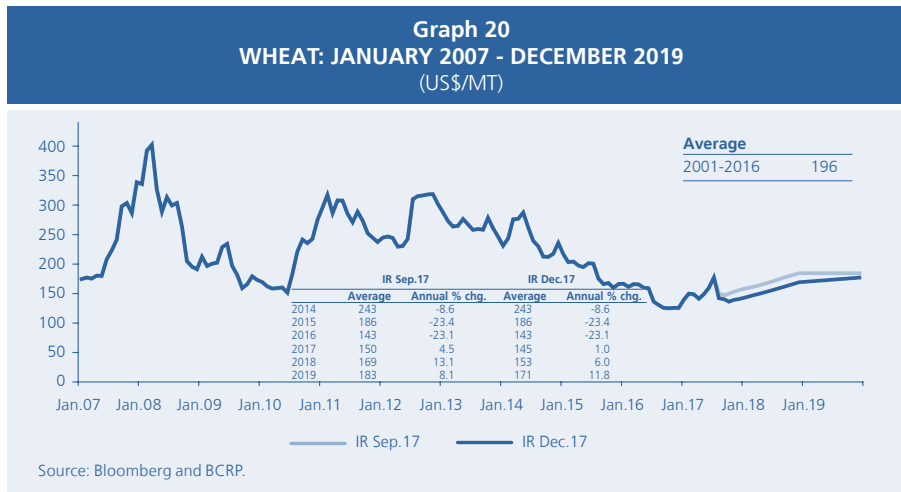


f. **Wheat**

The monthly average price of **wheat** accumulated an increase of 13 percent in the first eleven months of the year and reached a level of US\$ 138 per metric ton in November. However, in the last three months, the international price of wheat has declined by 1 percent.

The correction of wheat prices in recent months was associated with a significant improvement in the estimates of production in the Black Sea countries as a result of the high yields obtained in the harvest of winter wheat, especially in Russia. These high yields, observed in a context in which global inventories remain high, represent a strong competition to the U.S. wheat. The United States Department of Agriculture (USDA) estimates that global wheat inventories reached an all-time high in the current season after two years of high global crops.

However, it is estimated that the price of wheat will recover in the forecast horizon, although at lower levels than foreseen in the previous report due to lower production in the United States (the USDA foresees a decline of 25 percent for the 2017/2018 crop year as a result of lower cultivated areas). The main factor of uncertainty for the forecast is associated with unforeseen changes in the supply resulting from climatic factors.



**g. Soybean Oil**

In November, the average price of soybean oil was US\$ 739 a ton, 1 percent higher than in August. Despite the price rise registered in the past three months, the price of soybean oil accumulates a fall of 6 percent compared to the average level in December 2016.

The recent recovery of the price of soybean oil was supported by the decision of the U.S. Department of Commerce to impose countervailing duties on imports of biodiesel from Argentina and Indonesia. Another factor that contributed to this was the decision of the U.S. Environmental Protection Agency to withdraw its proposal to amend the mandate of biofuels because of the opposition of Representatives of States that produce grains such as corn and soybean. However, the price is still down due to the recovery of the production of palm oil (substitute product) and due to high inventories of soybean in the United States, which showed levels unheard of since the 2006/2007 crop year.

Based on these events, soybean oil prices are expected to maintain the price levels estimated in the September Inflation Report during the forecast horizon. The factors that could modify this trend are associated with unexpected changes in the production of palm oil, with a higher production of soybean in South America, and with changes in policies about the consumption of biodiesel in the United States.







Graph 21  
SOYBEAN OIL: JANUARY 2007 - DECEMBER 2019  
(US\$/MT)



Source: Bloomberg and BCRP.

## II. Balance of Payments

### Current Account

12. During the first nine months of the year, the deficit in the **current account of the balance of payments** continued declining, reflecting the increasingly higher surplus recorded in the trade balance over the past five quarters. Year-to-date, the trade balance has been favored by the recovery in the terms of trade, higher mining production, and the low demand for imports observed during the first half of the year.

**Table 10**  
**BALANCE OF PAYMENTS**  
(Million US\$)

	Jan.-Sep.			2017*		2018*		2019*	
	2015	2016	2017	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>I. CURRENT ACCOUNT BALANCE</b>	<b>-9,169</b>	<b>-5,303</b>	<b>-1,965</b>	<b>-4,389</b>	<b>-3,554</b>	<b>-4,558</b>	<b>-3,777</b>	<b>-5,076</b>	<b>-4,051</b>
% GDP	-4.8	-2.7	-1.2	-2.0	-1.6	-2.0	-1.6	-2.1	-1.7
1. Trade Balance	-2,916	1,888	4,256	5,051	5,609	6,400	7,136	6,434	7,092
a. Exports	34,414	37,020	32,482	43,173	44,435	45,940	48,109	48,457	50,339
b. Imports	-37,331	-35,132	-28,226	-38,122	-38,827	-39,540	-40,974	-42,024	-43,247
2. Services	-2,040	-1,974	-847	-1,515	-1,561	-2,209	-2,056	-2,266	-2,109
3. Investment income	-7,544	-9,184	-8,153	-11,636	-11,308	-12,516	-12,611	-13,091	-12,960
4. Current transfers	3,331	3,967	2,780	3,712	3,707	3,768	3,754	3,848	3,927
Of which: Remittances	2,725	2,884	2,258	3,042	3,042	3,194	3,194	3,238	3,322
<b>II. FINANCIAL ACCOUNT</b>	<b>8,346</b>	<b>5,504</b>	<b>4,639</b>	<b>7,389</b>	<b>6,554</b>	<b>6,558</b>	<b>6,307</b>	<b>7,076</b>	<b>6,591</b>
1. Private Sector	5,236	2,847	1,736	3,220	3,175	3,749	3,390	4,895	4,478
a. Long-term	8,792	3,709	1,102	3,569	2,226	3,749	3,390	4,895	4,478
b. Short-term <sup>1/</sup>	-3,556	-862	634	-20	949	0	0	0	0
2. Public Sector <sup>2/</sup>	3,110	2,657	2,902	3,840	3,684	2,809	2,917	2,181	2,113
<b>III. CHANGE ON NIRs</b>	<b>-823</b>	<b>201</b>	<b>2,674</b>	<b>3,000</b>	<b>3,000</b>	<b>2,000</b>	<b>2,530</b>	<b>2,000</b>	<b>2,540</b>
Memo:									
Long-term external financing of the private sector <sup>3/</sup> (% GDP)	6.6	4.6	5.3	5.0	5.2	4.0	4.1	4.2	4.2

\* Forecast.

<sup>1/</sup> Includes net errors and omissions, and NIR's effect valuation.

<sup>2/</sup> Includes exceptional financing.

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

IR: Inflation Report.

This lower-than-expected current account deficit has implied a downward revision of the deficit projections for all the forecast horizon. The deficit is now estimated to be equivalent to 1.6 percent of GDP in 2017 and 2018, and to 1.7 percent of GDP in 2019. This revision is associated basically with the expected evolution of





exports (in a context of high metal prices and a higher recovery of growth in our trading partners) and with the recovery of domestic demand, in line with the trends observed and the projections discussed in this report. Moreover, long-term credit to the private sector is expected to continue to be the main source of financing the balance of payments (5.2 percent of GDP in 2017, 4.1 percent of GDP in 2018, and 4.2 percent of GDP in 2019), in a context in which capital flows to the emerging economies would continue.

### Trade Balance

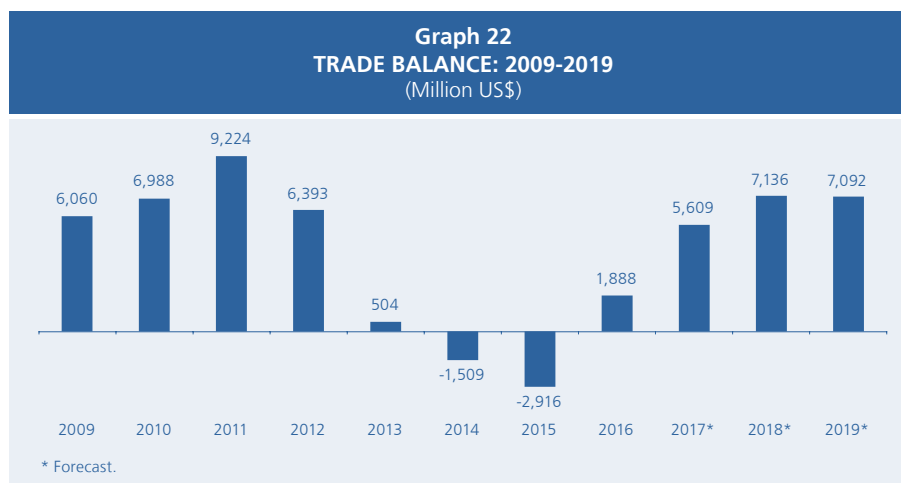
13. After recording a surplus of US\$ 80 million between January and September of 2016, the trade balance showed a surplus of US\$ 4.26 billion in the same period of 2017. This increase in the surplus is explained mostly by increased exports of traditional products (as a result of the high prices of our metals and the increased mining and oil production). Because of this, of the better prospects for growth in the economies of our trading partners, and of the higher terms of trade, the projected surplus in the trade balance for 2017 has been revised on the upside to US\$ 5.6 billion and to US\$ 7.1 billion in both 2018 and in 2019.

Table 11 TRADE BALANCE (Million US\$)									
	2015	2016	Jan.-Sep. 2017	2017*		2018*		2019*	
				IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>EXPORTS</b>	<b>34,414</b>	<b>37,020</b>	<b>32,482</b>	<b>43,713</b>	<b>44,435</b>	<b>45,940</b>	<b>48,109</b>	<b>48,457</b>	<b>50,339</b>
<i>Of which:</i>									
Traditional products	23,432	26,137	24,038	31,338	32,700	33,497	35,598	35,184	36,925
Non-traditional products	10,895	10,782	8,351	11,718	11,607	12,326	12,381	13,138	13,269
<b>IMPORTS</b>	<b>37,331</b>	<b>35,132</b>	<b>28,226</b>	<b>38,122</b>	<b>38,827</b>	<b>39,540</b>	<b>40,974</b>	<b>42,024</b>	<b>43,247</b>
<i>Of which:</i>									
Consumer goods	8,754	8,614	6,834	9,185	9,394	9,522	9,506	9,972	9,971
Inputs	15,911	15,140	13,093	17,216	17,801	17,723	18,540	18,480	18,804
Capital goods	12,002	11,113	8,175	11,235	11,352	11,777	12,588	12,825	14,110
<b>TRADE BALANCE</b>	<b>-2,916</b>	<b>1,888</b>	<b>4,256</b>	<b>5,051</b>	<b>5,609</b>	<b>6,400</b>	<b>7,136</b>	<b>6,434</b>	<b>7,092</b>

\* Forecast.  
IR: Inflation Report.

In the forecast horizon, exports would be favored by higher prices for our main minerals as well as by larger volumes of exports of non-traditional products in a context of recovery in global activity. Imports are expected to grow slightly higher in this year than estimated in the previous report, this revision being consistent with the anticipated evolution of domestic demand.

The growth in the value of exports in 2017 (20.0 percent) would be based mostly on higher prices (13.8 percent), while in 2018 and 2019 (8.3 and 4.6 percent, respectively), it would be based on higher volumes of exports (4.1 and 3.6 percent, respectively).



**Table 12**  
**TRADE BALANCE**  
(% change)

	2015	2016	Jan.-Sep. 2017	2017*		2018*		2019*	
				IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>1. Value:</b>									
Exports	-12.9	7.6	25.0	16.6	20.0	6.4	8.3	5.5	4.6
Traditional products	-15.4	11.5	31.2	19.9	25.1	6.9	8.9	5.0	3.7
Non-traditional products	-6.7	-1.0	10.0	8.7	7.6	5.2	6.7	6.6	7.2
Imports	-9.0	-5.9	9.0	8.5	10.5	3.7	5.5	6.3	5.5
<b>2. Volume:</b>									
Exports	2.4	11.6	11.1	4.1	5.5	4.1	4.1	4.4	3.6
Traditional products	6.5	16.7	11.7	4.6	5.4	3.8	3.8	4.4	3.3
Non-traditional products	-4.9	0.9	8.8	2.9	5.6	4.9	4.9	4.5	4.8
Imports	0.2	-2.8	3.4	3.6	5.2	3.6	4.3	5.2	4.5
<b>3. Price:</b>									
Exports	-15.0	-3.6	12.6	12.0	13.8	2.2	4.0	1.0	1.0
Traditional products	-20.5	-4.3	17.4	14.6	18.7	3.0	4.9	0.6	0.5
Non-traditional products	-1.9	-1.9	1.1	5.7	2.0	0.3	1.8	2.0	2.3
Imports	-9.2	-3.0	5.4	4.7	5.1	0.1	1.2	1.0	1.0

\* Forecast.  
IR: Inflation Report.

## External Financing

14. In January-September, the **net flow of private capital** was positive by US\$ 1.4 billion, a sum US\$ 1.7 billion lower than that recorded in the same period of 2016, mainly as a result of the higher investment of the administrators of private pension funds (AFPs) abroad (increased external assets). Moreover, the increase of bond issuances by private companies in the international market (higher investment portfolio) as well as the higher payments to parent companies and the amortization of long-term loans were also noteworthy. It should be pointed out that part of the bonds issued have been used to repay or prepay loans to take advantage of better financing conditions.





In comparison with our previous report, a lower net inflow of capital is expected in the forecast horizon mainly due to greater investment in external portfolio assets and deposits and to the higher amortization and payments of long-term debt to parent companies.

Foreign direct investment would remain as the main source of financing in the forecast horizon due to increased reinvestment of profits, in line with the recovery of activity and the high prices of our minerals. Long-term private external capital will continue to be the main source of financing the balance of payments. This capital is expected to amount to 5.2, 4.1, and 4.2 percent of GDP in 2017, 2018, and 2019, respectively, exceeding by far the requirements of the current account for this period.

**Table 13**  
**FINANCIAL ACCOUNT OF THE PRIVATE SECTOR**  
(Million US\$)

	2015	2016	Jan.-Sep. 2017	2017*		2018*		2019*	
				IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>PRIVATE SECTOR (A+B)</b>	<b>6,132</b>	<b>2,815</b>	<b>1,431</b>	<b>3,220</b>	<b>2,869</b>	<b>3,749</b>	<b>3,390</b>	<b>4,895</b>	<b>4,478</b>
% GDP	3.2	1.4	0.9	1.5	1.3	1.6	1.5	2.0	1.8
<b>A. LONG-TERM</b>	<b>8,792</b>	<b>3,709</b>	<b>1,102</b>	<b>3,569</b>	<b>2,226</b>	<b>3,749</b>	<b>3,390</b>	<b>4,895</b>	<b>4,478</b>
<b>1. ASSETS</b>	<b>-247</b>	<b>-966</b>	<b>-2,794</b>	<b>-2,553</b>	<b>-3,179</b>	<b>-1,867</b>	<b>-2,081</b>	<b>-1,702</b>	<b>-1,995</b>
<b>2. LIABILITIES</b>	<b>9,039</b>	<b>4,675</b>	<b>3,896</b>	<b>6,122</b>	<b>5,405</b>	<b>5,616</b>	<b>5,471</b>	<b>6,596</b>	<b>6,472</b>
Foreign direct investment in the country	8,272	6,863	4,114	6,577	6,007	6,109	6,264	6,851	6,745
Long-term loans	1,363	-1,693	-1,732	-2,403	-2,277	-918	-1,218	-769	-1,614
Portfolio investment	-596	-495	1,514	1,949	1,676	425	425	515	515
<b>B. SHORT-TERM <sup>1/</sup></b>	<b>-2,660</b>	<b>-894</b>	<b>329</b>	<b>-349</b>	<b>644</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<sup>1/</sup> Includes net errors and omissions.

\* Forecast.

IR: Inflation Report.

**Graph 23**  
**CURRENT ACCOUNT AND LONG-TERM EXTERNAL FINANCING**  
**OF THE PRIVATE SECTOR: 2009-2019 <sup>1/</sup>**  
(% GDP)



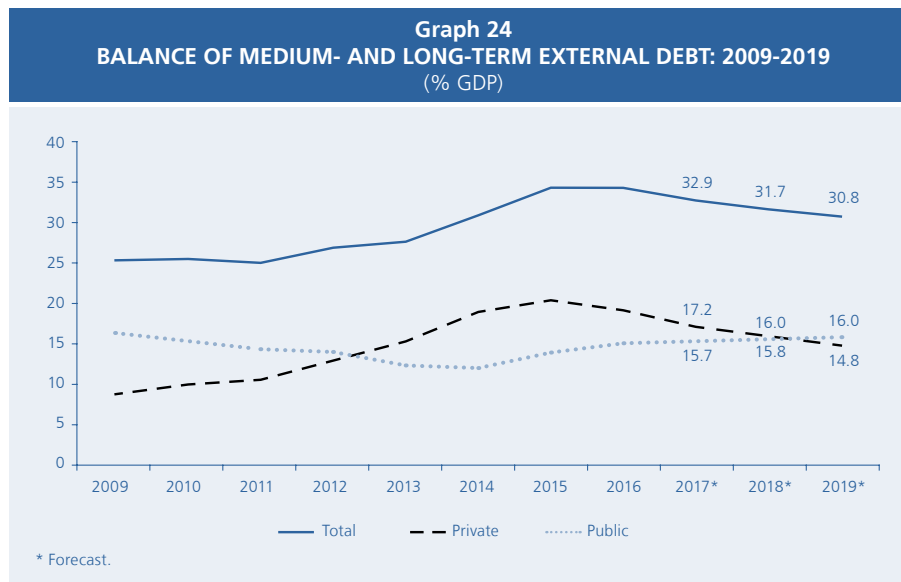
<sup>1/</sup> Includes net foreign investments, portfolio investment, and private sector's long-term disbursement.

\* Forecast.

15. The **financial account of the public sector** recorded an increase of US\$ 1.2 billion in the period of January-September 2017 in comparison to that recorded in the same period of 2016, reflecting mainly the placement of Petroperu bonds (US\$ 2.0 billion), liability management operations, and non-residents' greater acquisition of local debt, whose share amounted to 47 percent.

The trend of lower requirements of external financing foreseen would continue in the forecast horizon, the adjustment of this year, from US\$ 3.8 to 3.6 billion, reflecting mainly the lower disbursements expected in the rest of the year in view of those already made.

16. External private indebtedness would show a declining trend during the forecast horizon, in line with a greater use of local funding and rising international interest rates, and would therefore represent less than 15 percent of GDP in 2019.



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 shows in the region in terms of these indicators was pre-emptively achieved during a period of years characterized by capital inflows and high commodity prices.





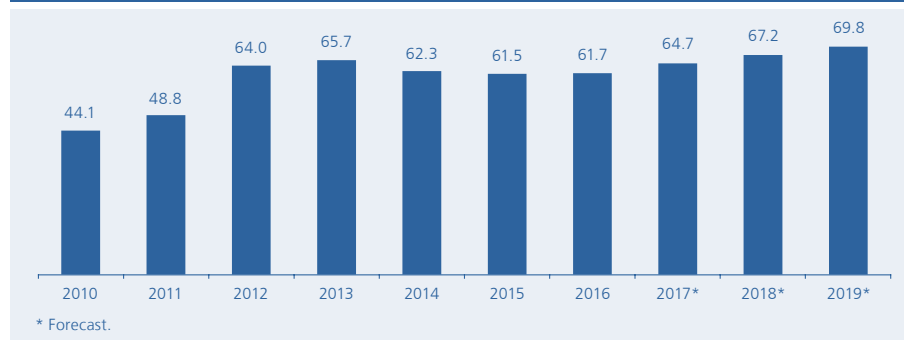
Table 14  
NIR INDICATORS

	2011	2016	2017*	2018*	2019*
<b>NIR as a % of:</b>					
a. GDP	28.9	31.5	29.9	29.2	28.8
b. Short-term external debt <sup>1/</sup>	470	342	499	513	531
c. Short-term external debt plus current account deficit	365	264	392	398	406
<b>Medium- and long-term external debt (as a % GDP)</b>	24.7	34.5	32.9	31.7	30.8
a. Private	10.4	19.3	17.2	15.8	14.8
b. Public	14.3	15.1	15.7	16.0	16.0

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

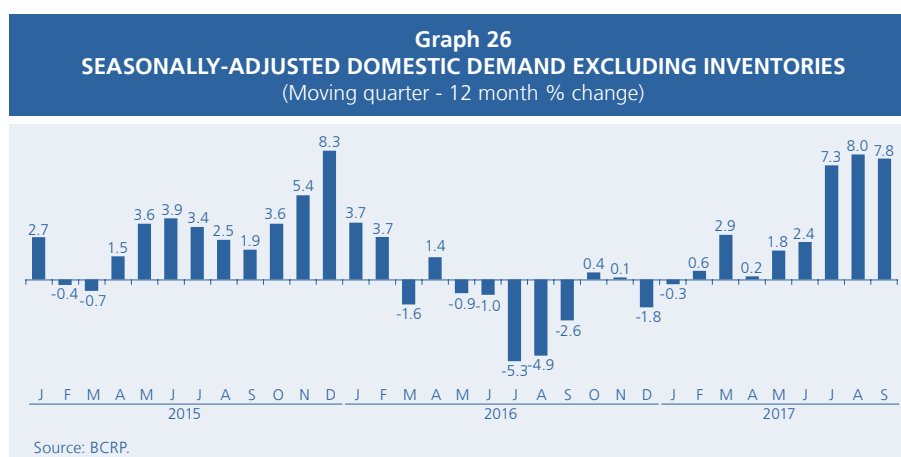
\* Forecast.

Graph 25  
NET INTERNATIONAL RESERVES  
(Billion US\$)



### III. Economic Activity

17. Economic activity has been recovering since the second quarter of the year after the shocks faced by the economy at the beginning of the year began to reverse. Excluding the effect of inventories, the recovery of seasonally adjusted domestic demand becomes significant since it has moved from a negative annualized rate of 0.3 percent at the beginning of the year to a positive rate of 7.8 percent in September in a context marked by a recovery of private and public investment.



**Table 15**  
**GDP AND DOMESTIC DEMAND**  
(Real % change)

	2016	Jan.-Sep.	2017*		2018*		2019*	
		2017	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>Domestic demand</b>	<b>1.1</b>	<b>0.5</b>	<b>2.3</b>	<b>2.2</b>	<b>4.2</b>	<b>4.4</b>	<b>4.2</b>	<b>4.3</b>
Private consumption	3.3	2.4	2.6	2.5	3.3	3.3	3.8	3.8
Public consumption	-0.5	-3.0	2.3	2.4	3.6	3.6	2.0	2.0
Private investment	-5.9	-1.0	-1.0	0.6	5.3	6.5	7.5	7.5
Public investment	0.6	-4.5	7.0	6.0	15.0	12.5	4.0	4.0
Change on inventories (contribution)	0.2	-0.4	0.2	-0.1	0.0	0.1	0.0	0.0
<b>Exports</b>	<b>9.5</b>	<b>10.2</b>	<b>5.0</b>	<b>6.4</b>	<b>3.8</b>	<b>3.5</b>	<b>4.4</b>	<b>3.8</b>
<b>Imports</b>	<b>-2.2</b>	<b>3.2</b>	<b>3.3</b>	<b>4.7</b>	<b>4.1</b>	<b>4.3</b>	<b>4.6</b>	<b>4.3</b>
<b>GDP</b>	<b>4.0</b>	<b>2.4</b>	<b>2.8</b>	<b>2.7</b>	<b>4.2</b>	<b>4.2</b>	<b>4.2</b>	<b>4.2</b>
<u>Memo:</u>								
Public expenditure	-0.2	-3.4	3.6	3.4	6.9	6.2	2.6	2.6
Domestic demand excluding inventories	0.9	1.6	2.1	2.3	4.3	4.4	4.3	4.3

\* Forecast.  
IR: Inflation Report.







## Expenditure-Side GDP

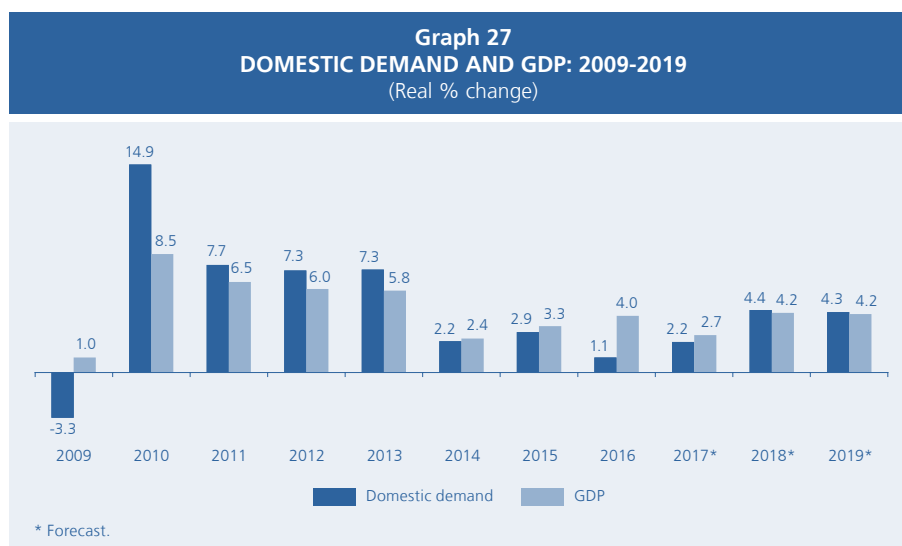
18. During the first nine months of 2017, the growth of GDP (2.4 percent) was characterized by a slowdown in the first quarter of the year, which reflected mainly the negative events faced by the economy (El Niño Costero), and by an expansion in the next two quarters after these shocks started to reverse.

The expansion observed in the second and third quarters of the year reflected the recovery of domestic demand, which showed a growth rate of 0.2 and 2.4 percent, respectively. Private investment showed a positive growth rate in the third quarter after recording 14 consecutive quarters of decline, which reflected the recovery of business confidence and the terms of trade, as well as the recovery of mining investment (18.7 percent). Like private investment, after four straight quarters of decline, public spending also showed a positive change in the third quarter of the year, driven by the recovery of expenditure at the levels of the national government and local governments. As for private consumption, some recovery was observed in its growth rates after the negative events that affected its pace of growth in the first half of 2017.

Finally, between January and September, exports maintained high growth rates due mainly to increased exports of traditional products, with exports of fishmeal (increased catch of anchovy) standing out in terms of traditional exports, while fisheries stand out in terms of non-traditional exports. On the other hand, imports recorded a moderate growth, in line with the recovery of domestic demand and reflecting increased imports of consumer goods and inputs. As a result of this, net exports contributed with 1.8 percentage points, less than in the same period of the previous year (3.1 percentage points).

19. The evolution of the main components of expenditure has been in line with the projections of the September report, with some adjustments on the upside, particularly in the case of fixed private investment and exports, given indications of greater dynamism this year than that expected in the September report. However, taking into account the anticipated impact of the supply shock on the fishing sector (caused by the recent cooling of the sea) in the fourth quarter of this year, the growth forecast for this year has been revised slightly down, from 2.8 to 2.7 percent. This slowdown of growth is reflected in a lower contribution from inventories associated with the production of fisheries. As foreseen in our previous report, the domestic demand will continue determining the dynamism of economic activity. On the other hand, in contrast with what was expected in the previous report, private investment is now foreseen to show a greater recovery while public expenditure will reduce slightly the growth trend it was expected to show in the remainder of the year. Finally, private consumption will maintain a moderate pace of growth, in line with the evolution of its determinants.

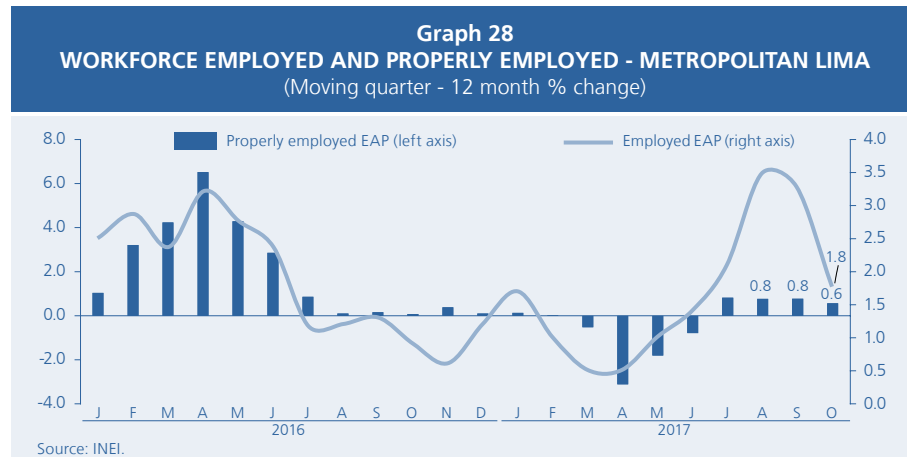
20. Taking into account the greater dynamism of domestic demand observed, the forecast of GDP growth in 2018 and 2019 remains at 4.2 percent in each year. As reported in September, private consumption is expected to grow at a faster pace, supported by the recovery of employment and income as a result of the expansion of construction, the improvement of the terms of trade, and the growth of the disposable income. In addition, private investment will also grow at higher rates due to the better performance of mining investment (associated with the recovery of the prices of minerals) and investment in infrastructure (associated with the unlock of some projects, such as Lima's Metro Line 2, and with fiscal stimulus). Public expenditure is foreseen to show a greater dynamism, particularly in terms of investment as a result of the fiscal stimulus associated with the Reconstruction and the Pan American Games. On the side of exports, a moderation is anticipated in their pace of growth associated with in lower growth of mining production. Imports, on the other hand, would grow in 2018 and 2019 at a rate consistent with the expected performance of domestic demand, particularly private investment.



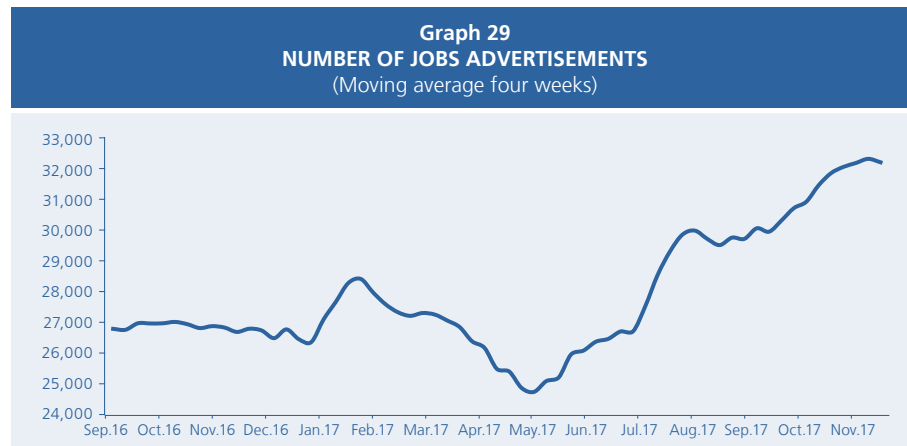
21. Recent indicators of **private consumption** showed mixed conducts. On the one hand, real income continued decreasing in October 2017 after having stabilized in July, while the most recent indicators of employment point to a recovery. In addition, credit to households has shown higher rates since the third quarter of the year and imports of consumer goods have shown a recovery in the second and third quarters of the year. Moreover, consumer confidence remained on the optimistic side.

- a) The employed workforce of Metropolitan Lima recorded a growth rate of 1.8 percent in the August - October moving quarter, a lower rate than the ones recorded in the previous three moving quarters.

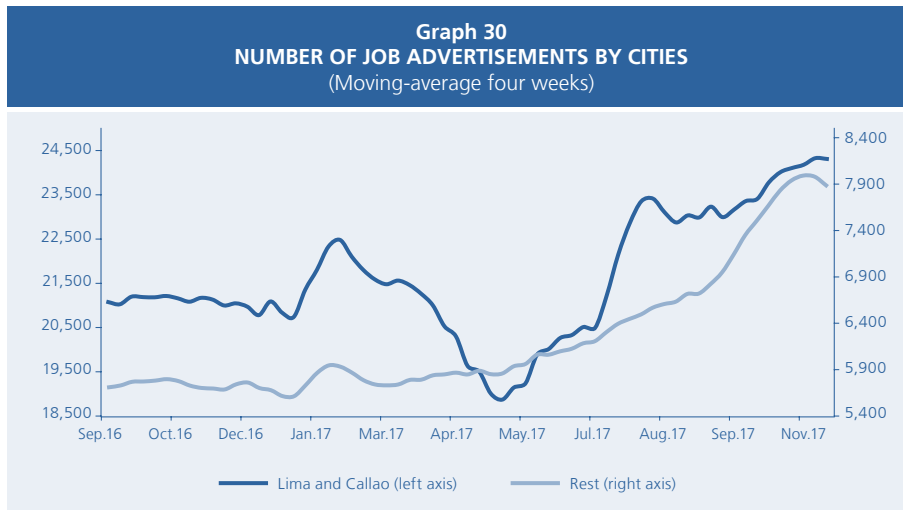




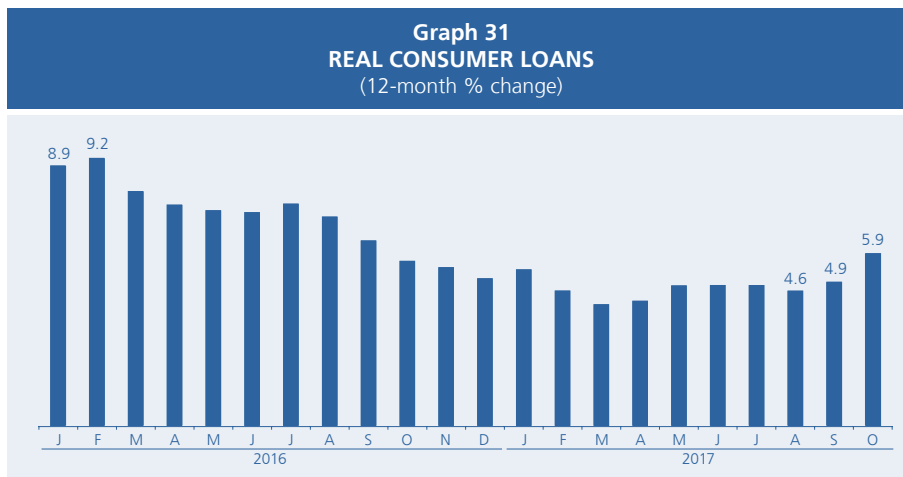
The number of jobs advertised through web pages<sup>1</sup> showed a somewhat stable decline between mid-August and September after having recorded a strong recovery between July and early August. The former trend is in line with the slowdown of employment observed in August and October (as reflected in the evolution of the employed workforce in Metropolitan Lima). However, the number of job advertisements have increased again significantly since mid-October, which would be pointing to a recovery of employment in the next months.



<sup>1</sup> Since September 2016, BCRP collects on a daily basis data of job advertisements published in the main web pages. Based on this information, we have built an alternative indicator of employment that is updated every day. Each ad contains a brief description of the job, as well as the location of the hiring company. Since the job ads may be seen on each web page for more than one day and since there is no information on whether the job has been covered or not, we only consider the ads that have been published for 7 days or less to reflect recent conditions in the labor market. The data collected provide a daily average of the jobs offered every week.

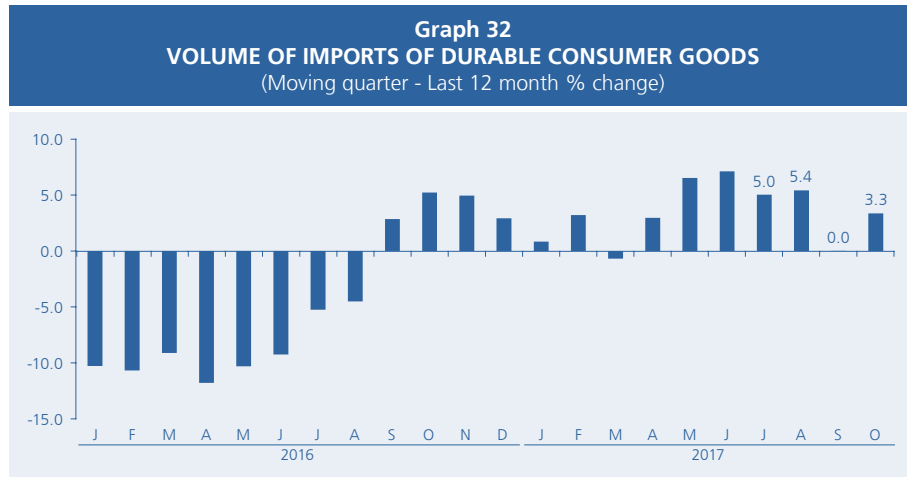


- b) Despite recording lower growth rates than in 2016, consumer loans have been showing greater dynamism since the third quarter of this year.

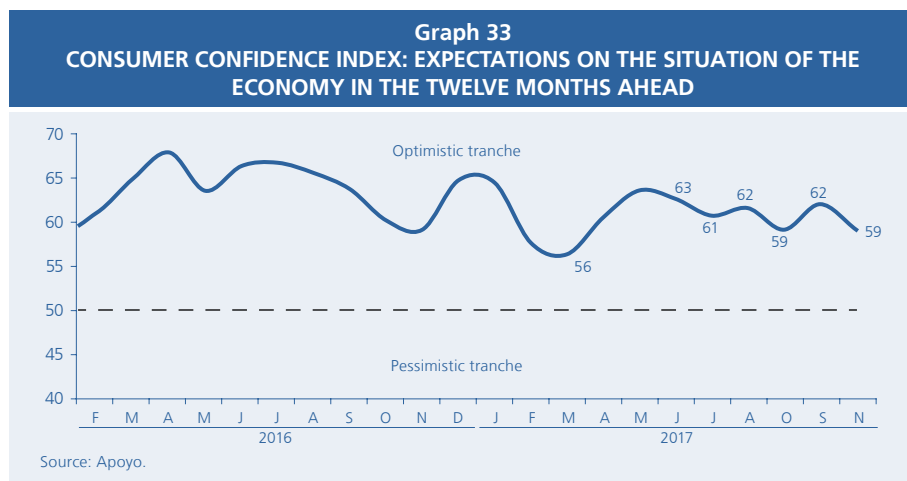


- c) Resuming the positive trend they showed since March, in line with the recovery of credit, imports of durable consumer goods showed a recovery of 3.3 percent in the moving quarter of August-October after showing no increase in the previous quarter.





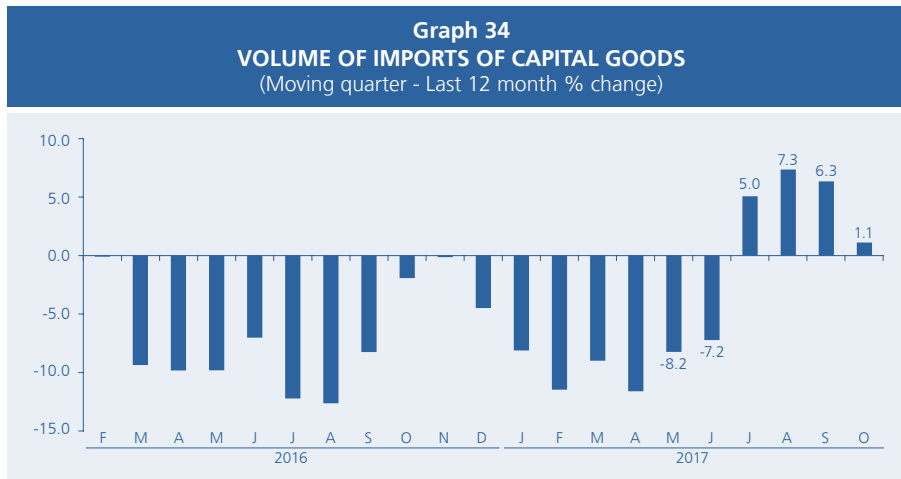
- d) In November 2017, the consumer confidence index, measured as expectations about the household's economic situation in 1 year recorded 59 points and remained on the optimistic area showing a recovery in comparison with the early months of the year when the economy was affected by severe shocks.



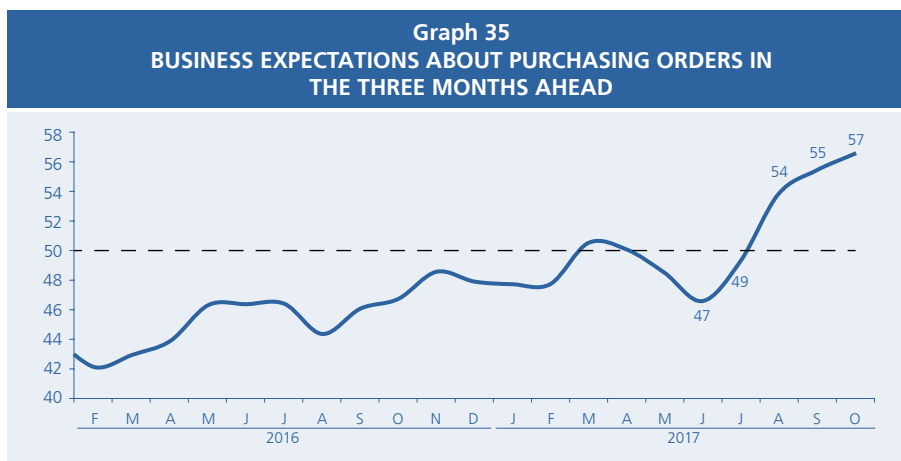
22. In the case of **private investment**, current and recent advanced indicators point to a recovery. In October, imports of capital goods increased, the expectations of purchase orders linked to private investment showed a recovery for four straight months, and expectations about the economy (in 3 months and in 6 months' time) continued to show a rising trend.

- a) The volume of imports of capital goods, excluding construction materials –indicator of the demand for investment– increased 1.1 percent in annual terms in the moving quarter of August-October 2017. This rate is lower than

those recorded in the previous three moving quarters, but higher than the rates observed in 2016 and in the first quarter of 2017.

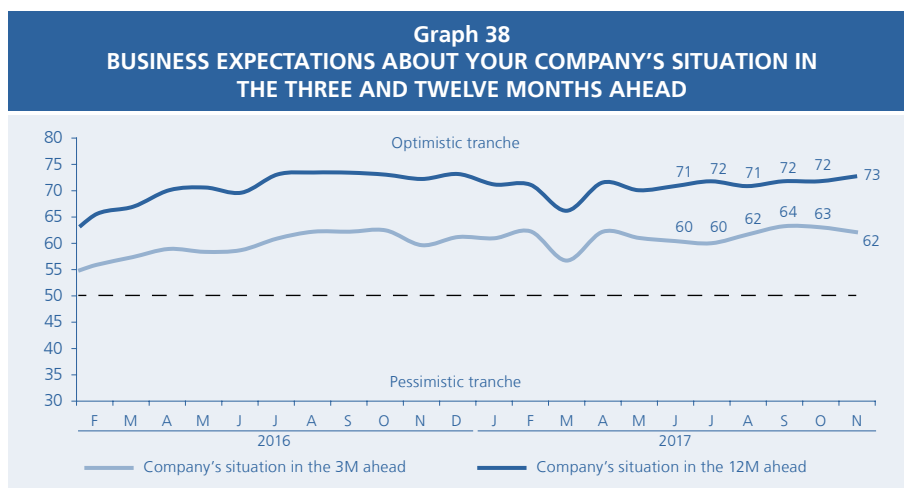
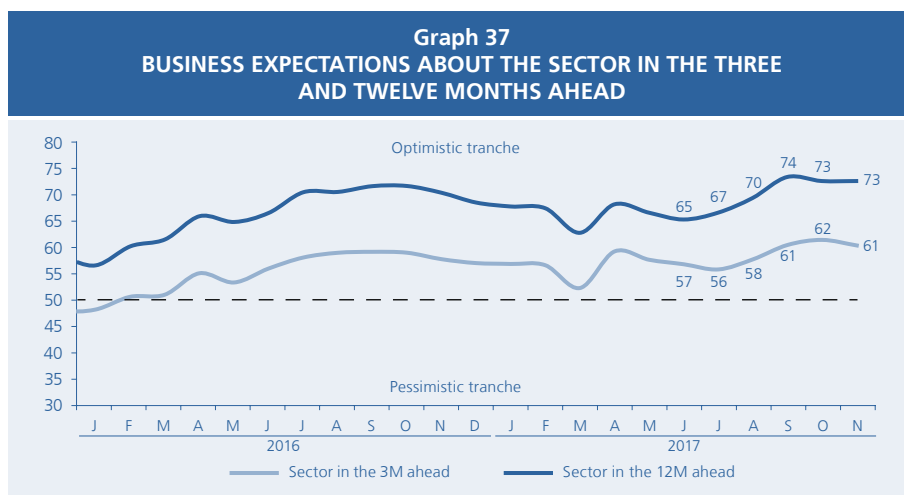
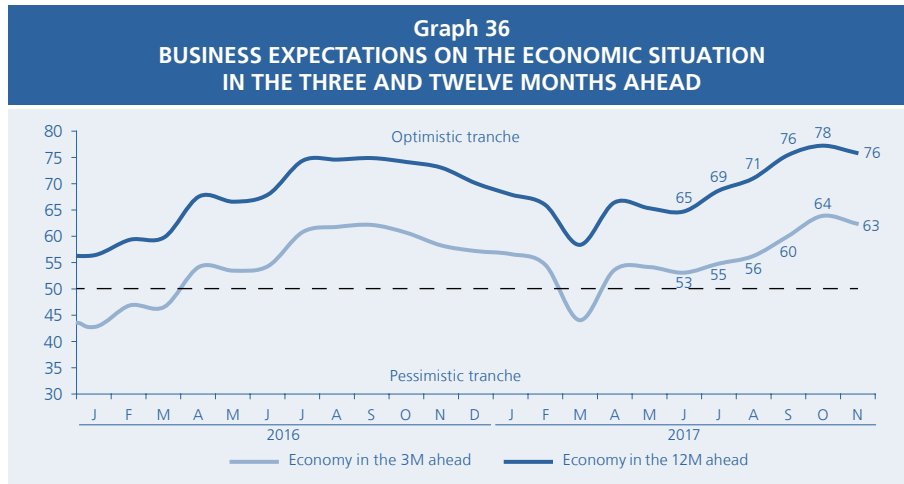


- b) The purchase orders expected by companies linked to investment –e.g. producers and/or trading companies of capital goods, cement and construction companies– in 3 months’ time show significantly higher levels since July and recorded 57 points in October, a level unheard of since June 2013.



- c) The expectations about the economy and production sectors in the three and twelve months ahead remained on the optimistic side and recorded in November higher levels than the average levels in the period January-September as well as higher levels than those reported prior to the occurrence of El Niño Costero. Moreover, businessmen expectations about the situation of their companies in three months and in twelve months also recorded higher levels than those observed during El Niño Costero (62 and 73 points, respectively).



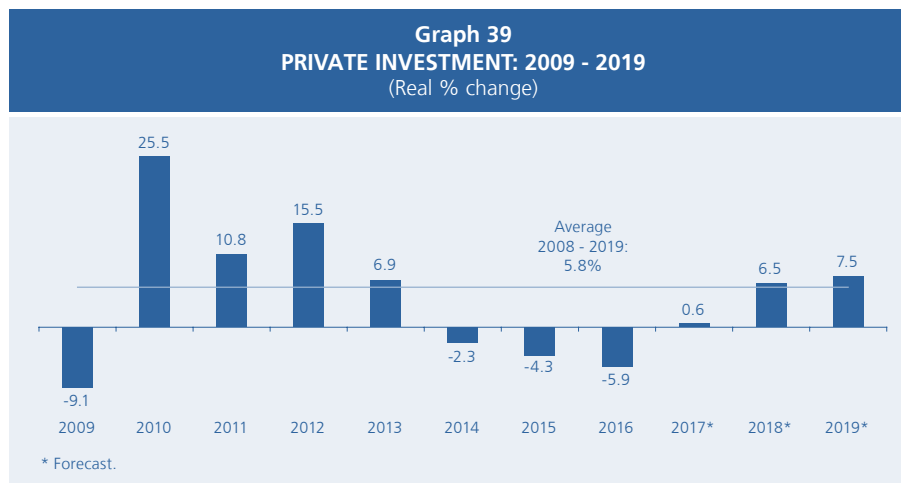


23. Expectations about GDP growth have been revised slightly up. The representatives of financial entities and economic analysts have revised their estimates of GDP growth in 2017 slightly up, from 2.5 to 2.7 percent, whereas the representatives of non-financial companies continue to forecast a growth rate of 3.0 percent. In 2018 and 2019, economic agents expect a GDP growth rate of 3.9 percent on average.

Table 16 SURVEY ON MACROECONOMIC EXPECTATIONS: GDP GROWTH (% change)				
		IR Jun.17	IR Sep.17	IR Dec.17*
<b>Financial entities</b>	2017	2.6	2.5	2.7
	2018	3.6	3.5	3.8
	2019	4.0	3.7	3.8
<b>Economic analysts</b>	2017	2.6	2.5	2.7
	2018	3.6	3.5	4.0
	2019	4.0	4.0	4.0
<b>Non-financial firms</b>	2017	3.0	3.0	3.0
	2018	3.9	3.7	3.8
	2019	4.0	4.0	4.0

\* Survey date on November 30.

24. In the forecast horizon the **investment of the private sector** would grow 0.6 percent in 2017, recovering thereafter to 6.5 and 7.5 percent in 2018 and 2019, respectively.







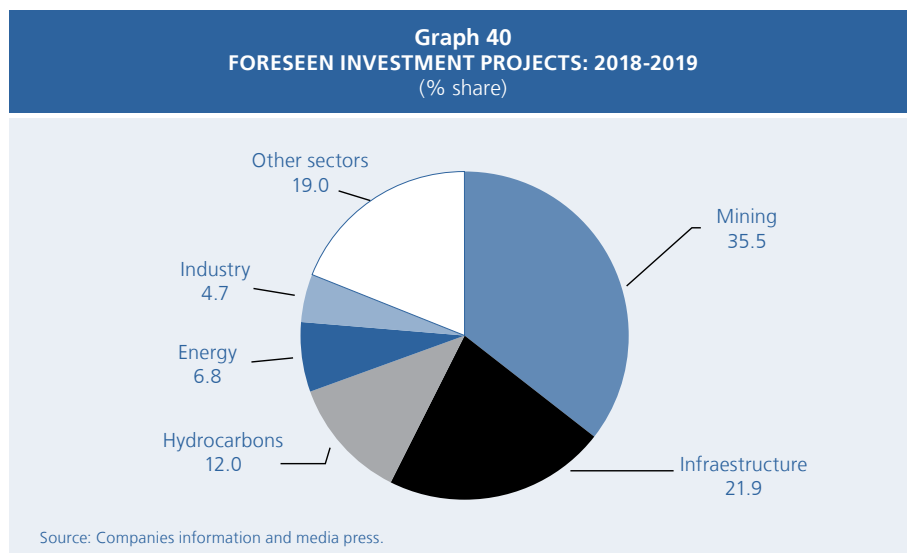
Private investment projects announced to be implemented in the period of 2018-2019 amount to US\$ 18.4 billion. The price improvements in metals would allow mining companies to allocate funds to renew equipment and to carry out prospections that were on hold during the past few years, while the sector of infrastructure would show greater dynamism mainly due to the implementation of projects carried out under concession contracts.

Investment in mining and infrastructure projects announced account for over 50 percent of the investment announced.

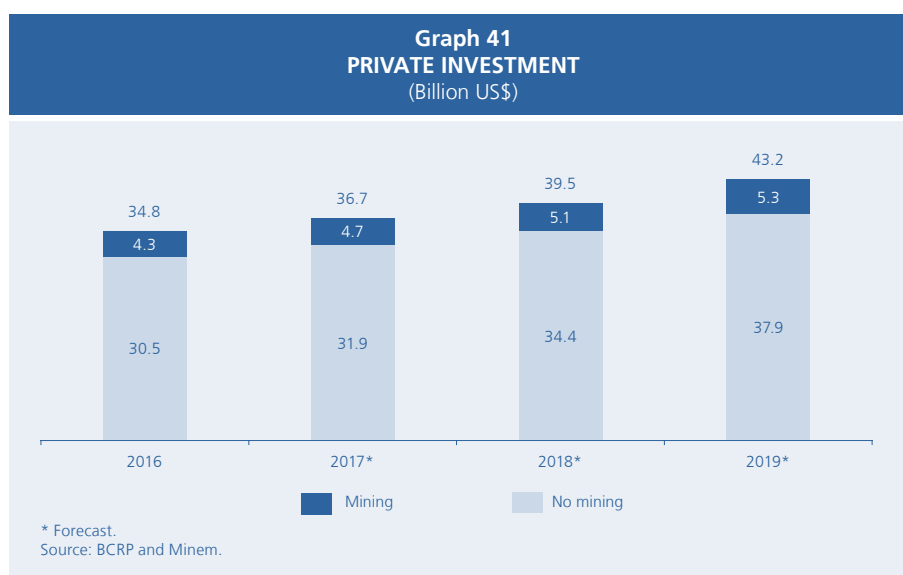
**Table 17**  
**PRIVATE INVESTMENT PROJECTS ANNOUNCED**  
(Million US\$)

	Total investment	Number of projects
Mining	6,529	25
Infraestructure	4,019	24
Other sectors	3,481	56
Hydrocarbons	2,213	16
Energy	1,257	21
Industry	870	11
<b>TOTAL</b>	<b>18,369</b>	<b>153</b>

Source: Companies information and media press.



In the **mining sector**, the expansion of Southern’s mine Toquepala is expected to be completed in 2018. This expansion, which includes the implementation of a new high-tech concentration plant, would increase the annual production capacity of copper by 100 thousand tons to 235 thousand tons and would also increase the production of molybdenum by 3.1 thousand tons. On the other hand, Anglo American’s copper project of Quellaveco is still carrying out some early works and completing the feasibility study of the project, which would increase the daily capacity of processing mineral from 85 thousand tons to 127.5 thousand tons of mineral ores. It is estimated that the annual production of this project would reach 225 thousand tons of copper.



The **hydrocarbons sector** has recorded a significant decline in exploration and exploitation projects. The Gasoducto Sur Peruano project is expected to be tendered in 2018.

In the **infrastructure sector**, the works for the expansion of Jorge Chávez International Airport are expected to begin in 2018, with an investment of US\$ 1.5 billion over a period of five years. On the other hand, according to the Ministry of Transport and Communications, progress in the implementation of Line 2 of Lima’s Metro has reached 19.3 percent and includes the approval of the engineering studies for the first stage works (five stations, six ventilation wells, an underground tunnel, and a workshop).





**Table 18**  
**MAIN PROJECTS TO BE IMPLEMENTED THROUGH CONCESSION ARRANGEMENTS IN 2017-2019**  
 (Million US\$)

	Estimated investment
<b>A. Awarded</b>	<b>376</b>
The Amazon Waterway	95
Aguaytia-Pucallpa 138 kV Electric Transmission Line	9
500kV Mantaro - Nueva Yanango - Carapongo Connection and Nueva Yanango - Nueva Huanuco connection and associated sub stations	272
<b>B. To award</b>	<b>10,665</b>
<b>B.1 Called</b>	<b>3,984</b>
Michiquillay Remnants Mining Project	1,950
Headworks and Conduction for the Drinking Water Supply in Lima	600
Longitudinal of the Sierra road project, Section 4	464
Massive Use of Natural Gas - Distribution System through a Natural Gas Grid Across The Regions of Apurimac, Ayacucho, Huancavelica, Junin, Cusco, Puno and Ucayali.	350
Huancayo - Huancavelica Railway	235
Broadband for Comprehensive Connectivity for Puno	77
Broadband for Comprehensive Connectivity for Junin	65
Broadband for Comprehensive Connectivity for Lima	61
220 kV Tintaya - Azangaro Transmission Line	59
Broadband for Comprehensive Connectivity for Amazonas	57
Broadband for Comprehensive Connectivity for Ica	24
Broadband for Comprehensive Connectivity for Moquegua	16
Broadband for Comprehensive Connectivity for Tacna	15
Properties owned by Fondo Consolidado de Reservas Previsionales - FCR	11
<b>B.2 To be called</b>	<b>6,681</b>
Line 3 of the Metro Network of Lima and Callao	5,600
Ancon Industrial Park	500
Creation of the institute for Children and Adolescents of the Social Health Insurance	170
New hospital of high complexity in Piura	144
New hospital of high complexity in Chimbote	110
Repowering up to 1000 MVA of 500 kV Carabaylo-Chimbote-Trujillo Transmission Line and Variable reactive compensator +400/-150 MVAR in Trujillo Norte sub station	64
Variable reactive compensator in San Juan sub station	25
New 500/220 kV La Planicie Substation	20
Chincha Nueva Substation	20
Nazca Substation	18
New 220 kV Carhuaquero Substation	10

Source: Proinversión.

Estimated investment in projects granted in 2017 to be developed under concession contracts amount to US\$ 376 million in October. Proinversión has announced that projects to be given in concession in 2017-2019 involve an investment of US\$ 10.7 billion.

Table 19  
MAIN INVESTMENTS PROJECTS: 2018-2019

SECTOR	COMPANIES	PROJECT
<b>Mining</b>	Chinalco	Expansion of Toromocho
	Shougang Corporation	Expansion of Marcona
	Angloamerican	Quellaveco
	Grupo Breca	Mine Justa
	For awarding	Michiquillay
<b>Hydrocarbons</b>	Pluspetrol Perú Corp.	Expansion of capacity transportation
	China National Petroleum Corporation	Exploration: Lot 58
	Calidda Gas Natural del Perú	Massive use of gas
<b>Energy</b>	Interconexión Eléctrica S.A.	Conexión Mantaro and nueva Yanango
	Enersur	Intipampa
	Grupo Enel	Wayra 11
<b>Industry</b>	Corporación Lindley	Storages and infraestructures
	Repsol YPF	Expansion of La Pampilla plant
	Grupo Celepsa	Expansion plant in Pisco
<b>Infrastructure</b>	Grupo Volcan	Port Terminal Project: Chancay
	ADP	Improvement and new runways for landing
	Lima Airport Partners	Expansion of international airport (Jorge Chávez)
	APM Terminals	Modernization Muelle Norte
	Consorcio Nuevo Metro de Lima	Línea 2 Metro de Lima
<b>Other sectors</b>	Grupo Telefónica	Expansion and facilities of net LTE-4G
	Entel	Development of services 4G
	America Movil	Expansion of net 4G
	Grupo Falabella	Expansion and new shopping centers
	Inversiones Centenario	Real Estate investments and expansion of shopping centers
	Grupo Interbank	Expansion and New shopping centers
	Grupo Breca	Expansion and new hotels, medical centers and shopping malls.
Cencosud	Shopping centers	

Source: Information of companies and media press.

25. The growth forecast of **public investment** for 2017 is revised slightly down, from 7.0 to 6.0 percent, in line with the behavior observed during the first eleven months of the year. In this period, it is worth highlighting the positive growth rates public investment showed since June due to increased public expenditure in the improvement and expansion of drinking water and sanitation works, road infrastructure and education infrastructure projects, and the onset of works for the Pan American Games. Efforts were also aimed at unlocking large projects, such as Lima's Metro Line 2, the beginning of works in the Pan American village, and the Bellavista - El Estrecho road.

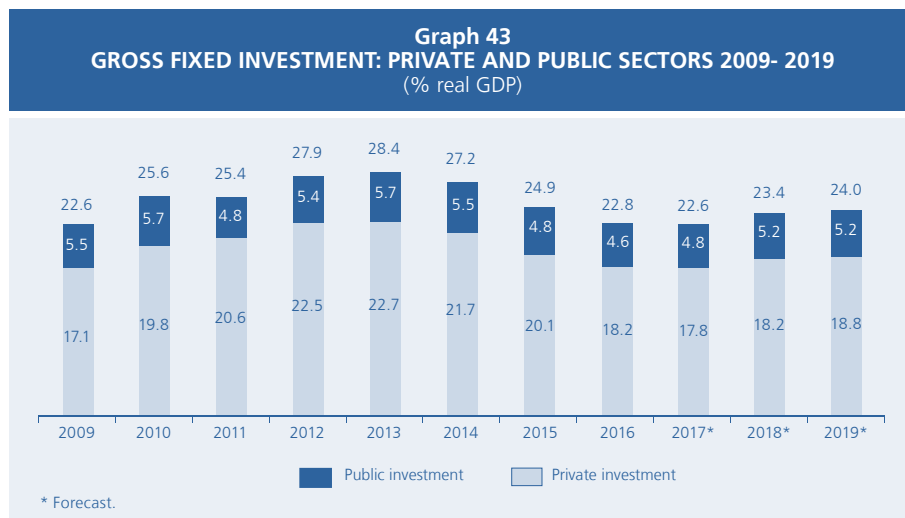
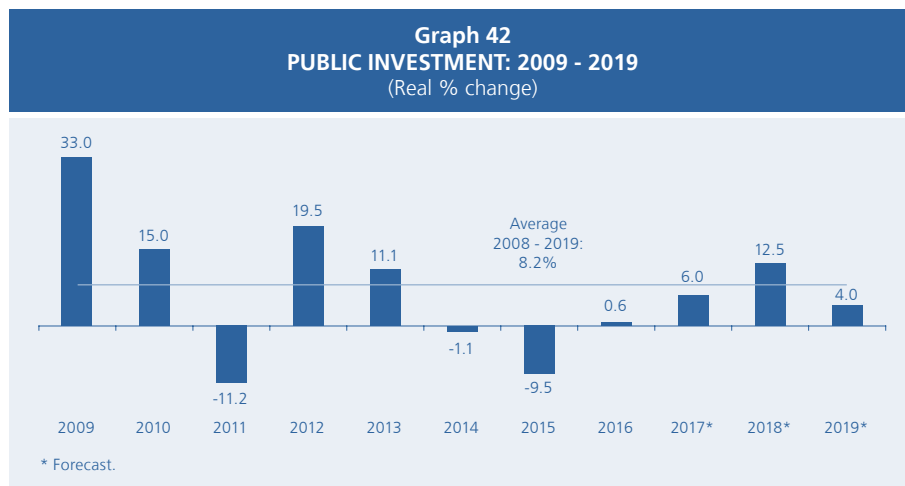
The growth projection of public investment in 2018 is also revised down from 15.0 to 12.5 percent due to the slower pace of expenditure, while the projection for





2019 remains at 4.0 percent. This path is consistent with an expansionary fiscal policy aimed at the reconstruction of infrastructure (after the negative impact of El Niño Costero) and the Pan American Games.

Considering the evolution of private investment and public investment, the gross investment to GDP ratio would reach 24.0 percent in 2019.



## Sector GDP

26. As regards economic activity in the different production sectors, in general terms the output in the main sectors is consistent with expectations. The growth forecast for 2017 has been revised slightly down, from 2.8 to 2.7 percent, basically due to the lower availability of anchovy for the fishing industry in the North-Central coast

area, which would mainly affect output in the fishing sector and in the primary manufacturing industry related to fishing. In addition, the forecast scenario also incorporates some upward revisions, particularly in the construction sector, in line with the better evolution observed in investment.

As projected in the previous report, growth in the 2018-2019 forecast horizon would be influenced by the complete reversal of the negative impacts associated with El Niño Costero as well as by additional fiscal stimulus for reconstruction and the unlock of major infrastructure projects, all of which would allow a greater dynamism of private investment and consumption. Therefore, the GDP growth projection for 2018 and 2019 remains at 4.2 percent in each year. Moreover, like in the growth forecast for 2017, the projected output rates are revised basically in the sectors of fishing (on the upside) and mining (on the downside).

Table 20 GDP BY PRODUCTION SECTOR (Real % change)								
	2016	2017*		2018*		2019*		
	Year	Jan.-Sep.	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>Agriculture and livestock</b>	<b>2.6</b>	<b>1.5</b>	<b>2.5</b>	<b>2.1</b>	<b>4.5</b>	<b>4.3</b>	<b>4.4</b>	<b>4.4</b>
Agriculture	1.7	0.8	2.9	1.4	4.6	4.3	4.5	4.4
Livestock	4.0	2.7	1.9	3.1	4.2	4.2	4.4	4.4
<b>Fishing</b>	<b>-10.1</b>	<b>34.2</b>	<b>30.2</b>	<b>4.3</b>	<b>7.2</b>	<b>22.5</b>	<b>2.9</b>	<b>4.1</b>
<b>Mining and hydrocarbons</b>	<b>16.3</b>	<b>3.4</b>	<b>3.5</b>	<b>3.5</b>	<b>5.3</b>	<b>3.8</b>	<b>2.0</b>	<b>2.5</b>
Metallic mining	21.2	4.5	4.1	4.6	4.6	4.2	2.4	2.2
Hydrocarbons	-5.1	-2.7	0.5	-2.5	10.6	1.8	0.0	5.3
<b>Manufacturing</b>	<b>-1.4</b>	<b>0.8</b>	<b>1.6</b>	<b>-0.2</b>	<b>3.6</b>	<b>5.0</b>	<b>4.1</b>	<b>4.2</b>
Based on raw materials	-0.6	9.6	11.2	2.4	4.6	9.1	4.7	5.6
Non-primary industries	-1.7	-2.0	-1.5	-1.0	3.3	3.5	3.7	3.7
<b>Electricity and water</b>	<b>7.3</b>	<b>1.5</b>	<b>2.2</b>	<b>1.4</b>	<b>4.5</b>	<b>3.0</b>	<b>4.5</b>	<b>4.0</b>
<b>Construction</b>	<b>-3.1</b>	<b>-0.7</b>	<b>0.9</b>	<b>3.5</b>	<b>8.0</b>	<b>8.9</b>	<b>9.5</b>	<b>9.5</b>
<b>Commerce</b>	<b>1.8</b>	<b>0.8</b>	<b>1.8</b>	<b>1.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.8</b>	<b>3.8</b>
<b>Services</b>	<b>4.0</b>	<b>3.1</b>	<b>3.1</b>	<b>3.4</b>	<b>3.6</b>	<b>3.7</b>	<b>4.3</b>	<b>4.0</b>
<b>GDP</b>	<b>4.0</b>	<b>2.4</b>	<b>2.8</b>	<b>2.7</b>	<b>4.2</b>	<b>4.2</b>	<b>4.2</b>	<b>4.2</b>
Memo:								
<b>Primary GDP</b>	<b>10.0</b>	<b>4.1</b>	<b>4.7</b>	<b>3.1</b>	<b>5.1</b>	<b>4.9</b>	<b>2.9</b>	<b>3.4</b>
<b>Non-Primary GDP</b>	<b>2.4</b>	<b>1.9</b>	<b>2.2</b>	<b>2.5</b>	<b>3.9</b>	<b>4.1</b>	<b>4.6</b>	<b>4.4</b>

\* Forecast.  
IR: Inflation Report.

- a) The **agriculture sector** grew 5.5 percent during the third quarter of the year due to an increased supply of coffee, blueberries, and cocoa for external markets and due to the increased supply of rice and potatoes for the domestic market. On the other hand, the production of grapes, lemons, and bananas decreased in Piura and the production of piquillo peppers, artichokes, and asparagus decreased in the





coastal regions. Thus, reversing the impact of abnormal climatic effects (drought, excessive rains, and Niño Costero), the sector accumulated a growth rate of 1.5 percent in September.

Improvements are expected in the rest of the year in the production of crops with short vegetative periods, like potatoes and rice, with the normalization of climate conditions. On the other hand, however, crops with large vegetative periods, e.g. fruit crops such as grapes and mangoes, would face adverse conditions associated with these climatic anomalies in the North Coast. Therefore, the growth rate projected for this sector in 2017 is revised down from 2.5 to 2.1 percent.

Moreover, a growth rate of 4.3 percent is projected for this sector in 2018 considering better climatic conditions that would contribute to restore the normal production of rice and lemons in Piura and include more commercial areas for blueberries, avocados, and cacao. In 2019 the sector would grow 4.4 percent, an increase in productive areas and in the exportable supply being expected.

- b) In the third quarter of 2017, the **fishing sector** contracted by 42.8 percent after showing a growth rate of 82.9 percent in the first half of the year. Thus, fishing accumulates a growth rate of 34.2 percent at September. This outcome reflects lower landings of anchovy for industrial consumption at the end of the first fishing season in the north-central coast area as well as a lower availability of fish species used mainly to prepare frozen fish products for human consumption.

It is worth mentioning that during the second fishing season of anchovy in the north-central coast area, the greater presence of young fish and the slightly cooler sea surface temperature in the Peruvian coast –which affects the distribution of anchovies– resulted in a scarce presence of adult fish and led to the suspension of fishing in the months of November and December. Because of this, the projection of growth in the sector for this year has been revised down from 30.2 to 4.3 percent.

The growth forecast of the sector in 2018 is revised up from 7.2 to 22.5 percent since no atypical oceanographic conditions are foreseen and anchovy catch and the catch of species for human consumption in the north-central coast area are expected to take place in normal conditions. In 2019, output in this sector is expected to show a growth rate of 4.1 percent.

- c) In the period of January - September, the **metal mining** subsector grew 4.5 percent compared to the same period in the previous year. This slower pace of growth compared to the rates observed in 2016 is explained by a lower output in copper production since Las Bambas and the expansion of Cerro Verde reached their optimal level of production last year.

However, because this moderation of growth has been lower than expected in the previous report, the growth rate forecast for the metal mining sub-sector in 2017 has been revised up from 4.1 to 4.6 percent. This is explained mainly by three factors: (i) the higher production of zinc at Antamina, because minerals ores are being extracted from areas with higher contents of zinc in the context of better international prices; (ii) the lower decline in gold production due to better grades of gold in mines La Poderosa and Gold Fields La Cima, as well as due to a higher gold content than expected during the closure of Barrick's Pierina mine, and (iii) a higher extraction of molybdenum, a by-product of copper.

The subsector's growth forecast for 2018 is revised down from 4.6 to 4.2 percent mainly because a lower production of copper is anticipated this year, the expansion of Toquepala being expected to reach its maximum capacity in the first quarter of 2019 (instead of in the fourth quarter of 2018, as estimated in the previous report). A slowdown in the pace of growth of the production of the main metals is foreseen for 2019.

	2015	2016	2017*	2018*	2019*
Copper	25.8	40.1	5.0	5.1	3.1
Gold	4.8	4.2	-0.8	-1.7	-0.5
Zinc	8.0	-6.1	10.3	4.1	-1.8

\* Forecast.

- d) The output in the **hydrocarbon sub-sector** fell 2.7 percent in the first nine months of 2017 as a result of a lower extraction of natural gas liquids (-3.3 percent) and natural gas (-7.7 percent) due to lower exports from Lot 56 (Pluspetrol) as well as due to a lower demand for gas from the thermoelectric generators, which affects mainly Pluspetrol's Lot 88. In contrast, in this period the production of oil grew 3.5 percent as a result of the restart of production in Lot 192 –disrupted since February 2017–, despite the 43-day interruption of operations caused by social problems in September.

Because of this lower production of gas and natural gas liquids, the growth rate in the subsector of hydrocarbons is revised down from 0.5 percent to -2.5 percent. In 2018 the subsector would grow 1.8 percent, considering a conservative scenario in Lot 192, the lack of production in Lot 67 due to the low prices of oil and the high costs of the use of Oleoducto Norperuano, and a lower production of natural gas for energy generation. In 2019 the subsector is estimated to grow 5.3 percent.





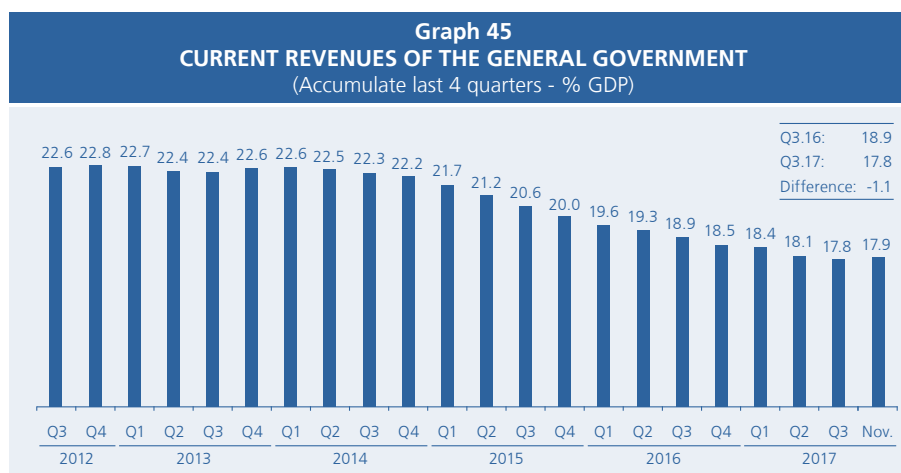
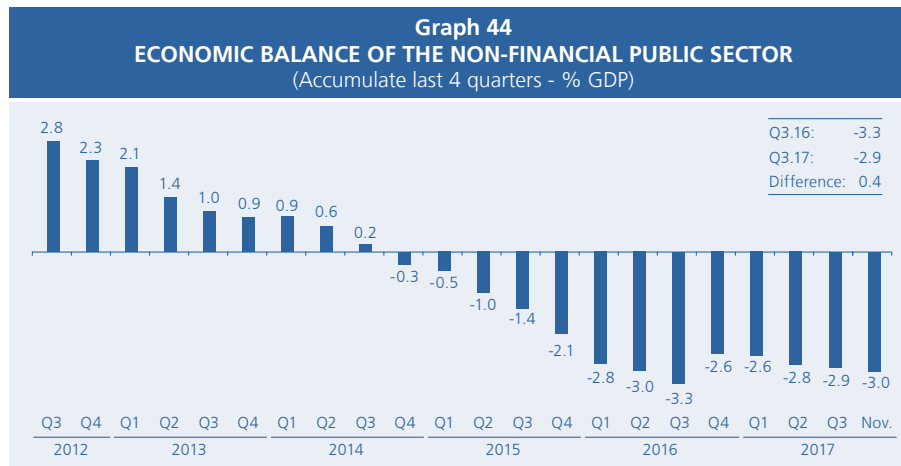


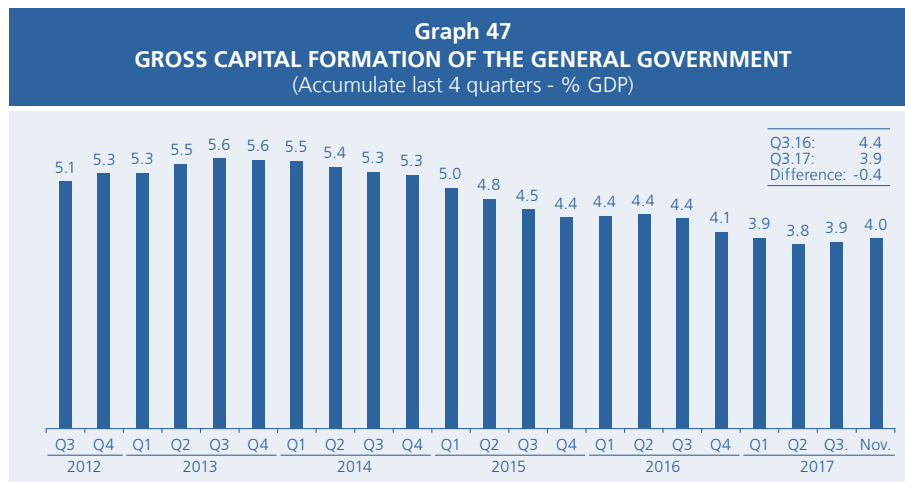
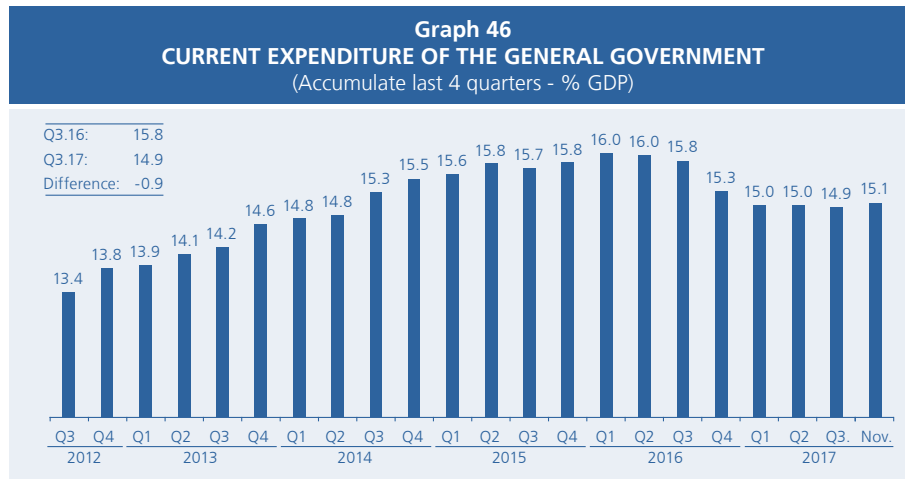
- e) Output in **non-primary manufacturing** dropped 2.0 percent in the first three quarters of 2017, basically as a result of the decline of the production of goods oriented to inputs, mass consumption, and exports. On the other hand, however, the industrial branches linked to investment have shown a recovery in recent months.

The growth rate of the manufacturing output in 2017 has been revised down from 1.6 to -0.2 percent due to the evolution of primary manufacturing, the low yield of sugar associated with the impact of El Niño Costero, the lower production of fishmeal and fish oil resulting from a lower-than-expected catch of anchovy, and the lower production of inputs recorded in non-primary manufacturing. In 2018 and 2019 the sector is projected to recover and grow 5.0 and 4.2 percent, respectively, due to the greater dynamism anticipated in primary manufacturing and due to the reversal of the decline of non-primary manufacturing, in line with the recovery expected in consumption and investment.

## IV. Public Finances

27. In November 2017, the deficit in the non-financial public sector accumulated in the last 12 months was equivalent to 3.0 percent of GDP, higher than the deficit recorded in December 2016 (2.6 percent). This higher deficit is mostly explained by the reduction of current revenues, which represented 17.9 percent of GDP, 0.6 percentage points less than in 2016. On the other hand, after remaining at a level close to 15.0 percent of the output during the first three quarters of 2017, current expenditure reached 15.1 percent of GDP, while gross capital formation increased to 4.0 percent of GDP, confirming the reversal of the decline observed in this variable since 2013.





28. As pointed out in our previous report, the forecast scenario in this Inflation Report considers a fiscal stimulus emphasizing on public investment since the fourth quarter of 2017 and during 2018. This is consistent with the 2018-2021 Multi-Annual Macroeconomic Framework and with the deficit target of 3.0 percent of GDP projected for 2017 and with the deficit target of 3.5 percent of GDP projected for 2018 approved by Law No. 30637. Expenditure would show a more moderate pace of growth in 2019 and the deficit would fall to 2.9 percent of GDP, in line with the target of the deficit convergence to 1.0 percent of GDP by 2021.

**Table 22**  
**NON-FINANCIAL PUBLIC SECTOR**  
 (% GDP)

	2016	2017	2017*		2018*		2019*	
	Year	Jan.-Sep.	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>1. General government current revenues <sup>1/</sup></b>	<b>18.5</b>	<b>18.0</b>	<b>18.1</b>	<b>18.1</b>	<b>18.3</b>	<b>18.3</b>	<b>18.4</b>	<b>18.5</b>
<i>Real % change</i>	-4.1%	-1.6%	1.3%	1.8%	5.4%	5.9%	4.9%	5.4%
<b>2. General government non-financial expenditure <sup>2/</sup></b>	<b>19.9</b>	<b>18.3</b>	<b>20.0</b>	<b>20.1</b>	<b>20.4</b>	<b>20.5</b>	<b>19.9</b>	<b>20.0</b>
<i>Real % change</i>	-2.4%	0.8%	4.2%	4.7%	6.4%	7.1%	1.5%	1.6%
<i>Of which:</i>								
Current expenditure	15.3	14.3	15.0	15.1	15.0	15.2	14.6	14.8
<i>Real % change</i>	0.3%	0.7%	2.3%	2.8%	4.1%	5.8%	1.4%	1.4%
Gross capital formation	4.1	3.3	4.3	4.3	4.8	4.7	4.8	4.6
<i>Real % change</i>	-3.1%	-1.9%	9.6%	9.9%	16.4%	14.0%	3.4%	3.3%
<b>3. Others</b>	<b>-0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>
<b>4. Primary balance (1-2+3)</b>	<b>-1.5</b>	<b>-0.3</b>	<b>-1.8</b>	<b>-1.8</b>	<b>-2.1</b>	<b>-2.2</b>	<b>-1.5</b>	<b>-1.4</b>
<b>5. Interests</b>	<b>1.1</b>	<b>1.4</b>	<b>1.2</b>	<b>1.2</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>
<b>6. Overall Balance</b>	<b>-2.6</b>	<b>-1.7</b>	<b>-3.0</b>	<b>-3.0</b>	<b>-3.5</b>	<b>-3.5</b>	<b>-2.9</b>	<b>-2.9</b>
Memo:								
Structural overall balance	-2.7	-1.6	-3.2	-3.2	-3.5	-3.6	-2.8	-2.8
Weighted fiscal impulse	-0.5	-0.3	0.1	0.1	0.6	0.5	-0.5	-0.5
Output gap	0.1	-0.8	-0.8	-0.8	-0.3	-0.2	0.0	0.0

1/ The central government includes the ministries, national universities, public agencies and regional governments. The general government has a wider coverage that includes the central government, social security, regulators and supervisors, government charity organizations and local governments.  
 2/ Includes net accrued expenses to FEPC.  
 \* Forecast.  
 IR: Inflation Report.

## Tax Revenues

29. The current revenues of the general government, measured in GDP terms, have continued to decline due mainly to the deterioration of tax revenue. However, this trend was offset since the beginning of the third quarter of the year, in line with the recovery of economic activity anticipated in the September report.

In the period of January-November 2017, current tax revenues fell by 0.7 percentage points of GDP from the level observed in the same period of 2016. Revenue from the income tax (down by 0.5 percentage points of GDP) was negatively affected by the economic slowdown observed in the first two quarters of the year as well as by the application of the tax regime for SME, which implies lower on account





payments for businesses included under this regime. In addition to this, revenue from the VAT dropped by 0.3 percentage points of GDP due to the slower pace of growth of domestic demand in the first two quarters of the year and by the application of the fair VAT (IGV Justo), which provides micro and small businesses an extension of three months to pay this tax.

Moreover, in the first half of the year, tax revenue was affected by two additional factors: an increase in tax rebates and the deferral of tax payments due to the impacts of El Niño Costero. On the one hand, tax rebates reached historical highs since special attention was given to rebates associated with the balances of exporters. On the other hand, SUNAT –the tax agency– extended the deadlines for declaring and paying monthly tax obligations and for the submission of the declaration of the annual income tax and the tax on financial transactions to taxpayers of the regions affected by El Niño Costero.

However, since the third quarter of the year, the fall in tax revenue was offset by the recovery of domestic demand, as well as by the regularization of tax payments by taxpayers who had deferred them due to El Niño Costero.

Therefore, in accordance with the path observed in tax revenues and with revenues from repatriation of capital expected by year's end, the projection of current revenues for 2017 remains at 18.1 percent of GDP. Furthermore, revenues are expected to recover in 2018 and 2019 and to reach levels of 18.3 and 18.5, respectively. This scenario is in line with a return of tax rebates to their historical levels and with an acceleration of domestic demand that would favor the recovery of tax revenues. This fiscal scenario does not consider additional fiscal measures to those given between December 2016 and early 2017.

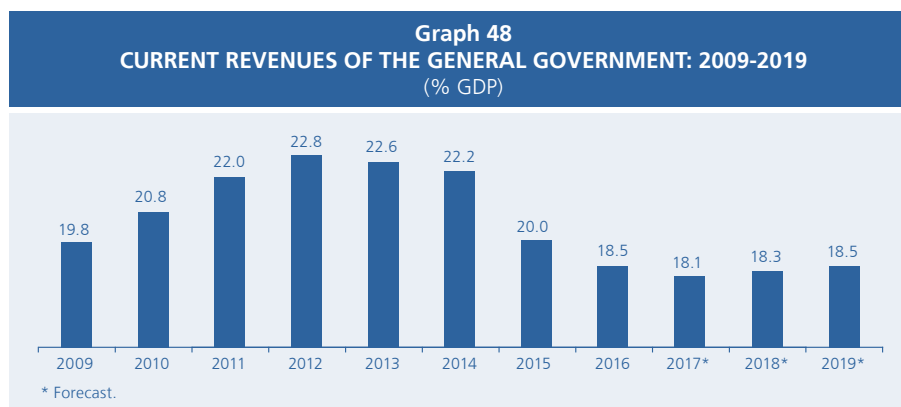
**Table 23**  
**CURRENT REVENUES OF THE GENERAL GOVERNMENT**  
(% GDP)

	2016	2017	2017*		2018*		2019*	
	Year	Jan.-Sep.	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>TAX REVENUES</b>	<b>14.0</b>	<b>13.1</b>	<b>13.3</b>	<b>13.4</b>	<b>13.7</b>	<b>13.9</b>	<b>13.9</b>	<b>14.1</b>
Income tax <sup>1/</sup>	5.6	5.3	5.3	5.4	5.4	5.4	5.3	5.5
Value added tax	8.0	7.8	7.8	7.8	7.9	7.9	8.0	8.0
Excise tax	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Import duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other tax revenues	1.7	1.6	1.6	1.7	1.6	1.7	1.7	1.7
Tax returns	-2.5	-2.7	-2.5	-2.5	-2.3	-2.2	-2.0	-2.1
<b>NON-TAX REVENUES</b>	<b>4.5</b>	<b>4.9</b>	<b>4.7</b>	<b>4.7</b>	<b>4.6</b>	<b>4.5</b>	<b>4.5</b>	<b>4.5</b>
<b>TOTAL</b>	<b>18.5</b>	<b>18.0</b>	<b>18.1</b>	<b>18.1</b>	<b>18.3</b>	<b>18.3</b>	<b>18.4</b>	<b>18.5</b>

<sup>1/</sup> Includes revenues by repatriation of capital.

\* Forecast.

IR: Inflation Report.



## Public Expenditure

30. So far in 2017, the path of public expenditure can be divided into two sections. During the period of January - July, public expenditure dropped by 0.7 percentage points of GDP compared to the same period in 2016. This trend reversed during the period of August - November, when expenditure grew 0.9 percentage points of GDP compared to the same period in 2016, driven by a strong growth of gross capital formation in the three levels of government since the third quarter of the year.

The recovery of public investment is explained by the greater implementation of expenditure on works aimed to improve and extend the drinking water and sanitation systems, and road and education infrastructure projects, as well as by the beginning of the works required for the Pan-American Games. Efforts to unlock large investment projects are also worth pointing out, the resumption of the construction of Line 2 of Lima's Metro and the start of the construction works of the Pan American Village standing out.

The growing trend of expenditure in gross capital formation would continue in December, in line with the general government's Modified Institutional Budget for investment amounting to S/ 43 billion, of which only 56.4 percent has been accrued until December 14. The main projects of the general government are being carried out in the sector of Transport (S/ 14.3 billion), with the implementation of Line 2 of the Metro of Lima, the Puerto Bermudez-San Alejandro highway, and the Tacna - La Paz highway standing out. Moreover, water and sanitation projects amount to S/ 6.5 billion, highlights including the implementation of drinking water and sanitation services in the new city of Olmos.

Furthermore, the comprehensive Plan for Reconstruction with Changes, approved by DS No. 091-2017-PCM in September this year, establishes the program of interventions required to rehabilitate and rebuild the infrastructure damaged by El Niño Costero as well as the implementation of activities and prevention works against natural disasters.

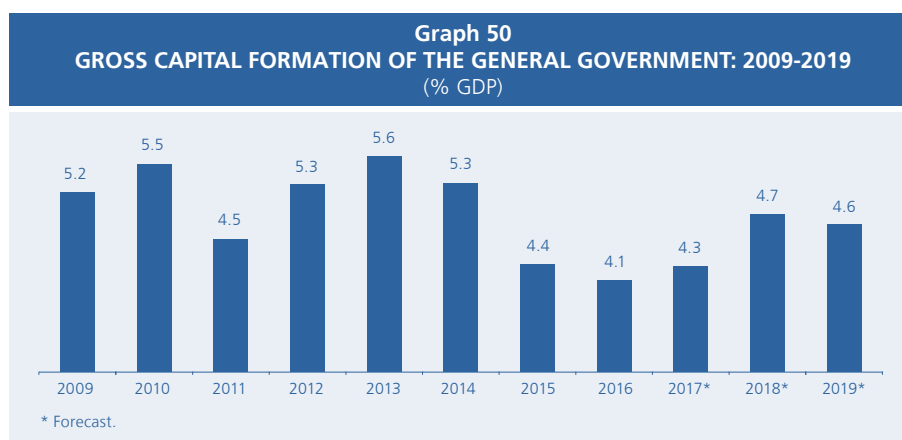
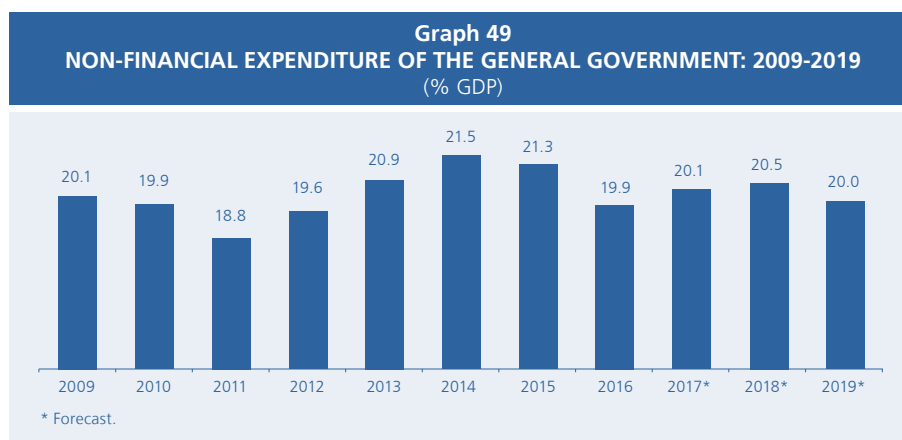




Total expenditure planned for the implementation of the Reconstruction Plan amounts to S/ 25.66 billion, of which S/ 19.76 billion will be spent on reconstruction, S/ 5.45 billion on prevention and urban development, and S/ 450 million on institutional strengthening and generation of capabilities. Most of this spending will be carried out as of 2018.

Because of this, the projected growth of gross capital formation for this year remains at 4.3 percentage points of the output, while total expenditure has been revised up to 20.1 percentage points of GDP for this year. This scenario takes into account that the prevention and rehabilitation works to be carried out within the framework of the Reconstruction Plan as well as the works for the Pan-American Games have already started.

In 2018, total expenditure is projected to increase by 0.4 percentage points of GDP compared to 2017. This projection takes into account an increase of 0.4 percent of GDP in gross capital formation due to the works being carried out as part of the reconstruction process and the works for the Pan-American Games, this expenditure concentrating mainly in 2018. Expenditure is foreseen to decline thereafter to 20.0 percent of GDP in 2019, basically due to lower current expenditure, in line with a gradual reduction of the fiscal deficit.



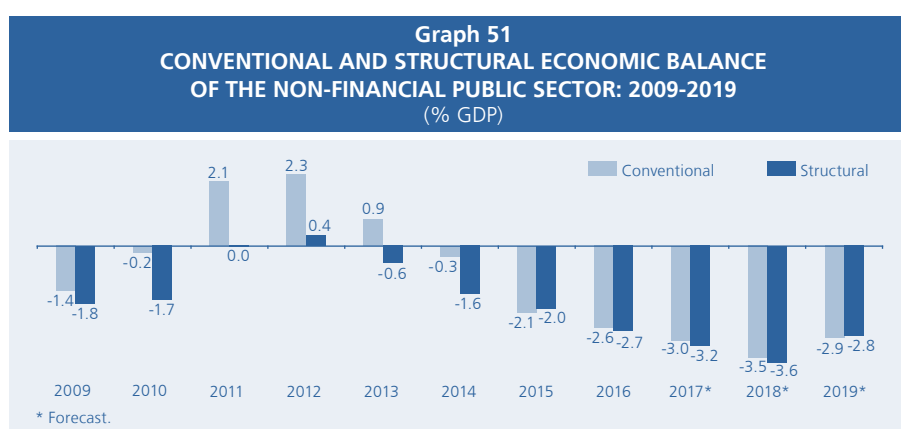
**Table 24**  
**NON-FINANCIAL EXPENDITURE OF THE GENERAL GOVERNMENT**  
(% GDP)

	2016	2017	2017*		2018*		2019*	
	Year	Jan.-Sep.	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>Current expenditure</b>	<b>15.3</b>	<b>14.3</b>	<b>15.0</b>	<b>15.1</b>	<b>15.0</b>	<b>15.2</b>	<b>14.6</b>	<b>14.8</b>
National Government	10.5	9.8	10.3	10.3	10.3	10.5	10.0	10.1
Regional Governments	3.1	3.0	3.1	3.2	3.1	3.2	3.0	3.1
Local Governments	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
<b>Capital expenditure</b>	<b>4.7</b>	<b>4.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.4</b>	<b>5.3</b>	<b>5.3</b>	<b>5.2</b>
<b>Gross capital formation</b>	<b>4.1</b>	<b>3.3</b>	<b>4.3</b>	<b>4.3</b>	<b>4.8</b>	<b>4.7</b>	<b>4.8</b>	<b>4.6</b>
National Government	1.4	1.1	1.5	1.6	1.7	1.7	1.8	1.8
Regional Governments	0.9	0.7	0.9	0.9	1.0	1.0	0.9	0.9
Local Governments	1.8	1.5	1.9	1.9	2.1	2.0	2.0	1.9
<b>Others</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>
<b>TOTAL</b>	<b>19.9</b>	<b>18.3</b>	<b>20.0</b>	<b>20.1</b>	<b>20.4</b>	<b>20.5</b>	<b>19.9</b>	<b>20.0</b>
National Government	12.5	11.5	12.4	12.5	12.6	12.7	12.3	12.4
Regional Governments	4.0	3.6	4.0	4.0	4.1	4.1	4.0	4.1
Local Governments	3.5	3.1	3.6	3.5	3.7	3.7	3.6	3.6

\* Forecast.  
IR: Inflation Report.

### Structural Economic Balance and Fiscal Impulse

31. The **structural economic balance** is an indicator that differs from the conventional economic balance in that it isolates from the latter the transitory effects of the business cycle and the effects of the prices of the commodities relevant to our economy. In 2016, the structural economic balance showed a deficit of 2.7 percent of GDP, while in 2017 and 2018 the structural deficit is estimated to grow to 3.2 percent and 3.6 percent of GDP, respectively, and to decline thereafter to 2.8 percent in 2019.



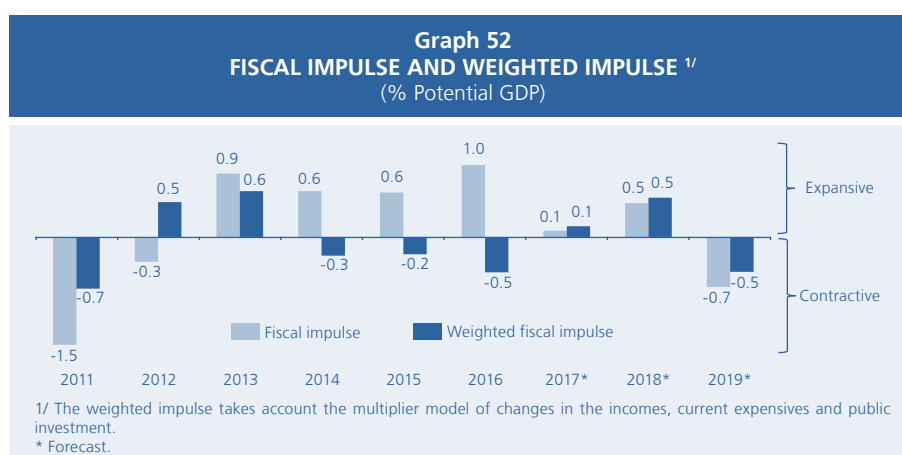
32. The fiscal impulse measures the impact of the tax policy on the level of economic activity, isolating the factors associated with the business cycle. In order to determine the fiscal stance more accurately, we weigh it according to the differentiated multiplier effect of changes in the treasury's revenues and expenditures. Taking this into account, in 2016 the weighted fiscal impulse was contractionary, whereas in 2017 the fiscal stance is







expected to be slightly expansionary (0.1 percent of potential GDP). This outcome would be associated with the greater multiplier effect of public investment, which showed a faster pace since the second half of the year. Because of this, the growth of public investment of 12.5 percent in real terms projected for 2018, associated mostly with the implementation of the Plan for Reconstruction with Changes, implies a weighted fiscal impulse of 0.5 percentage points of the potential output. In 2019 the weighted fiscal impulse should be contractionary, in line with a reduction in expenditure.



**Table 25**  
**FISCAL IMPULSE**  
(% Potential GDP)

	2015	2016	2017*	2018*	2019*
<b>1. Fiscal impulse (a+b)</b>	<b>0.6</b>	<b>1.0</b>	<b>0.1</b>	<b>0.5</b>	<b>-0.7</b>
a. By revenues	0.9	1.7	0.1	0.0	-0.2
b. By expenditures <sup>1/</sup> (i+ii)	-0.3	-0.7	0.0	0.4	-0.5
i. Current	0.1	-0.3	-0.3	0.1	-0.5
ii. Capital	-0.4	-0.4	0.2	0.3	0.0
<b>2. Weighted fiscal impulse <sup>2/</sup></b>	<b>-0.2</b>	<b>-0.5</b>	<b>0.1</b>	<b>0.5</b>	<b>-0.5</b>

<sup>1/</sup> Includes public enterprises.  
<sup>2/</sup> Weighted by fiscal multiplier. In boom periods: Revenues 0; current expenditure 0.28; capital expenditure 0.73; and in slump periods: Revenues 0.25; current expenditure 0.93; capital expenditure 1.42.  
\* Forecast.

## Public Debt

33. Financial requirements would increase from S/ 32 billion in 2016 to S/ 39 billion in 2017 and decline thereafter to S/ 30 billion in 2018 and to S/ 27 billion in 2019. In GDP terms, financial requirements increased from 4.8 percent of GDP in 2016 to 5.6 percent of GDP in 2017 and then would decline to 4.0 percent of GDP in 2018 and to 3.4 percent in 2019.

It is worth pointing out that the average life of the public debt increased from 11.4 years in 2009 to 12.7 years in August of 2017, which expanded the space for

debt management to extend the period between the maturities of the payments. In addition to this, the balance of the fixed-rate debt represented 91 percent of the total balance of the debt in the third quarter of 2017, 7 percentage points above the level at the end of 2016. This increase results mainly from the debt management transaction for a total of approximately S/ 10 billion carried out in July, which was mentioned in our previous report.

**Table 26**  
**FINANCIAL REQUIREMENTS OF THE NON-FINANCIAL PUBLIC SECTOR AND ITS FUNDING**  
 (Million S/)

	2016	2017	2017*		2018*		2019*	
	Year	Jan.-Sep.	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17	IR Sep.17	IR Dec.17
<b>I. USES</b>	<b>31,749</b>	<b>26,080</b>	<b>39,658</b>	<b>39,384</b>	<b>32,182</b>	<b>30,042</b>	<b>29,013</b>	<b>27,130</b>
1. Amortization	14,829	17,156	18,349	17,911	6,305	3,673	5,969	4,349
a. External	5,634	13,250	13,916	13,580	4,060	1,427	2,706	2,686
b. Domestic	9,195	3,906	4,432	4,331	2,246	2,246	3,263	1,663
<i>Of which:</i>								
<i>Recognition bonds</i>	629	638	859	954	858	858	658	658
2. Overall balance (Negative sign indicates surplus)	16,920	8,924	21,310	21,473	25,877	26,369	23,044	22,781
<b>II. SOURCES</b>	<b>31,749</b>	<b>26,080</b>	<b>39,658</b>	<b>39,384</b>	<b>32,182</b>	<b>30,042</b>	<b>29,013</b>	<b>27,130</b>
1. Disbursements and other	30,045	31,016	36,480	33,052	30,537	25,731	23,323	24,017
2. Change on deposits and other <sup>1/</sup>	1,704	-4,936	3,179	6,331	1,645	4,311	5,690	3,113
Memo:								
% GDP								
Gross debt balance	23.8	24.1	24.9	24.5	26.9	26.2	27.7	27.4
Net debt balance <sup>2/</sup>	6.9	8.2	10.0	9.6	13.0	12.6	15.4	15.0

1/ A positive sign indicates a reduction of deposits.

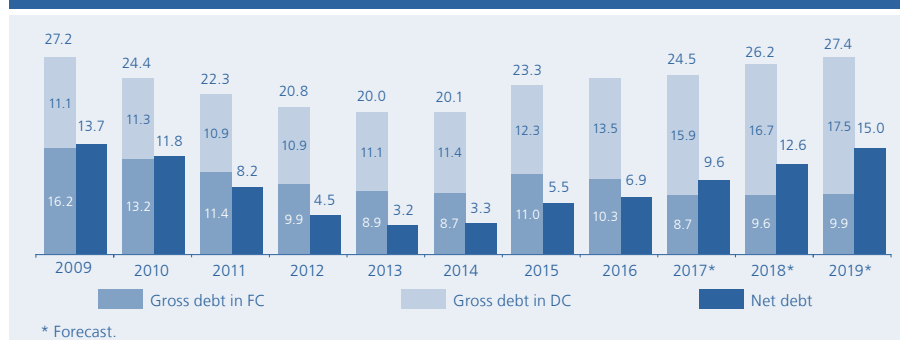
2/ Defined as the difference between gross public debt and NFPS deposits.

\* Forecast.

IR: Inflation Report.

The balance of the gross debt of the non-financial public sector would be equivalent to 27.4 percent of GDP at the end of the forecast horizon. The ratio of local currency in the debt portfolio would reach 64 percent in 2019, about 23 percent of GDP above the ratio recorded at the end of 2009. On the other hand, the net debt would increase to 15.0 percent of the output by 2019.

**Graph 53**  
**NON-FINANCIAL PUBLIC SECTOR DEBT: 2009-2019**  
 (% GDP)





**Box 1**  
**RECONSTRUCTION WITH CHANGES**

The Authority for Reconstruction with Changes (ARCC) was established in April 2017 as an entity attached to the Office of the President of the Council of Ministers (PCM) to lead the design, implementation, and monitoring of a comprehensive plan for the reconstruction of the infrastructure damaged by El Niño Costero (Law N° 30556).

In order to expedite procurement processes for reconstruction, several extraordinary and temporary management tools and administrative facilities have been established, the following being worth pointing out: (a) simplified award of tender contracts; (b) unit price tenders, and (c) simplified administrative procedures (e.g., constructive grants of authorization and automatic permits for urban clearing and building).

**Comprehensive Plan of Reconstruction with Changes**

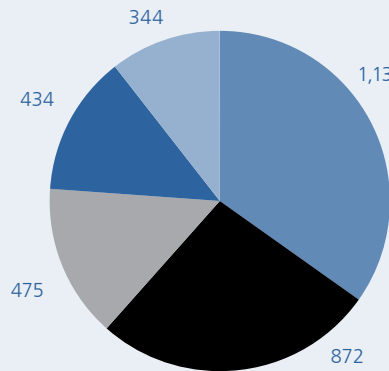
The Comprehensive Plan of Reconstruction with Changes, approved by SD N° 091-2017-PCM in September, has been allocated funds amounting to S/ 25.66 billion, which includes S/ 5.45 billion for prevention and urban development, S/ 19.76 billion for reconstruction, and S/ 450 million for institutional strengthening and capacity generation. This amount represents 11 percent of the GDP of the affected regions and 4 percent of the country's GDP.

As for the distribution of this expenditure for reconstruction, according to the Plan's current design, the national government concentrates 74 percent, regional governments 21 percent, and local governments 5 percent. By departments, Piura, La Libertad, Lambayeque, Ancash and Lima stand out with 84 percent of the total resources allocated for reconstruction.

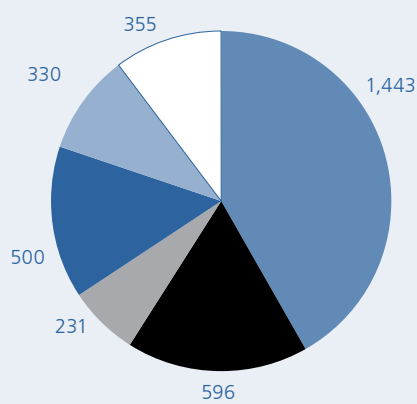
Moreover, of a total of 9,804 projects identified by the ARCC (all of which amount to S/ 19.0 billion), only 39 projects have expenditure levels higher than, or equal to, S/ 50 million per project and only 115 projects have expenditure levels between S/ 20 million and S/ 50 million. The former projects will be implemented by the National Government through the Ministry of Transport and Communications (MTC), the Ministry of Housing, Construction and Sanitation (MVCS), and the Ministry of Health (MINSA), as well as by the Regional Governments of Piura and La Libertad. These ministries and regional governments will also be in charge of carrying out most of the projects involving funds between S/ 20 million and S/ 50 million.

If the projects identified by the ARCC are classified according to the types of technical documents required to declare the viability of the projects within the framework of Invierte.pe, only 32 projects (which amount to S/ 2.85 billion) would require a project profile study. The other projects would only require simplified or standard technical files.

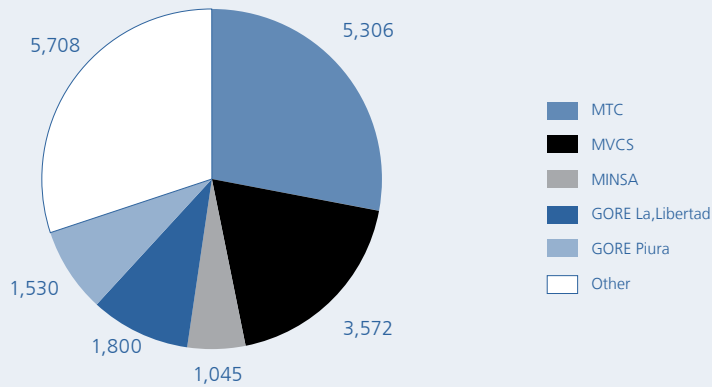
**PROJECTS GREATER THAN S / 50 MILLION PER EXECUTING UNIT**  
(Million S/)



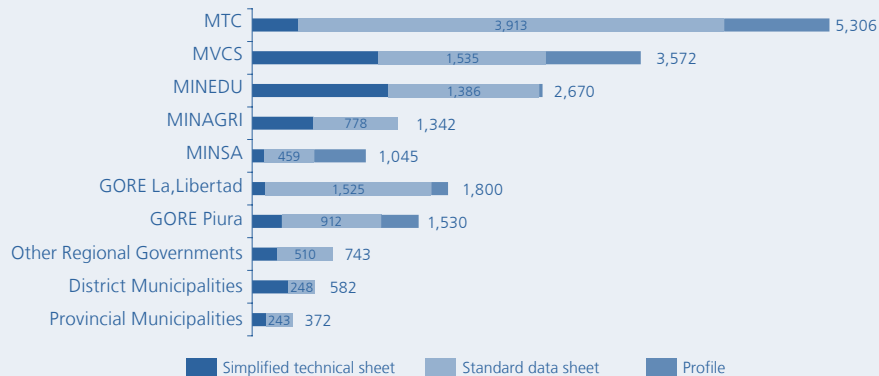
**PROJECTS GREATER THAN S / 20 AND MINORS TO S / 50 MILLION PER EXECUTING UNIT**  
(Million S/)



**TOTAL PROJECTS PER EXECUTING UNIT**  
(Million S/)



**RECONSTRUCTION PROJECTS PER EXECUTING UNIT**  
According to the technical document required by Invierte.pe  
(Million S/)





The ARCC information available at November 20, 2017, shows that funds for a total of S/ 945 million have been allocated primarily for services (S/ 562 million) and, to a lesser extent, for investment projects (S/ 375 million). Considering the investment projects and services that are under way or have been completed, the total amounts to S/ 399 million.

**RECONSTRUCTION WITH CHANGES: TO NOVEMBER 20, 2017**  
(Million S/)

	Projects	Services	Goods	TOTAL
<b>AGRORURAL</b>		<b>291</b>		<b>291</b>
In process		242		242
<b>Provias Nacional</b>	<b>215</b>			<b>215</b>
In process or over	102			102
<b>Irrigation Subsectorial Program</b>		<b>232</b>		<b>232</b>
In process		39		39
<b>Regional Governments</b>	<b>150</b>	<b>29</b>	<b>8</b>	<b>187</b>
In process	2	0	0	2
<b>National Program of Educational Infrastructure</b>		<b>9</b>		<b>9</b>
In process		8		8
<b>Provincial Municipalities</b>	<b>10</b>			<b>10</b>
In process	6			6
<b>TOTAL</b>	<b>375</b>	<b>562</b>	<b>8</b>	<b>945</b>
In process or over	110	289		399

Source: Authority for Reconstruction with Changes.

The amount allocated to service projects being implemented amounts to S/ 289 million, with the project AGRORURAL (S/ 242 million) standing out since this project is mainly aimed at desilting the Piura River, especially from Laguna Ramon to sector Cordillera and from the latter to bridge Independencia. Another project worth mentioning is the irrigation project *Programa Sectorial de Irrigaciones - PSI* (S/ 39 million), carried out mainly in Tumbes.

The amount allocated to investment projects underway or that have been completed amounts to S/ 110 million, with projects such as Provias Nacional (S/ 102 million) standing out. This project is basically oriented to the construction of bridges in Piura and Tumbes, as well as to installing modular bridges in Piura, La Libertad, Ancash and Lima.

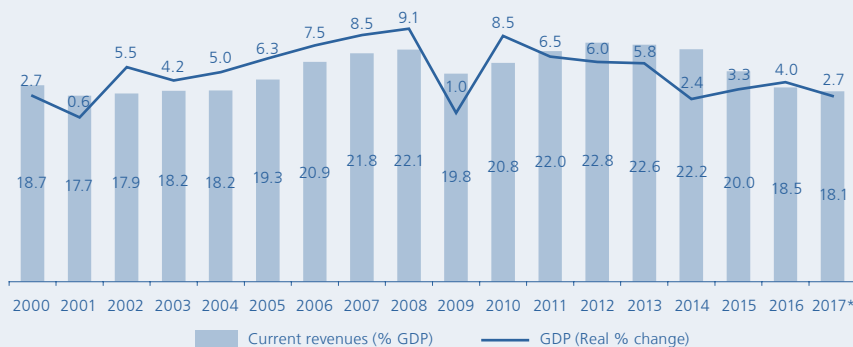
The implementation of the Plan in 2018 could be delayed by some flaws that were initially identified in the selection process of contractors that participate in the execution of investment projects and services. Reconstruction efforts require not only institutional and coordination capacities in the different levels of government, but also having a staff that must carry out additional processes besides the ones they usually perform. In response to this, the ARCC has defined actions to address these problems, such as for example the “packaging” of small projects, prioritizing the preparation of technical specifications and technical reports, and strengthening and accompaniment of the implementing agencies, among other actions. In addition, some concessionary firms will be in charge of monitoring a group of road rehabilitation projects in their areas of operation.

**Box 2**  
**DETERMINANTS OF THE DECLINE OF THE**  
**CURRENT REVENUE OF THE GENERAL GOVERNMENT**

General Government current revenues have shown a downward trend in recent years due to several factors. Some of these factors have a macroeconomic nature (i.e. slower economic growth and falling prices of commodities) and are expected to reverse once they return to their long-term levels, while others depend more directly on economic policies (tax cuts and tax audit capacity).

In general, General Government (GG) revenues have followed a path linked to the business cycle. During the 2002-2008 period of expansion, revenue increased by 4.2 percentage points, rising from 17.9 to 22.1 percent of GDP. This significant increase was associated with several factors, the prices of commodities being estimated to explain 3.0 points of this increase. In addition to this, several policy actions were taken, including the increase of the VAT rate (from 18 to 19 percent), the introduction of advanced tax payment systems –tax withholding schemes (*percepciones* and *detracciones*), and the creation of the temporary tax on net assets (ITAN) and Financial Transactions Tax (ITF). Moreover, economic growth favored the growth of formal employment, which had a positive impact on personal income tax.

**CURRENT REVENUES OF THE GENERAL GOVERNMENT VS GDP GROWTH**



\* Forecast.

In 2009, the financial crisis affected both the growth rate of output and fiscal revenue. The latter dropped to 19.8 percent of GDP due to the decline of revenue from mining companies (income tax and royalties) as well as due to lower VAT on imported inputs and capital goods, as a result of lower private investment.

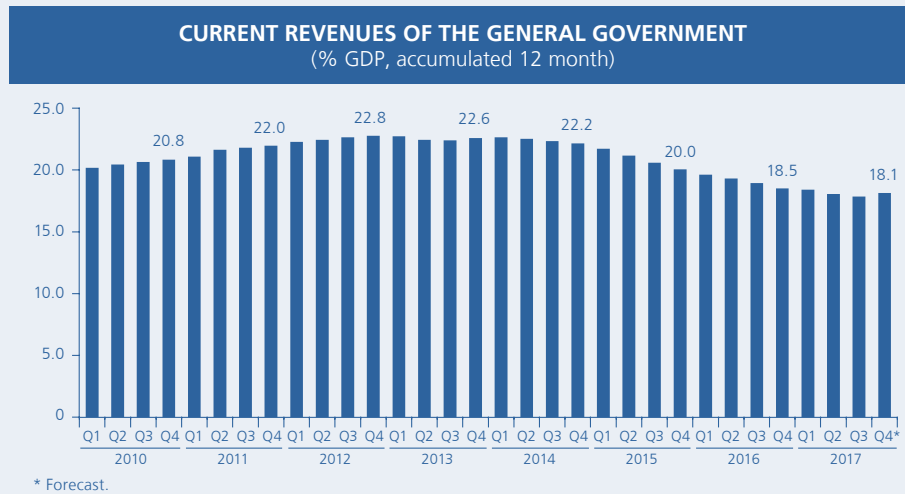
Current revenues resumed the path of positive growth thereafter when commodity prices and economic growth improved, showing a peak of 22.8 percent of GDP in 2012. During 2012-2014, current revenues remained high due to the expansion of anticipated tax payment





systems (tax withholdings for services and for construction activities), which in these years represented resources of over 4 percent of GDP, as well as due to the introduction in mid-2012 of a minimum level for corporate income tax advance payments (1.5 percent of sales)<sup>2</sup> which was established to ensure tax compliance in sectors in which this was difficult to control.

Current revenues deteriorated more intensely since 2015 when the fiscal accounts reflected the impact of the tax cuts adopted at the end of 2014, as well as the impact of the lower international prices for minerals and lower economic growth.



It is estimated that in 2017 the current revenue of the general government will be equivalent to 18.1 percent of GDP, which means that revenue would have dropped by 4.6 percentage points of GDP between 2012 and 2017.

<b>Current revenues 2012</b>	<b>22.8</b>
Terms of Trade	-2.2
Economic activity	-0.3
Tax measures *	-0.5
Higher tax evasion (VAT)	-0.9
Reduction of tax returns balance	-0.4
Others	-0.3
<b>Current revenues 2017</b>	<b>18.1</b>

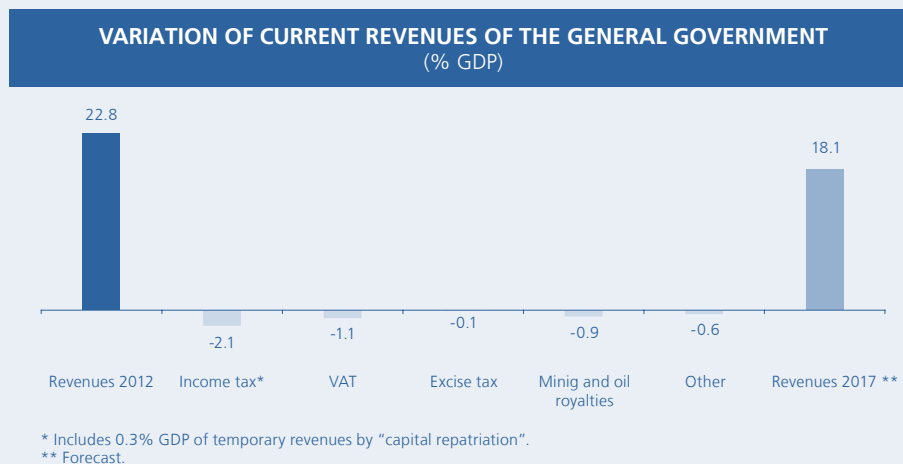
\* Includes 0.3% GDP of temporary revenues by "capital repatriation".

2 Legislative Decree 1120 established the minimum level of 1.5 percent of sales for advance tax payments for corporate income tax. This percentage can be changed in May of each year, reflecting information as of April.

Some of the factors accounting for this drop include the following:

- Lower terms of trade: The adverse international scenario with lower international prices had a negative impact on revenue from mining and oil activities and implied a loss of fiscal revenue equivalent to 2.2 percent of GDP.
- Lower economic growth: The rate of economic growth has declined and the output gap is estimated to show negative values. In terms of tax revenue, this means a reduction of revenue estimated at 0.3 percent of GDP.
- Tax measures: In 2012 and 2016, the tax measures taken to stimulate the economy or to foster the formalization of firms and activities in the informal sector implied a cost in tax collection estimated to be equal to -0.5 percent of GDP.
- Greater non-compliance of tax payment: It is estimated that the VAT evasion has increased by 0.9 percent of GDP between 2012 and 2017, which implies a reduction in revenue from this tax.
- Lower balance of tax rebates: A process of reducing the balance of tax rebates, which had risen strongly in recent years, was started in 2016. It is estimated that tax rebates represent 2.5 percent of GDP in 2017 (vs. 2.1 percent in 2012), which means that because of this, revenues in 2017 would register a decline of 0.4 percent of GDP.

If we analyze the impact of these measures in terms of each tax, we see that the greatest impacts are observed in the income tax (-2.1 percent of GDP), the VAT (-1.1 percent of GDP), mining royalties and royalties (-0.9 percent of GDP), among others.



Tax revenue has been declining in recent years, which means that when the gradual withdrawal of fiscal stimulus becomes necessary, it will be necessary to implement measures to recover the revenue capacity of the treasury to ensure an appropriate provision of public services in the medium-term.





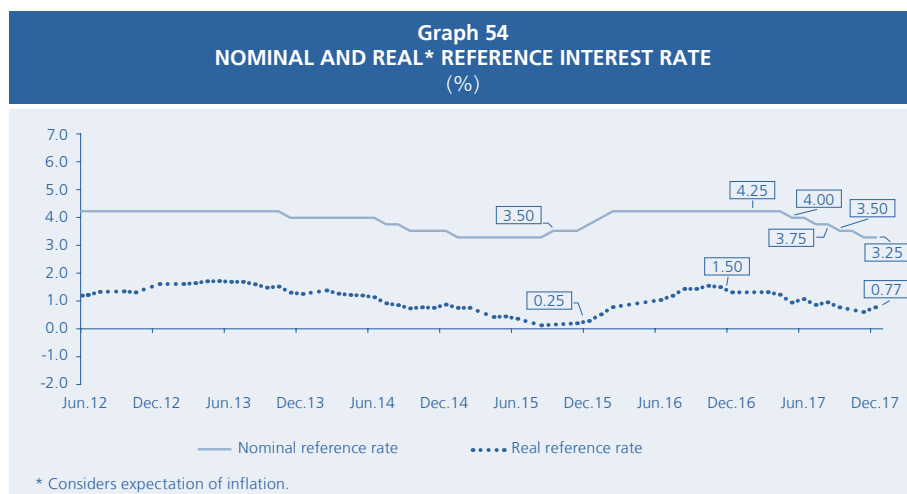


## V. Monetary Policy and Financial Markets

### Monetary Policy Actions

34. Between September and December, BCRP monetary policy actions were oriented to maintaining moderately expansionary monetary conditions in a context in which inflation continued declining, the measurements of trend inflation continued to be within the target range, and the growth of economic activity remained below its potential level, although showing a rapid recovery in the fourth quarter.

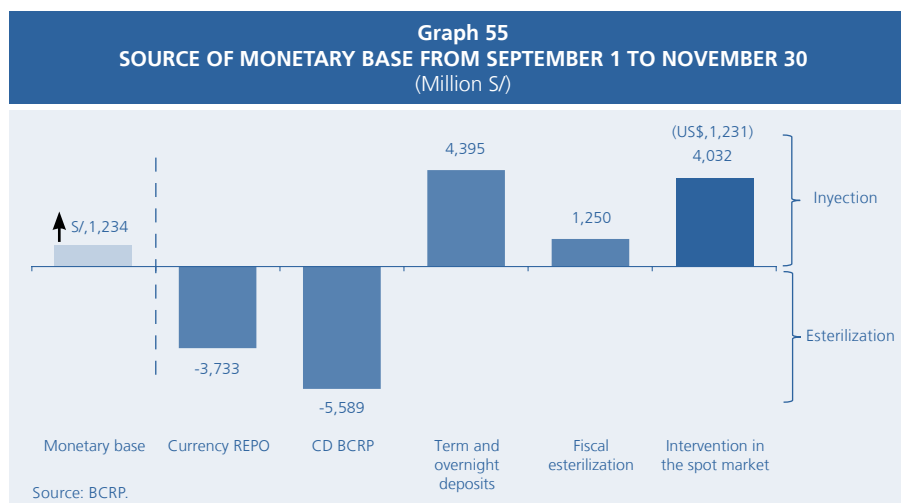
In this context, the Board of BCRP lowered the benchmark rate to 3.25 percent in November, maintained the rate at this level in December, and reiterated that the Board pays close attention to “*new data on inflation and inflation determinants to assess the convenience of making additional changes in the monetary policy stance if necessary*”. As a result of these measures, interest rates on term operations in the money market continued to show a declining trend during the fourth quarter and the real interest rate remained below 1.0 percent, reflecting an expansionary policy stance.



BCRP continued reducing the cap of the mean rate of reserve requirements and the marginal rate of reserve requirements in dollars, as a result of which these rate declined from 41 percent in September to 40 percent in October, maintaining these levels thereafter in November. This contributed not only to reduce the impact of future increases in international interest rates on domestic financial and lending conditions, but also to bring about expansionary monetary and financial conditions in the financial system.

### Monetary Operations

35. Between September and November, the Central Bank’s monetary operations were oriented to maintaining adequate levels of liquidity in domestic currency in a period characterized by an increased demand for currency (S/ 882 million) associated with the greater dynamism of economic activity. In this context, the Central Bank injected liquidity through the maturity of term deposits and overnight deposits (S/ 4.40 billion) and through purchases of foreign currency in the spot market (US\$ 1.23 billion, equivalent to S/ 4.03 billion). The effect of this injection of liquidity was in part offset by the maturity of currency repos<sup>3</sup> (S/ 3.73 billion) and by the placement of Certificates of Deposit (S/ 5.59 billion).



As a result of these operations, the balance of repos went from 10.5 percent of the BCRP net assets in August to 8.9 percent in November. Moreover, on the

3 Repos placed during 2014 and 2015 as part of the de-dollarization of credit program.





side of BCRP liabilities, the withdrawal of public sector deposits reduced their ratio<sup>4</sup> from 33.6 percent to 32.5 percent, even though they remain as the most important liability of BCRP. On the side of monetary instruments, the ratio of BCRP instruments rose from 15.9 to 16.6 percent of the balance of BCRP net assets due mainly to the increase in the balance of CDBCRP as a result of the sterilization of liquidity interventions of the Central Bank in the foreign exchange market.

**Table 27**  
**SIMPLIFIED BALANCE SHEET OF THE BCRP**  
(As % of Net Assets)

	<b>Dec.15</b>	<b>Dec.16</b>	<b>Nov.17</b>
<b>I. Net assets</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>1. Net International Reserves</b>	<b>87.4%</b>	<b>87.8%</b>	<b>91.1%</b>
	(US\$ 61,485 mills.)	(US\$ 61,686 mills.)	(US\$ 62,983 mills.)
<b>2. Repos</b>	<b>12.6%</b>	<b>12.2%</b>	<b>8.9%</b>
<b>II. Net liabilities</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>1. Total public sector deposits</b>	<b>32.7%</b>	<b>34.0%</b>	<b>32.5%</b>
In domestic currency	13.0%	12.2%	13.4%
In foreign currency	19.7%	21.8%	19.1%
<b>2. Total financial system deposits</b>	<b>37.1%</b>	<b>33.4%</b>	<b>28.5%</b>
In domestic currency	4.5%	4.6%	4.5%
In foreign currency	32.6%	28.8%	24.0%
<b>3. BCRP instruments</b>	<b>10.0%</b>	<b>11.1%</b>	<b>16.6%</b>
CD BCRP	6.5%	9.9%	15.2%
CDLD BCRP	0.0%	0.0%	0.5%
CDR BCRP	3.0%	0.3%	0.0%
Term deposits	0.4%	0.0%	0.6%
Overnight deposits	0.1%	0.9%	0.2%
<b>4. Currency</b>	<b>15.7%</b>	<b>17.2%</b>	<b>18.8%</b>
<b>5. Others*</b>	<b>4.5%</b>	<b>4.3%</b>	<b>3.7%</b>

\* Includes interests, discounts and net profits.

Source: BCRP.

BCRP also continued carrying out regular auctions of 6-month, 12-month, and 18-month BCRP-CDs three times a week with the aim of regulating the amount of liquidity of banks and contributing to develop the short-term yield curve in soles.

<sup>4</sup> In terms of the BCRP net assets.

**Table 28**  
**INTEREST RATE OF AUCTIONS OF CD BCRP**  
 (%)

	Months				
	1	3	6	12	18
1-Sep-17		3.64			
4-Sep-17			3.56		
6-Sep-17					3.68
7-Sep-17				3.59	
11-Sep-17			3.57		
12-Sep-17			3.58		
13-Sep-17		3.56	3.56		3.64
14-Sep-17		3.55	3.55	3.57	
15-Sep-17		3.50	3.50		
18-Sep-17			3.50	3.50	
19-Sep-17			3.50	3.51	
20-Sep-17		3.50	3.50		3.63
21-Sep-17			3.51	3.53	
25-Sep-17			3.50		
26-Sep-17			3.50		
27-Sep-17	3.50				3.60
28-Sep-17				3.58	
29-Sep-17			3.54		
2-Oct-17			3.50		
4-Oct-17					3.60
5-Oct-17			3.50	3.53	
6-Oct-17			3.50		
9-Oct-17			3.51	3.52	
10-Oct-17			3.50	3.51	
11-Oct-17			3.51	3.53	3.60
12-Oct-17			3.50	3.52	
13-Oct-17			3.50	3.56	
16-Oct-17			3.51		
17-Oct-17			3.51		
18-Oct-17			3.51		3.59
19-Oct-17			3.51	3.55	
20-Oct-17		3.51			
23-Oct-17			3.51		
26-Oct-17		3.52		3.54	3.59
27-Oct-17			3.52		
30-Oct-17			3.54		
2-Nov-17				3.55	
6-Nov-17		3.50	3.52		
7-Nov-17		3.50	3.51		
8-Nov-17		3.50	3.51		3.56
9-Nov-17		3.50	3.51	3.55	
10-Nov-17		3.29	3.32	3.35	
13-Nov-17		3.32	3.30		
14-Nov-17			3.33		
15-Nov-17					3.36
16-Nov-17		3.30		3.35	
17-Nov-17	3.26	3.31			
20-Nov-17		3.33	3.33		
21-Nov-17		3.32			
22-Nov-17					3.37
23-Nov-17				3.38	
27-Nov-17			3.33		
29-Nov-17					3.37
30-Nov-17				3.38	

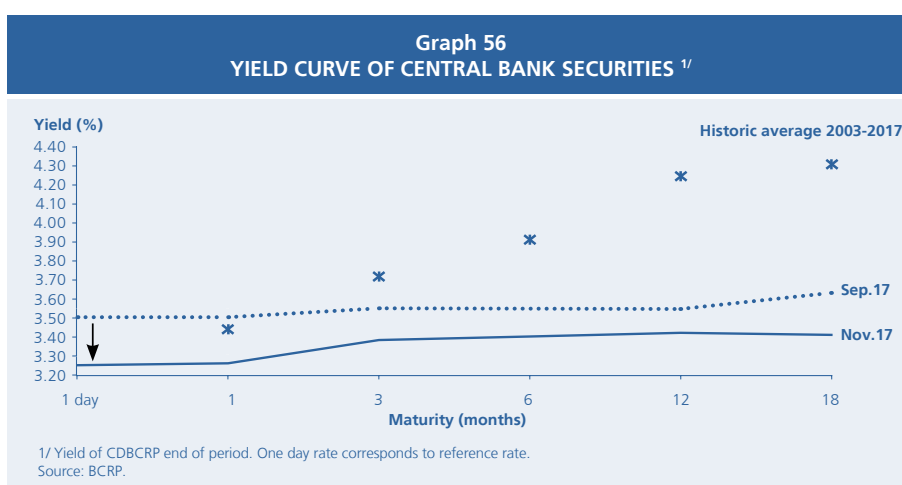
Source: BCRP.

36. The yield curve of issuances of CDBCRP continued moving downwards, in line with the recent cuts adopted in the benchmark rate of BCRP. Interest rates accumulate an annual decline of 98 basis points in the yield curve, reflecting the impact of





the reduction of 100 basis points implemented between December 2016 and November 2017. Moreover, the flattened shape of the curve of BCRP securities in the months of September and October shows now a positive slope in instruments with maturities between 1 and 18 months, which indicates a positive term premium. Between September and November of 2017, CDBCRP interest rates dropped by 17 basis points. The yield curve in November showed an average level 54 points below the historical yield curve observed between 2003 and 2017.



## Interest Rates

37. Greater flexibility in monetary conditions in soles has allowed reducing interest rates significantly in the monetary and credit markets. In the money market, the interbank rate fell from 3.50 to 3.25 percent between September and November, while the lending rate on corporate loans fell from 3.64 to 3.52 percent. On the other hand, credit rates in the bank market fell 47 basis points on average in all the segments, the decline in the rate of consumer loans (13 basis points) standing out.

Moreover, the reduction in the benchmark interest rate also influenced a decline on the side of banks' interest rates on deposits. Between September and November of 2017, interest rates declined 26 basis points on average in 30 to 360-day term deposits, while the corporate prime rates for 1 month-deposits, 2 month-deposits and 3 month-deposits declined by 12, 13, and 19 basis points, respectively.

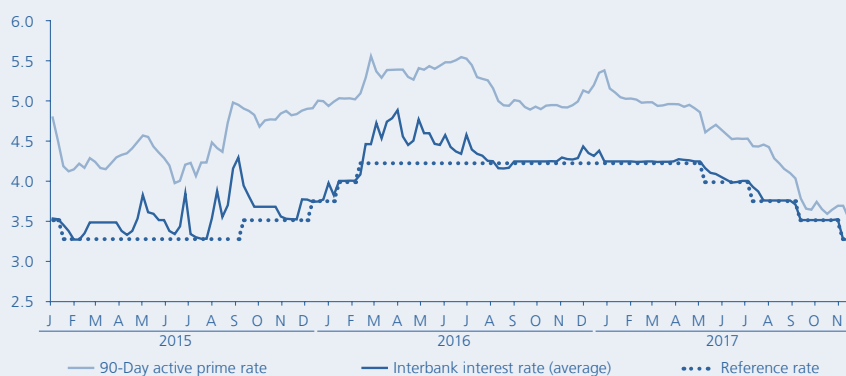
As shown in the table below, almost all of the interest rates are below their historical averages, which is consistent with more flexible monetary and financial conditions.

**Table 29**  
**INTEREST RATE IN DOMESTIC CURRENCY**  
(%)

	Dec.15	Sep.16	Dec.16	Mar.17	Jun.17	Sep.17	Oct.17	Nov.17	Average
Reference interest rate	3.75	4.25	4.25	4.25	4.00	3.50	3.50	3.25	3.92
<b>Passive</b>									
Deposits up to 30-day	3.88	3.95	4.31	4.05	3.89	3.08	2.99	2.97	3.68
On 31 to 180-day term deposits	4.53	4.47	4.73	4.42	4.18	3.60	3.36	3.20	3.88
On 181 to 360-day term deposits	4.77	4.61	4.86	4.77	4.35	4.08	3.85	3.81	4.23
<b>Active</b>									
Corporate	6.18	6.07	5.88	5.78	5.31	4.49	3.93	3.91	5.68
Large companies	7.12	7.23	7.12	7.52	7.04	6.68	6.58	6.50	7.15
Medium-sized enterprises	10.23	10.74	10.39	10.47	10.56	10.42	10.13	9.92	10.56
Small businesses	20.45	21.59	21.65	21.54	20.78	20.27	20.37	20.23	21.78
Consumer	44.03	44.01	46.77	45.24	45.64	48.34	47.71	47.04	41.66
Mortgage	8.95	8.82	8.52	8.73	8.53	8.05	7.99	7.82	9.02

Source: SBS. Average comprise since September 2010 until November 2017.

**Graph 57**  
**90-DAY CORPORATE PRIME, INTERBANK, AND REFERENCE RATE**  
**IN DOMESTIC CURRENCY**  
(%)



Source: BCRP.

In the case of interest rates for operations in dollars, the measures implemented in terms of reserve requirements since January 2017 have allowed the interbank rate and the corporate prime rate on 3-month loans to decline. A lower availability of liquidity in foreign currency was observed in September 2017 due to companies' sales of dollars, but this situation was rapidly reversed by BCRP actions, so the interbank rate fell from 2.08 to 1.25 percent between September and November 2017. The lending 90-day prime rate decreased from 2.27 to 2.08 percent in the same period.

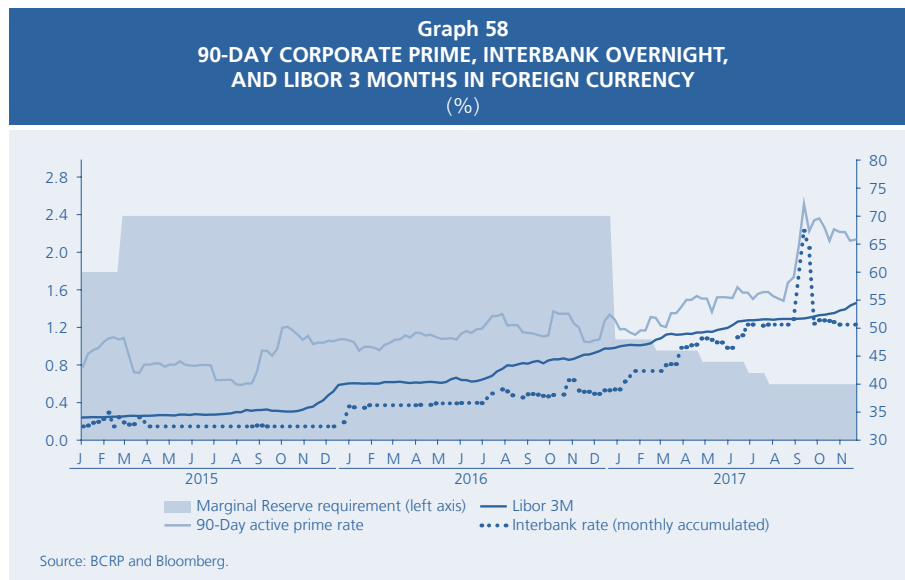




Interest rates in dollars in the credit market decreased in most segments. In the case of deposit interest rates, the rates increased but at lower levels than those observed in the international money market. Thus, the 1 month-Libor and the 3 month-Libor rates increased by 14 and 15 basis points, respectively, while the average deposit rates rose from 1.09 to 1.15 percent.

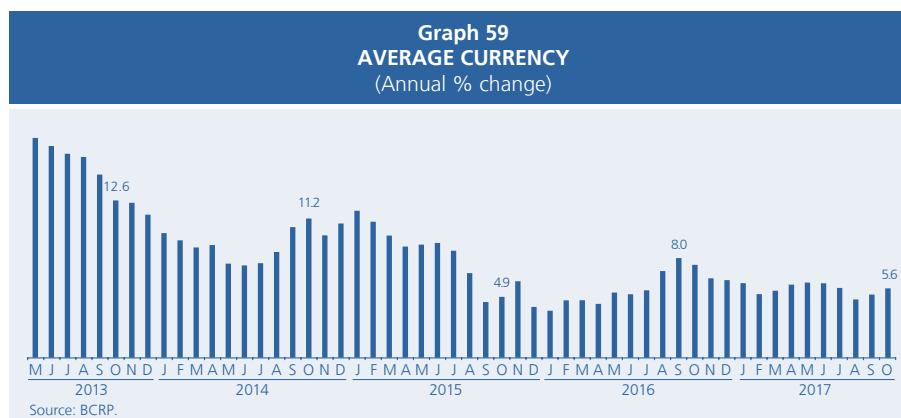
Table 30 INTEREST RATE IN FOREIGN CURRENCY (%)		Dec.15	Sep.16	Dec.16	Mar.17	Jun.17	Sep.17	Oct.17	Nov.17	Average
<b>Passive</b>	Deposits up to 30-day	0.16	0.22	0.23	0.50	0.65	1.12	1.30	1.14	0.47
	On 31 to 180-day term deposits	0.38	0.49	0.51	0.69	0.87	1.13	1.40	1.26	0.67
	On 181 to 360-day term deposits	0.48	0.52	0.61	0.77	0.73	1.01	0.95	1.03	0.74
<b>Active</b>	Corporate	2.33	3.00	2.47	3.03	2.42	3.13	3.14	3.31	3.00
	Large companies	5.54	5.18	5.02	5.12	5.29	4.98	4.77	5.00	5.42
	Medium-sized enterprises	8.06	7.37	6.91	7.07	6.98	6.70	6.95	6.18	8.36
	Small businesses	11.26	10.00	10.67	9.83	10.56	8.56	8.91	7.89	13.02
	Consumer	32.07	32.38	32.08	32.54	33.53	33.51	33.65	33.41	27.26
	Mortgage	6.71	6.46	6.14	6.35	6.13	5.94	5.85	5.90	7.54

Source: SBS. Average comprise since September 2010 until November 2017.

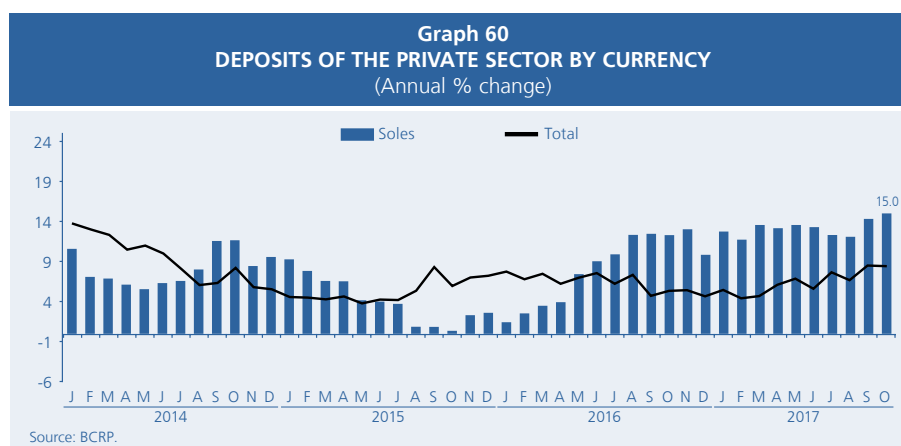


## Liquidity

38. Average currency in circulation, the monetary aggregate more associated with transactions, showed a year-on-year growth rate of 5.6 percent in October 2017, a higher rate than that observed in previous months, in line with the greater dynamism of economic activity.



The year-on-year growth rate of private sector deposits increased from 5.5 percent in June to 8.4 percent in October. By currencies, deposits in soles showed greater dynamism with a growth rate of 15.0 percent, while deposits in dollars showed a zero growth rate. This result reflects the continued greater preference for saving in soles in response to lower expectations that the domestic currency will depreciate, which makes saving in soles more appealing.



**Table 31**  
**MONETARY AND CREDIT ACCOUNTS OF THE DEPOSITORY CORPORATIONS**  
(Annual % change)

	Dec.15	Mar.16	Jun.16	Sep.16	Dec.16	Mar.17	Jun.17	Sep.17	Oct.17
1. Currency in circulation (average)	4.1	4.6	5.1	8.0	6.2	5.4	6.0	5.1	5.6
2. Deposits in domestic currency	2.6	3.5	9.0	12.4	9.8	13.6	13.3	14.3	15.0
3. Total deposits <sup>1/</sup>	7.2	7.4	7.5	4.6	4.6	4.6	5.5	8.5	8.4
4. Broad money in domestic currency	3.0	4.1	8.4	11.1	9.0	11.5	10.7	11.7	12.3
5. Total broad money <sup>1/</sup>	6.5	7.1	7.5	5.1	5.0	4.7	5.0	7.8	7.9
6. Credit to the private sector in domestic currency	28.0	23.1	17.0	9.5	7.2	5.8	3.8	5.3	5.3
7. Credit to the private sector <sup>1/</sup>	8.0	7.7	7.1	5.0	5.6	5.6	4.7	4.8	5.3

<sup>1/</sup> Balances in foreign currency are valued at constant exchange rate on December 2016.  
Source: BCRP.







In this context of higher deposits in soles, the ratio of dollarization of deposits fell from 49.1 percent in December 2016 to 47.5 percent in October 2017. By type of deposits, dollarization has decreased in personal deposits (mainly in savings deposits and term deposits). On the other hand, the ratio of dollarization of corporate deposits fell from 54.3 percent in December 2016 to 50.0 percent in October of this year.

**Table 32**  
**DOLLARIZATION RATIO OF DEPOSITS**  
(%)

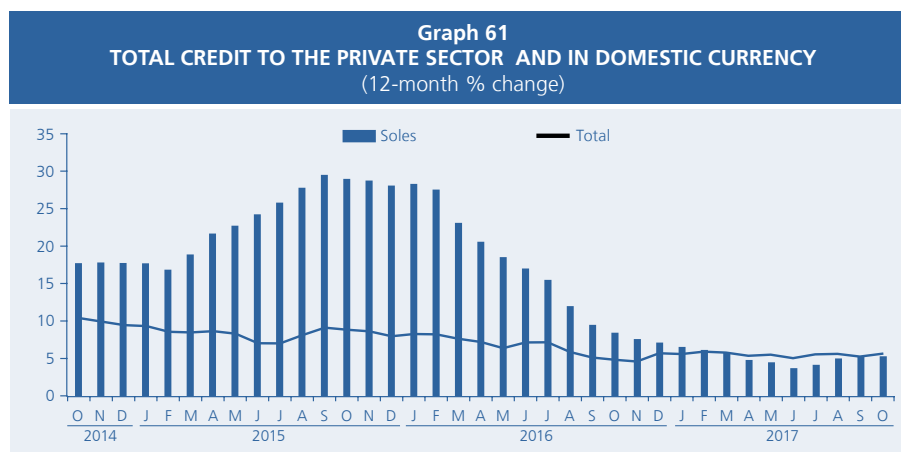
	Dec. 14	Dec. 15	Dec. 16	Sep. 17	Oct. 17
<b>Business</b>	<b>50.7</b>	<b>55.5</b>	<b>54.3</b>	<b>50.6</b>	<b>50.0</b>
Demand deposits	47.1	50.6	52.2	48.3	47.6
Savings deposits	63.6	68.9	57.6	52.9	65.1
Term deposits	61.8	71.7	62.7	57.4	56.0
<b>Individuals</b>	<b>33.7</b>	<b>40.3</b>	<b>36.3</b>	<b>34.2</b>	<b>33.9</b>
Demand deposits	48.0	50.6	52.2	47.1	47.6
Savings deposits	35.2	40.7	40.0	39.5	39.3
Term deposits	30.8	38.5	30.7	27.3	26.8
CTS	33.9	33.6	30.1	28.5	28.4
Other items	29.5	40.3	31.0	26.8	26.3
<b>Pension funds</b>	<b>62.0</b>	<b>68.3</b>	<b>56.9</b>	<b>57.2</b>	<b>56.9</b>
<b>Mutual funds</b>	<b>60.5</b>	<b>67.4</b>	<b>63.4</b>	<b>59.4</b>	<b>58.6</b>
<b>TOTAL</b>	<b>49.2</b>	<b>54.9</b>	<b>49.1</b>	<b>47.9</b>	<b>47.5</b>

Source: BCRP.

In 2018-2019, the process of de-dollarization of liquidity is expected to continue given the higher relative growth anticipated in deposits in soles due to lower expectations of depreciation of this currency. This, together with higher interest rates in soles than in dollars, would make saving in domestic currency more attractive. Therefore, deposits in domestic currency are foreseen to show growth rates of over 10.0 percent in the next two years.

### Credit to the Private Sector

39. Credit to the private sector grew 5.6 percent in annual terms in October (vs. 5.2 percent in September), with personal loans (7.9 percent) and loans to medium-sized enterprises (2.7 percent) accounting mainly for this growth rate. As regards personal loans, mortgage loans showed a faster pace of growth in September and October recording rates of 5.7 percent and 7.6 percent, respectively. Moreover, mortgage loans continue to reflect the process of de-dollarization, with these loans in dollars recording a year-to-year negative variation rate of 4.0 percent.



**Table 33**  
**CREDIT TO THE PRIVATE SECTOR**  
(Annual % change)

	Oct.16	Dec.16	Oct.17
Domestic currency	8.5	7.2	5.3
Foreign currency	-3.3	2.1	6.2
<b>Total</b>	<b>4.7</b>	<b>5.6</b>	<b>5.6</b>

A slight increase was also observed in credit to business, whose growth rate increased from 4.1 percent in September to 4.2 percent in October due mostly to the higher growth rate of credit to medium-sized enterprises (2.7 percent) and to credit in the segment of corporations and large enterprises, which maintained a growth rate of 3.0 percent. On the other hand, personal credit registered a growth rate of 7.9 percent, this rate being explained mostly by an increased demand for mortgage loans in soles.

**Table 34**  
**CREDIT TO THE PRIVATE SECTOR**  
(12-month % change)

	Dec.14	Dec.15	Dec.16	Sep.17	Oct.17
<b>Business</b>	<b>8.6</b>	<b>6.2</b>	<b>4.8</b>	<b>4.1</b>	<b>4.2</b>
Corporate and large companies	9.6	12.7	4.7	3.0	3.0
Medium-sized enterprises	13.1	-2.5	2.6	1.9	2.7
Small business and Microbusinesses	1.5	2.7	7.7	9.3	8.9
<b>Individuals</b>	<b>11.4</b>	<b>11.4</b>	<b>7.1</b>	<b>7.1</b>	<b>7.9</b>
Consumer	11.3	14.5	8.7	8.0	8.1
Car loans	5.8	-8.0	-7.4	-6.5	-5.7
Credit cards	14.9	23.7	8.2	2.9	2.9
Rest	9.9	11.6	10.2	12.1	12.1
Mortgage	11.6	7.3	4.9	5.7	7.6
<b>TOTAL</b>	<b>9.6</b>	<b>8.0</b>	<b>5.6</b>	<b>5.2</b>	<b>5.6</b>





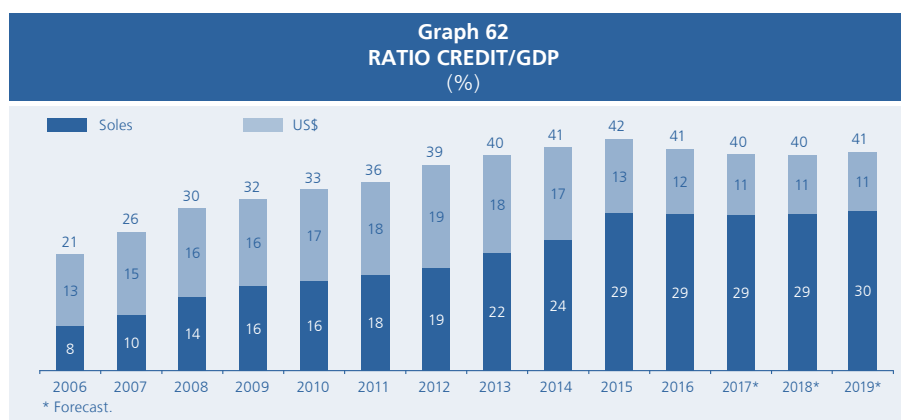
In October, banks' total credit recorded a growth rate of 3.3 percent (vs. 2.2 percent in September). While this indicator does not reflect entirely the dynamics of depository institutions, it is a good advanced indicator of this variable. By economic sectors, the recovery of credit is observed mainly in the sectors of mining and mortgages, as well as in the sectors of trade and manufacturing.

**Table 35**  
**BANKS: TOTAL CREDIT BY ECONOMIC SECTORS**  
(Annual % change)

Economic Sector	Dec.16	Jun.17	Sep.17	Oct.17
<b>I. CORPORATE, LARGE COMPANIES, MEDIUM-SIZED ENTERPRISES AND SMALL BUSINESS AND MICROBUSINESSES LOANS</b>	<b>3.0</b>	<b>1.0</b>	<b>1.1</b>	<b>2.3</b>
Agriculture and livestock	3.7	8.4	1.8	2.2
Fishing	-0.4	1.4	-16.8	-19.0
Mining	-18.4	4.8	9.1	17.1
Manufacturing	3.0	-3.3	-3.1	-0.8
Electricity, Gas, and Water	5.1	1.9	-11.0	-9.5
Construction	-2.4	-1.2	-3.7	-8.4
Trade	2.9	1.4	3.0	2.6
Hotels and Restaurants	2.4	4.5	10.6	10.4
Transport, Storage, and Communications	9.3	1.3	2.3	4.0
Financial Sector	3.2	-9.6	-2.2	-1.8
Real Estate	9.5	4.3	-0.1	0.8
Education	15.4	9.7	12.8	10.9
Social services and Health	11.4	12.7	0.2	0.2
Other activities of community services	-1.2	2.4	16.9	18.0
Private households with domestic services and extraterritorial branches	2.8	10.5	11.9	4.9
<b>II. MORTGAGE LOANS</b>	<b>4.0</b>	<b>4.1</b>	<b>4.3</b>	<b>6.4</b>
<b>III. CONSUMER LOANS</b>	<b>7.2</b>	<b>5.1</b>	<b>4.4</b>	<b>4.4</b>
<b>TOTAL CREDIT</b>	<b>3.9</b>	<b>2.2</b>	<b>2.2</b>	<b>3.3,</b>

### Forecast on Credit to the Private Sector

40. In the 2017-2019 forecast horizon, the growth rates of credit to the private sector and liquidity are expected to evolve in line with the pace of growth of domestic demand. Total credit is forecast to grow 5.5 percent in 2017 and 7.0 percent in 2018 and in 2019. This forecast is in line with the monetary easing actions implemented by BCRP through the benchmark interest rate as well as through reserve requirement rates in both domestic currency and foreign currency.



41. In October, the ratio of dollarization of credit measured at a constant exchange rate recorded 29.5 percent. Furthermore, the ratio of dollarization of personal loans continues to decline, especially in the segments of mortgage loans and car loans.

**Table 36**  
**DOLLARIZATION RATIO OF CREDIT TO THE PRIVATE SECTOR**  
(%)

	Dec.14	Dec.15	Dec.16	Sep.17	Oct.17
<b>Business</b>	<b>51.4</b>	<b>38.4</b>	<b>38.3</b>	<b>39.6</b>	<b>39.6</b>
Corporate and large companies	62.6	46.1	49.3	52.5	52.8
Medium-sized enterprises	62.1	47.2	42.9	42.4	42.2
Small business and Microbusinesses	12.8	8.7	7.0	6.5	6.4
<b>Individuals</b>	<b>22.0</b>	<b>15.7</b>	<b>13.3</b>	<b>12.5</b>	<b>12.5</b>
Consumer	10.6	7.8	6.9	6.9	6.9
Car loans	71.4	44.2	26.8	22.3	22.1
Credit cards	7.4	6.3	6.4	7.1	7.3
Rest	6.7	5.9	5.9	5.9	5.8
Mortgage	36.6	26.5	22.4	20.5	20.4
<b>TOTAL</b>	<b>41.1</b>	<b>30.2</b>	<b>29.2</b>	<b>29.5</b>	<b>29.5</b>
<i>At current exchange rate</i>	38.2	30.5	29.2	28.9	28.8

As for credit to business, loans to small and micro businesses and medium-sized businesses have continued to show a process of de-dollarization, whereas loans to the corporate sector and to large enterprises show an increase in the rates of dollarization (up from 49.3 to 52.8 percent between December 2016 and October 2017). This increase would be reflecting the perception of a lower exchange rate risk for the companies in this market segment, particularly in the short term, in view of the appreciation of the sol observed.

### Non-Performing Loans

42. In October the ratio of non-performing loans was 3.4 percent, similar to the average rate registered year-to-date (3.38 percent) and slightly higher than the rate registered in December 2016 (3.1 percent). The credit segments that showed higher rates of non-performing loans were loans to medium-sized businesses and loans to micro and small businesses.





**Table 37**  
**CREDITS DELINQUENCY INDEX**  
(%)

	Dec.14	Dec.15	Dec.16	Sep.17	Oct.17
<b>Business</b>	<b>3.14</b>	<b>3.12</b>	<b>3.28</b>	<b>3.44</b>	<b>3.49</b>
Corporate and large companies	0.37	0.47	0.41	0.51	0.48
Medium-sized enterprises	4.79	5.28	6.10	7.04	7.19
Small business and Microbusinesses	7.82	7.46	7.16	7.40	7.52
<b>Individuals</b>	<b>2.46</b>	<b>2.65</b>	<b>3.05</b>	<b>3.24</b>	<b>3.35</b>
Consumer	3.34	3.32	3.66	3.71	3.81
Car loans	4.23	4.10	4.86	5.13	5.05
Credit cards	4.25	4.41	5.60	6.15	6.26
Mortgage	1.44	1.84	2.28	2.66	2.77
<b>Average delinquency</b>	<b>2.91</b>	<b>2.87</b>	<b>3.09</b>	<b>3.37</b>	<b>3.44</b>

Moreover, lending in soles has shown a slightly greater increase in delinquency rates than lending in dollars, even though the delinquency rates of loans in soles are still lower than the delinquency rates of loans in dollars in the segments of personal loans and loans to micro and small businesses, which are the segments with less capacity to protect themselves against the exchange rate risk. The deterioration of the levels of non-performing loans in the segments of medium-sized enterprises and credit cards was relatively higher in loans in soles, even though they are still lower those in dollars. As for lending in dollars, delinquency rates have increased particularly in the lending portfolios of mortgage loans and credit cards, which show the higher rate increases.

**Table 38**  
**CREDITS DELINQUENCY INDEX : DOMESTIC CURRENCY**  
(%)

	Dec.14	Dec.15	Dec.16	Sep.17	Oct.17
<b>Business</b>	<b>4.03</b>	<b>3.30</b>	<b>3.63</b>	<b>4.03</b>	<b>4.09</b>
Corporate and large companies	0.24	0.22	0.20	0.52	0.46
Medium-sized enterprises	5.63	5.04	6.07	7.05	7.32
Small business and Microbusinesses	7.65	6.90	6.63	6.96	7.10
<b>Individuals</b>	<b>2.57</b>	<b>2.53</b>	<b>2.90</b>	<b>3.12</b>	<b>3.21</b>
Consumer	3.33	3.23	3.57	3.64	3.75
Car loans	4.31	4.20	5.03	5.31	5.25
Credit cards	4.61	1.91	2.58	3.59	3.76
Mortgage	1.33	1.46	1.87	2.35	2.41

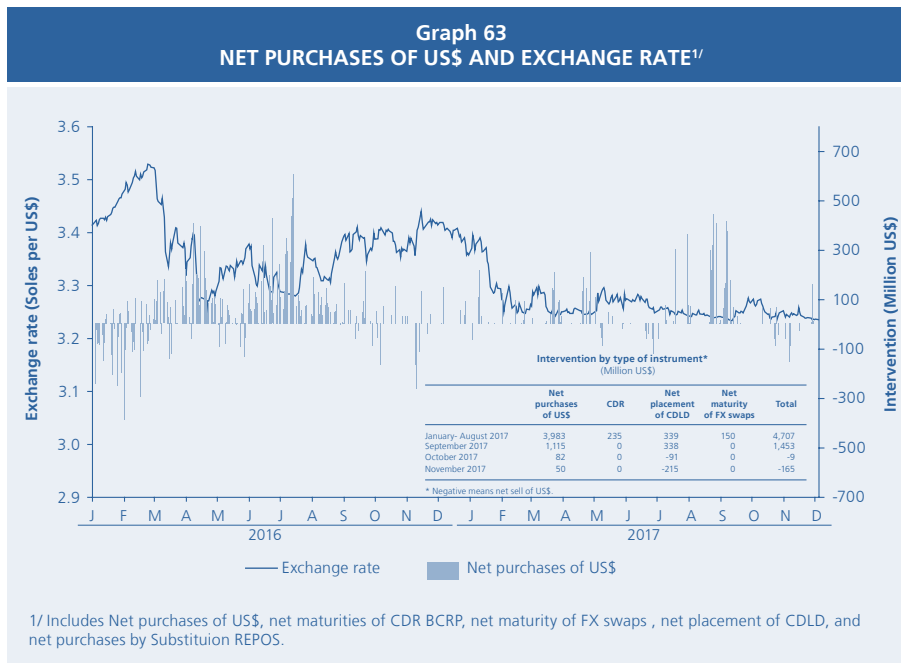
**Table 39**  
**CREDITS DELINQUENCY INDEX: FOREIGN CURRENCY**  
(%)

	Dec.14	Dec.15	Dec.16	Sep.17	Oct.17
<b>Business</b>	<b>2.14</b>	<b>2.84</b>	<b>2.72</b>	<b>2.52</b>	<b>2.51</b>
Corporate and large companies	0.45	0.78	0.64	0.49	0.51
Medium-sized enterprises	4.22	5.55	6.15	7.01	7.01
Small business and Microbusinesses	9.39	15.70	19.58	20.27	20.08
<b>Individuals</b>	<b>2.06</b>	<b>3.28</b>	<b>4.08</b>	<b>4.17</b>	<b>4.37</b>
Consumer	3.42	4.58	5.29	4.90	4.86
Car loans	3.07	2.62	2.59	2.67	2.59
Credit cards	4.09	7.52	13.86	14.68	14.91
Mortgage	1.64	2.88	3.70	3.93	4.21,

### Exchange Rate and Intervention in the Forex Market

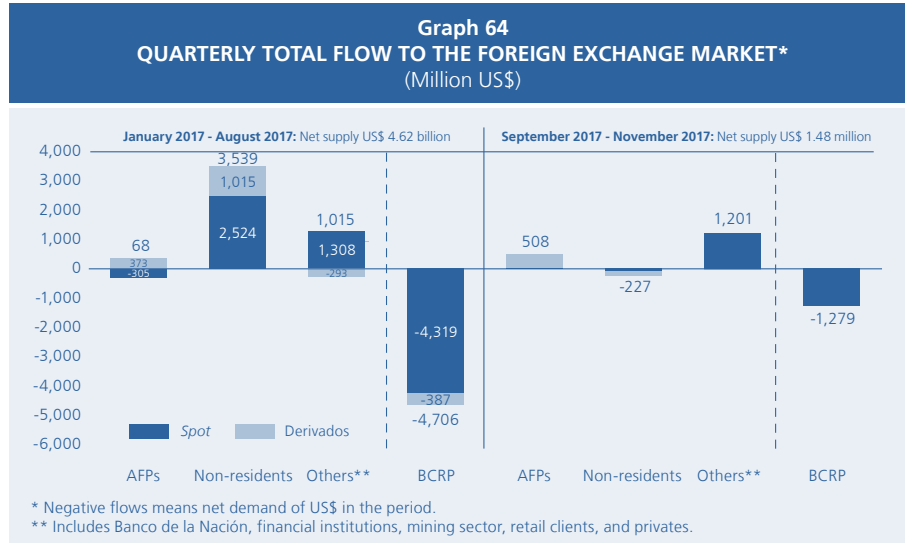
43. The PEN recorded an appreciation of 0.2 percent against the US dollar in the period of September to November 2017 (the dollar/PEN exchange rate went from S/ 3.24 to S/ 3.23 per dollar). Thus, the PEN shows an appreciation of 3.7 percent against the dollar so far this year.

However, the exchange rate showed a differentiated path: In September, the sol depreciated 0.8 percent against the dollar in response to signals indicating that the Fed would continue with the normalization of its monetary policy. Afterwards, the sol appreciated 1.0 percent between October and November influenced by the positive evolution of the external accounts, favored by the sustained recovery observed in commodity prices.



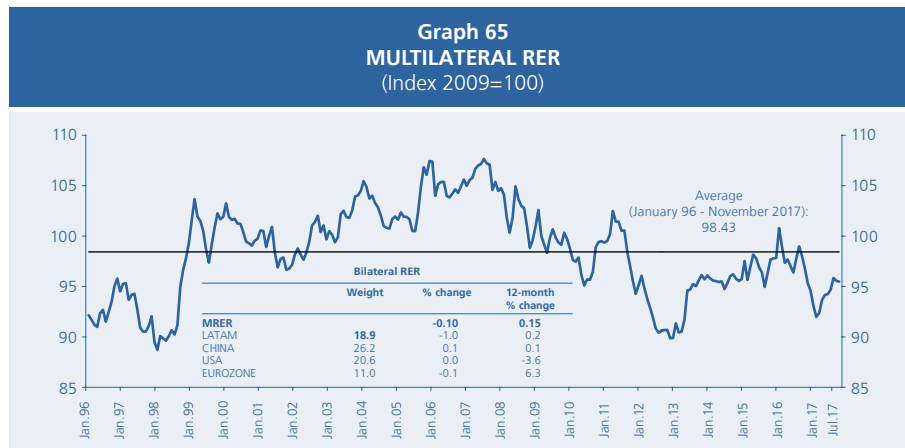
With regard to the flows in the local foreign exchange market, between September and November of 2017 the net supply of dollars amounted to US\$ 1.48 billion, with mining companies accounting for a supply of US\$ 1.37 billion, retail customers accounting for a supply of US\$ 1.14 billion, and AFPs for a supply of US\$ 508 million. On the other hand, private agents accounted for a demand of US\$ 1.06 billion while non-residents accounted for a demand of US\$ 227 million. In contrast with the dollar supply of non-residents in previous periods, these agents showed a slight demand for dollars, reflected in the foreign exchange hedging of their assets in soles.





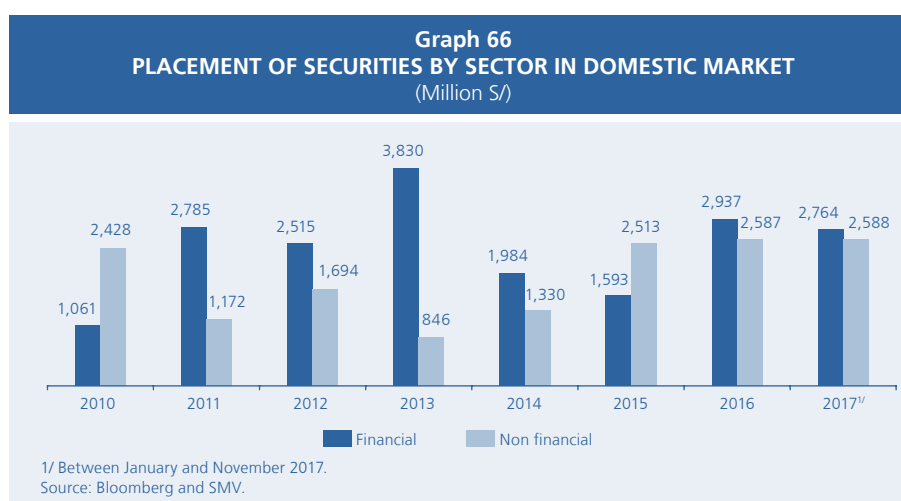
In the same period, the Central Bank acquired foreign currency for a total of US\$ 1.28 billion, mainly through purchases in the spot market (US\$ 1.25 billion) and, to a lesser extent, through the net placement of US\$ 32 million in Certificates of Deposit Payable in Dollars (Certificados de Depósitos Liquidables en Dólares - CDLD).

In November the multilateral real exchange rate index (RER) showed a level of 95.4 relative to the 2009 base period, a level 0.15 percent higher than that recorded in December 2016. This increase in the RER index so far this year is associated mainly with the increase of the real exchange rate relative to the currencies of Asian countries (0.9 percent) and Latin American countries (0.2 percent), offset by the decline of the exchange rate relative to the currencies of developed countries (0.4 percent).



## Financial Markets

44. Private companies have reduced issuances of securities in the domestic capital market so far in the fourth quarter of 2017, although in annual terms the total bond amount issued during the year is only S/ 173 million lower than the total amount issued in 2016. Financial entities stand out in terms of the bond amounts placed in recent months, the issuance of BBVA bonds (S/ 350 million with a maturity of 3 years) being worth highlighting.



In the international capital market, between September and November 2017, Peruvian private companies placed bonds with maturities between 3 and 10 years for a total of US\$ 1.56 billion. As a result, the balance of securities issued abroad amounted to US\$ 22.39 billion, of which 37 percent was placed by private companies. Taking into account that the maturity of a total of US\$ 730 and US\$ 600 million of these bonds is due in 2018 and 2019, respectively, it is quite likely that Peruvian companies will seek to obtain financing again in the external market given the stable outlook for the credit rating of the sovereign debt and the high demand for the bonds of the emerging market economies.

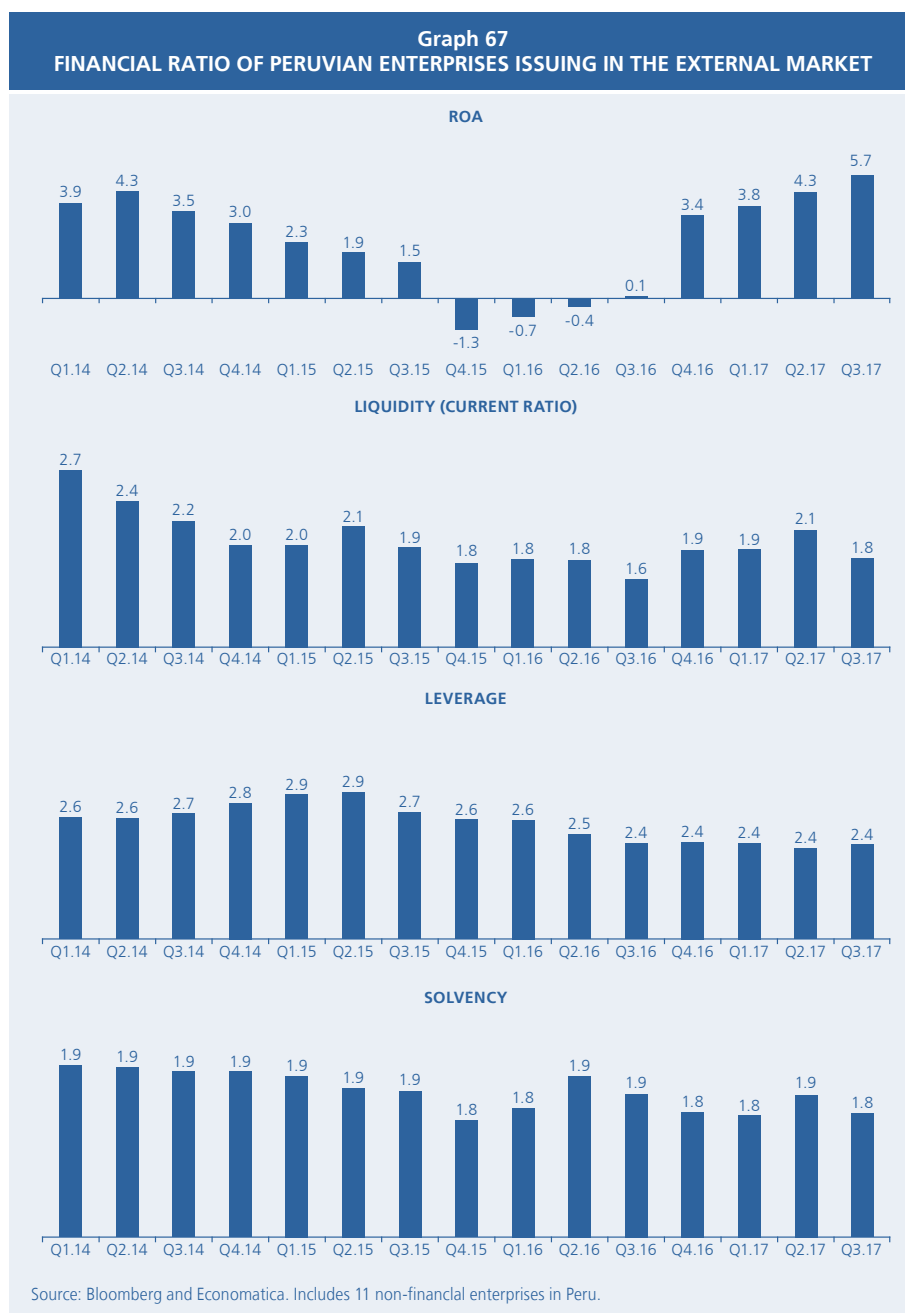
Bonds issued in this period that are worth pointing out include the placement of Banco de Crédito del Perú of S/ 2 billion in 3-year bonds with a coupon rate of 4.85 percent to finance the bank's credit operations. Fitch rated the *senior unsecured* with a credit rating of BBB+. The coupon rate was 122 basis points higher than that of the sovereign bond with the same maturity and 308 basis points higher than that of the 3-year global bond.







It should be pointed out that the Peruvian companies that have issued bonds in the international market continue to show stable financial indicators. In the third quarter of 2017, the average ratios of profitability improved on average, while the indicators of solvency and leverage remained stable. The mining sector stands out with the better performance observed in terms of financial ratios, in line with the recovery in the prices of the major metals. The interest rates of the bonds issued in the international market declined in all the sectors.



**Table 40**  
**BONDS ISSUED IN THE INTERNATIONAL MARKET**

Bussiness	Emission date	Amount (Million US\$)	Maturity (Years)	Rate
<b>Year 2014</b>		<b>5,510</b>		
<b>Non-financial sector</b>		<b>3,306</b>		
Compañía Minera Ares	15 Jan.	350	7	7.75%
Minsur	31 Jan.	450	10	6.25%
Abengoa Transmisión Sur	8 Apr.	432	29	6.88%
Camposol	24 Apr.	75	3	9.88%
Rutas de Lima**	27 Jun.	370	22	8.38%
Rutas de Lima***	27 Jun.	150	25	5.25%
InRetail Shopping Mall	1 Jul.	350	7	6.50%
InRetail Consumer	7 Oct.	300	7	5.25%
Unión Andina de Cementos	28 Oct.	625	7	5.88%
Energía Eólica	15 Dec.	204	20	6.00%
<b>Financial sector</b>		<b>2,204</b>		
<u>Private financial sector</u>		<u>1,025</u>		
Banco de Crédito	15 Jan.	200	13	6.13%
Interbank	11 Mar.	300	15	6.63%
Banco de Crédito	1 Jul.	225	4	2.75%
BBVA Banco Continental	15 Sep.	300	15	5.25%
<u>Public financial sector</u>		<u>1,179</u>		
Fondo MiVivienda	26 Mar.	300	5	3.38%
Fondo MiVivienda*	15 May.	279	4	1.25%
COFIDE	8 Jul.	300	5	3.25%
COFIDE	8 Jul.	300	15	5.25%
<b>Year 2015</b>		<b>4,510</b>		
<b>Non-financial sector</b>		<b>3,361</b>		
GyM Ferrovias***	3 Feb.	206	25	4.75%
Southern Copper Corporation	17 Apr.	500	10	3.88%
Southern Copper Corporation	17 Apr.	1,500	30	5.88%
Consortio Nuevo Metro de Lima	10 Jun.	1,155	19	5.88%
<b>Financial sector</b>		<b>1,149</b>		
<u>Private financial sector</u>		<u>349</u>		
InterCorp	3 Feb.	250	10	5.88%
Interbank**	3 Feb.	99	15	7.66%
<u>Public financial sector</u>		<u>800</u>		
COFIDE	7 Jul.	200	4	3.25%
COFIDE	7 Jul.	600	10	4.75%
<b>Year 2016</b>		<b>797</b>		
<b>Non-financial sector</b>		<b>497</b>		
Kallpa Generación	19 May.	350	10	4.88%
Camposol	20 May.	147	5	10.50%
<b>Financial sector</b>		<b>300</b>		
<u>Private financial sector</u>		<u>300</u>		
Banco de Crédito del Peru	20 Oct.	300	3	2.25%
<b>Year 2017</b>		<b>5,362</b>		
<b>Non-financial sector</b>		<b>3,840</b>		
<u>Non-financial private sector</u>		<u>1,840</u>		
Orazul	25 Apr.	550	10	5.63%
Cerro del Águila	9 Aug.	650	10	4.13%
San Miguel Industrys	12 Sep.	300	5	4.50%
Fenix Power Peru	13 Sep.	340	10	4.32%
<u>Non-financial public sector</u>		<u>2,000</u>		
Petróleos del Peru	12 Jun.	1,000	15	4.75%
Petróleos del Peru	12 Jun.	1,000	30	5.63%
<b>Financial sector</b>		<b>1,522</b>		
<u>Private financial sector</u>		<u>918</u>		
Intergroup	12 Oct.	300	10	4.13%
Banco de Crédito del Peru**	26 Oct.	618	3	4.85%
<u>Public financial sector</u>		<u>605</u>		
Fondo MiVivienda**	7 Feb.	455	6	7.00%
Fondo MiVivienda	7 Feb.	150	7	3.50%

\*Emission in Swiss Franc.

\*\* Emission in Soles.

\*\*\* Emission in Soles VAC.

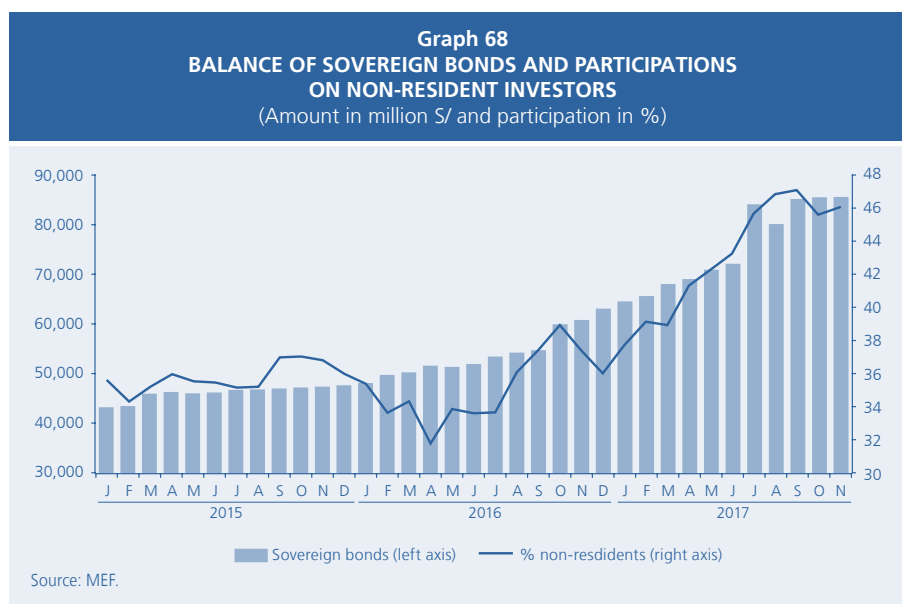
Source: Bloomberg y SMV.



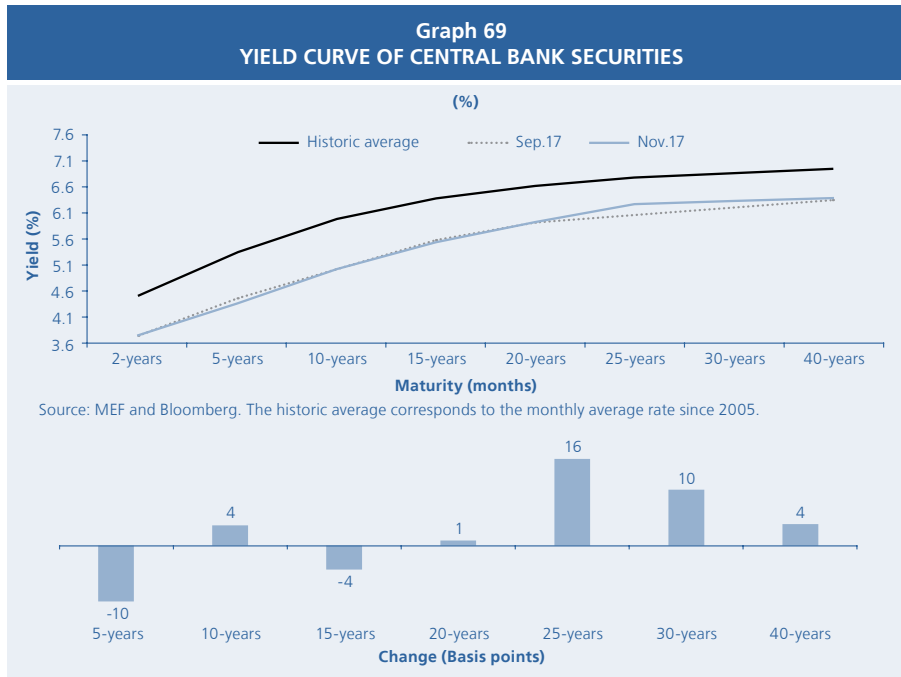


In the market of government bonds, the balance of bonds issued by Peru increased from S/85.08 billion in September to S/85.52 billion in November 2017. According to the Bill on Public Sector Indebtedness in 2018, the Ministry of Economy and Finance (MEF) could borrow capital for a maximum amount of S/ 13.76 billion in the internal market and for a maximum amount of US\$ 1.42 billion in external markets.

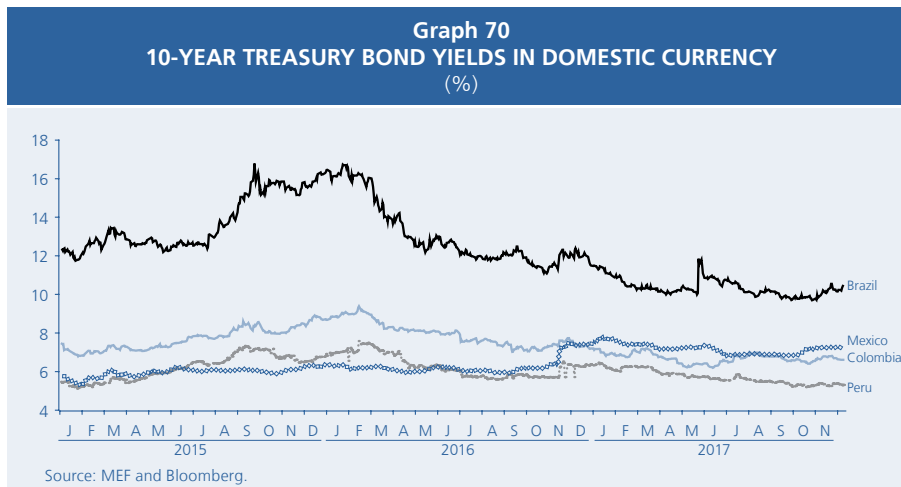
A reduction has been observed in the participation of non-resident investors in the market of sovereign bonds in the last two months, in line with the redemptions of fixed income funds of the emerging markets. In November 2017, bond holdings amounted to S/ 37.77 billion (46 percent of the outstanding balance). It is worth mentioning that banks have increased their investments in bonds by S/ 6.62 billion between December 2016 and October 2017, while non-resident investors have bought bonds for a total of S/ 15.29 billion. On the other hand, the AFP's investments in sovereign bonds have remained steady.



The yield curve of sovereign bonds has shown a slight increase in its interest rates between September and November. This recent conduct of the interest rates is explained by the increased demand for US Treasury bonds and by the reduction in the spread between interest rates in soles and interest rates in dollars. However, interest rates are expected to decline due to lower volatility in financial markets.



In the market of Latin American fixed-rate government debt in local currency, Peru and Colombia stand out with the rates of 10-year bonds which have had the better performance, while the value of the bonds of Chile, Mexico, and Brazil show significant declines. The average negative value of bonds in the region considers the recent strengthening of the dollar, uncertainty about the tax reform in the United States, and geopolitical conflicts in Asia. Despite this, however, global investors still consider that the region's government bonds are appealing. It should be pointed out that a risk factor to take into account in the following months are the elections that will be carried out in Brazil, Colombia, and Mexico in 2018.

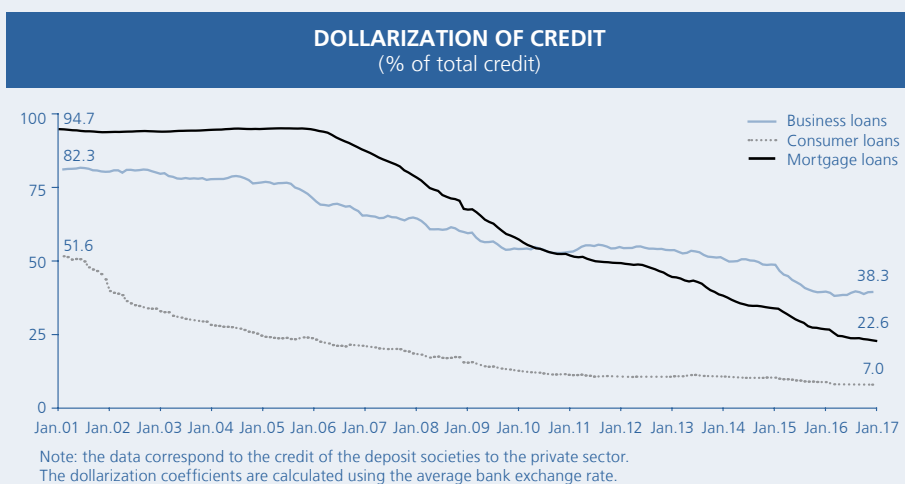




### Box 3 CREDIT DOLLARIZATION HETEROGENEITY

In an economy with partial credit dollarization, economic agents are exposed to mismatches generated by the abrupt movements of the exchange rate. This exposure is even greater at the individual level since households may have less developed exchange-rate hedging mechanisms than companies.

Dollarization in the case of Peru is one of the structural characteristics that originated in the country's period of high inflation in the eighties, which, in general terms, was a rational strategy used by economic agents to seek refuge in a more stable currency. The ratio of dollarization of total credit, which reached peak levels of 81.7 percent in 1999, was significantly reduced to about 30 percent by the end of 2015.



Using data of the National Survey of Households (ENAH) and the Consolidated Report on Credit (RCC) prepared by the Superintendency of Banks and Insurance Companies at the level of individuals, two indicators of dollarization are analyzed: the percentage of loans (balances) in dollars and the number of loans in dollars. Both are calculated according to the type of credit and the observable characteristics of people with access to credit, such as level of education, age, and the characteristics of the geographic region where they live.

- The data show that the dollarization of credit is highly heterogeneous according to the observable characteristics of individuals. By levels of income, the dollarization of total credit of households in the highest income quintile is about 3 times higher than in the other quintiles. Thus, in the top quintile the percentage of loans in foreign currency reaches 6.5 percent, while this variable in the other quintiles ranges between 1.1 and

1.8 percent. In the case of mortgage loans, we observe a stronger positive relationship between income and credit dollarization, whereas in the case of consumer loans and loans to microenterprise this relationship is slightly less intense.

- On average, older people have higher levels of credit dollarization, both in terms of the number and in terms of the volume of the loans they have. For example, 20 percent of the loans of people over 50 years old are in dollars, while this percentage is only about 10 percent among people under 30 years of age. Moreover, in the case of mortgage loans the positive relationship between age and dollarization is stronger, while in the case of consumer loans and loans to micro-enterprises the relationship is not so strong.
- By economic sector, workers in the sectors of manufacturing, services, and trade show the highest indices of credit dollarization, while the lowest ratios are found in the construction sector. This is in line with the hypothesis that the workers who work in some highly tradable sectors can easily take loans in foreign currency.
- People living in Lima have higher ratios of dollarization, both in terms of the number of loans they have and in terms of their loan balances in foreign currency. The regions with the highest levels of credit dollarization are located in the border areas, which would be associated with trade activities with Bolivia, Chile, and Ecuador.
- Formal credit is not exclusive to formal workers. The access of informal workers to formal bank loans is probably explained by the existing collaterals required by banks to make loans. Interestingly, 15.4 percent of the loans to formal workers are in dollars, while this percentage decreases to 7.9 percent in the case of informal workers.
- Moreover, people who receive remittances are more dollarized in their loans, especially in the case of mortgage loans. This stylized fact is evidence of the hedging behavior that households follow in their credit decisions to protect themselves against probable fluctuations in the exchange rate.

When we analyze dollarization<sup>5</sup> by category before and after December 2011, we find that the categories with higher levels of de-dollarization are the people with lower incomes, those who do not receive remittances, the younger, and the ones with lower levels of education. Moreover, the people with higher levels of income and higher education levels have de-dollarized less in comparison with the national average, and the rate of de-dollarization of mortgage loans has been lower than the one observed in the average de-dollarization ratio of all the types of credit.

<sup>5</sup> Measured as the percentage of the number of loans in foreign currency.



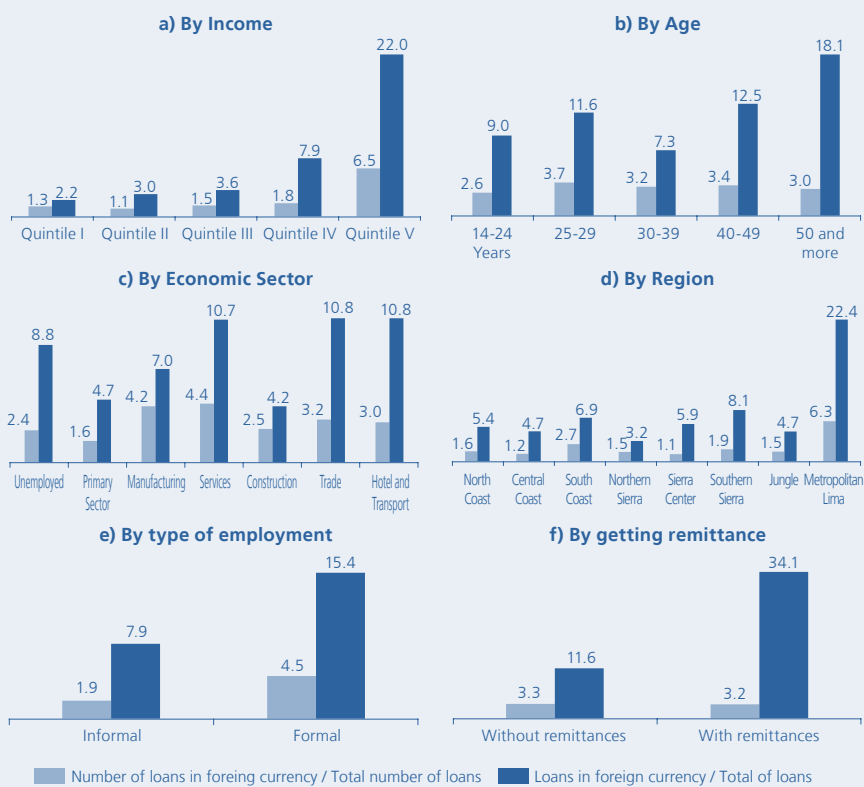


DOLLARIZATION OF CREDIT BEFORE AND AFTER DECEMBER 2011 (% of number of loans in foreign currency)			
		2008-2011	2012-2014
<b>By income</b>	Quintile I	1.8	1.1
	Quintile II	1.9	0.7
	Quintile III	2.0	1.3
	Quintile IV	2.6	1.6
	Quintile V	7.6	6.4
<b>Recipients of Remittances</b>	Yes	3.5	3.2
	No	4.3	2.7
<b>By age groups</b>	14-24 years	3.3	2.4
	25-29 years	4.0	3.6
	30-39 years	3.6	3.2
	40-49 years	3.6	3.4
	+50 years	3.1	3.0

Source: ENAHO (INEI) y RCC 2008-2014 (SBS).

In summary, the data of the ENAHO and the RCC suggest that the consumers that are older (over 50 years of age), have higher incomes, and live in Lima are the groups of consumer that get more loans in foreign currency. It is therefore important that the design of de-dollarization policies take into account the characteristics of some population groups since this information shows that there is still room for de-dollarization in the sector of high incomes, for example.

**DOLLARIZATION OF CREDIT 2008-2014, BY CATEGORIES**  
(%)

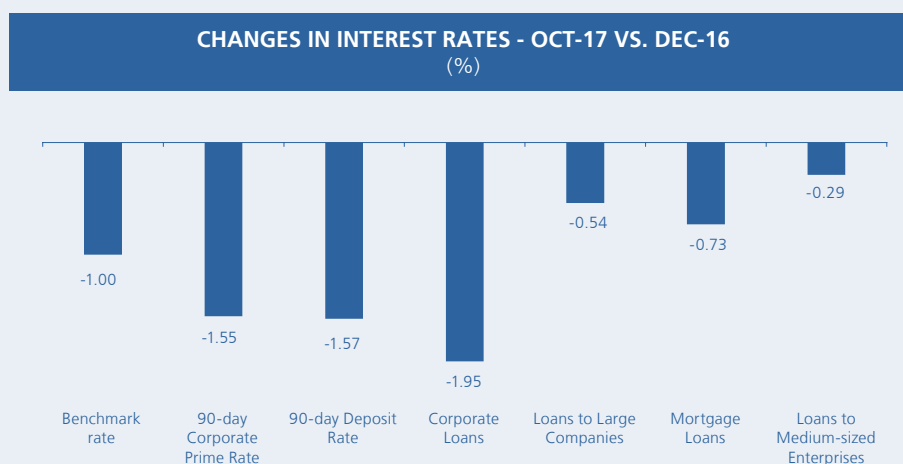


Source: ENAHO (INEI) and RCC 2008-2014 (SBS).

**Box 4**  
**PASS-THROUGH OF THE POLICY RATE TO MARKET INTEREST RATES**

The pass-through of monetary policy actions to the interest rates of the financial system is essential for the effective implementation of monetary policy. An updated estimation of the pass-through effect of the monetary policy rate to market interest rates is provided herein.

BCRP has reduced its benchmark rate by 100 basis points this year, in a context of a negative output gap and a core inflation rate within the target range. The following graph shows the changes observed in the main interest rates of bank loans for the same period as a first indicator of the pass-through effect of monetary policy. As we can see, there is a sharp decline of interest rates, in line with the reduction adopted in the benchmark rate. This decline has been widespread and has reflected in lower rates for business loans as well as in loans to households, as is the case of interest rates of mortgage loans which have decreased by 73 bps in loans in soles.



A second analysis is carried out using an event study that takes into account the last fifteen cuts in the benchmark rate registered between September 2003 and November 2017 in a five day-window before and after a reduction in the BCRP benchmark rate. An important pass-through effect is observed from the reduction of the benchmark rate to bank rates. It is worth pointing out that the secondary market rates for shorter maturity terms –3 to 6 month treasury bills– showed a greater reaction than market rates with higher terms than 1 year (sovereign bonds). Moreover, in the case of lending and deposit 90-day prime rates, the reduction has been higher in the lending interest rates, as shown in the following table.







**EFFECTS ON MONEY MARKET RATES AND VALUES**

(Basis points)

		Interbank	3-Month Treasury Bonds	6-Month Treasury Bonds	12-Month Treasury Bonds	24-Month Treasury Bonds	10-Year Treasury Bonds	Lending Prime Rate	Deposit Prime Rate
Feb. 09	▽ 25 Basis Points	-51	16	11	5	-1	10	-27	-27
Mar. 09	▽ 25 Basis Points	-22	-27	-25	-23	-21	-23	-19	-20
Apr. 09	▽ 100 Basis Points	-40	-20	-20	-32	-23	-26	-103	-105
May. 09	▽ 100 Basis Points	-80	-15	-19	-22	-16	23	-43	-32
Jun. 09	▽ 100 Basis Points	-76	-60	-46	-28	-11	8	-59	-47
Jul. 09	▽ 100 Basis Points	-81	-68	-50	-30	-17	-6	-66	-60
Ago. 09	▽ 75 Basis Points	-64	-3	12	18	2	-10	-31	-33
Nov. 13	▽ 25 Basis Points	-20	-2	-3	-4	-3	15	-31	-40
Jul. 14	▽ 25 Basis Points	-28	-1	-2	-4	-9	-13	-26	-15
Sep. 14	▽ 25 Basis Points	-18	-1	-2	-3	-1	13	-22	-14
Jan. 15	▽ 25 Basis Points	-21	-9	-11	-13	-15	-18	-32	-27
May. 17	▽ 25 Basis Points	-24	-2	-2	-1	0	-4	-26	-9
Jul. 17	▽ 25 Basis Points	-20	-3	-3	-4	2	-13	-10	-9
Sep. 17	▽ 25 Basis Points	-14	-11	-11	-10	-11	-12	-25	-27
Nov. 17	▽ 25 Basis Points	-26	-17	-14	-8	-4	2	-14	-10

Finally, a Factor-Augmented VAR model (FAVAR) was estimated using a comprehensive set of interest rates of the financial system<sup>6</sup>. Using this method, one can summarize the information of all these rates in a small number of factors, identifying the factors that explain the joint behavior of all these rates. Furthermore, with this analysis one can isolate the pass-through of monetary policy from other factors affecting the operation of the financial system itself, e.g. changes in banks' policies for lending or alterations in investors' risk appetite.

The results of this analysis are shown in the table below, where we can see a high pass-through for credit rates with lower credit risk and shorter terms, this heterogeneity being explained by the particular characteristics associated with each segment of the credit market. For example, since the benchmark rate may vary in the medium term, long-term lending rates do not only take into account the current policy rate, but also expectations about future interest rates. When it comes to long term rates, expectations in the long-term or expectations on the natural interest rate will generate a lower pass-through effect. On the other hand, in the case of instruments with relatively short terms, a reduction or an increase in the benchmark rate can indicate a cycle of rate cuts or future rate increases, affecting the rates of up to 18 months in the same direction. That is why we can observe elasticity values higher than one. Finally, we see a low elasticity value in relatively illiquid markets or in markets concentrated in a few participants, as in the public treasury bills and in those instruments in which the demand is not sensitive to the interest rate, such as savings instruments in which the bank-client relationship or special promotions play an important role on what agents decide to choose.

<sup>6</sup> The factors are obtained from the interest rates. In addition, the VAR model includes macroeconomic variables, such as GDP growth, annual inflation, inflation expectations, annual depreciation, the rate of reserve requirements, and the interbank interest rate.

**PASS-THROUGH EFFECT OF THE INTERBANK INTEREST RATE  
TO MARKET INTEREST RATES ONE YEAR LATER <sup>1/</sup>**

3 month CDBCRP	1.11	Loans to Small businesses	1.05
6 month CDBCRP	1.11	Loans to Microbusinesses	1.84
9 month CDBCRP	1.24	Mortgage Loans	0.22
12 month CDBCRP	1.26	Average Credit Interest Rate in Soles	1.72
18 month CDBCRP	1.22	Moving Average Credit Rate in Soles	0.64
3 month Public Treasury Bills	0.58	90-day corporate prime rate	1.05
9 month Public Treasury Bills	0.49	1 Year Deposit	0.13
1 Year Public Treasury Bonds	0.42	Average Deposit Interest rate in Soles	0.29
2 Years Public Treasury Bonds	0.44	Moving Average Deposit Rate in Soles	0.78
Corporate Bonds	1.00	1 month Deposits	0.70
Bonds of Large Company	0.85	2 months Deposits	0.73
Bonds of Medium-sized Company	0.88	3 months Deposits	0.73

<sup>1/</sup> Orthogonal shock at the interbank interest rate in a FAVAR model and using data from September 2010 to October 2017. The pass-through effect is calculated using the cumulative impulse response of the FAVAR model.

The exercises discussed herein show that there is a significant and lasting impact of monetary policy actions on the rest of market interest rates. These results allow us to say that the latest cuts in the benchmark rate have contributed to ease monetary and credit conditions in the Peruvian financial market, in line with the role of BCRP of preserving monetary stability.



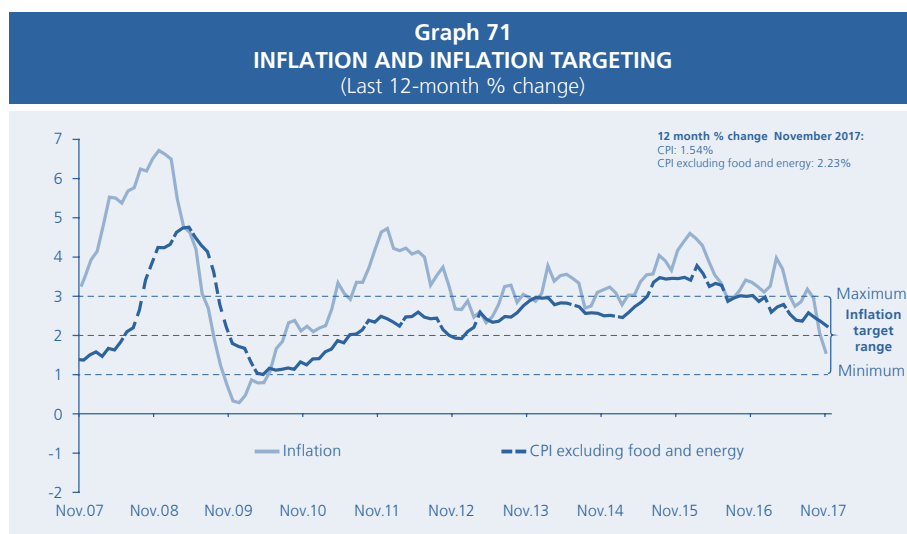


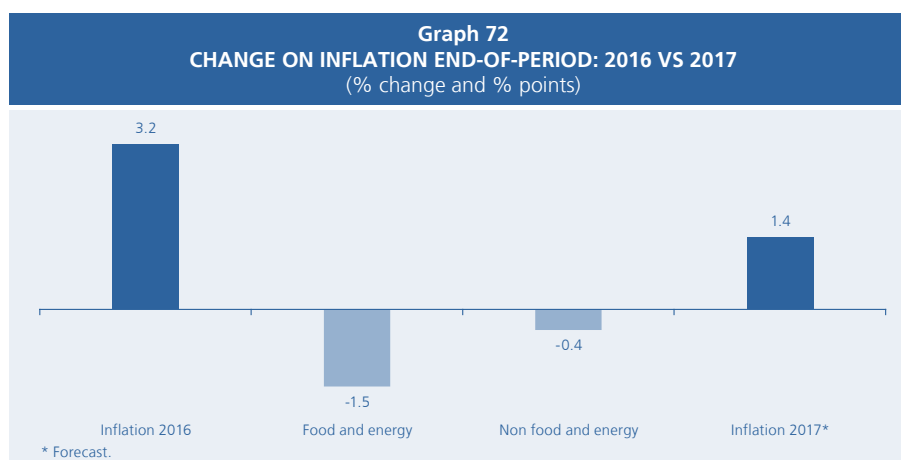
## VI. Inflation Forecast and Balance of Risks

### Inflation at November 2017

45. The year-to-year inflation rate fell from 3.17 percent in August to 1.54 percent in November 2017 mainly due to the reversal of the supply shocks that affected agricultural products (the water deficit in the last months of 2016 and El Niño Costero in the first quarter of 2017). The price of lemons dropped 62.7 percent between September and November and the prices of onions and potatoes fell 16.4 percent and 5.7 percent, respectively.

Inflation without food and energy continued showing a downward trend, declining from 2.57 percent in August to 2.23 percent in November. On the other hand, the year-to-year variation of the average prices of food and energy declined from 3.87 percent in August to 0.76 percent in November.





**Table 41**  
**INFLATION**  
(% change)

	Weight	2012	2013	2014	2015	2016	2017	
							Jan.-Nov.	12-month
<b>CPI</b>	<b>100.0</b>	<b>2.65</b>	<b>2.86</b>	<b>3.22</b>	<b>4.40</b>	<b>3.23</b>	<b>1.21</b>	<b>1.54</b>
<b>1. CPI excluding food and energy</b>	<b>56.4</b>	<b>1.91</b>	<b>2.97</b>	<b>2.51</b>	<b>3.49</b>	<b>2.87</b>	<b>1.85</b>	<b>2.23</b>
a. Goods	21.7	1.60	2.62	2.43	3.57	3.41	1.27	1.39
b. Services	34.8	2.10	3.18	2.55	3.44	2.54	2.20	2.75
<b>2. Food and energy</b>	<b>43.6</b>	<b>3.55</b>	<b>2.73</b>	<b>4.08</b>	<b>5.47</b>	<b>3.66</b>	<b>0.47</b>	<b>0.76</b>
a. Food and beverages	37.8	4.06	2.24	4.83	5.37	3.54	0.44	0.67
b. Fuel and electricity	5.7	0.22	6.09	-0.85	6.20	4.48	0.68	1.32
Fuel	2.8	-1.48	5.95	-5.59	-6.33	0.61	3.79	4.79
Electricity	2.9	2.19	6.23	4.37	18.71	7.53	-1.61	-1.22

**Table 42**  
**INFLATION**  
(Average contribution)

	Weight	2012	2013	2014	2015	2016	2017	
							Jan.-Nov.	12-month
<b>CPI</b>	<b>100.0</b>	<b>2.65</b>	<b>2.86</b>	<b>3.22</b>	<b>4.40</b>	<b>3.24</b>	<b>1.21</b>	<b>1.54</b>
<b>1. CPI excluding food and energy</b>	<b>56.4</b>	<b>1.05</b>	<b>1.62</b>	<b>1.37</b>	<b>1.89</b>	<b>1.54</b>	<b>0.99</b>	<b>1.19</b>
a. Goods	21.7	0.34	0.54	0.50	0.73	0.69	0.26	0.28
b. Services	34.8	0.71	1.08	0.87	1.16	0.85	0.73	0.91
<b>2. Food and energy</b>	<b>43.6</b>	<b>1.60</b>	<b>1.24</b>	<b>1.86</b>	<b>2.51</b>	<b>1.69</b>	<b>0.22</b>	<b>0.35</b>
a. Food and beverages	37.8	1.59	0.89	1.91	2.15	1.43	0.18	0.27
b. Fuel and electricity	5.7	0.01	0.35	-0.05	0.36	0.26	0.04	0.08
Fuel	2.8	-0.05	0.18	-0.18	-0.18	0.02	0.10	0.12
Electricity	2.9	0.06	0.17	0.12	0.54	0.25	-0.05	-0.04



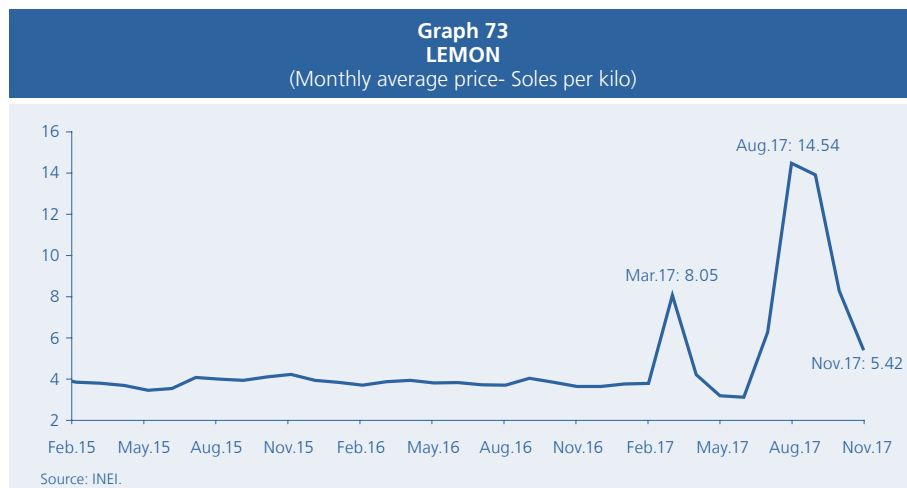


46. Between January and November the general level of the consumer price index increased to lower rates than its historic levels, reflecting the evolution of the prices of perishable farming food products, which showed an average monthly decline of 0.49 percent, its long term average variation rate recording 0.44 percent.

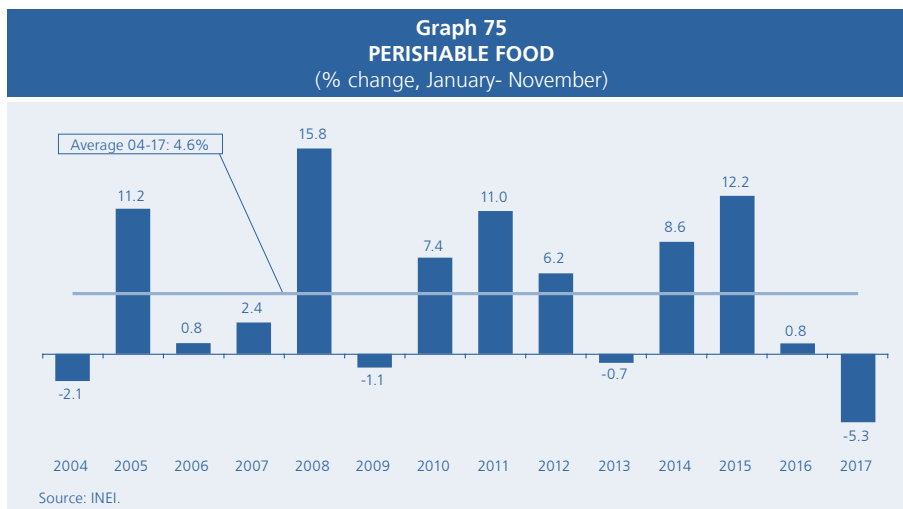
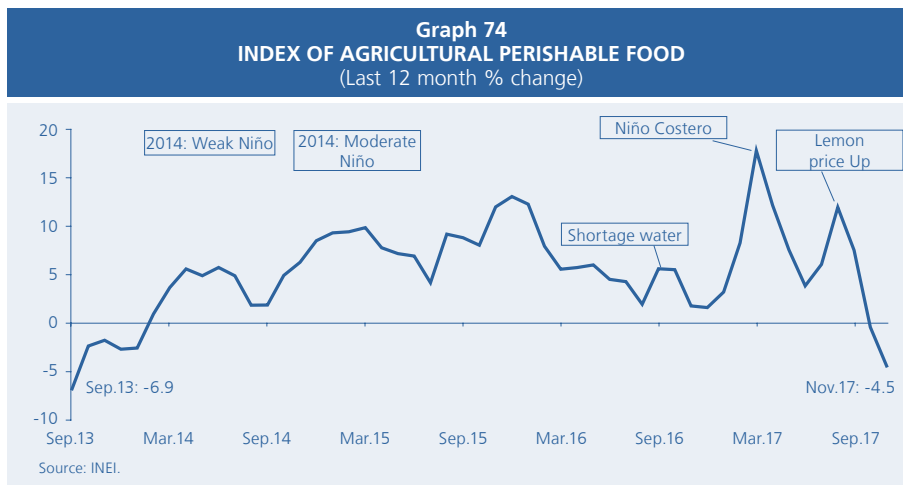
<b>Table 43</b> <b>CPI AND PERISHABLE FOODS</b> (Monthly average %)	
	<b>January-November</b>
<b>2002-2016</b>	
CPI	0.24
Perishable foods	0.44
<b>2016</b>	
CPI	0.26
Perishable foods	0.07
<b>2017</b>	
CPI	0.11
Perishable foods	-0.49

In the first months of the year, the prices of agricultural products recorded significant increases due to the effects of climate alterations, whereas between the months of April and June, these prices corrected downwards. The rebound of inflation in the months of July and August is explained mostly by the rise in the price of lemons, because the supply of lemons decreased considerably due to the lag effect of the climatic events registered early in the year.

As from September there was a decrease in the prices of perishable agricultural foodstuffs, the reversal in the price of lemons being especially noteworthy. Moreover, lower prices were also observed in crops such as potatoes, onions, tomatoes, and carrots, whose supply increased supported by the favorable climatic conditions (lower temperatures and adequate rainfall) observed during the year.



The frequency of climate supply shocks registered since 2014 has been the highest observed since the beginning of this century and have generated permanent price rises in the prices of food and in the general level of prices. Therefore, the current slowdown of the inter annual variation of food prices (the annual rate in November was -4.52 percent, the lowest recorded since September 2013) must be understood not only as the reversal of the supply shocks of this year, but also as the reversal of the accumulated shocks of previous years. This is the reason why after three years the percentage change accumulated between January and November in the prices of perishable foodstuffs is negative.



47. The products with a greater positive contribution to inflation in January-November include meals outside the home, education (tuition and fees), water rates, and lemons. Conversely, the products with the greater negative contribution to inflation were potatoes, chicken meat, airplane tickets, national transport, and electricity rates.





**Table 44**  
**ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION: JANUARY - NOVEMBER 2017**

Positive	Weight	% Chg.	Contribution	Negative	Weight%	Chg.	Contribution
Meals outside the home	11.7	3.5	0.47	Potato	0.9	-38.4	-0.50
Education costs (tuition and fees)	8.8	4.7	0.45	Poultry meat	3.0	-10.5	-0.32
Water consumption	1.6	13.0	0.22	Airplane fare	0.4	-15.9	-0.06
Lemon	0.2	51.8	0.10	National transportation	0.3	-16.1	-0.06
Eggs	0.6	14.1	0.07	Electricity rates	2.9	-1.6	-0.05
Beer	0.8	8.7	0.07	Fresh and frozen fish	0.7	-4.1	-0.03
Toiletries	4.9	1.4	0.07	Purchase of vehicles	1.6	-1.9	-0.03
Gasoline and lubricant	1.3	5.1	0.06	Fresh legumes	0.2	-10.4	-0.03
Carbonated beverages	1.3	3.6	0.05	Carrots	0.1	-15.3	-0.02
Banana	0.3	12.5	0.05	Peach	0.1	-8.3	-0.01
<b>Total</b>			<b>1.61</b>	<b>Total</b>			<b>-1.11</b>

### **Items in the Component of Inflation without Food and Energy**

#### **Meals Outside the Home**

Prices in the category of Meals consumed outside the home continued to be among those with the highest contribution to inflation, reflecting consumer's increased demand for this service. In January-November, prices in this category increased 3.5 percent, a higher rate than that recorded in food consumed at home (which declined by 1.1 percent) and in the general price index (1.2 percent).

#### **Education**

Prices in the category Education: tuition and fees increased 4.7 percent mainly due to the rise in tuitions and fees (4.0 percent) associated with the start of the new school year. Increases in the tuitions of higher education institutes were also observed throughout the period. In the last twelve months this category reached a variation of 4.7 percent, a higher rate than that recorded in the general price index.

#### **Water Rates**

In January-November, water rates increased 13.0 percent, reflecting mainly the rate adjustment adopted in the month of August (9.5 percent). Earlier increases were recorded in the months of January and February (1.7 and 1.5 percent, respectively), in accordance with regulations establishing that water rates be updated every time that the wholesale price index exceeds 3.0 percent. The cumulative increase in this index in the period June 2015-December 2016 (3.19 percent) was applied then.

The rise in August is associated with the application of a focused cross-subsidy system whereby rates were increased by 20 percent in the case of non-subsidized homes (67 percent of households in Lima). The impact of this rise on the average residential rate was a rise of 9.5 percent, the strongest rise in 17 years (in November 2000, water rates increased 10.2 percent). No other rate increases were observed in the following months.

## **Items in the Component of Food and Energy**

### **Electricity Rates**

In January-November, electricity rates decreased 1.6 percent (-1.2 percent in the last twelve months). This was the result of the rate reductions recorded in the first months of the year associated mostly with the suspension of the portion of the rate charged for the "Strengthening of energy security", which was destined to financing the Gasoducto Sur Peruano.

**Table 45**  
**DETERMINANTS OF ELECTRIC TARIFF CHANGE**

Item	2016	Nov.17 Accum. % change
<b>Infrastructure</b>	<b>3.7</b>	<b>-3.2</b>
- Transmission line	-0.5	0.5
- RER*	-0.4	-0.4
- Cold reserve	0.2	-0.2
- Gasoducto Sur Peruano	1.8	-2.6
- South energy node (TL Puerto Bravo)	1.4	-0.1
- South energy node (TL Ilo)	1.2	-0.4
<b>Exchange rate</b>	<b>0.3</b>	<b>-0.8</b>
<b>IPM</b>	<b>0.2</b>	<b>0.0</b>
<b>Other**</b>	<b>3.3</b>	<b>2.4</b>
<i>Of which:</i>		
- Electricity and power generation	--	0.5
- Other charges in Main System of Transmission	--	2.3
<b>TOTAL</b>	<b>7.5</b>	<b>-1.6</b>

\* RER: Renewable energy resources.

\*\* Includes other unit charges in the main and secondary transmission system; The unitary charges by the FISE (mechanism of social inclusion of the State destined to expand the energy frontier in the vulnerable segments of the population); Generation and distribution charges in medium and low voltage, etc.

In May electricity rates decreased again (-3.6 percent), mainly due to the quarterly revision of the balances of the contracts between electricity generation companies and electricity distribution companies. This rate reduction was then reconsidered afterwards due to the claim of some companies, after which there was a slight increase in July (0.45 percent).

Electricity rates were raised again since August, when the rate increased 1.9 percent due to a new update of the prices established in the contracts between electricity generation and electricity distribution companies as a result of tender processes.







In addition, rates were also adjusted according to the quarterly settlement carried out by the regulating agency to compensate for differences in generation prices among the regulated users. The transmission component was also updated due to the increase in charges intended to ensure the continuity of electricity services.

Rates were raised 0.4 percent again in September as a result of increases in transmission charges for the commissioning of new lines. In addition to this, there was an increase of 2.3 percent in November due to the update of a series of charges associated with energy transmission (e.g. compensation for the security of supply of several cold reserve plants, energy security, and an additional compensation for variable costs) as well as due to the quarterly settlement of the compensation between regulated users.

### Gasoline and Lubricants

The increase in this category of products in January-November was 5.1 percent (7.4 percent in the last twelve months), which reflected the higher *ex plant* prices of local refineries in a context of rising international prices of oil. Moreover, gasohol fuels recorded an average increase of 5.4 percent.

Table 46  
MONTHLY AVERAGE PRICE OF GASOHOL

(S/ per gallon)	Dec.15 (A)	Dec.16 (B)	Nov.17 (C)	Dec.15-Dec.16 (B)/(A)	Dec.16-Nov.17 (C)/(B)
1. Crude WTI (US\$ per gallon)	0.92	1.18	1.31	27.8	10.8
2. Parity price of OSINERGMIN (US\$ per Gallon) <sup>1/</sup>	1.48	1.70	1.98	15.3	16.1
3. Exchange rate	3.37	3.41	3.24	1.1	-4.9
4. Parity price of OSINERGMIN (US\$ per Gallon) (=2*3)	4.98	5.80	6.41	16.6	10.4
5. Additional margin (=4-2)	1.14	0.28	0.25	-75.1	-13.1
6. Refinery price <sup>2/</sup>	6.12	6.09	6.65	-0.5	9.3
7. Commercial margin (=9-8-6)	1.76	1.61	1.49	-8.8	-7.6
8. Taxes	3.12	3.08	3.22	-1.2	4.3
9. Final price <sup>3/</sup>	11.00	10.78	11.35	-2.0	5.4

1/ Price in Gulf Coast given by OSINERGMIN. Adds other import costs.

2/ Published by Petroperú.

3/ Source: INEI.

In January the average price increased 4.0 percent, in line with the increase in the international prices of crude oil from the levels recorded in previous months after the OPEC agreement of reducing oil production. In the following months, however, the international price of crude oil decreased, in line with expectations that the increased fuel production in the United States, together with the increased inventories of gasoline in this country, would compensate the OPEC production cuts. All of these events contributed to successive negative variations in the domestic market prices, which was also in line with the lower benchmark prices set by the regulating body, Osinergmin.

From mid-July, the parity prices of fuel imports increased following the rise in the international prices of oil associated mainly with the decline in oil stocks and lower inventories of gasoline in the United States. This had an impact on domestic prices, which recorded a rise of 1.3 percent in the month of August.

The largest price rise of the period (5.3 percent) took place in September due to the increase in *ex plant* prices. The benchmark prices set by Osinergmin increased until the third week of September, supported by a lower production of fuel in the Gulf Coast of the United States as a result of the hurricanes and storms that affected this area.

In October, the prices of fuels decreased 0.5 percent, showing a similar conduct to that of the benchmark prices which fell after refineries in the United States resumed operations. In November, prices rose again (0.2 percent) since *ex plant* prices and benchmark prices increased again, influenced by the announcement of further cuts in international oil production, political tensions among some producing countries, and the reduction of inventories of crude oil in the U.S. market.

## **Food**

The decline in the prices of some foodstuffs (e.g. potatoes and chicken meat) due to a higher supply stands out in the period of January-November. Another factor that contributed to this decline of prices was the reversal of the supply shocks that affected the production and marketing of several agricultural foodstuffs (lemons, onions, bananas, among others) in the first months of the year due to climate changes associated mainly with El Niño Costero.

### **Potatoes**

In January-November the price of potatoes showed a negative variation of 38.4 percent and a negative variation of 38.7 percent in the last twelve months as a result of increased cultivation of this crop in the major producing regions. The resulting oversupply to Lima was 12.6 percent higher than that observed in the same period of the previous year. Another factor that contributed to this was the improvement of yields due to the increased frequency and intensity of rains during the farming season, especially in Huanuco, a major producing area that had been affected by a severe drought the previous year. Additionally, in March, producers were forced to make offers in the wholesale channel due to the greater perishability of potatoes resulting from excess humidity in the growing areas because of rains, as well as due to significantly warmer temperatures in Lima.





From May to July, potato prices continued declining due to the increased supply of the variety of white potatoes that came from Junín and Ayacucho, the planting and flowering of the crop –lower temperatures and higher-than-normal rainfall– having been favored by climatic conditions in these regions. The supply of potatoes from Huánuco also increased in the following months, which had a favorable impact on prices. In addition, increased cultivation in Ica which extended until November offset Lima’s lower participation due to lower planting.

### **Chicken Meat**

In the January-November period, the price of chicken meat decreased 10.5 percent and 10.3 percent in the last 12 months. This decrease is explained by an increase in the supply exceeding demand requirements and by lower production costs.

The national production of poultry (approximately 95 percent is chicken) increased 3.6 percent in January-October compared to the same period in 2016. In October the production of chicken increased 7.6 percent, an increase of 8 percent being estimated in the month of November in a context of a lower cost of poultry feed. The price of hard yellow maize, the main input used in poultry food, declined from US\$ 132 per ton in December 2016 to US\$ 124 in October and to US\$ 123 in November 2017. The price of maize imports in soles accumulated a decrease of 7.2 percent in January-November in comparison with the same period of the previous year.

In November, the price showed some recovery, influenced by the irregular supply of fish and by the higher relative prices of substitute products such as tuna and mackerel.

### **Lemons**

In the period of January-November, the price of lemons rose 51.8 percent, which represented a slower pace of growth of this price compared to the period of January-August when the price of lemons increased 307.3 percent.

In the first part of the year, the highest price change (116.4 percent) took place in March, when the rains and floods affected roads, hindering the transfer of this product to Lima. This situation improved in April and May when transport conditions started to normalize again and the price of lemons dropped by 48.4 percent and 25.1 percent, respectively. However, new price increases were recorded in July and August (105.3 and 133.0 percent, respectively) given that the negative impact of the climatic alterations of the preceding months, which affected the normal

development of crops added on to lower seasonal production. In addition to this, pests that affect the quality of the product were reported in the Valley of San Lorenzo in Piura, the main producing area.

Price decreases were recorded again from September as a result of a higher supply, although the latter did not reach the level of the previous year (-11.7 percent in January-November compared to the previous year).

### Other Farming Products

Other crops whose production and prices were affected by climatic factors included onions, tomatoes, and carrots.

The price of **onions** showed the biggest rise in the month of March (42.2 percent). Crops and the quality of onions as well as the regular supply to Lima were affected by heavy rains in Arequipa, the main producing region, since late December 2016, increasing the wholesale price (79 percent from March). The latter also reflected problems in marketing and transport caused by floods and mudslides. In April, the price of onions continued to rise (18.6 percent) mostly as a result of the culmination of the growing season of this crop in some valleys of Arequipa.

This situation reversed in the next few months with the seasonal supply of varieties of onion with lower prices that came from Arequipa as well as from Ica and from the northern provinces of the country.

The price of **tomatoes** rose in February and March (10.6 and 33.6 percent) reflecting less cultivation in Lima as well as the lower quality and lower yields of this crop due to the high temperatures recorded in those months. In addition, marketing problems caused by mudslides and floods that affected the valleys of Cañete, Huaral, and Canta were also reflected in the supply. However, the price decreased from April due to a higher supply that came from other regions (Arequipa, Ica, and Ancash), as well as from Arequipa and Ica in August, and from a greater supply of Lima thereafter. Although cultivation was lower in the valleys of Lima, higher yields were favored by the improvement of climate conditions (lower temperatures than in the previous months).

The price of **carrots** recorded the greatest increases in the months of January and March (29.7 and 13.7 percent, respectively), which is mostly explained by lower crops in Junín due to the lack of rains from August to November 2016. The price of carrots began to decline this year, from April, reflecting the increase of cultivation areas in that region since December 2016. A higher supply from the valleys of Lima was observed from August as a result of increased crops and the improvement of climate conditions (lower temperatures than in earlier months).

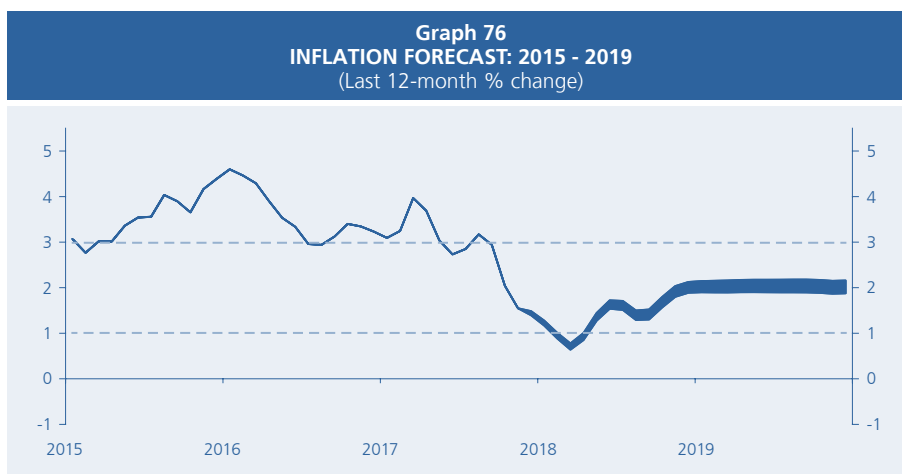




### Forecast for 2017-2019

48. BCRP monetary policy actions are taken anticipating the most likely scenarios on the basis of inflation forecasts and projections of inflation determinants elaborated based on the information available at the time of decision making. Indicators standing out as key indicators for monetary policy actions include inflation expectations, imported inflation (including the effect of the foreign exchange rate), and demand inflationary pressures, all of which are quantified through the concept of the output gap (the difference between GDP and its potential level).

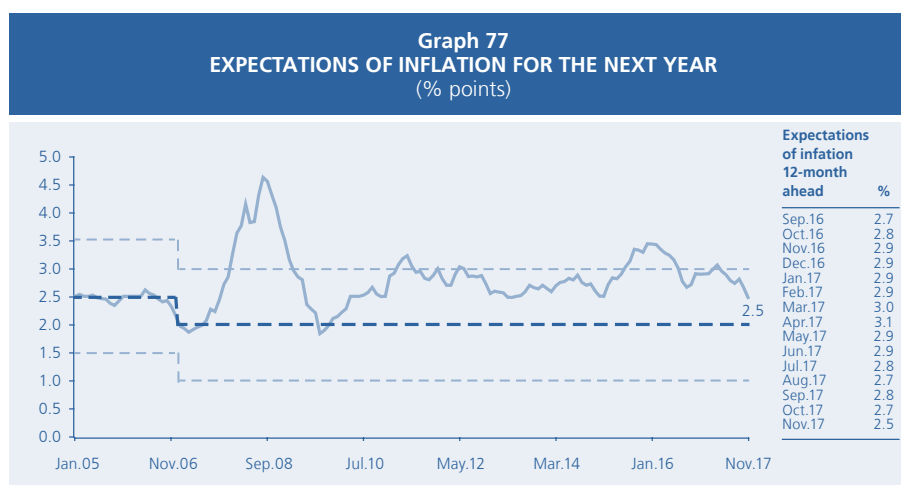
Year-to-year inflation is expected to be transitorily below 2.0 percent at the end of 2017 and during the first half of 2018 due to the reversal of the frequent supply shocks associated with the adverse climatic factors observed especially in late 2016 (water deficit) and early 2017 (El Niño Costero). The normalization of these shocks has brought about year-to-year inflation rates below 2 percent.



This greater incidence of supply shocks and the depreciation pressures of the nominal exchange rate observed between 2013 and 2016 have raised expectations of inflation in recent months. The rapid normalization of these shocks has been correcting inflation expectations towards the midpoint of the target range. Together with the absence of inflationary demand pressures and with the moderate rates of imported inflation foreseen, this trend of inflation expectations would lead inflation without food and energy to remain very close to 2.0 percent in the forecast horizon.

The **determinants of the inflation forecast** are discussed below:

- a) **Expectations of inflation in 12 months** are foreseen to continue declining during the forecast horizon and would converge to 2 percent during 2018.



**Table 47**  
**SURVEY ON MACROECONOMIC EXPECTATIONS: INFLATION**  
(% change)

	IR Jun.17	IR Sep.17	IR Dec.17*
<b>Financial entities</b>			
2017	3.0	2.8	2.2
2018	2.8	2.6	2.5
2019	2.8	2.8	2.6
<b>Economic analysts</b>			
2017	3.0	2.8	2.2
2018	2.8	2.8	2.5
2019	2.8	2.7	2.7
<b>Non-financial firms</b>			
2017	3.1	3.0	2.9
2018	3.0	3.0	3.0
2019	3.0	3.0	3.0

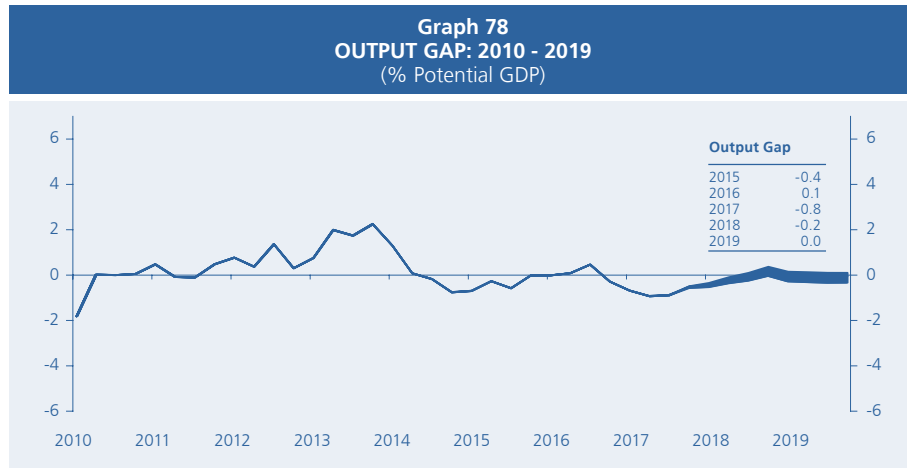
\*Survey conducted during November 30.

- b) Increased fiscal expenditure in infrastructure projects (public investment in reconstruction works), favorable external conditions, and optimistic

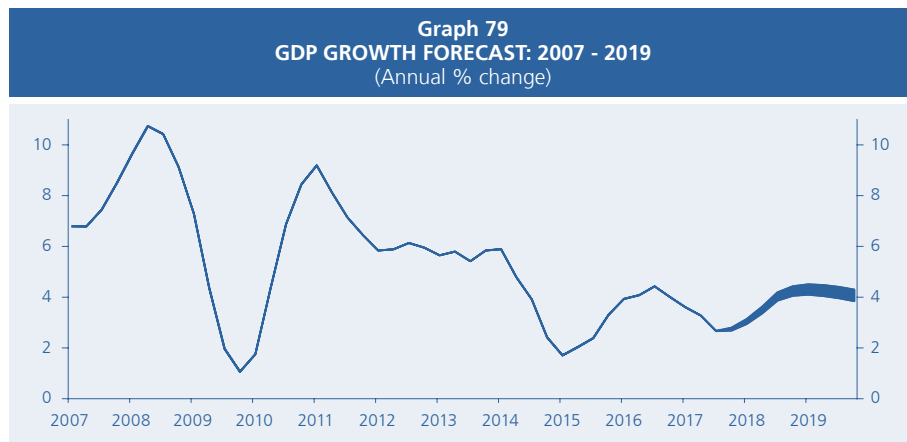




expectations about the evolution of economic activity are foreseen to bring the output gap closer to its neutral position in 2018.

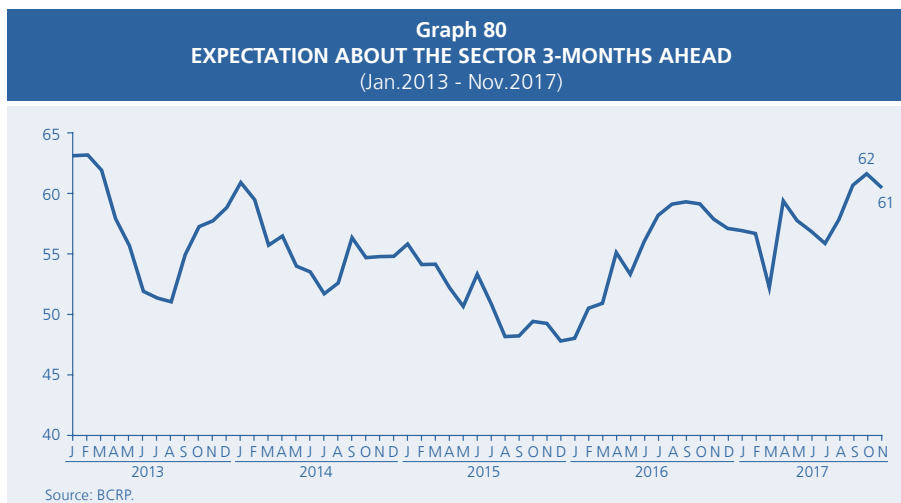


It is worth highlighting that the growth forecast for the 2018-2019 forecast horizon is consistent with a GDP growth rate higher than the growth of the potential output given the recovery anticipated in the output gap, especially in 2018.

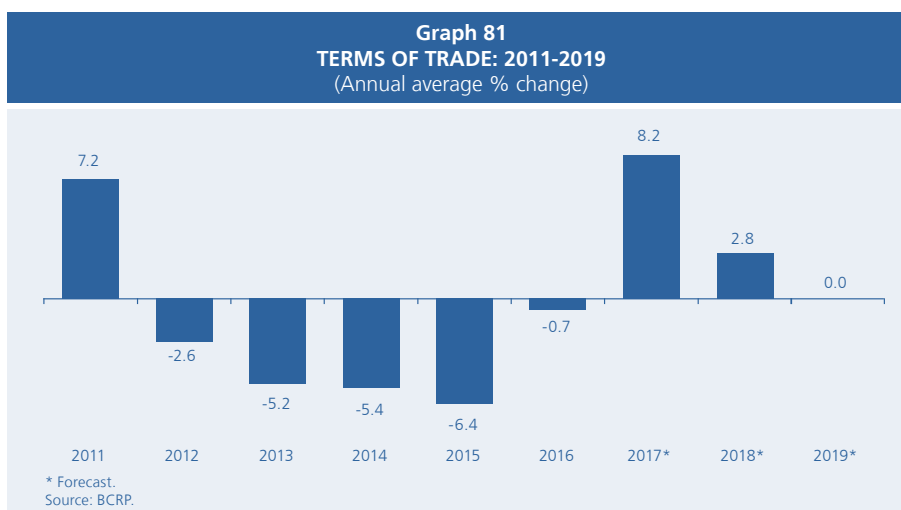


The main determinants of the forecast of the **output gap** include the following:

- **Business confidence:** Business confidence is expected to remain within the optimistic side in the forecast horizon.



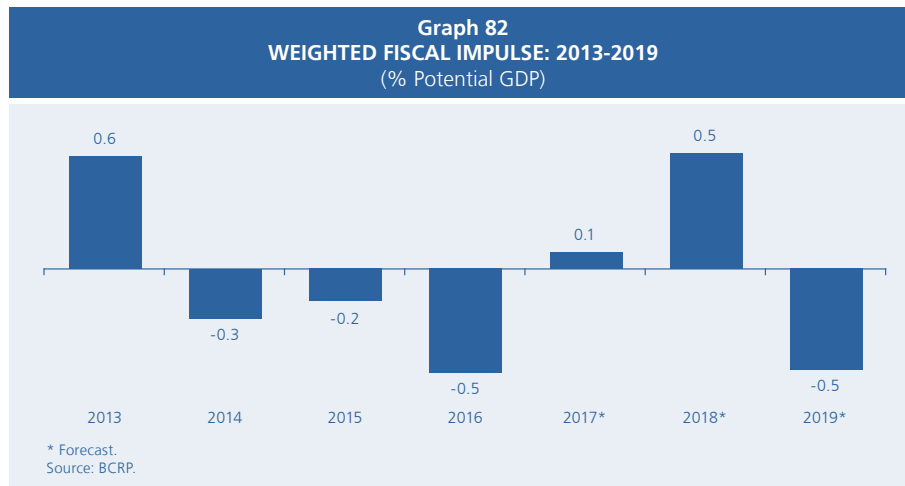
- External conditions:** More favorable external conditions driven by the increase in the terms of trade and by a faster pace of growth in our trading partners than that observed in 2017 are foreseen.



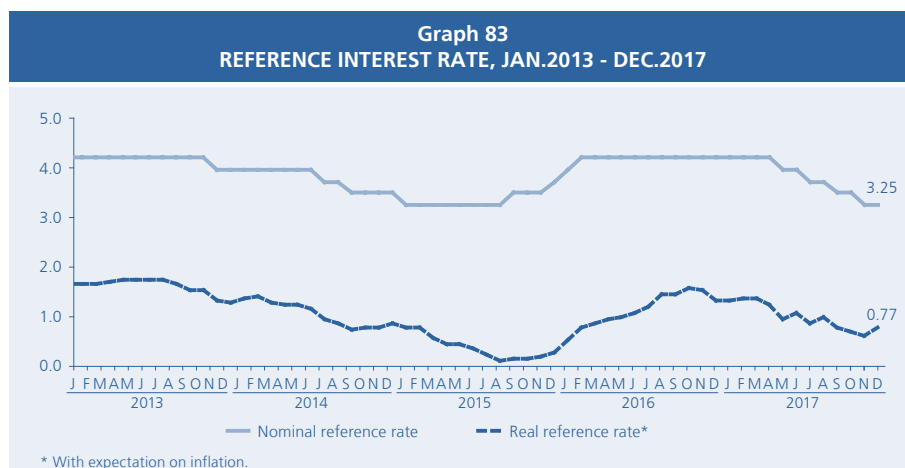
- Fiscal impulse:** The weighed fiscal impulse estimated for 2018, associated with the reconstruction of the infrastructure affected by El Niño Costero, would be significant in the first half of the year. In 2019, the fiscal impulse would become negative due to the consolidation of public finances.







- **Monetary conditions:** Taking into account the cuts in the benchmark interest rate in May, July, September, and November, monetary conditions in soles are still expansionary –the real rate is lower than 1 percent– and will continue contributing to the recovery of the output gap. Moreover, conditions in dollars are expected to be similar to those foreseen in our previous report. Although higher Fed interest rates are anticipated, the effects of these higher rates on local credit conditions will be offset in part by the reductions of reserve requirements in dollars adopted by BCRP and will allow more moderate expectations of depreciation.



- c) **Imported inflation** reflects the evolution of import prices and the evolution of the exchange rate. In 2018, the level of imported inflation is expected to be similar to the level projected in the Inflation Report of September, in line with market expectations of a more stable exchange rate in nominal terms.

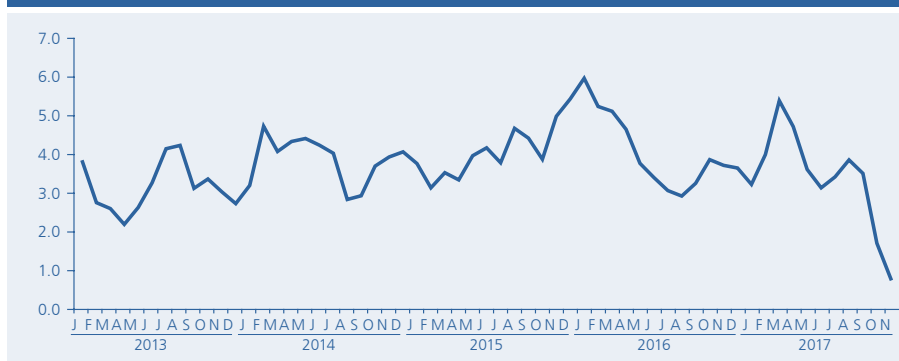
**Table 48**  
**SURVEY ON MACROECONOMIC EXPECTATIONS: EXCHANGE RATE**  
 (S/ per US\$)

	IR Jun.17	IR Sep.17	IR Dec.17*
<b>Financial entities</b>			
2017	3.35	3.27	3.25
2018	3.40	3.30	3.29
2019	3.48	3.34	3.28
<b>Economic analysts</b>			
2017	3.35	3.28	3.25
2018	3.40	3.35	3.30
2019	3.44	3.40	3.35
<b>Non-financial firms</b>			
2017	3.35	3.30	3.28
2018	3.40	3.40	3.34
2019	3.50	3.43	3.40

\* Survey conducted during November 30.

- d) The annual change in the food and energy inflation rate is expected to remain below 2 percent in the first months of 2018 due to the reversal of the supply shocks caused by El Niño Costero. The annual change will converge to 2 percent towards the end of 2018 as the effects of this reversal of shocks disappear gradually.

**Graph 84**  
**VARIATION OF FOOD AND ENERGY 2013-2017**  
 (12-month % change)



**Balance of Risks in the 2017- 2019 Horizon**

49. Every forecast is subject to the occurrence of unanticipated events that may deviate the forecast from the central scenario. The materialization of some risks may imply a different rate of inflation than the one forecast originally. The main factors that could deviate the inflation forecast from the baseline scenario include the following:





a. **Negative shocks on domestic demand**

Economic recovery could be more gradual if public and private investment grew at lower rates than expected, which would imply a more negative output gap for a longer period of time. As a result of this, inflation would tend to show rates below the baseline scenario.

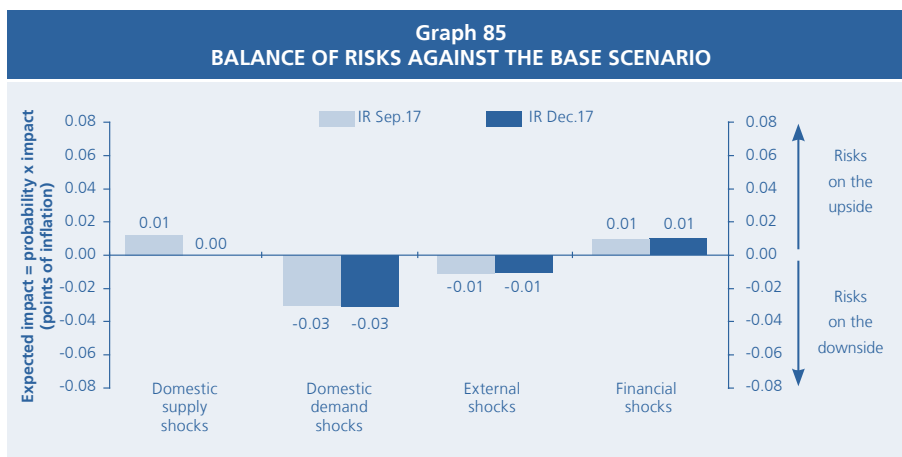
b. **Negative external shocks**

The baseline scenario considers an external context favorable to our economy. However, a decline in commodity prices from the price levels expected would mean a more negative output gap and a rate of inflation below the one considered in the baseline scenario.

c. **Volatility in international financial markets**

Abrupt adjustments in the interest rates of long-term bonds and increased capital flows to the United States (due to a greater fiscal deficit, for example) would push the exchange rate upwards and could increase inflation in the short-term deviating it from the trend consistent with the central forecast scenario.

The balance of risks of the inflation forecast shows a slight bias on the downside, so the impact of factors that could decrease inflation is higher than the impact of factors that imply a rise in prices.

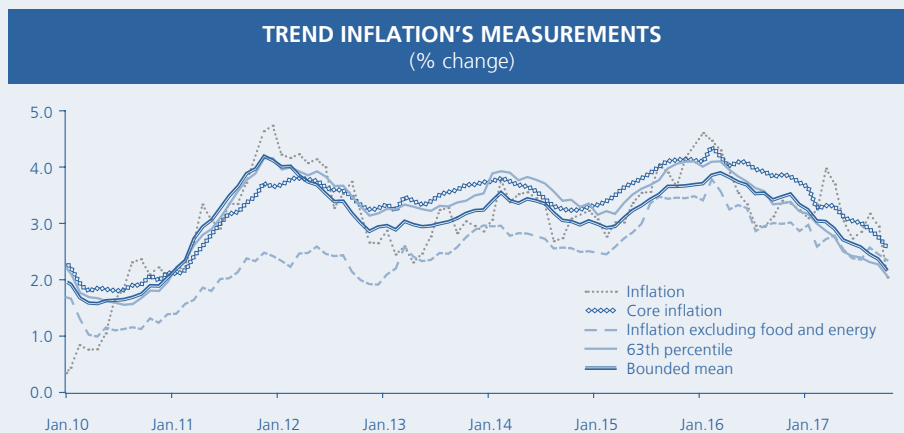


**Conclusions**

50. Inflation is expected to show rates below its long-term level at the end of 2017 and during the first half of 2018 due to the correction of the supply shocks that increased prices in the last months of 2016 and in the first half of 2017. Moreover, inflation without food and energy and inflation expectations are foreseen to continue declining to 2 percent in a context of economic growth without demand inflationary pressures and with moderate levels of imported inflation.

**Box 5**  
**SUPPLY SHOCKS AND INFLATION PERSISTENCE**

Trend inflation –measured by a comprehensive set of indicators– has returned to the target range this year after persistently being around the upper band of the target range for several months (as shown in the graph below). This box explains the role played by the magnitude and frequency of supply shocks in the increased inflation persistence observed during this period. Particularly, we highlight the unusual coincidence of climate shocks and the persistent nominal depreciations recorded in the 2013-2016 period.



The measurements of trend inflation considered are: a) underlying inflation, b) core inflation, c) the 63th percentile of sub-sector inflation rates, and d) the bounded mean, which is calculated as the weighted average of the sub-sector inflation rates that have a standard deviation inside the 33th and 66th percentiles.

Conceptually, inflation reflects both the evolution of its fundamental drivers –i.e. the output gap, inflation expectations, changes in international prices, and the foreign exchange rate– and short-term supply shocks. The Central Bank influences most of these determinants through its monetary policy actions and statements. For example, BCRP can influence the exchange rate, inflation expectations, and the output gap through a less expansionary monetary policy, thus decreasing inflation. However, the Central Bank does not influence the frequency nor the intensity of changes in international prices or in supply shocks. The latter are changes in relative prices, typically of food prices, associated with unexpected movements in the supply of these goods. Central banks only respond to these shocks only when they affect inflation expectations because, otherwise, they could have persistent effects on trend inflation. This explains why between September 2015 and February 2016, BCRP raised its monetary policy benchmark rate by 100 basis points, in a context in which inflation expectations were temporarily above the target range. After these actions, inflation expectations returned to the target range, but inflation has shown a greater persistence in a context of a negative output gap, which indicates the absence of inflationary pressures caused by demand factors (as shown in the following graph).





### INFLATION PERSISTENCE (Moving-window correlation)

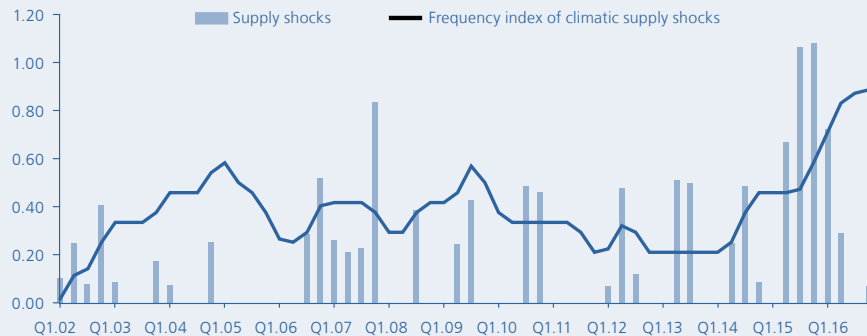


The line shows the time when inflation targeting (IT) scheme was implemented. The rolling-window correlation is calculated using a 32 quarters window that allows removing partially the economic-cycle effects; thereby we obtain an adequate proxy of the recent evolution of inflation persistence.

#### What effect do supply shocks have on inflation persistence?

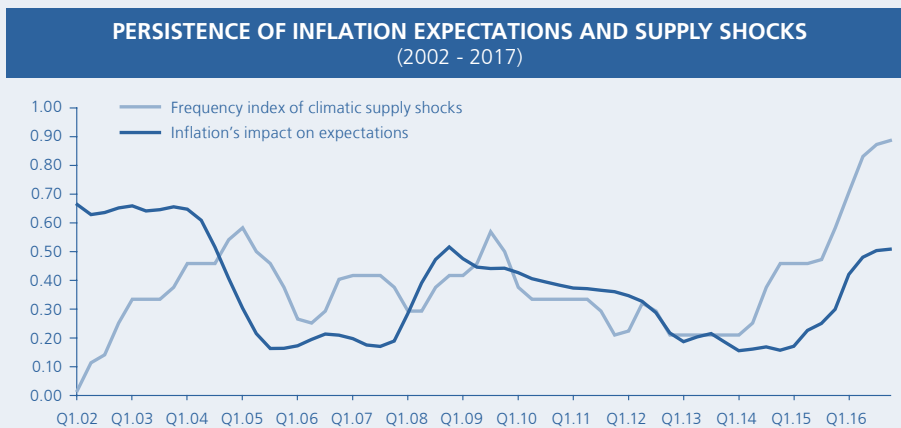
When there is a high frequency and persistence of supply shocks, it is more difficult to distinguish them from the Central Bank's monetary policy responses. This may imply that agents assign greater weight to past inflation as a predictor of future inflation (inflation inertia) and may therefore contribute to make inflation expectations more persistent. The period of 2010-2016 was atypical in this sense, since it was marked by a high frequency of supply shocks associated with climatic factors and by highly persistent changes in relative prices, such as the depreciation of the sol observed between May 2013 and March 2016. The graph below shows in bars the indicator of anomalies of sea temperatures, which is used to identify weather phenomena such as El Niño and La Niña. As one can see in the graph, the frequency and intensity of these shocks has been the highest recorded since the beginning of this century. The dotted line accumulates the frequency of these shocks observed in the last twelve months and shows that the frequency of climate-related supply shocks has been the highest in the period analyzed.

### SUPPLY SHOCKS FREQUENCY (2002 - 2017)

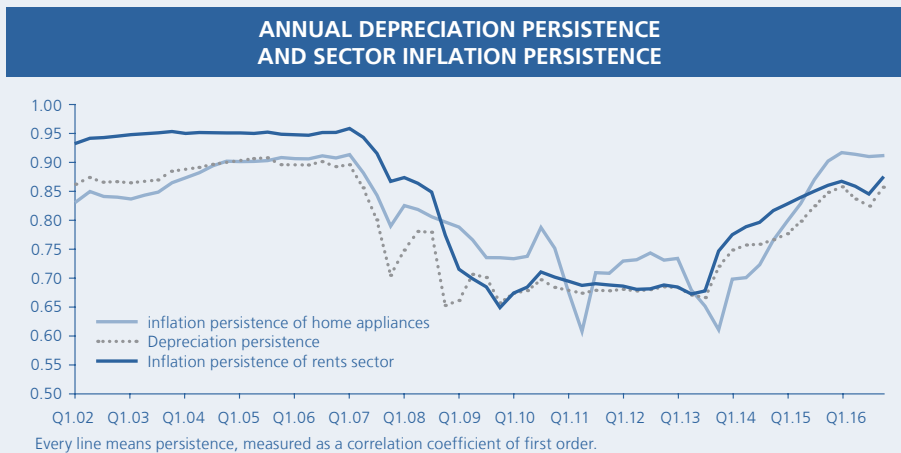


The ICEN is an index that measures anomalies in the sea temperature that are related to climatic phenomena such as El Niño and La Niña. In this box, the events registered as neutrals or weakly cold were not considered. The frequency index is calculated as the number of month in the last twelve months in which the ICEN index has been greater than zero.

The increased frequency of supply shocks in the 2014-2016 period also coincides with an increase in the sensitivity of inflation expectations to past inflation. The following graph shows the frequency of the supply shocks, together with the elasticity of inflation expectations to past inflation. We can see a synchronized increase of both this latter variable and the indicator of the frequency of the supply shocks.



Another factor that has affected the persistence of inflation is the increase in the persistence of the depreciation of the sol observed since 2012. The graph below illustrates how the persistence in the year-to-year changes in the prices of rents and home appliances is strongly correlated with the annual depreciation persistence. The persistence of these variables is calculated as the correlation between the evolution of the variable in the current period and its value in the previous period. Thus, the higher this indicator is, the longer the year-to-year change of these variables will take to return to their long-term level and, therefore, their persistence will be greater.





*How high is the probability of seeing a high frequency of both supply shocks and nominal depreciation as that recorded since 2010?*

Based on historical data, we find that the probability of seeing climate shocks of a similar magnitude to those observed between 2010 and 2016 is 6.6 percent. Moreover, the likelihood of a persistent adjustment of the exchange rate, as the one observed since May 2013, is quite low because the current value of the dollar at the international level already reflects the expected trajectory of increases in the FED interest rates. Furthermore, the likelihood of seeing extreme weather shocks and persistent nominal depreciations in the future is lower, thus making it unlikely to have a scenario with such frequency and severity of supply shocks in the following quarters. It is therefore probable to expect a significant reduction in inflation persistence, together with a more rapid convergence of inflation to the target (this has already been seen recently).

In spite of the challenges that this scenario with a greater frequency of supply shocks has implied for monetary policy, the rate of inflation in Peru continues to be one of the lowest rates among Latin American countries with inflation targeting schemes. The Peruvian economy is also the economy with the lowest average inflation in the region since 2002 and the one with the lowest inflation rate volatility.

**BANCO DE RESERVA DEL PERU**

PAGARÁ AL PORTADOR

Nº

Nº

020431

020431



SERIE  
CI

LIMA, 12 DE ABRIL

**UNA LIBRA PERUANA DE ORO**

- DE ACUERDO CON LAS DISPOSICIONES DE LA LEY Nº 4500 -

DE 1922.

DIRECTOR

PRESIDENTE DEL DIRECTORIO

GERENTE

*[Handwritten signatures and names, including E. F. Romero]*

