INFLATION REPORT

September 2017

Recent trends and macroeconomic forecasts 2017-2019

CENTRAL RESERVE BANK OF PERU

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Recent Trends and Macroeconomic Forecasts 2017 - 2019

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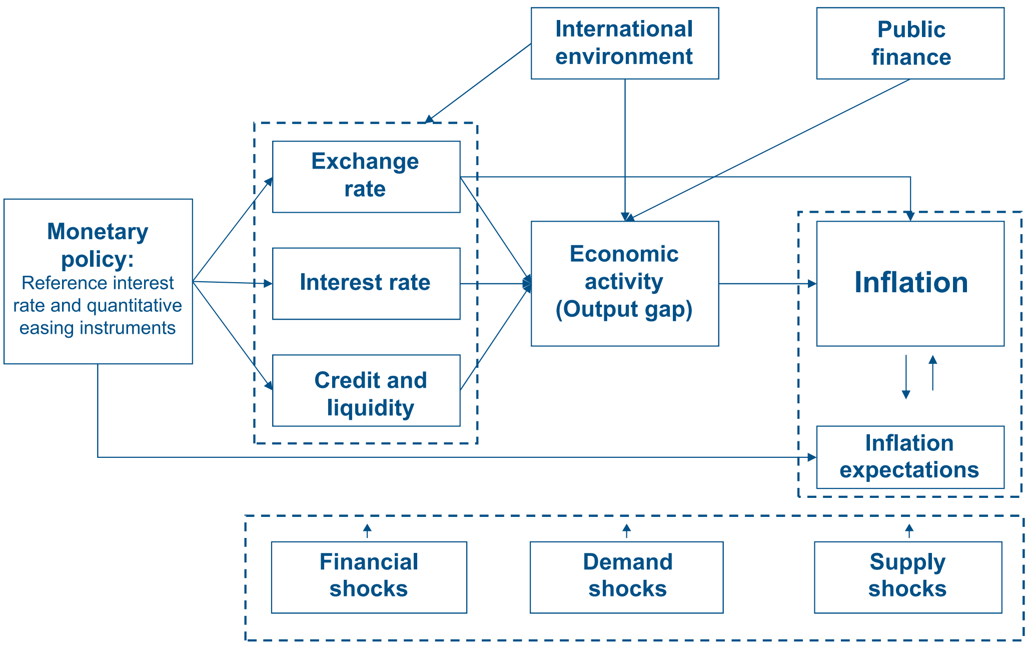

Central Reserve Bank of Peru

441-445 Santa Rosa. Lima 1

Telephone: 613-2000 - Fax: 613-2525

Mail: webmaster@bcrp.gob.pe

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CONTENT

BOXES

This ***Inflation Report*** was prepared using data on the Balance of Payments and the Gross Domestic Product as of the second quarter of 2017, and data on Monetary Accounts, the operations of the Non-Financial Public Sector, Inflation, Financial Markets, and the Exchange Rate as of August 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 September 7, 2017.

Summary

i. During the second quarter of 2017, **global growth** has shown has highest rates in the past five years. This pace of growth has been characterized by a synchronization in the evolution of growth in both the developed economies and the emerging market economies. Growth in the former has continued to be driven by the dynamism of the labor market, favorable financial conditions, and slight inflationary pressures which rule out an abrupt adjustment of monetary stimulus, while growth in the latter has also shown a better outcome, favored in part by the recovery of commodity prices and monetary stimuli. Because of this, the projection of global growth for 2017 has been revised up from 3.5 percent in the previous report to 3.6 percent, the Eurozone, Japan, and China accounting for the major corrections in this projection. This level of growth would continue in 2018, falling slightly thereafter to 3.5 percent in 2019.

   Since the recovery of commodity prices has been higher than expected in the June report, the increase in the **terms of trade** has been corrected on the upside, from 5.5 percent to 7.0 percent in 2017. The recovery in the terms of trade would continue in 2018 (2.0 percent) and then stabilize in 2019.

ii. The reduction of the deficit in the **current account of the balance of payments** accelerated in the first half of this year, reflecting the slowdown of domestic demand and higher terms of trade. In the forecast horizon, export prices are expected to remain at average levels close to those observed during this year.

   In line with these developments, the current account deficit would be around 2.0 percent in 2017-2019. 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 slowing down since the last quarter of 2016 due to the decline of domestic demand resulting mainly from the contraction of private and public investment after the impact of the fiscal consolidation measures, the corruption cases associated with Brazilian construction companies, and *El Niño Costero* (especially between February and April 2017).

   Since May there has been a recovery of domestic demand, in line with the recovery of business confidence and the terms of trade, as well as a smaller contraction of public spending, associated with the government's efforts to unlock public investment. Moreover, have exports continued to be the main source of GDP growth.

Because of this, the projected rate of GDP growth for this year remains at 2.8 percent and at 4.2 percent for 2018. This level of growth would continue in 2019, in a context of a faster pace of growth of private investment and a lower pace of growth of mining production and public investment.

iv. At August, the **fiscal deficit** accumulated in the last 12 months was 2.9 percent of GDP –slightly higher than at the end of December (2.6 percent of GDP)–, which reflected the declining trend of current revenues in line with the slowdown of economic activity, increased tax rebates, and recent tax cut measures. On the other hand, current spending, especially spending in gross capital formation, has shown a slower pace of decline since the second quarter of the year.

Therefore, the projections of the fiscal deficit for 2017 and 2018 remain at 3.0 and 3.5 percent of GDP as in the previous report, these levels of deficit allowing the fiscal space for the increased spending required for reconstructing the infrastructure affected by El Niño Costero. In 2019, the deficit is expected to decrease to 2.9 percent of GDP, in line with fiscal consolidation.

v. The downward trend of inflation observed since April was briefly disrupted by the rise in the price of lemons (July/August) and the rise in water rates (August), which led inflation to register 3.17 percent in August, above the target range. Despite this, expectations of inflation in 12 months have continued declining and have shown levels within the target range over the past three months, which reflects that economic agents have correctly understood the temporality of the recent supply shock. In this context, the Board of BCRP lowered the benchmark rate to 3.75 percent in July, maintained it at this level in August, and reduced it to 3.50 percent in September.

With this decrease in the benchmark interest rate, BCRP has expanded the expansionary monetary policy stance, this position being consistent with inflation's convergence to the 2.0 percent target with economic growth without inflationary pressure on the side of demand.

vi. **Credit to the private sector** grew 5.3 percent year on year in July, slightly less than at the end of 2016 (5.6 percent). This evolution of credit is associated with the slowdown of the domestic demand of the private sector, reflected in the slowdown observed in lending to medium-sized enterprises and consumer loans via credit cards. 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.

vii. **Inflation** is projected to show rates within the target range during the fourth quarter of this year and to converge steadily to 2.0 percent during 2018. This forecast considers a rapid reversal in the prices of food products affected by *El Niño Costero* (excessive rainfall) during the first quarter of 2017 and in its impact on the supply of these foodstuffs in the third quarter of the year.

The **risk factors** considered in this Report –supply shocks, demand shocks, increased volatility in international financial markets, and a decline in the terms of trade– have a 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[1/]		2018[1/]		2019[1/]
			IR Jun.17	IR Sep.17	IR Jun.17	IR Sep.17	IR Sep.17
Real % change							
1. Gross Domestic Product	3.3	4.0	2.8	2.8	4.2	4.2	4.2
2. Domestic demand	2.9	1.0	1.9	2.3	4.0	4.2	4.2
a. Private consumption	3.4	3.4	2.5	2.6	3.0	3.3	3.8
b. Public consumption	9.8	-0.5	2.3	2.3	3.0	3.6	2.0
c. Fixed private investment	-4.3	-5.9	-1.8	-1.0	5.3	5.3	7.5
d. Public investment	-9.5	0.6	7.0	7.0	15.0	15.0	4.0
3. Exports (good and services)	4.0	9.5	5.9	5.0	4.4	3.8	4.4
4. Imports (good and services)	2.4	-2.2	2.9	3.3	3.5	4.1	4.6
5. Economic growth in main trading partners	3.2	2.8	3.2	3.3	3.3	3.3	3.2
Memo:							
Output gap[2/](%)	-1.0 ; 0.0	-1.0 ; 0.1	-1.7 ; 0.0	-1.5 ; -0.5	-1.2 ; 0.0	-1.0 ; 0.0	-0.5 ; 0.0
% change							
6. Inflation	4.4	3.2	2.0 - 2.5	2.0 - 2.5	2.0 - 2.2	2.0	2.0
7. Expected inflation[3/]	-	-	3.0	2.8	2.8	2.7	2.7
8. Expected depreciation[3/]	-	-	-2.7	-2.5	1.5	1.6	1.3
9. Terms of trade[4/]	-6.4	-0.7	5.5	7.0	0.0	2.0	0.0
a. Export prices	-15.0	-3.6	10.2	12.0	0.6	2.2	1.0
b. Import prices	-9.2	-3.0	4.5	4.7	0.6	0.1	1.0
Nominal % change							
10. Currency in circulation	3.8	6.5	5.0	5.0	5.9	5.9	5.9
11. Credit to the private sector[5/]	8.0	5.6	5.0	5.5	6.2	7.0	7.0
% GDP							
12. Gross fixed investment	24.3	22.5	21.6	21.6	22.3	22.2	22.9
13. Current account of the balance of payments	-4.8	-2.7	-2.1	-2.0	-2.0	-2.0	-2.1
14. Trade balance	-1.5	1.0	2.3	2.3	2.7	2.8	2.7
15. Long-term external financing of the private sector[6/]	6.6	4.6	3.7	5.0	3.8	4.0	4.2
16. Current revenue of the general government	20.0	18.5	18.3	18.1	18.2	18.3	18.4
17. Non-financial expenditure of the general government	21.3	20.0	20.2	20.0	20.4	20.4	19.9
18. Overall balance of the non-financial public sector	-2.1	-2.6	-3.0	-3.0	-3.5	-3.5	-2.9
19. Balance of total public debt	23.3	23.8	25.8	24.9	26.6	26.9	27.7
20. Balance of net public debt	6.6	8.0	10.4	10.0	13.4	13.0	15.4

1/ Forecast.
2/ Differential between GDP and 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

World Economy

1. A synchronized recovery is being observed in different indicators of global economic activity. Because of this, the world economy is projected to recover and to show a growth rate of 3.6 percent in 2017 in this report, a slightly higher rate than that estimated in the June report. Higher growth rates are expected both in the developed countries and in the emerging market economies. Growth forecasts have been revised up for the Eurozone, Japan, and China with respect to the Inflation Report of June. Moreover, the global economy is estimated to grow 3.6 percent in 2018 and 3.5 percent in 2019.

Table 1
WORLD GDP GROWTH
(Annual % change)

	PPP%[1/]	Trading Peru %[1/]	2016	2017*		2018*		2019*
				IR Jun17	IR Sep.17	IR Jun17	IR Sep.17	IR Sep.17
Advanced economies	**41.9**	**47.3**	**1.7**	**1.9**	**2.0**	**1.9**	**1.9**	**1.8**
Of which:								
1. United States of America	15.5	18.0	1.5	2.2	2.2	2.1	2.1	2.0
2. Eurozone	11.8	11.2	1.8	1.7	1.9	1.6	1.7	1.6
Germany	3.3	2.7	1.8	1.6	1.8	1.5	1.6	1.4
France	2.3	0.7	1.2	1.3	1.5	1.5	1.6	1.5
Italy	1.9	1.7	0.9	0.8	0.9	0.9	1.0	0.9
Spain	1.4	2.6	3.2	2.6	3.0	2.1	2.3	2.2
3. Japan	4.4	3.1	1.0	1.2	1.3	0.9	1.0	1.0
4. United Kingdom	2.3	1.2	1.8	1.5	1.5	1.4	1.3	1.4
5. Canada	1.4	3.2	1.4	2.0	2.3	2.0	2.0	1.8
Emerging market and developing economies	**58.1**	**52.7**	**4.2**	**4.6**	**4.8**	**4.9**	**4.9**	**4.8**
Of which:								
1. Developing Asia	31.6	28.0	6.4	6.5	6.6	6.4	6.4	6.3
China	17.8	22.9	6.7	6.6	6.7	6.2	6.2	6.0
India	7.2	2.4	7.1	7.4	7.4	7.6	7.6	7.6
2. Commonwealth of Independent States	4.5	0.6	0.2	1.7	1.8	2.2	2.2	2.2
Russia	3.2	0.5	-0.2	1.4	1.6	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
Brazil	2.6	4.5	-3.4	0.6	0.6	1.8	1.8	2.0
Chile	0.4	3.0	1.7	1.5	1.5	2.7	2.7	2.7
Colombia	0.6	2.6	1.6	1.8	1.8	3.2	2.9	3.0
Mexico	1.9	2.9	2.4	1.6	2.0	2.3	2.3	2.7
Peru	0.3	-	4.0	2.8	2.8	4.2	4.2	4.2
World Economy	**100.0**	**100.0**	**3.1**	**3.5**	**3.6**	**3.6**	**3.6**	**3.5**
Memo:								
Peru's trading partners 2016[2/]	64.8		2.8	3.2	3.3	3.3	3.3	3.2

1/ 2016
2/ Basket of Peru's 20 main trading partners.
* Forecats.
IR: Inflation Report.
Source: Bloomberg, IMF, and Consensus Forecast.

Graph 1
GDP GROWTH
(Annual % change)

* Forecast.
Source: BCRP, IMF, and Consensus Forecast.

2. The growth projection for the **United States** remains unchanged: the U.S. economy is estimated to grow 2.2 percent in 2017, 2.1 percent in 2018, and 2.0 percent in 2019. Even though the economy has shown a faster pace of growth and the labor market has continued strengthening in recent months, the inflation rate of below 2 percent indicate some economic slowdown. These outcomes have generated divided opinions among the members of the Federal Open Market Committee (FOMC) of the Federal Reserve (Fed) regarding the gradual adjustment of interest rates in 2017 and 2018.

Showing a faster pace of growth than in the first quarter of 2017, GDP grew 3.0 percent in the second quarter as a result of a faster growth of private consumption (3.3 percent) and private investment (3.6 percent). Higher consumption accounted for 2.3 points in contribution to GDP, while private investment contributed with 0.6 points.

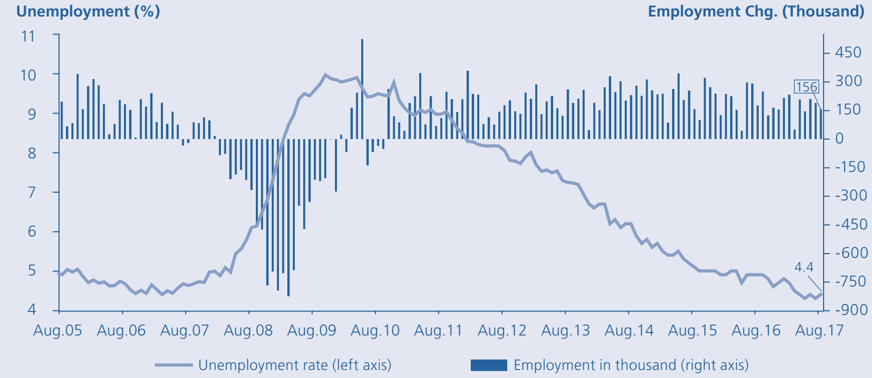
Table 2
UNITED STATES OF AMERICA: GDP
(Annual % change)

	2014	2015	2016					2017	
			Q1	Q2	Q3	Q4	Year	Q1	Q2
Personal consumption	2.9	2.5	1.8	3.8	2.8	2.9	2.7	1.9	3.3
Gross fixed investment	5.5	0.9	-4.0	-2.7	2.4	8.5	-1.6	-1.2	3.6
Change on inventories*	-0.1	0.2	-0.6	-0.7	0.2	1.1	-0.4	-1.5	0.0
Exports	4.3	0.1	-2.6	2.8	6.4	-3.8	-0.3	7.3	3.7
Imports	4.5	-0.8	-0.2	0.4	2.7	8.1	1.3	4.3	1.6
Government expenditure	-0.6	0.3	1.8	-0.9	0.5	0.2	0.8	-0.6	-0.3
GDP	**2.6**	**2.9**	**0.6**	**2.2**	**2.8**	**1.8**	**1.5**	**1.2**	**3.0**

* In weighted contribution to growth.
Source: BEA.

This improvement in economic activity is also explained by the favorable evolution of labor market indicators. The last employment report of August showed that the labor market experienced a positive hiring rate and more favorable conditions. Driven by the increasing demand for workers in the sectors of business services, health care and social welfare, the monthly average of workers hired is 176 thousand so far this year, which reflects that the favorable trend observed since 2010 continues with a cumulative creation of 16.9 million jobs. The participation rate rose to 62.9 percent and the unemployment rate registered 4.4 percent, a similar rate to the minimum levels observed prior to the global financial crisis. In August the average wage per hour rose 2.5 percent compared to the same month of the previous year.

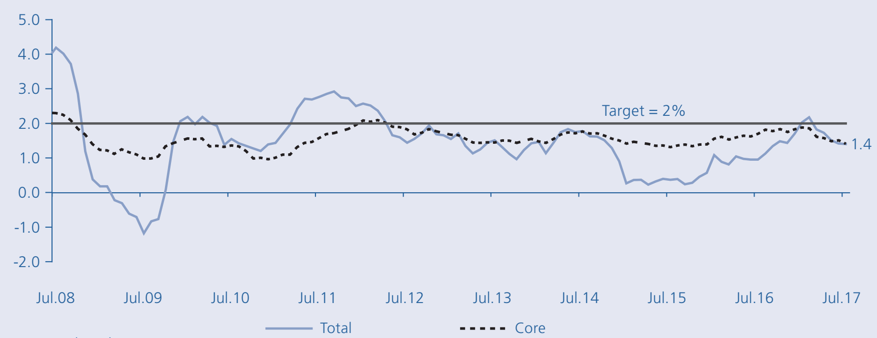
Graph 2
USA: EMPLOYMENT AND UNEMPLOYMENT RATE



Source: Bloomberg.

The personal consumption expenditures price index (PCE) recorded an annual rate of 1.4 percent as a result of the slowdown observed in energy prices. The core PCE price index was 1.4 percent, lower than the rate recorded in May. The rate of total PCE is also lower than that observed in May (1.5 percent).

Graph 3
USA: PERSONAL CONSUMPTION EXPENDITURE (PCE)
(Annual % change)



Source: Bloomberg.

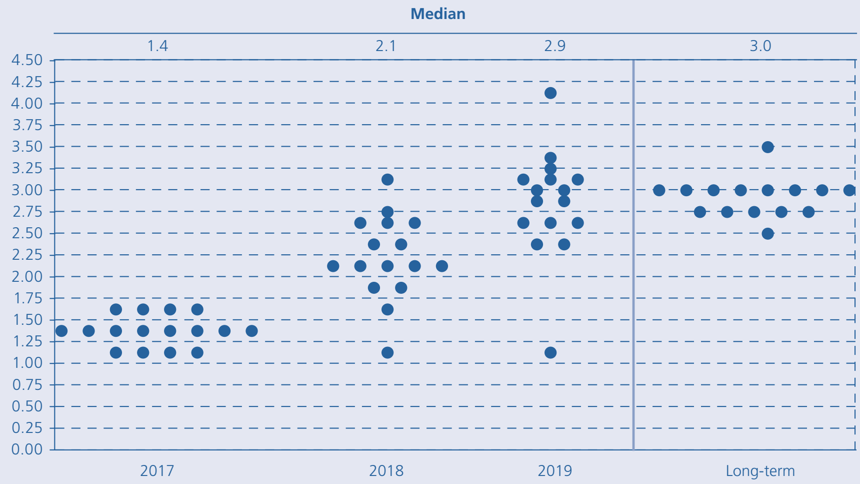
In this context, the Fed decided to maintain its range of interest rates at 1.00 - 1.25 percent at its meeting of July 25-26. The growth projections of the Committee Members, published in June, showed a slight correction on the upside, whereas inflation and unemployment projections, which continue to be in line with the latest published data, were revised down. The indicators published in July and August reinforce this perception of economic recovery with low inflation pressures. In line with this, the likelihood that the Fed will raise its interest rates further in the rest of the year has decreased. Compared to May, the likelihood of a rate rise in December has dropped from 46 percent to 37 percent.

Table 3
PROJECTIONS OF THE FED*

	2017		2018		2019		Long-term	
	Mar.17	Jun.17	Mar.17	Jun.17	Mar.17	Jun.17	Mar.17	Jun.17
Growth	2.1	2.2	2.1	2.1	1.9	1.9	1.8	1.8
Unemployment rate	4.5	4.3	4.5	4.2	4.5	4.2	4.7	4.6
Inflation (PCE)	1.9	1.6	2.0	2.0	2.0	2.0	2.0	2.0
Core inflation (Core PCE)	1.9	1.7	2.0	2.0	2.0	2.0	2.0	2.0
Memo: Core PCE excluding food and energy.								
Interest rate (%)	1.4	1.4	2.1	2.1	3.0	2.9	3.0	3.0

* Adds data from 17 individual projections of the members of the Fed at end-of-period.

Graph 4
PROJECTIONS OF THE FED POLICY RATE*
(%)



* Each point represents the individual forecast of the Members of the FED's Board about the median of interest rate in the range at the end-of-year.
Source: Fed.

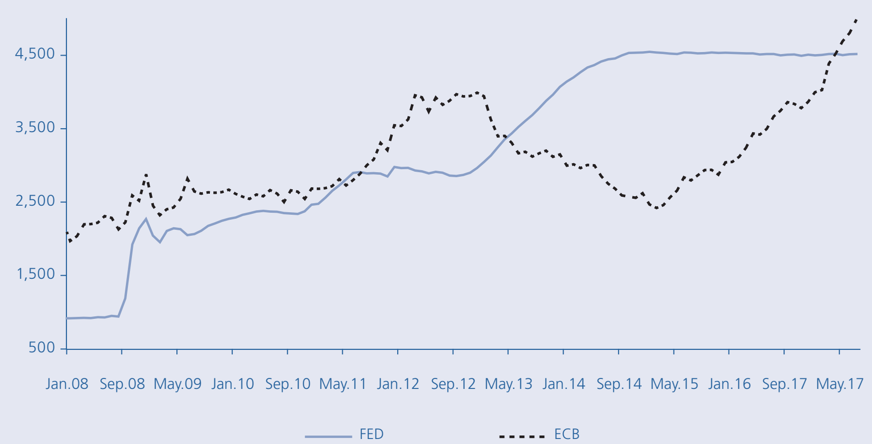
3. The growth projection in the **Eurozone** has been revised on the upside for 2017 (from 1.7 to 1.9 percent) and for 2018 (from 1.6 to 1.7 percent). In 2019 the pace of growth is expected to slow down slightly (1.6 percent) in a context that will be marked by the beginning of the United Kingdom' exit from the European Union.

The region continues to show a sound recovery: activity grew in the second quarter at a rate of 0.6 percent, supported by the dynamism of domestic demand. Private consumption continues to be driven by improvements in employment and by households' increased wealth (payment of dividends), while investment has been favored by financial conditions and by the improvement in corporate earnings. This positive scenario would continue during the third quarter: the election results in France and higher global growth have contributed to increase confidence and have given a boost to manufacturing and services.

Although this favorable trend is observed in almost all of countries of the region, Germany and Spain register the higher revisions on the upside in growth projections for this year.

Inflation in the Eurozone is still contained (1.5 percent in August) although core inflation has shown a slight upward trend. In this context, the European Central Bank (ECB) maintained its monetary policy rate unchanged, but it is expected to give signals to the market about the beginning of the withdrawal of stimulus at its meeting of October. An element to consider in this decision is the appreciatory trend of the euro observed so far this year, which could affect the recovery of the export sector.

Graph 5
BALANCE OF FED AND ECB
(Billion US$)



Source: Bloomberg.

4. **Japan** recorded a GDP growth rate of 1.4 percent in the second quarter of 2017 (1.5 percent in the first quarter), the dynamism of domestic demand standing out. In line with this, the growth projection for 2017 has been revised up from 1.2 to 1.3 percent. Even though the growth projection for 2018 has also been revised up from 0.9 to 1.0 percent, the slowdown in the growth rate compared to 2017 reflects the anticipated impact of the withdrawal of fiscal stimulus. Finally, a growth rate of 1.0 percent is projected for 2019.

5. Exceeding expectations and maintaining a higher pace of growth than the one recorded in the previous year (6.7 percent), **China's economy** grew 6.9 percent in the second quarter of the year (the same rate as in the first quarter). This result is mainly associated with the evolution of public investment and the dynamism of credit, which continues to grow at high rates despite measures to reduce corporate leverage. Taking this aspect into account, the growth projection has been revised up from 6.6 to 6.7 percent, this forecast including a slowdown in the pace of growth in the second half of the year. Signs of this moderation have begun to be seen since July in indicators such as industrial production, retail sales and fixed-asset investment. The growth forecast for 2018 remains at 6.2 percent and a slower pace of growth to a rate of 6.0 percent is foreseen for 2019.

Table 4
CHINA'S ECONOMIC INDICATORS

Indicators	December				2017			
	2013	2014	2015	2016	Mar.	Jun.	Jul.	Aug.
Annual GDP (%)[1/]	7.8	7.3	6.9	6.7	6.9	6.9	--	--
Industrial Production (Annual % change)	9.7	7.9	5.9	6.0	7.6	7.6	6.8	6.7
Investment in fixed assets (Accum. annual % change)	19.6	15.7	10.0	8.1	9.2	8.6	8.3	7.8
Investment in infrastructure (Accum. annual % change)	n.d.	21.5	17.2	17.4	23.5	21.1	20.9	19.8
Retail sales (Annual % change)	13.6	11.9	11.1	10.9	10.9	11.0	10.4	10.4
Exports (Annual % change)	4.3	9.7	-1.6	-6.2	16.4	11.3	7.2	5.5
Imports (Annual % change)	8.3	-2.4	-7.4	3.1	20.3	17.2	11.0	13.3
Copper imports (Volume, Annual % change)	11.2	17.3	12.6	13.5	19.8	5.9	2.8	-0.7
Total new financing (Annual % change)	19.0	15.2	12.4	12.7	12.3	12.8	13.2	13.1
Consumer Price Index (Annual % change)	2.5	1.5	1.6	2.1	0.9	1.5	1.4	1.8

1/ Percentage change of each year respect to the previous year until 2016. Since 2017, considers inter-annual quarterly % change.
Source: Bloomberg and IMF.

6. The growth projections for **Latin America** are the ones estimated in our previous Inflation Report: 1.4 percent in 2017 and 2.4 percent in 2018. During the second quarter of 2017, the rates of economic activity remained in the positive terrain in all of the countries of the region with inflation targeting schemes. Moreover, many of them showed slightly higher growth rates than in the previous quarter.

Table 5
GROWTH RATE RESPECT TO THE QUARTER OF THE PREVIOUS YEAR
(%)

	Brazil	Chile	Colombia	Mexico	Peru
Q1.15	-1.8	2.6	2.6	2.8	1.9
Q2.15	-3.0	2.1	3.0	2.5	3.2
Q3.15	-4.5	2.4	3.2	2.8	3.3
Q4.15	-5.8	1.9	3.4	2.5	4.6
Q1.16	-5.4	2.5	2.5	2.2	4.6
Q2.16	-3.6	1.7	2.5	2.6	3.8
Q3.16	-2.9	1.8	1.2	2.0	4.7
Q4.16	-2.5	0.5	1.6	2.3	3.0
Q1.17	-0.4	0.1	1.2	2.8	2.1
Q2.17	0.3	0.9	1.3	1.8	2.4

Source: Central banks and institutions for statistics.

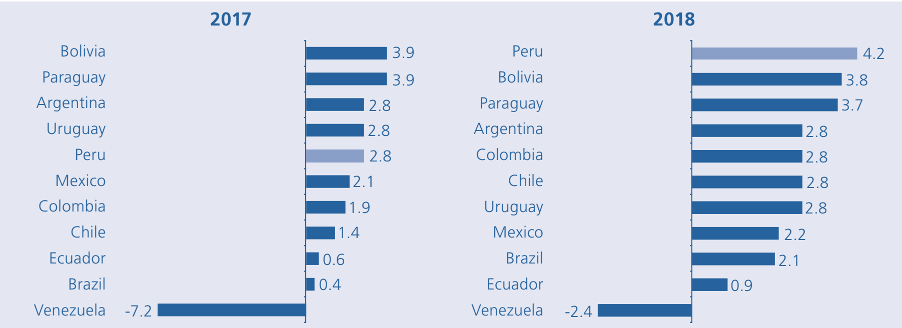
After twelve quarters with economic contraction, the economy of **Brazil** showed a slight recovery in the second quarter of 2017 (0.3 percent). However, supported mainly by foreign trade, this recovery is limited by political instability and uncertainty regarding the continuity of the economic reforms, especially the pension system.

Mexico has shown a slight slowdown, although the country's economic performance has been better than expected at the beginning of the year. Like Chile, the economy has been driven mainly by consumption, which has shown strength despite the increase in inflation and the contractionary monetary policy. In addition, external factors have also had a positive impact because of the less likely probability that the United States will adopt protectionist measures.

In **Colombia**, the economy has been fueled by the trade sector, which rebounded after having been affected by the increase in the value added tax (VAT) in the previous quarter. The cycle of monetary easing adopted given evidence of lower inflationary pressures contributed also to this.

In **Chile**, the effects of the strike at mine La Escondida have dissipated. The faster pace of growth of the output is explained by a good pace of private consumption supported by the recovery of formal employment. The continuation of this trend could be a positive factor for the coming quarters: activity rates have recovered and retail consumption maintains a sound pace of growth. On the negative side, investment remains the main counterweight to activity.

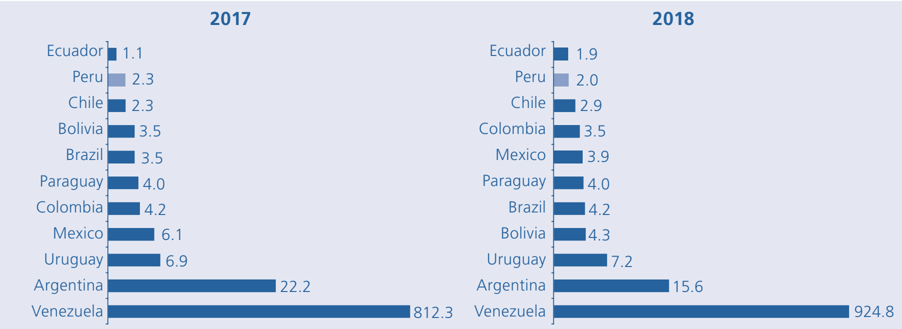
Graph 6
LATIN AMERICA: GDP GROWTH
(% change)



Source: Latin American Consensus Forecast (August 2017) and BCRP (Peru).

In recent months, inflation pressures have declined due to the fall in food prices. In Colombia, this factor has contributed to inflation's convergence towards its target range, while in Chile and Brazil inflation has fallen below their target ranges. This context has favored the easing of monetary policy in the region, which is expected to continue in Chile, Colombia, and Brazil. The exception is Mexico, where the Central Bank has raised rates to contain inflationary shocks caused by the rise in the price of fuel and food. However, these factors are expected to subside in the second half of the year.

Graph 7
INFLATION
(Dec./Dec.)



Source: Latin American Consensus Forecast (August 2017) and BCRP (Peru).

Financial Markets

7. Financial markets were influenced by expectations about the monetary policy stance of the main central banks of the world. While low inflation reduced the chances of further increases in interest rates in the U.S., expectations of a less accommodative monetary policy increased in the Eurozone. In this context, the dollar depreciated against most currencies and the yield on fixed income U.S. Treasury bonds were affected by downward pressures.

   In its capacity of hedge asset, the yen appreciated during the episodes of greater volatility, while the pound, in contrast, depreciated due to the moderation of inflation pressures and, consequently, due to lower expectations that the Bank of England would raise interest rates in the second half of the year.

   The dollar also weakened against most emerging currencies. In Latin America, currencies were driven by the recovery in the price of commodities and by lower political risk.

Table 6
EXCHANGE RATE
(Currency units per US$)

		Dec.16	Jun.17	Aug.17	% change Aug./Jun.	% change Aug./Dec.
Dollar Index*	US Dollar Index	102.21	95.63	92.67	-3.1	-9.3
Eurozone	Euro	0.951	0.875	0.840	-4.1	-11.7
Switzerland	Swiss franc	1.018	0.958	0.959	0.0	-5.8
Japan	Yen	116.92	112.41	109.99	-2.2	-5.9
United Kingdom	US$ per Pound sterling	0.811	0.768	0.773	0.7	-4.6
Brazil	Real	3.256	3.308	3.149	-4.8	-3.3
Chile	Peso	670	665	626	-6.0	-6.7
Colombia	Peso	3,003	3,053	2,956	-3.2	-1.6
Mexico	Peso	20.74	18.13	17.89	-1.3	-13.7
Peru	Sol	3.36	3.26	3.25	-0.2	-3.2
Russia	Ruble	4.49	4.29	4.27	-0.5	-4.8
South Africa	Rand	13.75	13.06	13.02	-0.3	-5.3
Turkey	Lira	3.53	3.52	3.45	-1.9	-2.1
China	Yuan	6.95	6.78	6.59	-2.8	-5.1
South Korea	Won	15.88	16.64	17.35	4.3	9.3
India	Rupee	61.27	58.93	58.07	-1.5	-5.2
Indonesia	Rupee	13,455	13,330	13,362	0.2	-0.7
Malaysia	Ringgit	4.49	4.29	4.27	-0.5	-4.8
Thailand	Bath	35.86	33.94	33.19	-2.2	-7.4

* Increase in the index means an US dollar appreciation.
Source: Reuters and Fed.

8. **Fixed-income markets** were affected by expectations about monetary policy decisions in the United States and Europe, as pointed out above. The resurgence of geopolitical risks was also one of the main determinants of this. In the United States, long-term yields were also affected by the lack of progress in the tax agenda to boost growth as well as by a series of political events.

Graph 8
DOLLAR FED INDEX AND 10-YEAR US TREASURY YIELDS
(January 2016 - August 2017)

Source: Bloomberg and Fed.

Table 7
YIELDS ON 10-YEAR TREASURY BONDS

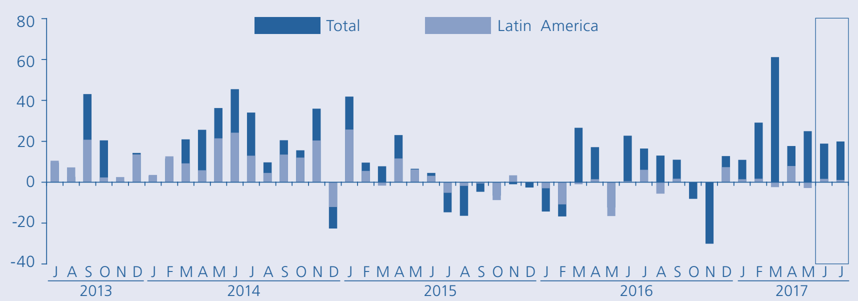
	Dec.16	Jun.17	Aug.17	Change (bps.)	
				Aug./Jun.	Aug./Dic.
United States of America	2.45	2.31	2.12	-19	-33
Germany	0.20	0.47	0.36	-11	16
France	0.68	0.81	0.66	-15	-2
Italy	1.81	2.15	2.04	-11	23
Spain	1.38	1.52	1.55	3	17
Greece	7.02	5.36	5.48	12	-154
Switzerland	-0.19	-0.02	-0.14	-12	5
Japan	0.04	0.08	0.00	-8	-4
United Kingdom	1.24	1.26	1.03	-22	-20
Brazil	11.40	10.54	9.98	-56	-143
Colombia	7.11	6.42	6.73	31	-38
Chile	4.29	4.13	4.34	21	5
Mexico	7.42	6.78	6.84	5	-58
Peru	6.36	5.35	5.14	-21	-122
Russia	4.46	4.28	3.92	-36	-54
South Africa	8.91	8.77	8.56	-21	-35
Turkey	11.08	10.27	10.36	9	-72
China	3.06	3.57	3.66	9	60
South Korea	2.07	2.22	2.27	5	19
India	6.52	6.51	6.53	1	1
Indonesia	7.91	6.80	6.67	-13	-125
Malaysia	4.19	3.92	3.89	-3	-30
Thailand	2.65	2.48	2.32	-16	-33

Source: Bloomberg.

In Europe, Germany, and the United Kingdom, sovereign bonds showed a similar behavior to that of the U.S. bonds. It should be pointed out that the market has ruled out the possibility that the ECB will change its rhetoric about the current course of its monetary policy. On the other hand, the spreads of peripheral countries fell for the most part, favored by good economic performance of the bloc and by expectations that monetary stimulus will continue.

Moreover, capital flows to the emerging economies were positive during most of the period, favored by low volatility in international markets and by the recovery in the price of commodities. In Latin America, the trend returned to a positive ground, supported favored by the lower perception of political risk in the region.

Graph 9
CAPITAL FLOWS OF NON-RESIDENT'S TO EMERGING COUNTRIES
(Billion US$)



Source: IIF.

9. **Equity markets** recorded, in most cases, a rising trend supported by the positive corporate reports observed in the second quarter. Another relevant factor was the recovery in commodity prices, which boosted the emerging exchange markets especially. In addition to this, equity markets were also favored by low risk aversion which remained near its record lows, except for the period when there were geopolitical tensions between the United States and North Korea.

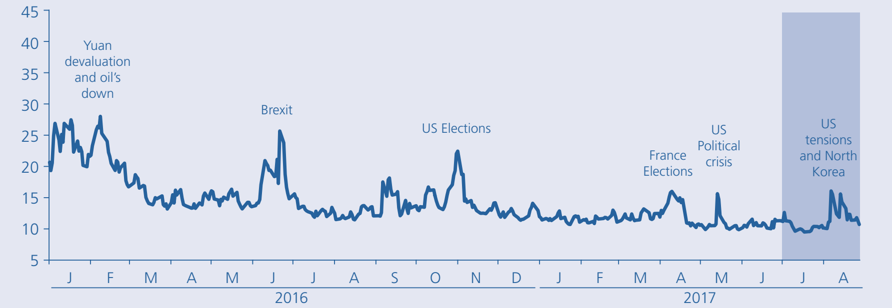
   Despite the results recorded in the second quarter of the year and the good pace of activity in the Eurozone economies, the main stock indices in this region fell due to the market perception that the European Central Bank would gradually withdraw its expansionary policy. This impact has not been completely reversed due to the subsequent insistence of the Monetary Authority on the need to maintain the stimulus.

Table 8
WORLD STOCKS

		Dec.16	Jun.17	Aug.17	% change Aug./Jun.	% change Aug./Dec.
VIX[1/]	S&P 500	14.04	11.18	10.59	-0.6	-3.5
United States of America	Dow Jones	19,763	21,350	21,948	2.8	11.1
Germany	DAX	11,481	12,325	12,056	-2.2	5.0
France	CAC 40	4,862	5,121	5,086	-0.7	4.6
Spain	IBEX 35	9,352	10,445	10,300	-1.4	10.1
Italy	FTSE MIB	19,235	20,584	21,670	5.3	12.7
Greece	ASE	644	824	825	0.2	28.3
Switzerland	SMI	8,220	8,907	8,925	0.2	8.6
Japan	Nikkei 225	19,114	20,033	19,646	-1.9	2.8
United Kingdom	FTSE 100	7,143	7,313	7,431	1.6	4.0
Brazil	BOVESPA	60,227	62,900	70,835	12.6	17.6
Mexico	IPC	45,643	49,857	51,210	2.7	12.2
Chile	IGP	20,734	23,787	25,727	8.2	24.1
Colombia	IGBC	10,106	10,891	11,049	1.4	9.3
Peru	Ind. Gral.	15,567	16,133	17,616	9.2	13.2
Russia	RTSI$	1,152	1,001	1,096	9.5	-4.9
South Africa	JSE	50,654	51,611	56,522	9.5	11.6
Turkey	XU100	78,139	100,440	110,011	9.5	40.8
China	Shangai C.	3,104	3,192	3,361	5.3	8.3
South Korea	Seul C.	2,026	2,392	2,363	-1.2	16.6
India	CNX Nifty	8,186	9,521	9,918	4.2	21.2
Indonesia	JCI	5,297	5,830	5,864	0.6	10.7
Malaysia	KLSE	1,642	1,764	1,773	0.5	8.0
Thailand	SET	1,543	1,575	1,616	2.6	4.7

1/ Volatility in options about S&P 500. Proxy of market risk. Change in percentage points.
Source: Bloomberg.

Graph 10
VOLATILITY OF U.S. STOCK INDICES (S&P 500)
(January 2016 - August 2017)



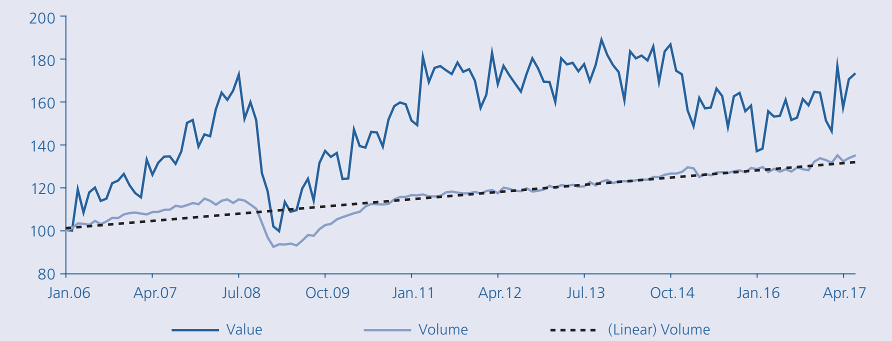
Source: Bloomberg.

Terms of Trade

10. The terms of trade of Peru's foreign trade are expected to increase 7.0 percent in 2017, more than estimated in June. The prices of exports would increase 12.0 percent while the prices of imports would increase by 4.7 percent. The terms of trade projected for 2018 have been revised up 2.0 percent due to the rise in metal prices, while the terms of trade projected for 2019 in our previous report remain unchanged.

    The favorable conditions of global growth have been reflected in larger volumes of world trade, which have already reached levels above their long term trend so far this year and have contributed to improve commodity prices.

Graph 11
VALUE AND VOLUME OF WORLD EXPORTS
(Index January 2006=100)



Graph 12
TERMS OF TRADE: 2001 - 2019
(Annual average % change)

* Forecast.
Source: BCRP.

Table 9
TERMS OF TRADE: 2016 - 2019

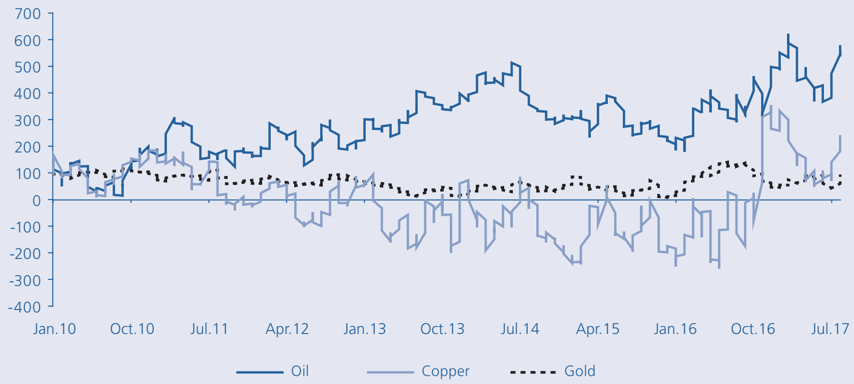
	2016	S1 2017	2017*		2018*		2019*
			IR Jun17	IR Sep.17	IR Jun17	IR Sep.17	IR Sep.17
Terms of Trade (Annual % chg.)	**-0.7**	**8.3**	**5.5**	**7.0**	**0.0**	**2.0**	**0.0**
Price of exports (Annual % chg.)	**-3.6**	**14.9**	**10.2**	**12.0**	**0.6**	**2.2**	**1.0**
Copper (US$ cents per pound)	*221*	*261*	*259*	*274*	*262*	*293*	*295*
Zinc (US$ cents per pound)	*95*	*122*	*121*	*126*	*119*	*129*	*127*
Lead (US$ cents per pound)	*85*	*101*	*100*	*103*	*100*	*107*	*108*
Gold (US$ per troy ounce)	*1,248*	*1,238*	*1,242*	*1,252*	*1,258*	*1,286*	*1,295*
Price of imports (Annual % chg.)	**-3.0**	**6.1**	**4.5**	**4.7**	**0.6**	**0.1**	**1.0**
Oil (US$ per barrel)	*43*	*50*	*51*	*49*	*51*	*49*	*49*
Wheat (US$ per ton)	*143*	*146*	*146*	*150*	*167*	*169*	*183*
Maize (US$ per ton)	*135*	*136*	*143*	*139*	*158*	*156*	*161*
Soybean oil (US$ per ton)	*696*	*688*	*710*	*712*	*740*	*754*	*755*
Whole milk (US$ per ton)	*2,471*	*3,120*	*3,118*	*3,181*	*3,111*	*3,189*	*3,158*

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

The projections of the main exports have been revised up, in line with the latest data available. On the imports side, the price of crude has been revised slightly down due to increased production in the USA.

The higher trade of basic metals was boosted by a higher-than-expected global economic growth, driven particularly by China which leads the demand for commodities, as well as by supply constraints, especially in the case of copper. As for gold, the price of this precious metal rose supported by prospects of a weaker dollar and geopolitical tensions. Moreover, the increase in the non-commercial positions of copper and oil and, to a lesser extent, of gold and zinc are worth pointing out.

Graph 13
NON-COMMERCIAL NET POSITIONS
(Base index 2010=100)



Source: Bloomberg.

a. Copper

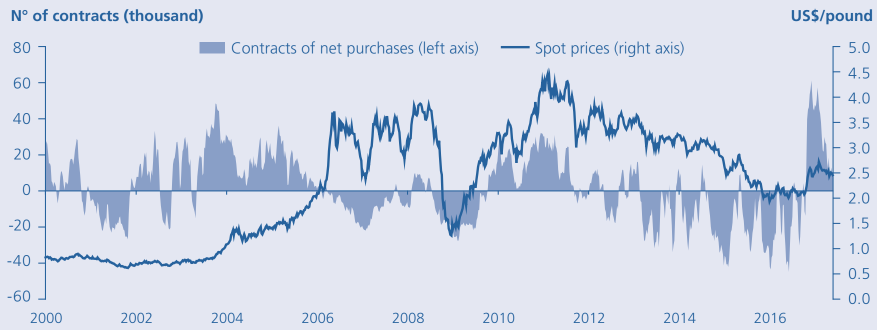
In August, the price of **copper** reached a monthly average of US$ 2.95 a pound, exceeding by 14 percent the average price level in June and accumulating an increase of 15 percent in the first eight months of the year.

The recent pressures on the rise are explained by demand conditions, particularly in China. Activity indicators show more favorable levels than expected in our previous report, particularly in the activities linked to the demand for this metal (such as household appliances and electrical networks).

The market was also affected by supply constraints. Production cutbacks continued in recent months due to the strikes that affected some mines in Chile, Indonesia, and Peru, as well as due to other kind of strikes (Congo and Zambia). In this context, the main mining companies reduced their production estimates for the year. Another factor that affected the outlook for the supply of copper were market expectations that China would limit its imports of recycled copper next year.

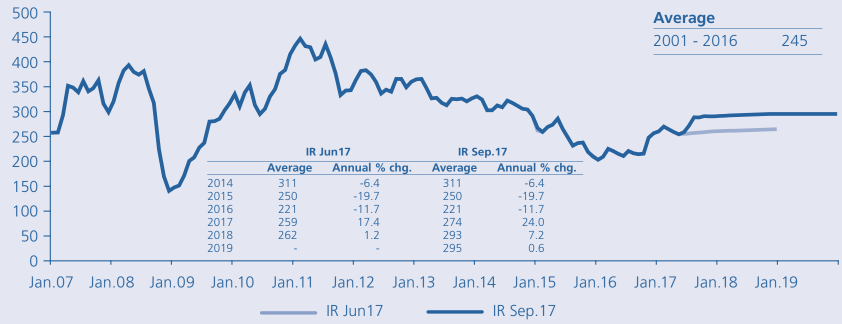
The perception of a tighter market has been accompanied by the return of investors: total net long positions reached an all-time high in Comex and non-commercial net long positions have been increasing in August and have reached levels close to the historic maximum levels observed in December 2016.

Graph 14
COPPER: NON-COMMERCIAL CONTRACTS



Source: Bloomberg and BCRP.

Graph 15
COPPER: JANUARY 2007 - DECEMBER 2019
(US$ cents/pd.)



	IR Jun17		IR Sep.17	
	Average	Annual % chg.	Average	Annual % chg.
2014	311	-6.4	311	-6.4
2015	250	-19.7	250	-19.7
2016	221	-11.7	221	-11.7
2017	259	17.4	274	24.0
2018	262	1.2	293	7.2
2019	-	-	295	0.6

Source: Bloomberg and BCRP.

b. Zinc

The average price of **zinc** increased 12 percent in the first eight months of the year, mainly as a result of the rise recorded in the past 2 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$ 1.36 a pound in August.

The recent price rise is explained by signals of a tight global market: the reduced availability of concentrates is constraining the production of refined zinc. The closure of large mines in 2016, Glencore's production cuts, and environmental restrictions imposed by China are affecting the availability of the supply. Furthermore, year-to-date, the increase in mine production in response to higher prices is not translating immediately into a greater production of refined zinc due to the difficulties faced by refineries in adapting to China's new environmental standards.

On the other hand, the demand has continued to be unexpectedly high in response to ongoing infrastructure promoted by the Chinese Government. In addition, the demand for zinc of steel refineries continues to be strong despite forecasts of a downward correction.

As a result of these factors, global inventories of zinc have shown a dramatic drop to levels not seen in approximately ten years. In this context, the projected price of zinc has been revised up due to the low dynamism of the supply –which is not responding fast enough– and is leading to an increasingly tighter market in the short term. The forecast introduces risks associated with China's demand and unforeseen changes in the supply such as the restart of operations in some mines that had stopped production, the extension of operations, or the acceleration of investment in projects that are currently being developed.

Graph 16
ZINC: JANUARY 2007 - DECEMBER 2019
(US$ cents/pd.)

	IR Jun17		IR Sep.17	
	Average	Annual % chg.	Average	Annual % chg.
2014	98	13.2	98	13.2
2015	88	-10.6	88	-10.6
2016	95	8.1	95	8.1
2017	121	28.1	126	32.5
2018	119	-1.7	129	2.8
2019	-	-	127	-1.4

Source: Bloomberg and BCRP.

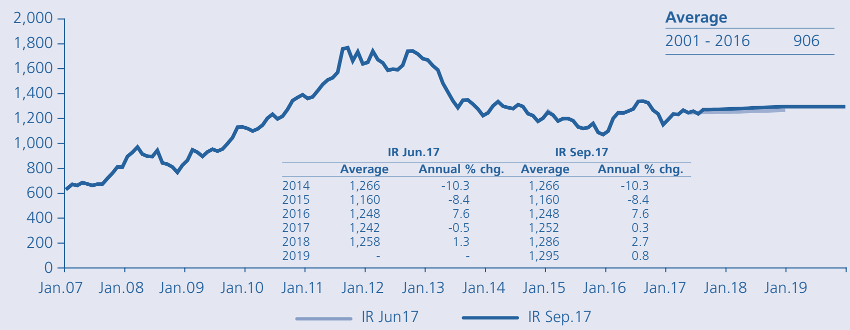
c. Gold

In August, the monthly average price of **gold** reached a maximum yearly level of US$ 1,282 a troy ounce, 2 percent higher than the level recorded in June. Thus, the price of gold accumulated an increase of 12 percent in the first eight months of 2017.

The increase in the price of gold is explained by greater political and geopolitical risks that increase the demand for safe assets, by the depreciation of the dollar, and by prospects that real interest rates will remain low. Another factor that has contributed to the increase in the price of gold has been the growth of demand in the sectors of investment in bars and coins, jewelry, and technology.

The forecast of the price of gold has been revised up due to the recent trend observed and to expectations of a gradual adjustment in the FED interest rates. 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. As for the physical demand for gold, its course depends on the prospects of China and India.

Graph 17
GOLD: JANUARY 2007 - DECEMBER 2019
(US$/tr.ounce)



	IR Jun.17		IR Sep.17	
	Average	Annual % chg.	Average	Annual % chg.
2014	1,266	-10.3	1,266	-10.3
2015	1,160	-8.4	1,160	-8.4
2016	1,248	7.6	1,248	7.6
2017	1,242	-0.5	1,252	0.3
2018	1,258	1.3	1,286	2.7
2019	-	-	1,295	0.8

Source: Bloomberg and BCRP.

d. Crude Oil

The price of **WTI oil** fell 8 percent in the first eight months of 2017, closing with a monthly average price of US$ 48 a barrel in August. Thus, the price of oil continued below the maximum level of US$ 53/barrel it reached in February.

The fall in the price of oil was associated with market expectations that increased oil production in the United States would offset the OPEC efforts to balance the global market. Oil production in the United States continued increasing during the year and reached its highest level since July 2015 at the end of August. Together with the recovery of oil production in Libya and Nigeria –countries excluded from the OPEC production cut agreement–, this kept the market well supplied. As a result, inventories of crude oil were not reduced as fast as expected despite the period of higher seasonal demand characteristic of summer seasons in the northern hemisphere.

The projection of the price of WTI oil in the forecast horizon is revised slightly down compared to the previous report. The lower production costs of shale oil maintain a rising production of crude oil in the United States despite the fall observed in crude oil prices.

Risk factors remain high, however, both on the downside and on the upside. The downside risks are associated with a growth in production that exceeds expectations in countries of lower costs such as Iran, Iraq, Kuwait, Saudi Arabia, and Russia, as well as with a more rapid recovery of production in countries where production has been stopped, particularly Libya and Nigeria. On the other hand, among the risks on the upside, a rapid recovery of demand, particularly in Asia, and a more strict compliance with the production cuts agreed upon recently –which have been extended until March 2018– stand out.

Graph 18
WTI OIL: JANUARY 2007 - DECEMBER 2019
(US$/bl.)

	IR Jun17		IR Sep.17	
	Average	Annual % chg.	Average	Annual % chg.
2014	93	-4.9	93	-4.9
2015	49	-47.6	49	-47.6
2016	43	-11.4	43	-11.4
2017	51	17.6	49	14.0
2018	51	0.8	49	0.2
2019	-	-	49	0.2

Source: Bloomberg and BCRP.

e. Maize

In August, the average international price of **maize** fell 6 percent from June and reached a monthly average price of US$ 129 per ton. Thus, the price of maize recorded a fall of 2 percent compared to December 2016.

Maize prices decreased influenced by the outlook for global production indicating that it would continue to be above the average of the last five years as well as by high global inventories that ensure a surplus in the world market. A fundamental change in corn production has been the more favorable climate observed in the months of July and August (a critical period for harvest yields in the United States and China)[1], in addition to the high inventories obtained in the previous season. These supply-related developments have outweighed the growth of global consumption which reached record levels in the 2016-17 season. However, these favorable conditions for supply

1 This was reflected in reports indicating less adverse yields than those estimated by the USDA in its May report.

are expected to reverse in 2017/2018 (a lower production is estimated in the United States) while the demand is expected to continue to grow.

In line with these developments, the average price of maize is projected to increase in the forecast horizon, although at a lower rate than expected in the June Inflation Report. The main risk that could affect this forecast is uncertainty about the new policy that will be adopted by the administration of Donald Trump, particularly in terms of the trade agreement with Canada and Mexico (the major importer of maize from the United States).

Graph 19
MAIZE: JANUARY 2007 - DECEMBER 2019
(US$/MT)

	IR Jun.17		IR Sep.17	
	Average	Annual % chg.	Average	Annual % chg.
2014	155	-33.9	155	-33.9
2015	141	-9.3	141	-9.3
2016	135	-4.4	135	-4.4
2017	143	6.2	139	3.2
2018	158	10.8	156	12.3
2019	-	-	161	3.2

Source: Bloomberg and BCRP.

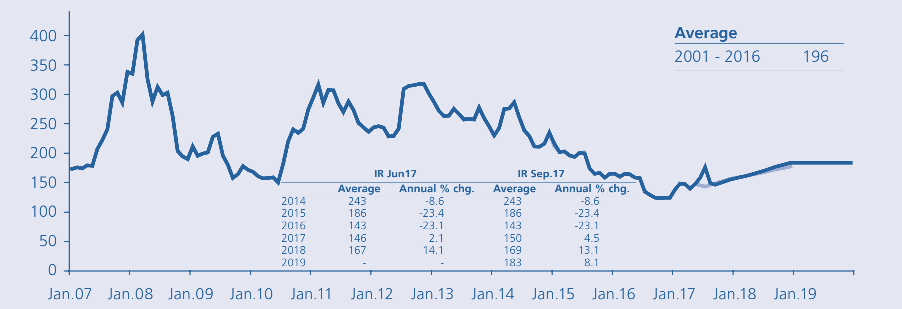
f. Wheat

The international price of **wheat** has declined during the last three months. The average price in August, which was 11 percent lower than the level recorded in June, reached an average level of US$ 139 per metric ton. Despite this, the monthly average price of wheat still accumulates an increase of 13 percent in the first eight months of the year.

The price of wheat dropped due to a significant improvement in prospects for production in the countries of the Black Sea in response to the high yields obtained in the winter wheat crop. This increase exceeds the expected production cuts in the United States, Canada, and the European Union. However, a reduction is expected in excess global supply for the 2017/2018 crop season due to the lower production of the United States: the USDA estimates a drop of 25 percent in the U.S. wheat production in 2017/18.

Moreover, it is estimated that the price of wheat will recover in the forecast horizon. Global inventories would reach their peak in the 2016/17 season and would begin to decrease in the 2017/18 season. The main uncertainty factor is associated with unforeseen supply changes resulting in part from climatic factors.

Graph 20
WHEAT: JANUARY 2007 - DECEMBER 2019
(US$/MT)



	IR Jun17		IR Sep.17	
	Average	Annual % chg.	Average	Annual % chg.
2014	243	-8.6	243	-8.6
2015	186	-23.4	186	-23.4
2016	143	-23.1	143	-23.1
2017	146	2.1	150	4.5
2018	167	14.1	169	13.1
2019	-	-	183	8.1

Source: Bloomberg and BCRP.

g. Soybean Oil

In August, the average price of soybean oil was US$ 730 a ton, 8 percent higher than in June. Despite the price rise registered in the past three months, the price of soybean oil accumulates a fall of 7 percent compared to the average level in December 2016.

The recent recovery of the price of soybean oil was supported by the strong demand for vegetable oils in India and by prospects for a rising consumption of biofuels in China (in response to Government measures aimed at stimulating its consumption).

Soybean oil prices in the forecast horizon are expected to register levels above those estimated in the June Inflation Report. The factors that may 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)

	IR Jun17		IR Sep.17	
	Average	Annual % chg.	Average	Annual % chg.
2014	812	-18.1	812	-18.1
2015	667	-17.9	667	-17.9
2016	696	4.4	696	4.4
2017	710	2.0	712	2.3
2018	740	4.3	754	5.9
2019	-	-	755	0.1

Source: Bloomberg and BCRP.

II. Balance of Payments

Current Account

11. The deficit in the **current account of the balance of payments** continued declining during the first half of this year, reflecting mainly the recovery in the terms of trade and the fall in domestic demand. Thus, the trade balance registered four consecutive quarters with surpluses.

    The current account deficit projected for this year has been corrected from 2.1 to 2.0 percent of GDP in this report, while the deficit estimated for 2018 remains at 2.0 percent of GDP and is estimated to increase thereafter in 2019. This blance basically reflects the evolution of exports during the forecast horizon in a context of high prices of our minerals and a recovery of domestic demand.

Table 10
BALANCE OF PAYMENTS
(Million US$)

	2015	2016	H1 2017	2017* IR Jun17	2017* IR Sep.17	2018* IR Jun17	2018* IR Sep.17	2019* IR Sep.17
I. CURRENT ACCOUNT BALANCE	**-9,169**	**-5,303**	**-1,470**	**-4,527**	**-4,389**	**-4,491**	**-4,558**	**-5,076**
% GDP	*-4.8*	*-2.7*	*-1.4*	*-2.1*	*-2.0*	*-2.0*	*-2.0*	*-2.1*
1. Trade balance	-2,916	1,888	2,437	4,876	5,051	6,199	6,400	6,434
a. Exports	34,414	37,020	20,666	42,611	43,173	45,409	45,940	48,457
b. Imports	-37,331	-35,132	-18,229	-37,736	-38,122	-39,209	-39,540	-42,024
2. Services	-2,040	-1,974	-476	-1,674	-1,515	-2,377	-2,209	-2,266
3. Investment income	-7,544	-9,184	-5,293	-11,394	-11,636	-12,031	-12,516	-13,091
4. Current transfers	3,331	3,967	1,862	3,665	3,712	3,717	3,768	3,848
Of which: Remittances	2,725	2,884	1,476	2,979	3,042	3,134	3,194	3,238
II. FINANCIAL ACCOUNT	**9,242**	**5,472**	**2,171**	**6,354**	**7,059**	**6,491**	**6,558**	**7,076**
1. Private Sector	6,132	2,815	-1,189	959	3,220	3,617	3,749	4,895
a. Long-term	8,792	3,709	-557	1,479	3,569	3,617	3,749	4,895
b. Short-term	-2,660	-894	-632	-520	-349	0	0	0
2. Public Sector	3,110	2,657	3,360	5,395	3,840	2,874	2,809	2,181
III. BALANCE OF PAYMENTS (=I+II)	**73**	**168**	**701**	**1,827**	**2,671**	**2,000**	**2,000**	**2,000**
Memo: Long-term external financing of the private sector (% GDP)	6.6	4.6	3.7	3.7	5.0	3.8	4.0	4.2

* Forecast.
IR: Inflation Report.

Trade Balance

12. After recording a deficit of over US$ 0.6 billion in the first half of 2016, the trade balance showed a surplus of US$ 2.4 billion in the same period of 2017. This reversal of the deficit is explained mostly by increased exports of traditional products. The projected surplus in the trade balance for 2017 has been raised from that estimated in our previous report due to increased mining exports and non-traditional exports of iron&steel, agriculture, and fishing products. Moreover, the surplus in the trade balance in 2018 and 2019 is estimated at US$ 6.4 billion.

Table 11
TRADE BALANCE
(Million US$)

	2015	2016	H1 2017	2017*		2018*		2019*
				IR Jun17	IR Sep.17	IR Jun17	IR Sep.17	IR Sep.17
Exports	**34,414**	**37,020**	**20,666**	**42,611**	**43,173**	**45,409**	**45,940**	**48,457**
Of which:								
Traditional products	23,432	26,137	15,251	31,015	31,338	33,297	33,497	35,184
Non-traditional products	10,895	10,782	5,353	11,483	11,718	11,993	12,326	13,138
Imports	**37,331**	**35,132**	**18,229**	**37,736**	**38,122**	**39,209**	**39,540**	**42,024**
Of which:								
Consumer goods	8,754	8,614	4,331	9,185	9,185	9,414	9,522	9,972
Inputs	15,911	15,140	8,615	17,082	17,216	17,700	17,723	18,480
Capital goods	12,002	11,113	5,196	11,271	11,235	11,889	11,777	12,825
Trade balance	**-2,916**	**1,888**	**2,437**	**4,876**	**5,051**	**6,199**	**6,400**	**6,434**

* 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, but would grow less in the next years. This revision is consistent with the anticipated evolution of domestic demand during the forecast horizon.

The growth in the value of exports in 2017 (16.6 percent) would be based on higher prices (12.0 percent), while in 2018 and 2019 (6.4 and 5.5 percent, respectively), it would be based on higher volumes (4.1 and 4.4 percent, respectively).

Table 12
TRADE BALANCE
(% change)

	2015	2016	H1 2017	2017*		2018*		2019*
				IR Jun17	IR Sep.17	IR Jun17	IR Sep.17	IR Sep.17
1. Value:								
Exports	-12.9	7.6	28.2	15.1	16.6	6.6	6.4	5.5
Traditional products	-15.4	11.5	36.3	18.7	19.9	7.4	6.9	5.0
Non-traditional products	-6.7	-1.0	9.5	6.5	8.7	4.4	5.2	6.6
Imports	-9.0	-5.9	8.6	7.4	8.5	3.9	3.7	6.3
2. Volume:								
Exports	2.4	11.6	11.6	4.4	4.1	5.9	4.1	4.4
Traditional products	6.5	16.7	14.6	4.7	4.6	7.2	3.8	4.4
Non-traditional products	-4.9	0.9	3.4	3.6	2.9	2.7	4.9	4.5
Imports	0.2	-2.8	2.3	2.8	3.6	3.3	3.6	5.2
3. Price:								
Exports	-15.0	-3.6	14.9	10.2	12.0	0.6	2.2	1.0
Traditional products	-20.5	-4.3	18.9	13.3	14.6	0.2	3.0	0.6
Non-traditional products	-1.9	-1.9	6.0	2.8	5.7	1.7	0.3	2.0
Imports	-9.2	-3.0	6.1	4.5	4.7	0.6	0.1	1.0

* Forecast.
IR: Inflation Report.

External Financing

13. In the first half in 2017, the net flow of private capital was negative by US $1.2 billion, mainly as a result of lower external disbursements and lower foreign direct investment in the country. This reduced funding is consistent with the evolution of domestic investment during the first half of the year. Additionally, the AFPs registered higher foreign portfolio assets and mining and oil companies registered higher deposits.

    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. A greater flow of portfolio capital through the issuance of private sector bonds in the international market is also foreseen. In addition, increased investment is also expected in portfolio foreign assets and deposits, in line with the trends observed in the first half of this year.

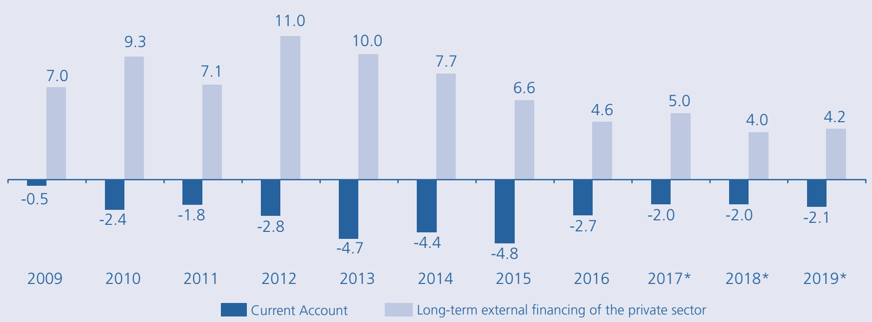
    Long-term private external capital will continue to be the main source of financing the balance of payments. This capital is expected to amount to 5.0, 4.0, and 4.2 percent of GDP in 2017, 2018, and 2019, respectively, exceeding by far the requirements of the current account for this period.

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

	2015	2016	H1 2017	2017* IR Jun17	2017* IR Sep.17	2018* RI Jun17	2018* IR Sep.17	2019* IR Sep.17
PRIVATE SECTOR (A + B)	**6,132**	**2,815**	**-1,189**	**959**	**3,220**	**3,617**	**3,749**	**4,895**
% GDP	*3.2*	*1.4*	*-1.2*	*0.4*	*1.5*	*1.6*	*1.6*	*2.0*
A. LONG-TERM	**8,792**	**3,709**	**-557**	**1,479**	**3,569**	**3,617**	**3,749**	**4,895**
1. ASSETS	**-247**	**-966**	**-2,209**	**-1,730**	**-2,553**	**-1,998**	**-1,867**	**-1,702**
2. LIABILITIES	**9,039**	**4,675**	**1,652**	**3,209**	**6,122**	**5,616**	**5,616**	**6,596**
Foreign direct investment in the country	8,272	6,863	2,565	6,100	6,577	6,109	6,109	6,851
Long-term loans	1,363	-1,693	-1,483	-2,864	-2,403	-918	-918	-769
Portfolio investment	-596	-495	570	-27	1,949	425	425	515
B. SHORT-TERM[1/]	**-2,660**	**-894**	**-632**	**-520**	**-349**	**0**	**0**	**0**

1/ Includes net erros and omissions.
* Forecast.
IR: Inflation Report.

Graph 22
CURRENT ACCOUNT AND LONG-TERM EXTERNAL FINANCING OF THE PRIVATE SECTOR: 2009-2019[1/]
(% GDP)



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

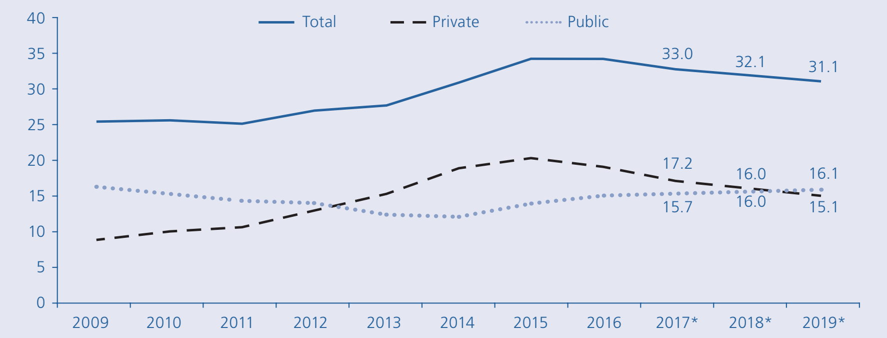
14. The **financial account of the public sector** recorded an increase of US$ 2.2 billion in the first half of 2017 in comparison to that recorded in the same period of

2016, reflecting mainly the placement of Petroperu bonds (US$ 2.0 billion) and the greater acquisition of local debt by non-residents, whose share amounted to 42.7 percent.

In the forecast horizon, the amount of financing of the public sector has been revised down to a level of US$ 2.2 billion in 2019. The adjustment of this year, from US$ 5.4 to 3.8 billion, primarily reflects the debt management operation of July (issuance of sovereign bonds maturing in 2032 for a total of S/ 10 billion). This operation was designed to pay off external debt raising the participation of debt in local currency. This placement saw a high participation of non-resident investors.

15. External private indebtedness, which is expected to show a declining trend during the forecast horizon in line with a greater use of local funding and rising international interest rates, would represent about 15 percent of GDP in 2019.

Graph 23
MEDIUM- AND LONG-TERM EXTERNAL DEBT: 2009-2019
(% GDP)



* Forecast.

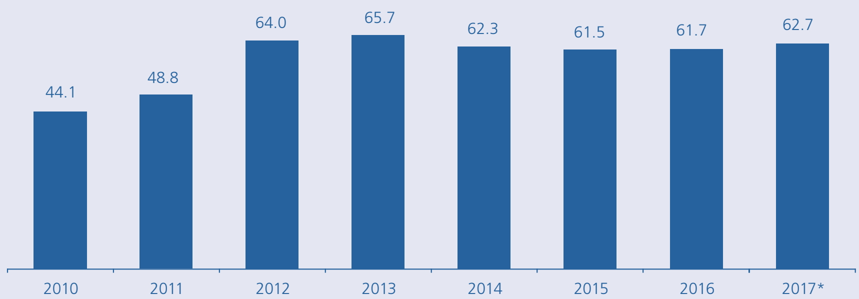
The soundness of the balance of payments to face negative events in the global economy is reflected in the position of Peru's international reserves relative to the balance of its short term external liabilities or comparing the total of these liabilities with the country's current account deficit. The 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

	2006	2011	2016
NIR as a % of:			
a. GDP	19.6	28.9	31.5
b. Short-term external debt1/	166	470	360
c. Short-term external debt plus current account deficit	230	365	275
Medium- and long-term external debt (as a % GDP):	28.6	24.7	34.5
a. Private	4.0	10.4	19.3
b. Public	24.5	14.3	15.1

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

Graph 24
NET INTERNATIONAL RESERVES
(Billion US$)

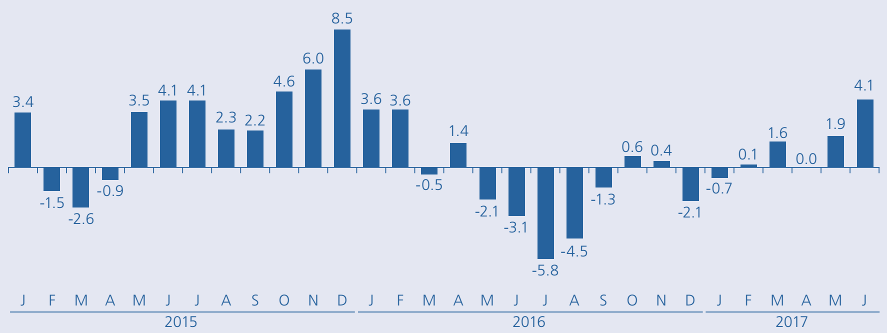


* As of september 12.

III. Economic Activity

16. The economy has been slowing down due to a more moderate pace of growth of domestic demand resulting basically from the slowdown-contraction of private and public investment. This trend intensified in the fourth quarter of 2016 and in the first quarter of 2017 after the impact of the fiscal consolidation measures, the corruption cases associated with Brazilian construction companies, and the disasters caused by *El Niño Costero*. In this context, the non-primary output –which was the GDP sector most affected by the evolution of domestic demand– recorded a significant slowdown, construction and non-primary manufacturing showing the stronger declines.

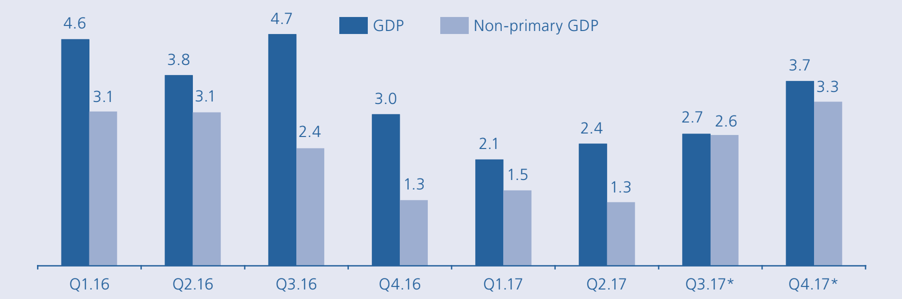
Graph 25
SEASONALLY-ADJUSTED DOMESTIC DEMAND*
(Moving quarter - 12 month % change)



1/ Excluding inventories.
Source: BCRP.

This trend has begun to reverse since the second quarter of 2017 (especially since May). In this period, GDP grew 2.4 percent after having grown 2.1 percent in the first quarter. This greater dynamism of GDP is explained mainly by higher primary agricultural production and fisheries. The slower growth of non-primary sectors is associated with an increased decline in manufacturing, offset by the recovery of the sectors of trade and services, which reversed the effects of El Niño Costero, while construction moderated its slowdown, in line with a better evolution of public and private investment.

Graph 26
GDP AND NON-PRIMARY GDP
(Real % change)



* Forecast.

Expenditure-Side GDP

17. After slowing down in the first quarter of 2017, GDP registered a recovery in the second quarter with a growth rate of 2.4 percent, which marks the beginning of the reversal of the shocks during the past few quarters (i.e. the fiscal adjustment, the slowdown of investment associated with the corruption scandals, and the ravages caused by El Niño Costero).

    The expansion observed in the second quarter of the year reflected the recovery of domestic demand, which showed a growth rate of 0.4 percent (a higher rate than the ones observed in the two previous quarters). A slower pace of decline of private investment was observed –in line with the recovery of business confidence and terms of trade– together with a smaller contraction of public spending associated with the Government measures adopted with the aim of unlocking public investment. As for private consumption, although it has continued to show moderate growth rates, recent indicators show signs of recovery. Moreover, exports grew 12.8 percent in the first half of 2017.

18. The evolution of spending indicators is consistent with the projections contained in the June report, so GDP is still forecast to grow 2.8 percent in 2017. This scenario considers a slight adjustment in favor of domestic demand. Private consumption would accelerate its dynamism in the second half of the year, in line with the improvements foreseen in the labor market and in conditions of access to credit; private investment would show a gradual recovery, and finally, considering the fiscal stimulus announced, public spending would reverse its negative trend in the second half of the year. Exports would slow down after the first fishing season of anchovy is completed.

The GDP growth projection for 2018 remains at 4.2 percent, with a higher increase in domestic demand resulting mainly from the upward revision of the growth of private consumption (3.3 percent compared to 3.0 percent estimated in the previous report) due to a greater recovery of employment and income. Factors contributing to this include the expansion of the construction sector, the improvement of the terms of trade and disposable income, and the reversal of the negative wealth effect caused by El Niño Costero. As in our previous report, a recovery is expected in private investment given the better performance of mining investment in exploration (given the recovery of the prices of minerals) and investment in infrastructure (associated with the process of Reconstruction and with the unlock of some projects, such as Line 2 of Lima's Metro). On the other hand, lower investment is anticipated in the sectors of energy (due to the current overcapacity in electricity generation) and hydrocarbons (due to the low price of oil). In addition to this, an acceleration of government spending is also expected as a result of the implementation of the Reconstruction Plan and fiscal stimulus.

In 2019, GDP would grow 4.2 percent in a context of a gradual withdrawal of fiscal stimulus, a greater dynamism of the private sector, and favorable external conditions.

Table 15
GDP AND DOMESTIC DEMAND
(Real % change)

	2015	2016	H1 2017	2017*		2018*		2019*
				IR Jun17	IR Sep.17	IR Jun17	IR Sep.17	IR Sep.17
I. Domestic demand	**2.9**	**1.0**	**-0.3**	**1.9**	**2.3**	**4.0**	**4.2**	**4.2**
1. Private expenditure	**2.7**	**1.3**	**0.8**	**1.6**	**2.0**	**3.5**	**3.7**	**4.6**
Consumption	3.4	3.4	2.2	2.5	2.6	3.0	3.3	3.8
Private fixed investment	-4.3	-5.9	-4.2	-1.8	-1.0	5.3	5.3	7.5
Change on inventories (contribution)	1.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0
2. Public expenditure	**3.6**	**-0.2**	**-6.7**	**3.6**	**3.6**	**6.5**	**6.9**	**2.6**
Consumption	9.8	-0.5	-5.4	2.3	2.3	3.0	3.6	2.0
Investment	-9.5	0.6	-10.4	7.0	7.0	15.0	15.0	4.0
General government	*-14.6*	*-3.3*	*-9.2*	*11.1*	*11.1*	*16.3*	*16.4*	*3.4*
Public entitites	*62.6*	*30.0*	*-16.0*	*-15.7*	*-15.3*	*5.4*	*4.6*	*8.8*
II. Net external demand								
1. Exports	**4.0**	**9.5**	**12.8**	**5.9**	**5.0**	**4.4**	**3.8**	**4.4**
2. Imports	**2.4**	**-2.2**	**2.5**	**2.9**	**3.3**	**3.5**	**4.1**	**4.6**
III. GDP	**3.3**	**4.0**	**2.3**	**2.8**	**2.8**	**4.2**	**4.2**	**4.2**
Memo:								
Public expenditure (contribution)	*0.6*	*0.0*	*-1.0*	*0.6*	*0.6*	*1.1*	*1.1*	*0.4*
Domestic demand excluding inventories	*1.8*	*1.0*	*-0.3*	*1.9*	*2.1*	*4.0*	*4.3*	*4.3*

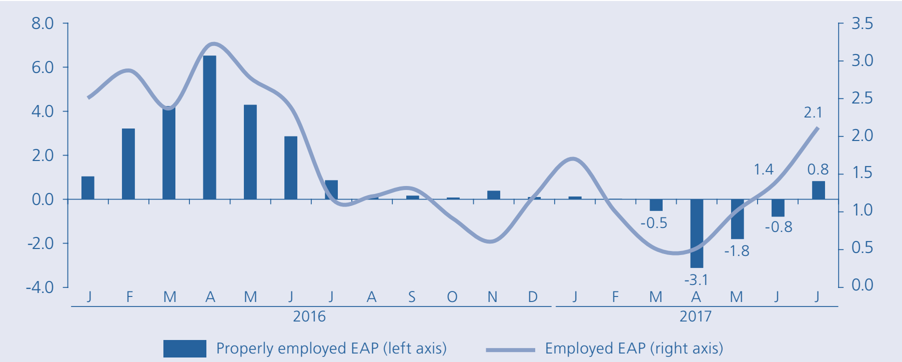
* Forecast.
IR: Inflation Report.

19. Recent indicators of **private consumption** show a recovery in comparison with the first quarter of the year. On the one hand, after falling during the first half of 2017, real income stabilized in July and some indicators of employment, such as the workforce properly employed, have improved in comparison with the first months of 2017. On the other hand, credit to households continued to show a higher growth than in the first quarter and consumer confidence has remained in the optimistic side, exceeding the levels observed in the months after El Niño and in line with the steady growth of imports of consumer goods in the second quarter.

    a) The recovery of activity is reflected in certain indicators of the labor market. The economically active population (workforce) of Metropolitan Lima recorded a growth rate of 2.1 percent in the moving quarter of May-July, the highest rate so far this year, while the properly employed population grew 0.8 percent after showing four months of declining rates.

    Furthermore, the number of job advertisements through web pages[2] increased after reaching a minimum level during the first weeks of May. This is being observed both in Lima and in the rest of the country. The graph below shows the recent evolution of the number of job advertisements in both Lima and Callao and in the rest of the country.

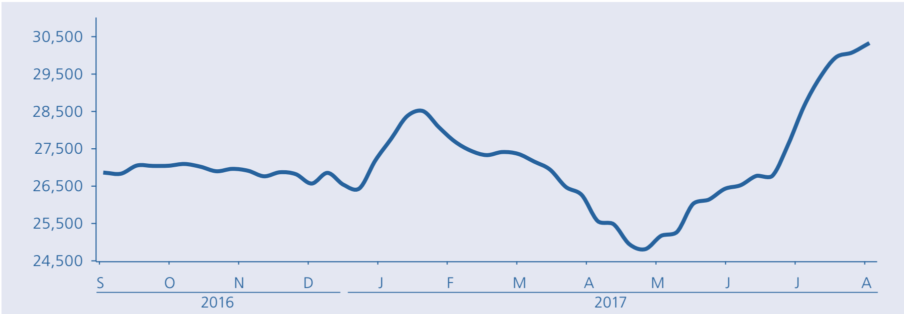
Graph 27
WORKFORCE EMPLOYED AND PROPERLY EMPLOYED - METROPOLITAN LIMA
(Moving quarter - 12 month % change)



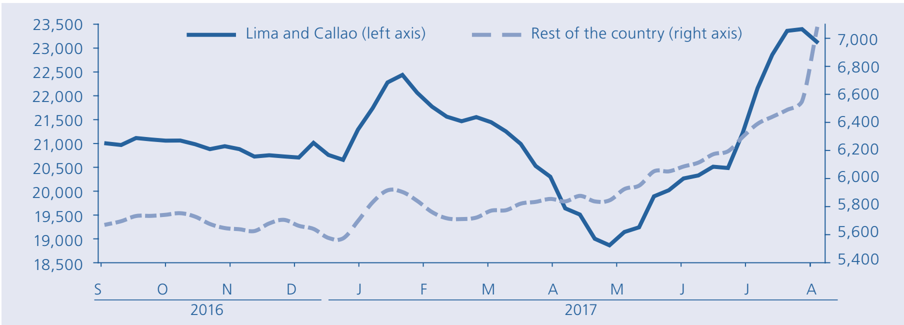
Source: INEI.

2 Since September 2016, BCRP collects data on a daily basis of job advertisements published in the main web pages. Based on this information, we have built an alternative indicator of employment that is updated daily. 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.

Graph 28
NUMBER OF JOB ADVERTISEMENTS
(Moving-average four weeks)

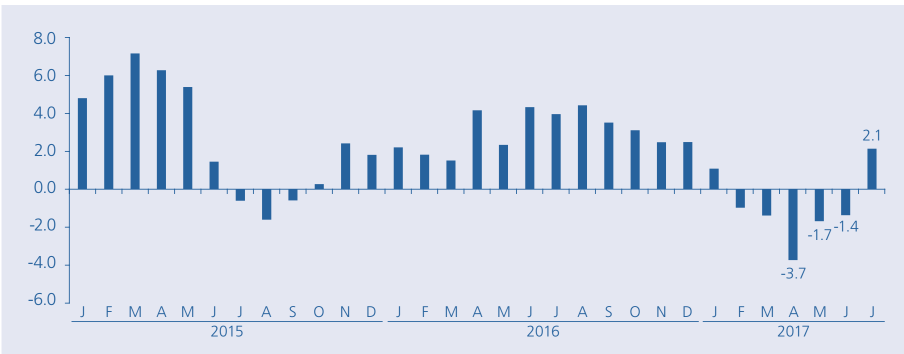


Graph 29
NUMBER OF JOB ADVERTISEMENTS BY CITIES
(Moving-average four weeks)



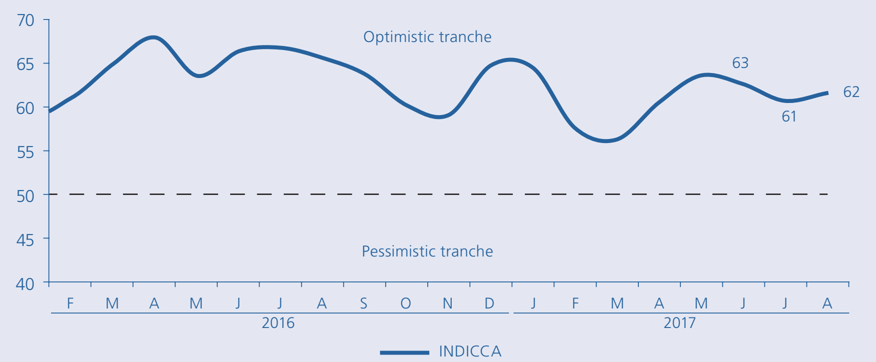
b) The real income of the workforce employed grew slightly (0.1 percent) in July 2017 after showing falls for six consecutive months. Similarly, the indicator of wages increased by 2.1 percent after falling for five consecutive months.

Graph 30
PAY ROLL - METROPOLITAN LIMA
(Moving quarter -12 month % change)



c) In August 2017, the consumer confidence index, measured as expectations about the economic situation of the household in one year's time, recorded 62 points remaining on the optimistic area and showing a recovery after the severe damage caused by El Niño Costero as well as the reversal of the shock on food prices.

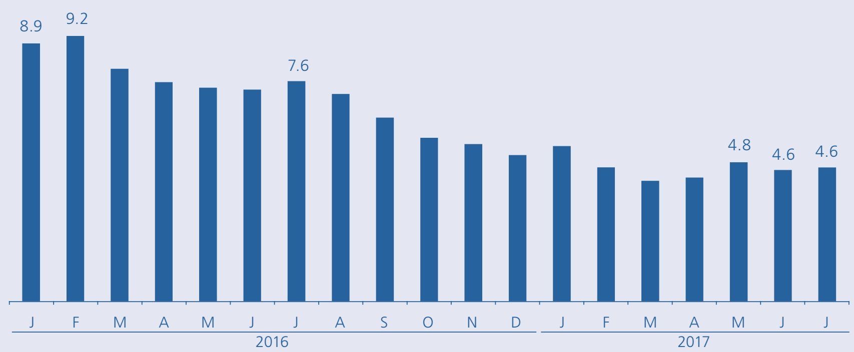
Graph 31
CONSUMER CONFIDENCE INDEX: EXPECTATIONS ON THE SITUATION OF THE ECONOMY IN THE TWELVE MONTHS AHEAD



Source: Apoyo.

d) Despite recording lower growth rates than in 2016, consumer loans have been showing greater dynamism in the last quarter.

Graph 32
REAL CONSUMER LOANS
(12-month % change)

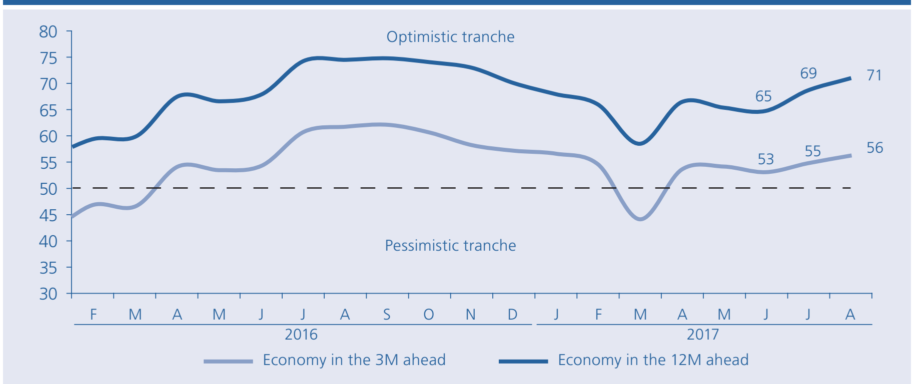


20. In the case of **private investment**, indicators of expectations with a high correlation with investment, such as purchase orders, showed higher levels in August than in

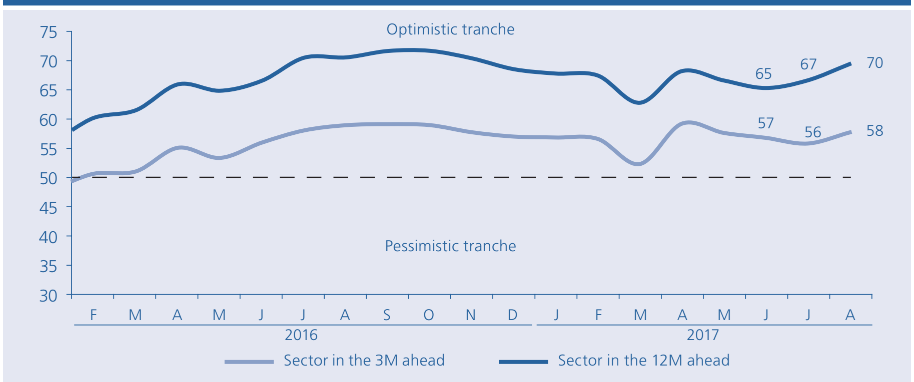
the first quarter of the year –like expectations about the economy did–, while the contemporary indicator of imports of capital goods showed a significant recovery in the month of July.

a) The expectations about the economy in the three and twelve months ahead remained on the optimistic side, recording levels of 56 and 71 points, respectively, higher levels than the average ones expected in the first half of 2017 (53 and 65 points, respectively). Moreover, expectations about the various production sectors in the three and twelve months ahead were also higher than those reported prior to the occurrence of El Niño Costero (58 and 70 points respectively). Finally, entrepreneurs' expectations about the situation of their businesses in 3 and 12 months' time registered 62 and 71 points, respectively, and expectations of purchase orders in 3 months' time reached 67 points in August, maintaining the recovery begun in March 2017.

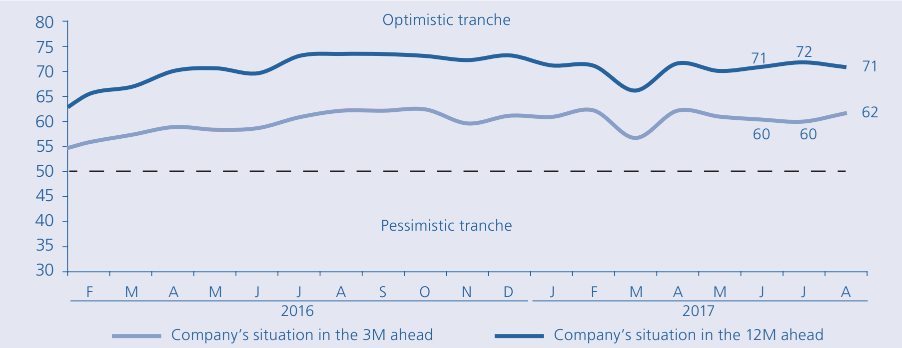
Graph 33
BUSINESS EXPECTATIONS ON THE ECONOMIC SITUATION IN THE THREE AND TWELVE MONTHS AHEAD



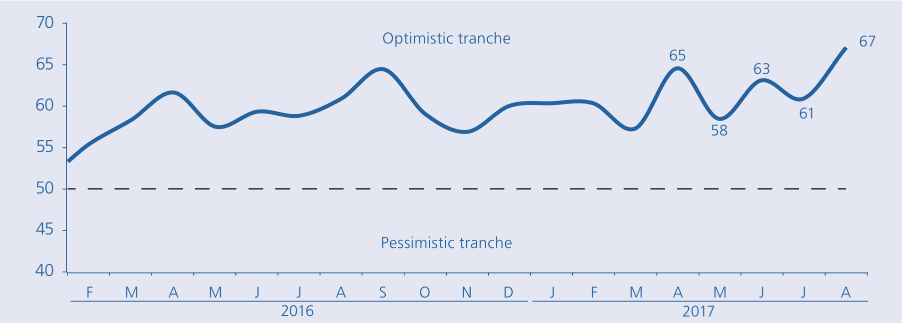
Graph 34
BUSINESS EXPECTATIONS ABOUT THE SECTOR IN THE THREE AND TWELVE MONTHS AHEAD



Graph 35
BUSINESS EXPECTATIONS ABOUT YOUR COMPANY'S SITUATION IN THE THREE AND TWELVE MONTHS AHEAD

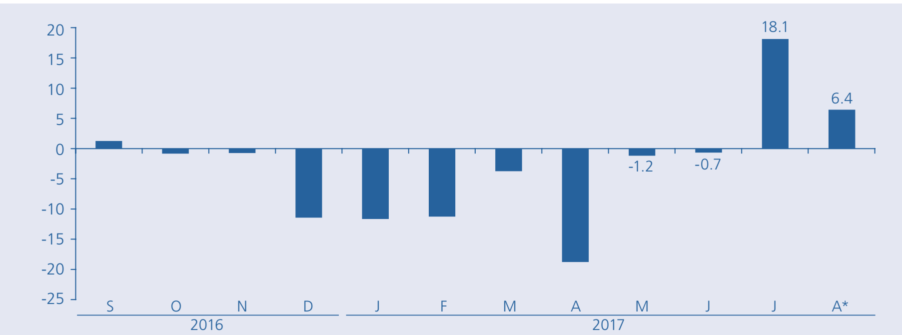


Graph 36
BUSINESS EXPECTATIONS ABOUT PURCHASING ORDERS IN THE THREE MONTHS AHEAD



b) The volume of imports of capital goods, excluding building materials – indicator of the demand for investment– increased 18.1 percent annually in July 2017 after nine months of consecutive falls.

Graph 37
VOLUME OF IMPORTS OF CAPITAL GOODS
(% change last 12-months)



* Estimation.

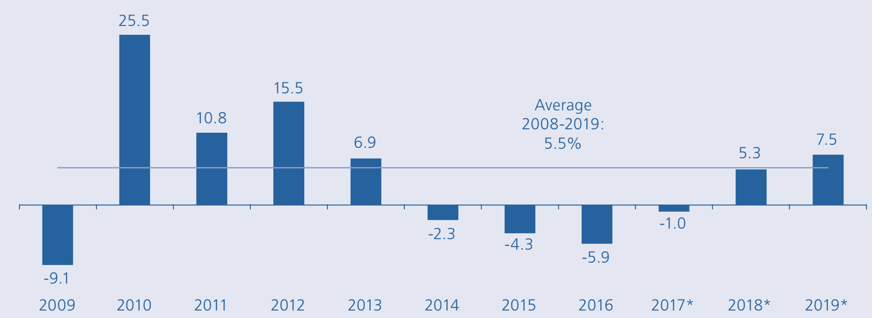
21. Expectations about GDP growth in 2017 show no significant changes relative to the June report: the representatives of financial entities and economic analysts have revised their estimates slightly down, from 2.6 to 2.5 percent, whereas the representatives of non-financial companies continue to forecast a growth rate of 3.0 percent. In 2018, economic agents expect a GDP growth rate of 3.6 percent on average.

Table 16
SURVEY ON MACROECONOMIC EXPECTATIONS: GDP GROWTH
(% change)

		IR Mar.16	IR Jun17	IR Sep.17
Financial entities				
	2017	3.5	2.6	2.5
	2018	4.0	3.6	3.5
	2019	4.0	4.0	3.7
Economic analysts				
	2017	3.5	2.6	2.5
	2018	3.8	3.6	3.5
	2019	4.0	4.0	4.0
Non-financial firms				
	2017	3.8	3.0	3.0
	2018	4.0	3.9	3.7
	2019	4.0	4.0	4.0

22. Based on the announced investment projects, in the forecast horizon the **investment of the private sector** would fall 1.0 percent in 2017 and would recover thereafter to 5.3 and 7.5 percent in 2018 and 2019, respectively.

Graph 38
PRIVATE INVESTMENT: 2009 - 2019
(Real % change)



* Forecast.

Private investment projects announced to be implemented in the period of 2017-2019 amount to US$ 25.7 billion. Delays in different mega-infrastructure investment projects caused by problems associated with the corruption cases and with the feasibility of the projects have affected the dynamism of investment expected in 2017. However, investment is projected to start showing a recovery in 2018-2019.

Table 17
PRIVATE INVESTMENT PROJECTS ANNOUNCED
(Million US$)

	2017-2018		2017-2019
	IR Jun17	**IR Sep.17**	
Mining	5,125	5,473	9,228
Hydrocarbons	2,098	1,315	2,633
Energy	1,415	1,014	1,607
Industry	,895	844	1,236
Infraestructure	2,698	2,948	4,956
Other sectors	4,418	4,844	6,082
TOTAL	**16,649**	**16,438**	**25,742**

Source: Information of companies and media press.

Table 18
MAIN INVESTMENTS PROJECTS: 2017-2019

SECTOR	COMPANIES	PROJECT
Mining	Southern Peru Cooper Corp.	Expansion of Toquepala
	Aluminium Corp. Of China Ltd.(Chinalco)	Expansion of Toromocho
	Shougang Corporation	Expansion of Marcona
	Angloamerican	Quellaveco
	Grupo Breca	Mina Justa
Hydrocarbons	Repsol YPF S.A.	Lot 57: Kinteroni
	China National Petroleum Corporation	Exploration: Lot 58
	Calidda Gas Natural del Peru	Massive use of gas
Energy	Luz del Sur	Thermal power plant of South Pacific
	Termochilca	Thermal power plant of Domigo Olleros - Combined cycle
	Interconexión Eléctrica	Transmission Line 500kV
Industry	Corporación Lindley	Storages and infraestructures
	Repsol YPF	Expansion of La Pampilla plant
	Grupo Celepsa	Expansion of plant in Pisco
Infraestructure	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	Line 2 of the Metro Network of Lima and Callao
Other sectors	Grupo Telefónica	Expansion and facilities of net LTE-4G
	Entel	Development of services 4G
	América Móvil	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.

Projects awarded in concession at July 2017 involve an investment of US$ 132 million. In addition to this, Proinversión has announced that investment projects to be awarded in concession in the period of 2017-2019 would involve an investment of US$ 11.1 billion.

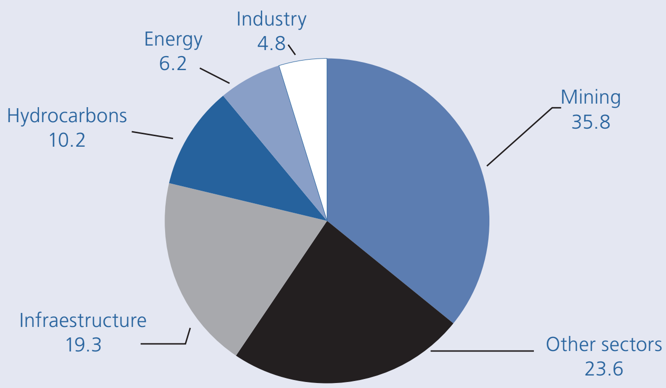
Table 19
MAIN PROJECTS TO BE IMPLEMENTED THROUGH CONCESSION ARRANGEMENTS IN 2017-2019
(Million US$)

	Estimated investment
A. Awarded	**132**
The Amazon Waterway	95
Aguaytía-Pucallpa 138 kV Electric Transmission Line	37
B. To award	**11,074**
B.1 Called	**4,136**
Michiquillay Remnants Mining Project	1,950
Headworks and Conduction for the Drinking Water Supply in Lima	600
500kV Mantaro - Nueva Yanango -Carapongo Connection and Nueva Yanango - Nueva Huanuco connection and associated sub stations	509
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	204
220 kV Tintaya - Azangaro Transmission Line	59
B.2 To be called	**6,938**
Line 3 of the Metro Network of Lima and Callao	5,600
Ancon Industrial Park	500
New hospitals of high complexity	424
Broadband for Comprehensive Connectivity and Social Development: Amzonas, Ica, Lima, Moquegua,Tacna, Puno and Junin region	315
Repowering up to 1000 MVA of 500 kV Carabayllo-Chimbote-Trujillo Transmission Line	64
Variable reactive compensator in La Planicie sub station	25
New 220 kV Carhuaquero Substation 2/	10

Source: ProInvestment.

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

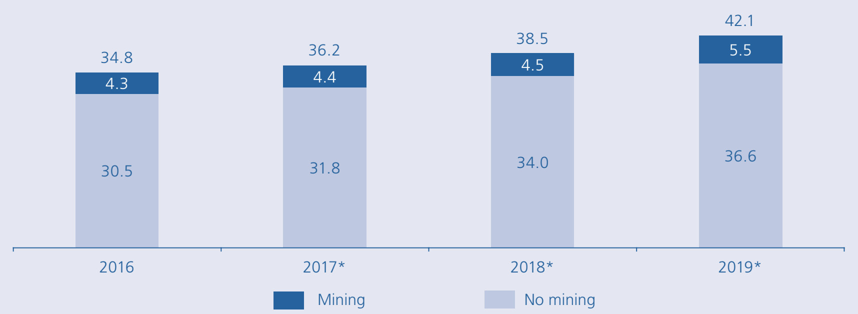
Graph 39
FORESEEN INVESTMENT PROJECTS: 2017-2019
(% share)



Source: Companies and media press.

Projects in the **mining sector** include the construction of Southern's expansion of mine Toquepala, whose execution already shows an implementation of 70 percent and would be completed in the second quarter of 2018. The decision about the construction of Anglo American's copper project of Quellaveco would be made in mid-2018. For the moment, the company is carrying out early works such as the construction of the tunnel to bypass the Asana River, access roads, and mine activities in a tunnel near a quarry site. In addition to this, it is estimated that the feasibility of Mina Justa will be completed in the fourth quarter of 2017 and that its construction would begin in 2018.

Graph 40
PRIVATE INVESTMENT
(Billion US$)



* Forecast.
Source: BCRP and Minem.

As regards investment projects in the **energy sector**, it is estimated that excess supply in the generation of electricity would postpone investments in new plants in the medium term. Considering a GDP growth rate of 4 percent on average in the next few years, the balance between the supply and the demand for electric power would be achieved only by 2020, although mining projects in portfolio could expand the demand for electric power. The bid to cover such demand would be at low prices given the high competition for free clients observed today among generators.

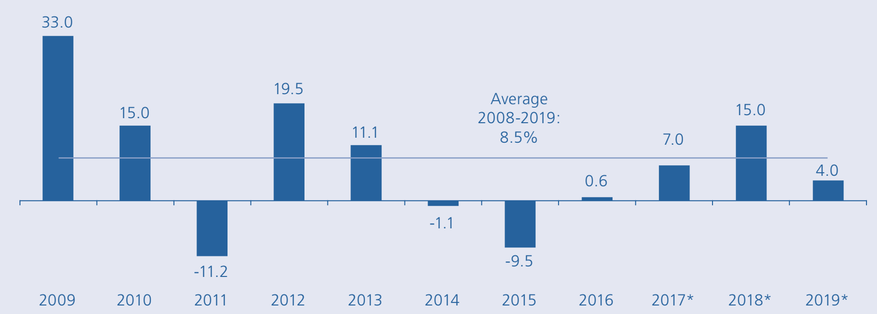
In the **hydrocarbons sector**, there is a delay in exploration and exploitation projects associated in part with the growing number of areas that have been declared protected natural areas as well as with social problems that make it difficult to carry out exploration activities.

In the **infrastructure sector**, the Government signed an addendum to the expansion contract of Jorge Chávez International Airport in order that the expansion works begin in 2018, with an investment of US$ 1.5 billion over a period of five years. Among other works, this project includes the construction of a second runway and the terminal of passengers.

As for the project of Line 2 of Lima's Metro, it is expected that the problems associated with releasing the land required and with the approval of the final engineering studies, as well as other interferences (utility connections), will be solved and lead to a faster pace of growth of investment towards the end 2018.

23. The growth rate of **public investment** projected for 2017 remains at 7.0 percent. The performance of public investment during the first half of the year was in line with expected investment, the positive growth rates recorded since June standing out. Taking into account the expansionary fiscal policy aimed at the reconstruction of infrastructure (after the negative impact of El Niño Costero) and the Pan American Games, the projection of growth of public investment in 2018 is maintained at 15.0 percent, while a rate of 4.0 percent is expected for 2019. The latter projection takes into account the lower public investment foreseen given the lower public investment of the subnational governments observed every first year of a new administration.

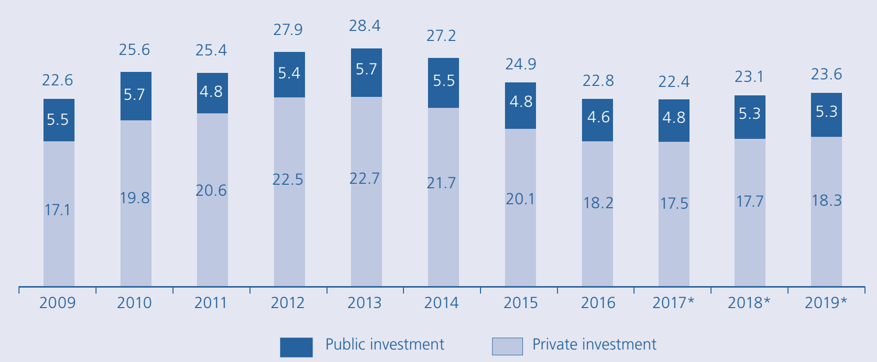
Graph 41
PUBLIC INVESTMENT: 2009-2019
(Real % change)



* Forecast.

Considering the evolution of private investment and public investment, the gross investment to GDP ratio would reach 23.6 percent in 2019.

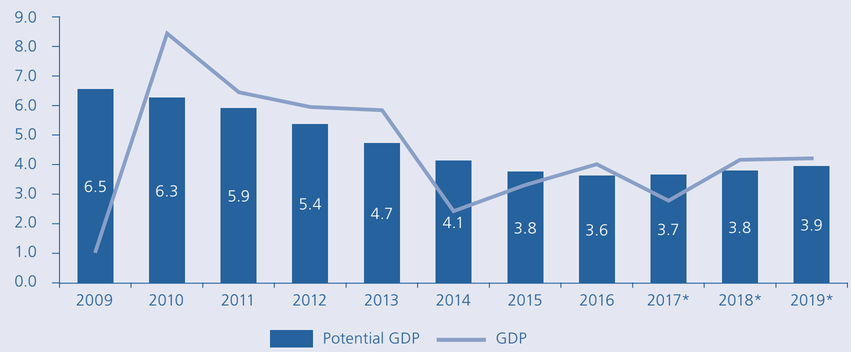
Graph 42
GROSS FIXED INVESTMENT: PRIVATE AND PUBLIC SECTORS 2009- 2019
(% real GDP)



* Forecast.

24. The lower GDP growth rates recorded since 2014 are associated with a lower growth rate of the potential output and with the economy's transition from an expansionary cycle to a slowdown cycle. Higher growth is expected in the forecast horizon since a recovery of potential GDP is foreseen as a result of the impact of the reconstruction plan on investment together with a gradual improvement of total factor productivity is expected.

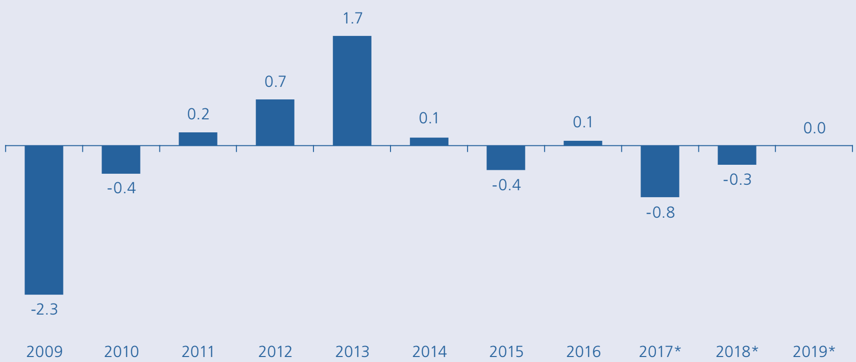
Graph 43
GDP GROWTH AND POTENTIAL GDP, 2009-2019**
(Annual % change)



* Forecast.
** Potential GDP is calculated using Hodrick -Presscot filter.

With the recovery of growth and potential GDP, the output gap is projected to close in the forecast horizon, in line with the recovery of public and private investment amid a context with higher terms of trade and sounder growth rates in our business partners.

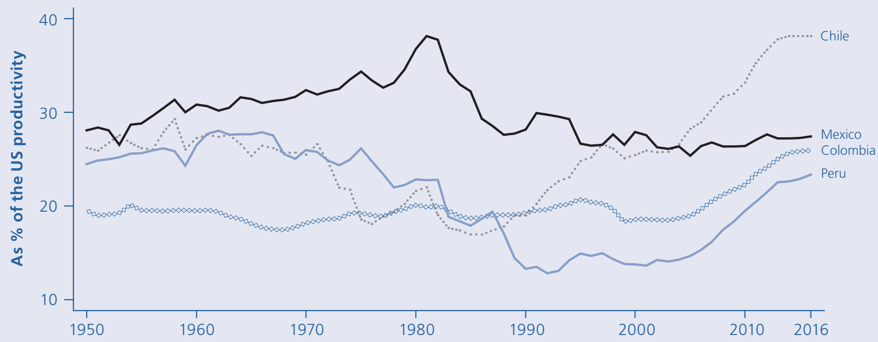
Graph 44
OUTPUT GAP
(% GDP of tendency)



* Forecast.

However, in addition to the impulse of public investment, further progress in structural reforms is required to raise productivity and competitiveness. Even though the productivity of the average worker has registered a recovery in recent years, it still remains below the levels of productivity of other countries in the region.

Graph 45
PRODUCTIVITY BY WORKING HOURS
(Relative to the US productivity)



Source: The Conference Board.

Productivity by hours

	Chile	Colombia	Mexico	Peru	USA
1980	3.8	3.5	6.4	4.0	17.5
1990	4.2	4.2	6.2	2.9	21.9
2000	6.7	4.9	7.4	3.6	26.4
2010	10.0	6.7	8.0	5.9	30.1
2016	12.1	8.2	8.7	7.4	31.7

Labor productivity by hours is calculated as the ratio Per-capita GDP (adjusted by Power Purchasing Parity) over the average number of annual working hours by workers.

Sector GDP

25. As regards activity in the different production sectors, the growth forecast for 2017 remains at 2.8 percent. The major upward revisions have been made in the sectors of construction and agriculture, while the major downward revisions, on the other hand, have been made in the sectors of mining and hydrocarbons and non-primary manufacturing.

A complete reversal of the negative impacts associated with El Niño Costero is projected in the 2018-2019 horizon, together with in increased fiscal stimulus for reconstruction and with the unlock of major infrastructure projects, which would allow a greater dynamism of private investment and consumption. In this scenario, the GDP would grow 4.2 percent in 2018 and 2019.

Table 20
GDP BY PRODUCTION SECTOR
(Real % change)

	2015	2016	H1 2017	2017* IR Jun17	2017* IR Sep.17	2018* IR Jun17	2018* IR Sep.17	2019* IR Sep.17
Agriculture and livestock	**3.5**	**2.3**	**0.3**	**2.2**	**2.5**	**4.6**	**4.5**	**4.4**
Agriculture	2.3	1.2	-0.5	1.3	2.9	4.8	4.6	4.5
Livestock	5.2	4.0	1.8	3.5	1.9	4.2	4.2	4.4
Fishing	**15.9**	**-10.1**	**82.9**	**34.0**	**30.2**	**5.5**	**7.2**	**2.9**
Mining e Hydrocarbons	**9.5**	**16.3**	**2.9**	**4.3**	**3.5**	**7.1**	**5.3**	**2.0**
Metallic mining	15.7	21.2	3.7	4.5	4.1	6.5	4.6	2.4
Hydrocarbons	-11.5	-5.1	-1.3	3.5	0.5	9.8	10.6	0.0
Manufacturing	**-1.5**	**-1.4**	**2.7**	**2.3**	**1.6**	**3.2**	**3.6**	**4.1**
Based on raw materials	1.8	-0.6	21.0	11.8	11.2	4.0	4.6	4.7
Non-primary industries	-2.6	-1.7	-3.0	-0.9	-1.5	3.0	3.3	3.7
Electricity and water	**5.9**	**7.3**	**1.3**	**3.1**	**2.2**	**4.5**	**4.5**	**4.5**
Construction	**-5.8**	**-3.1**	**-4.1**	**-0.7**	**0.9**	**8.0**	**8.0**	**9.5**
Commerce	**3.9**	**1.8**	**0.5**	**1.7**	**1.8**	**3.5**	**3.5**	**3.8**
Services	**4.1**	**4.0**	**2.9**	**2.9**	**3.1**	**3.4**	**3.6**	**4.3**
GDP	**3.3**	**4.0**	**2.3**	**2.8**	**2.8**	**4.2**	**4.2**	**4.2**
Memo:								
Primary GDP	**6.9**	**9.9**	**5.4**	**5.3**	**4.7**	**6.1**	**5.1**	**2.9**
Non-primary GDP	**2.4**	**2.4**	**1.4**	**2.0**	**2.2**	**3.7**	**3.9**	**4.6**

* Forecast.
IR: Inflation Report.

a) The **agriculture** sector grew 1.1 percent during the second quarter of the year due to the increased agricultural supply of products from the regions that were not affected by El Niño Costero (e.g. potatoes from the Sierra and coffee and cocoa from the Selva, as well as export-oriented products, such as grapes, olives, artichokes, and blueberries). Conversely, the production of rice decreased due to the effects of El Niño Costero in the North Coast, and there was a lower-than-expected volume of poultry due to lower placements of BB chicken and to the lower average weight of chickens.

Higher yields are expected in the production of potatoes and rice in the rest of the year with the normalization of weather conditions, together with an increased production of profitable products in high demand such as blueberries, and higher harvested areas of coffee and cocoa. Because of this, the growth forecast for this sector in 2017 has been revised up from 2.2 to 2.5 percent.

In 2018, the agriculture sector is projected to grow 4.5 percent as a result of the incorporation of new production areas from the Olmos project (sugar cane and export-oriented fruits), as well as from Alianza Cacao (cocoa), Programa de Renovación de Cafetales (coffee), in addition to larger commercial areas for exports of blueberries, grapes, and avocadoes. The recovery of the production of rice, bananas, and lemon affected by El Niño Costero 2017 would add onto this. The incorporation of other production areas and an increase in the exportable supply is expected for 2019, a growth rate of 4.4 percent being therefore projected.

b) During the second quarter of 2017, the **fishing sector** grew 128.8 percent due to increased landings of anchovy in the first fishing season in the North-Central area, associated with a greater biomass of this species than in the previous year as a result of the normalization of sea surface temperatures. Furthermore, the catch of species such as giant squids and shrimps for frozen sea products also increased, favored by sea temperatures.

   However, only 85 percent of the fishing quota established for the first anchovy fishing season was reached due to seasonal conditions and sea anomalies. Despite this, it is expected that the catch of this species will develop normally in the second anchovy fishing season in the North-Central zone. Thus, the projection of growth in this sector is revised down from 34.0 to 30.2 percent in 2017.

   On the other hand, the growth of the sector projected for 2018 has been revised up from 5.5 to 7.2 percent since no atypical ocean conditions are expected. Thus, anchovy catch in the North-Central area is foreseen to take place in optimal conditions, which will favor the catch of species for direct human consumption. In 2019, the fishing sector is expected to grow 2.9 percent.

c) **Metal mining** grew 3.5 percent in the second quarter of 2017. The slowdown of growth compared to the second quarter of 2016 results from a reduction in the production of gold due to the lower grades of metal obtained in Yanacocha and Barrick, as well as from a slower pace of growth in the production of copper since the high rates observed in 2016 were associated with the onset of operation of Las Bambas and with the expansion of Cerro Verde.

   The growth forecast of metal mining in 2017 is revised down, from 4.5 to 4.1 percent, mainly due to: (i) lower copper production in Cerro Verde and Southern as a result of logistics and labor problems during the first half of the year; and (ii) lower gold production as a result of lower-than-expected metal grades in Barrick and Yanacocha, as well as due to the lower artisanal production in Madre de Dios caused by bans to informal miners. The growth forecast of the subsector in 2018 is revised down from 6.5 to 4.6 percent due mainly to the lower production of gold –given the continued decline of mineral grades in Barrick and Yanacocha– and to the lower-than-expected growth recorded in the production of copper, zinc, and molybdenum. On the other hand, an increase in the production of gold is expected in 2019 as a result of new projects, while a moderation of growth is anticipated in the production of copper and zinc.

Table 21
MINING PRODUCTION
(% change)

	2015	2016	2017*	2018*	2019*
Copper	25.8	40.1	5.2	6.5	2.2
Gold	4.8	4.2	-1.7	-1.4	1.3
Zinc	8.0	-6.1	7.9	4.3	0.2

* Forecast.

During the second quarter of 2017, the pace of growth of **copper production** slowed down to 1.1 percent due to the logistical problems caused by El Niño Costero. In 2017 the growth of production would slow down due to the end of the base effect of Las Bambas and to lower expected growth in Cerro Verde and Southern, whereas in 2018, copper production would grow at a faster pace due to the expansion of Southern's Toquepala as from the second half of the year and due to the recovery of production in Cerro Verde. Moreover, in 2019 copper production would show a slower pace of growth after reaching maximum levels of commercial production.

Table 22
COPPER PRODUCTION
(Thousand MTF)

	2015	2016	2017*	2018*	2019*
Antamina	412	444	448	450	450
Southern	298	288	289	359	400
Cerro Verde	208	473	474	500	500
Antapaccay	203	221	210	230	230
Toromocho	182	168	185	195	200
Constancia	106	133	115	130	130
Las Bambas	7	329	451	460	460
Rest	212	223	227	231	242
TOTAL	**1,628**	**2,280**	**2,399**	**2,555**	**2,612**

* Forecast.

Gold production fell 4.4 percent in the second quarter of 2017 due to lower grades mineral in Yanacocha and Barrick and due to lower artisanal production in Madre de Dios as a result of the increased frequency of bans. Since this trend is foreseen to continue in the forecast horizon, gold production is expected to fall by 1.4 percent in 2018. In contrast, in 2019 it is expected to increase by 1.3 percent due to the production increase anticipated in new projects such as Buenaventura Tambomayo.

Table 23
GOLD PRODUCTION
(Thousand troy ounce)

	2015	2016	2017*	2018*	2019*
Yanacocha	918	668	549	500	480
Barrick Misquichilca	614	547	504	482	460
Madre de Dios[1/]	391	549	443	464	464
Buenaventura	218	190	194	195	195
Inmaculada	59	163	162	162	162
Anama	74	85	90	89	89
Shahuindo	0	48	81	85	90
Tambomayo	0	0	76	130	150
Rest	2,446	2,669	2,739	2,663	2,745
TOTAL	**4,720**	**4,919**	**4,838**	**4,769**	**4,833**

* Forecast.
1/ Corresponds informal production estimated by MINEM.

The production of zinc grew 21.5 percent during the second quarter of 2017 as a result of Antamina's greater activity in a context of higher international prices of this mineral. Furthermore, the company is expected to exceed its production plan this year, in line with the company's policy of increasing its extraction in areas with high grades of zinc. Thus, zinc production would grow 7.9 percent in 2017. Moreover, the production of this mineral is expected to maintain this rising trend in 2018 in a context of high prices and the production levels should not vary significantly in 2019.

Table 24
ZINC PRODUCTION
(Thousand MTF)

	2015	2016	2017*	2018*	2019*
Antamina	298	261	387	387	390
Volcan	180	169	165	186	186
Los Quenuales	103	29	28	31	31
Milpo	247	245	222	258	258
El Brocal	56	59	64	65	65
Administradora Chungar	100	109	106	105	105
Rest	437	462	468	470	470
TOTAL	**1,421**	**1,334**	**1,440**	**1,501**	**1,504**

* Forecast.

d) The output in the **hydrocarbon sub-sector** fell 7.1 percent in the second quarter of 2017 as a result of a lower extraction of natural gas liquids (-10.6 percent) and natural gas (-12.9 percent) due to lower exports from lots 56 (Pluspetrol) and 57 (Repsol) as well as due to a lower demand for gas from the thermoelectric generators, which affects mainly Pluspetrol's Lot 88. In contrast, the quarterly production of oil grew 7.2 percent as a result of the recovery of production in Lot 192 after the maintenance and repair of the pipeline Oleoducto Norperuano.

Because of this lower production of gas and natural gas liquids, the growth rate in the subsector is revised down from 3.5 to 0.5 percent, despite the restart of production of Lot 192. Since Oleoducto Norperuano is expected to be operating entirely in 2018, growth in the sector would increase to 10.6 percent, whereas no significant increase is foreseen in 2019 given the expansion projected in the previous year.

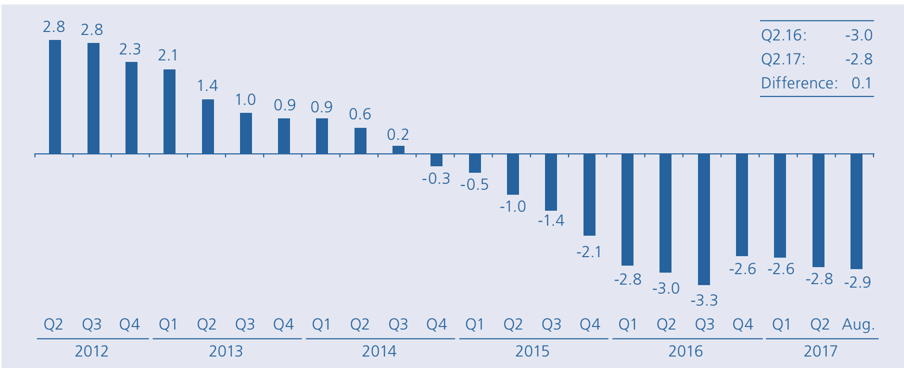
e) Output in **non-primary manufacturing** dropped 5.0 percent in the second quarter of 2017, basically as a result of the decline of the production of goods oriented to inputs, mass consumption, and exports. On the other hand, however, the industrial branches linked to investment have shown a recovery in recent months.

The growth rate of manufacturing in 2017 has been revised down from 2.3 to 1.6 percent due to the trend recorded by non-primary manufacturing, the low yield of sugar associated with the impact of El Niño Costero, and the lower production of fishmeal and fish oil resulting from a lower catch of anchovy than the total quota established. In 2018 and 2019 the sector is projected to recover and grow 3.6 and 4.1 percent, respectively, due to the greater dynamism anticipated in primary manufacturing and the reversal of the decline of non-primary manufacturing, in line with the recovery expected in domestic demand.

IV. Public Finances

26. The deficit in the non-financial public sector accumulated in the last 12 months was equivalent to 2.9 percent of GDP in August of 2017, higher than the 2.6 percent deficit of December 2016. This higher deficit is mainly explained by the reduction of current revenues, which recorded 18.0 percent of GDP. Moreover, current expenditure fell to 15.0 percent of GDP and gross capital formation registered 3.9 percent of GDP, which reversed the continuous decline observed in this variable since 2013.

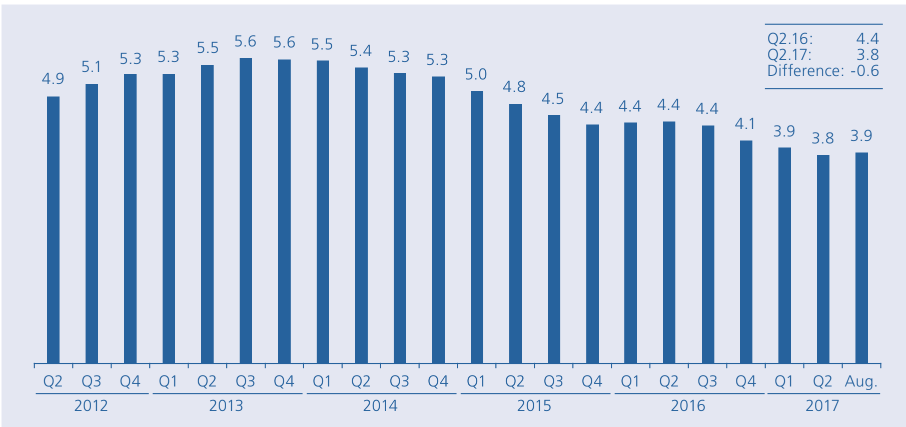
Graph 46
ECONOMIC BALANCE OF THE NON-FINANCIAL PUBLIC SECTOR
(Accumulate last 4 quarters - % GDP)



Graph 47
CURRENT REVENUES OF THE GENERAL GOVERNMENT
(Accumulate last 4 quarters - % GDP)

Graph 48
CURRENT EXPENDITURE OF THE GENERAL GOVERNMENT
(Accumulate last 4 quarters - % GDP)

Graph 49
GROSS CAPITAL FORMATION OF THE GENERAL GOVERNMENT
(Accumulate last 4 quarters - % GDP)



27. The scenario considered in this Inflation Report considers a strong fiscal stimulus since the second half of 2017 and during 2018. This is consistent with the 2018-2021 Multi-Annual Macroeconomic Framework, published on August 25 of 2017, and with the new deficit targets of 3.0 percent of GDP in 2017 and 3.5 percent of GDP in 2018 –approved by Law No. 30637– as reported in the June report. In 2019, the deficit would fall to 2.9 percent of GDP, in line with convergence to a deficit of 1.0 percent in 2021.

Table 25
NON-FINANCIAL PUBLIC SECTOR
(% GDP)

	2015	2016	S1 2017	2017* IR Jun17	2017* IR Sep.17	2018* IR Jun17	2018* IR Sep.17	2019* IR Sep.17
1. General government current revenues[1/]	**20.0**	**18.5**	**18.8**	**18.3**	**18.1**	**18.2**	**18.3**	**18.4**
Real % change	*-7.1%*	*-4.1%*	*-2.3%*	*2.1%*	*1.3%*	*3.7%*	*5.4%*	*4.9%*
2. General government non-financial expenditure[2/]	**21.3**	**19.9**	**17.6**	**20.2**	**20.0**	**20.4**	**20.4**	**19.9**
Real % change	*1.4%*	*-2.4%*	*-0.4%*	*4.7%*	*4.2%*	*5.3%*	*6.4%*	*1.5%*
Of which								
Current expenditure	15.8	15.3	14.1	15.2	15.0	15.0	15.0	14.6
Real % change	*4.7%*	*0.3%*	*-0.3%*	*2.5%*	*2.3%*	*2.8%*	*4.1%*	*1.4%*
Gross capital formation	4.4	4.1	2.8	4.3	4.3	4.8	4.8	4.8
Real % change	*-14.7%*	*-3.1%*	*-10.1%*	*9.4%*	*9.6%*	*16.4%*	*16.4%*	*3.4%*
3. Others	**0.2**	**-0.1**	**-0.2**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0**
4. Primary balance (1-2+3)	**-1.0**	**-1.5**	**1.0**	**-1.8**	**-1.8**	**-2.1**	**-2.1**	**-1.5**
5. Interests	**1.1**	**1.1**	**1.2**	**1.2**	**1.2**	**1.4**	**1.4**	**1.4**
6. Overall Balance	**-2.1**	**-2.6**	**-0.2**	**-3.0**	**-3.0**	**-3.5**	**-3.5**	**-2.9**
Memo:								
Structural overall balance	-2.0	-2.7	0.0	-3.1	-3.2	-3.4	-3.5	-2.8
Weighted fiscal impulse	-0.2	-0.5	0.0	0.3	0.1	0.5	0.6	-0.5
Output gap	-0.4	0.1	-1.5	-1.3	-0.8	-0.8	-0.3	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

28. The current revenues of the general government, measured in GDP terms, have shown a decreasing trend in line with the slowdown of economic activity and higher export tax rebates, as well as due to the tax cut measures aimed at micro and small businesses in force over the past year.

    In the period of January-August of 2017, current tax revenues fell by 0.8 percentage points of GDP from the level observed in the same period of 2016. This fall was particularly noteworthy in the income tax (down by 0.7 percentage points of GDP), which not only reflects the impact of the economic slowdown but has also been negatively affected by the application of the tax regime for MSE, which implies lower on account payments for businesses included under this scheme. In addition to this, the VAT dropped by 0.2 percentage points of GDP due to the slower pace of growth of domestic demand and the implementation of the fair VAT (*IGV Justo*), which provides an extension of three months for the payment of this tax to micro and small businesses. Finally, another factor that contributed to this decline in current tax revenues was the deferral of tax payments in the areas declared in emergency due to the impacts of El Niño Costero.

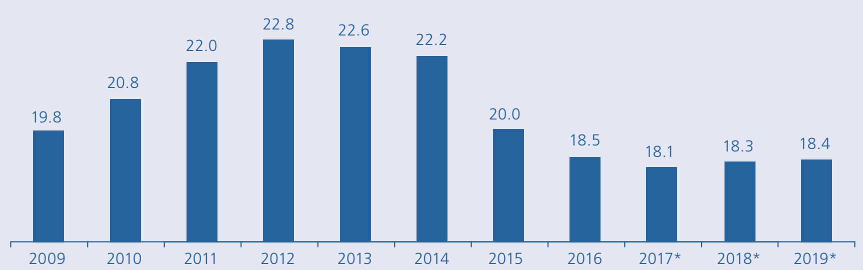
Therefore, in accordance with the path observed in tax revenues, the projection of current revenues for 2017 has been revised down from 18.3 percent to 18.1 percent of GDP. Revenue are expected to recover in 2018 and 2019 reaching levels of 18.3 and 18.4, respectively, in line with an acceleration of domestic demand. This fiscal scenario does not consider additional fiscal measures to those given between December 2016 and early 2017.

Table 26
CURRENT REVENUES OF THE GENERAL GOVERNMENT
(% GDP)

	2015	2016	2017 I Sem.	2017* IR Jun17	2017* IR Sep.17	2018* IR Jun17	2018* IR Sep.17	2019* IR Sep.17
TAX REVENUES	**15.1**	**14.0**	**13.6**	**13.6**	**13.3**	**13.7**	**13.7**	**13.9**
Income tax	5.7	5.6	5.9	5.1	5.0	5.2	5.3	5.3
Value added tax	8.4	8.0	7.8	7.8	7.8	7.9	7.9	8.0
Excise tax	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Import duties	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other tax revenues	1.8	1.7	1.6	2.0	2.0	1.8	1.7	1.7
Tax returns	-1.9	-2.5	-2.8	-2.5	-2.5	-2.3	-2.3	-2.0
NON-TAX REVENUES	**4.9**	**4.5**	**5.2**	**4.8**	**4.7**	**4.6**	**4.6**	**4.5**
TOTAL	**20.0**	**18.5**	**18.8**	**18.3**	**18.1**	**18.2**	**18.3**	**18.4**

* Forecast.
IR: Inflation Report.

Graph 50
CURRENT REVENUES OF THE GENERAL GOVERNMENT: 2009-2019
(% GDP)



* Forecast.

Public Expenditure

29. Public expenditure as a percentage of GDP has continued to drop at the three levels of government. In the period of January-August, the drop was equivalent to 0.5

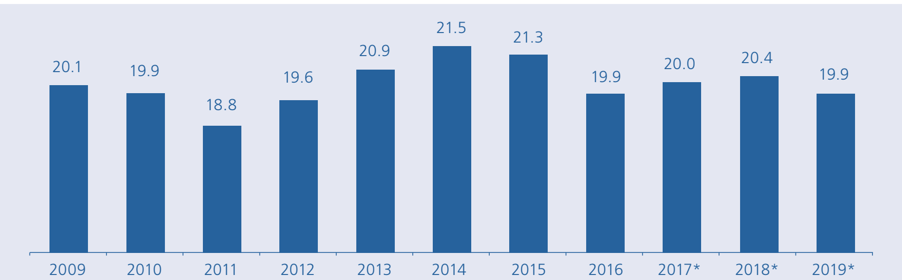
percentage points of GDP compared to the same period in 2016, especially due to the decline of current expenditure and gross capital formation at the level of the national government. Public investment projects have been affected in general by more severe-than-usual climate anomalies caused by El Niño Costero and by different obstacles, such as time in the evaluation and settlement of addenda, problems with technical dossiers, objections to selection processes, and contract problems.

A gradual reversal of this decline of expenditure is expected in the rest of the year as the recovery of public investment continues materializing (as it has been observed since June). At September 14, the general government's budget for investment included in the Modified Institutional Budget amounts to S/ 45 billion. The main projects in charge of the national government (40 percent of the total number of projects) are part of the transport sector (S/ 8.6 billion), with the Lima's Metro Line 2 standing out together with the Puerto Bermudez-San Alejandro highway and the project entitled Integración Vial Tacna-La Paz. Moreover, projects of the national government in the sector of Housing, Construction, and Sanitation amount to S/ 1.2 billion, with the provision of water and sanitation services for the new city of Olmos stands out.

The projected growth of gross capital formation for this year remains at 4.3 percentage points of the output, taking into account the start of works for the Pan-American Games, increased resources for prevention and rehabilitation works to be carried out within the framework the reconstruction plan, and budget reallocation measures aimed to accelerate investment and spending on the maintenance projects approved in July of this year.

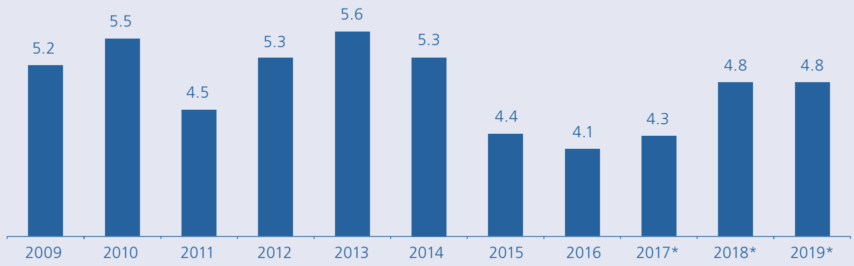
Total expenditure is projected to increase by 0.4 percentage points of GDP in 2018 compared to 2017 and to decline thereafter to 19.9 percent in 2019. This projection essentially maintains the restructuring of expenditure with greater public investment aimed at the reconstruction process and the culmination of works for the Pan-American Games, this expenditure concentrating mainly in 2018.

Graph 51
NON-FINANCIAL EXPENDITURE OF THE GENERAL GOVERNMENT: 2009-2019
(% GDP)



* Forecast.

Graph 52
GROSS CAPITAL FORMATION OF THE GENERAL GOVERNMENT: 2009-2019
(% GDP)



* Forecast.

Table 27
NON-FINANCIAL EXPENDITURE OF THE GENERAL GOVERNMENT
(% GDP)

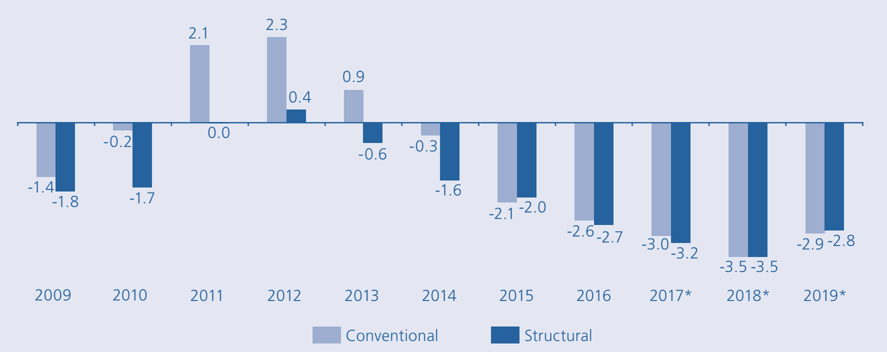
	2015	2016	H1 2017	2017* IR Jun17	2017* IR Sep.17	2018* IR Jun17	2018* IR Sep.17	2019* IR Sep.17
Current expenditure	**15.8**	**15.3**	**14.1**	**15.2**	**15.0**	**15.0**	**15.0**	**14.6**
National Government	11.1	10.5	9.6	10.4	10.3	10.3	10.3	10.0
Regional Governments	3.0	3.1	2.9	3.1	3.1	3.0	3.1	3.0
Local Governments	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6
Capital expenditure	**5.4**	**4.7**	**3.6**	**5.1**	**5.0**	**5.5**	**5.4**	**5.3**
Gross capital formation	**4.4**	**4.1**	**2.8**	**4.3**	**4.3**	**4.8**	**4.8**	**4.8**
National Government	1.7	1.4	0.9	1.5	1.5	1.7	1.7	1.8
Regional Governments	0.9	0.9	0.6	0.9	0.9	1.0	1.0	0.9
Local Governments	1.7	1.8	1.3	1.9	1.9	2.1	2.1	2.0
Others	**1.0**	**0.6**	**0.8**	**0.7**	**0.7**	**0.6**	**0.6**	**0.5**
TOTAL	**21.3**	**19.9**	**17.6**	**20.2**	**20.0**	**20.4**	**20.4**	**19.9**
National Government	13.8	12.5	11.3	12.6	12.4	12.7	12.6	12.3
Regional Governments	4.0	4.0	3.5	4.0	4.0	4.1	4.1	4.0
Local Governments	3.4	3.5	2.8	3.6	3.6	3.7	3.7	3.6

* Forecast.
IR: Inflation Report.

Structural Economic Balance and Fiscal Impulse

30. 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 3.5 percent of GDP, respectively, and to decline thereafter to 2.8 percent in 2019.

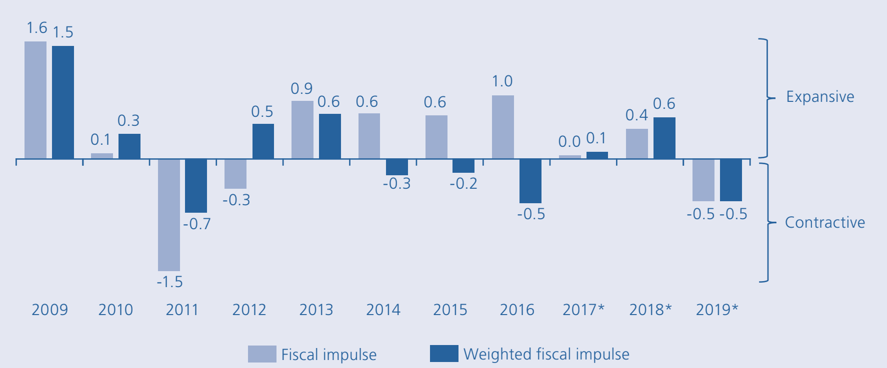
Graph 53
CONVENTIONAL AND STRUCTURAL ECONOMIC BALANCE OF THE NON-FINANCIAL PUBLIC SECTOR: 2009-2019
(% GDP)



* Forecast.

31. In order to determine the effect of changes in the revenues and expenditures of the Treasury on the economic cycle, we take into account the multiplier effect of these variables. Thus, in 2016 the weighted fiscal impulse was contractionary, while in 2017 the fiscal stance is expected to be slightly expansionary (0.1 percent of GDP) and concentrated in the second half of the year. This outcome would be associated with the greater multiplier effect of public investment. Because of this reason, the growth of public investment of 15.0 percent in real terms considered for 2018 implies a weighted fiscal impulse of 0.6 percentage points of the potential output. In 2019 the weighted fiscal impulse should be contractionary.

Graph 54
FISCAL IMPULSE AND WEIGHTED IMPULSE[1/]
(% Potential GDP)



1/ The weighted impulse takes account the multiplier model of changes in the incomes, current expensives and public investment.
* Forecast.

Table 28 FISCAL IMPULSE					
	2015	2016	2017*	2018*	2019*
1. Fiscal impulse (a+b)	**0.6**	**1.0**	**0.0**	**0.4**	**-0.5**
a. By revenues	0.9	1.7	0.2	-0.2	-0.1
b. By expenditures[1/] (i+ii)	-0.3	-0.7	-0.1	0.5	-0.4
i. Current	0.1	-0.3	-0.3	0.0	-0.3
ii. Capital	-0.4	-0.4	0.2	0.5	-0.1
2. Weighted fiscal impulse[2/]	**-0.2**	**-0.5**	**0.1**	**0.6**	**-0.5**

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

Public Debt

32. The funding required to cover the fiscal deficit and the amortization of the public debt increases from S/ 32 billion in 2016 to S/ 40 billion in 2017 and declines thereafter to S/ 32 billion in 2018 and to S/ 29 billion in 2019. In GDP terms, this financial requirement increases from 4.8 percent of GDP in 2016 to 5.6 percent of GDP in 2017 and then declines to 4.3 percent of GDP in 2018 and to 3.6 percent in 2019.

Table 29
FINANCIAL REQUIREMENTS OF THE NON-FINANCIAL PUBLIC SECTOR AND ITS FUNDING
(Million S/)

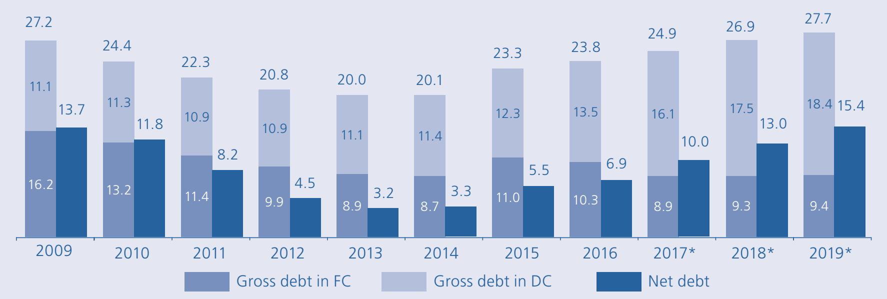
	2015	2016	H1 2017	2017* IR Jun17	2017* IR Sep.17	2018* IR Jun17	2018* IR Sep.17	2019* IR Sep.17
I. USES	**20,607**	**31,749**	**4,306**	**27,449**	**39,658**	**32,746**	**32,182**	**29,013**
1. Amortization	7,963	14,829	3,701	6,122	18,349	6,338	6,305	5,969
a. External	3,859	5,634	2,723	4,216	13,916	4,091	4,060	2,706
b. Domestic	4,103	9,195	979	1,905	4,432	2,247	2,246	3,263
Of which:								
Recognition bonds	*666*	*629*	*448*	*818*	*859*	*859*	*858*	*658*
2. Overall balance	12,644	16,920	605	21,327	21,310	26,408	25,877	23,044
(Negative sign indicates surplus)								
II. SOURCES	**20,607**	**31,749**	**4,306**	**27,449**	**39,658**	**32,746**	**32,182**	**29,013**
1. Disbursements and other	21,178	30,045	16,726	29,076	36,480	22,060	30,537	23,323
2. Change on deposits and other[1/]	-571	1,704	-12,420	-1,627	3,179	10,686	1,645	5,690
Memo:								
% GDP								
Gross debt balance	23.3	23.8	22.9	25.8	24.9	26.6	26.9	27.7
Net debt balance[2/]	5.5	6.9	6.2	10.4	10.0	13.4	13.0	15.4

* Forecast.
1/ A positive sign indicates a reduction of deposits.
2/ Defined as the difference between gross public debt and NFPS deposits.
IR: Inflation Report.

It is worth pointing out that the disbursements scheduled for 2017 have been revised up with regard to the report of June due mainly to Petroperu's placement of Corporate Bonds for a total of US$ 2.0 billion in June to finance the modernization of the refinery of Talara, and the debt management operation carried out in July for approximately S/ 10 billion, at a coupon rate of 6.15 percent. The latter transaction allowed to finance the repayment of loans from the Bank for International Reconstruction and Development, the Inter-American Development Bank, Corporación Andina de Fomento, and the Paris Club with a higher participation of local currency in the debt portfolio.

The gross debt of the non-financial public sector would be equivalent to 27.7 percent of GDP at the end of the forecast horizon, while the net debt would increase to 15.4 percent of the output by 2019.

Graph 55
NON-FINANCIAL PUBLIC SECTOR DEBT: 2009-2019
(% GDP)

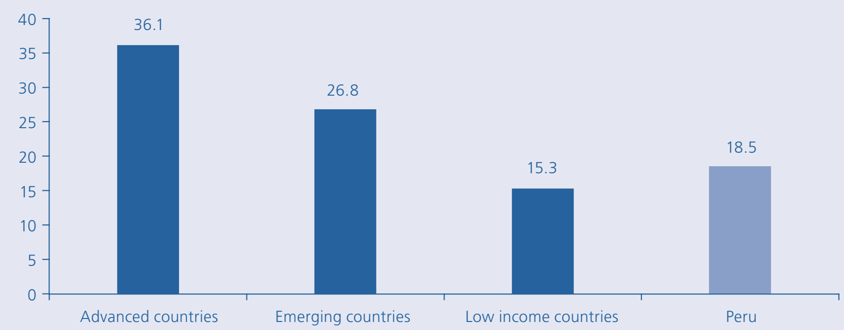


* Forecast.

Box 1
TAX EVASION

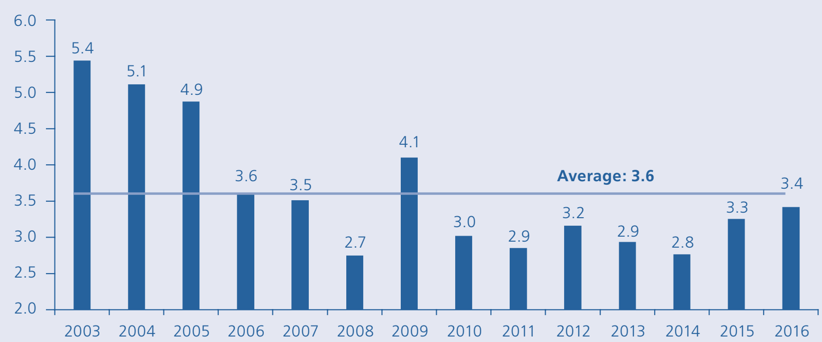
According to IMF's Fiscal Monitor Database, tax burden –measured as the ratio of the current revenue of the general government to GDP– in Peru in 2016 was lower than average tax burden in emerging and developed countries and closer to the average level observed in low income countries.

CURRENT REVENUE OF THE GENERAL GOVERNMENT, 2016
(% GDP)



This is mostly explained by the high level of tax noncompliance observed in the country, as well as by a significant level of tax expenditure[3]. SUNAT estimates show that failure to pay the value added tax (VAT) on a timely basis is significant and that in the period of 2003-2016 it reached about 3.6 percent of GDP on average.

NONCOMPILANCE OF VAT
(% GDP)



Source: SUNAT.

In the case of the corporate income tax, SUNAT estimates indicate that tax noncompliance in 2007-2016 was even greater since it represented 5.7 percent of GDP on average.

3 The MMF estimates for 2018-2021 project that tax expenditures (the fiscal cost of exemptions and tax benefits) in 2017 would reach a potential level of S/ 15.49 billion or 2.2 percent of GDP.

As for the personal income tax, existing studies[4] indicate that the rate of non-compliance is high (32.6 percent of potential revenue in 2006), which implies a cost in revenue of around 0.6 percent of GDP.

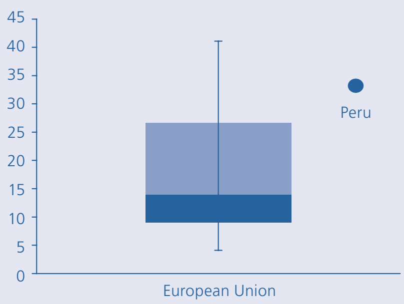
Thus, in potential terms, the Treasury loses around 10 points of GDP in the two major tax components of the tax system[5]. In other words, this means that, in comparative terms, the Peruvian tax system could generate resources of a similar magnitude to that observed in the emerging economies if the timely payment of taxes and other fiscal contributions were a feature of the behavior of businesses and individuals in our country.

In the case of the VAT, economic growth and the administrative measures implemented in the first decade of this century allowed to significantly reduce the rate of non-compliance, which stabilized around 30 percent by 2014, but increased in the last two years to 35.9 percent, the highest level since 2009.

When one compares Peru with other countries, we see that tax noncompliance in Peru is high. 2013 data[6] shows that the average rate of tax evasion in developed countries, eg. the European Union, was 15.2 percent, about half of the rate observed in Peru in the same year (30.3 percent). Moreover, great heterogeneity is also observed in the European Union (EU): 75 percent of the countries of the EU are in the interval between 9.1 and 26.6 percent, while the minimum rate of noncompliance is 4.1 percent and the maximum is 44.1 percent.

In addition, information included by the MEF in its Multiannual Macroeconomic Framework for 2018-2021 indicates that the rate of noncompliance of the VAT in Peru is also higher than that observed in countries of the Pacific Alliance (e.g. Chile and Colombia).

Rate of noncompilance of the VAT 2013: European Union and Perú



Rate of noncompilance of the VAT
(% potential tax collection)

Peru (2016)	36
Chile (2009)	20
Colombia (2012)	23

Source: MEF.

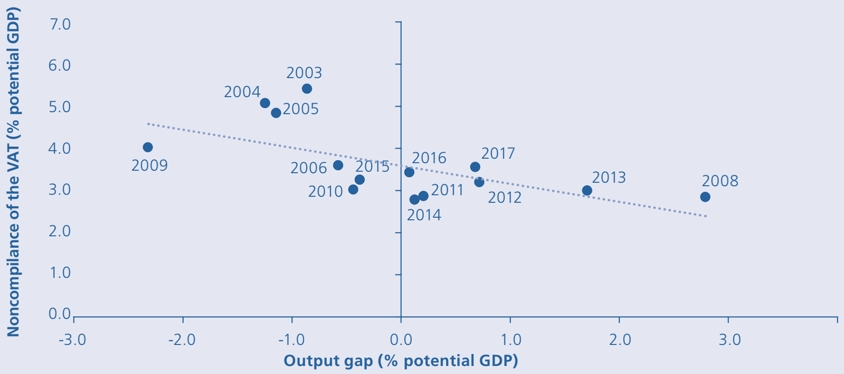
4 Arias, L.A. (2009). "La Tributación Directa en América Latina: Equidad y Desafíos. El caso del Perú". Serie Macroeconomía del Desarrollo, N° 95. CEPAL. Santiago de Chile.

5 In 2016 revenue from the VAT and the income tax accounted for 74 percent of the current revenue of the general government.

6 Center for Social and Economic Research (2015) "Study to Quantify and Analyze the VAT Gap in EU Member States" 2015 Report. Warsaw.

It is worth pointing out that the VAT levels of noncompliance are related to the position of the economy in the business cycle. The following graph illustrates the relationship between noncompliance with the VAT and the output gap, which is a standard measure of the business cycle

OUTPUT GAP AND NONCOMPILANCE OF VAT: 2003-2016

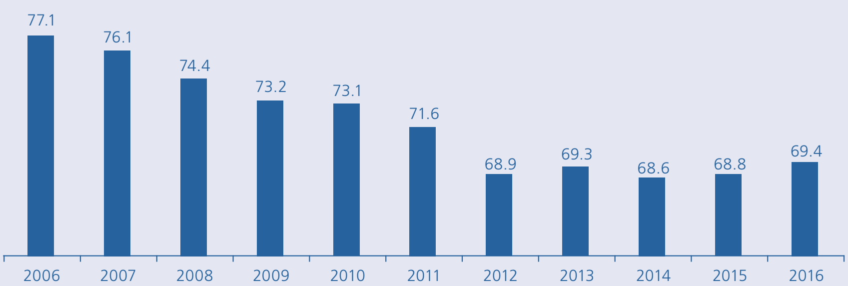


As we can see, when the economy is going through production levels below potential, tax noncompliance increases. It should be pointed out that this differs from the normal effect that changes in activity have on tax revenue. In fact, less activity reduces the taxable base and the amount of taxes, but what this graph shows is that tax noncompliance –which involves not declaring or not paying taxes resulting from economic activity on time- increases when the level of activity is lower than the potential output level. It is estimated that each percentage point of the output gap increases VAT noncompliance by about 0.2 percentage points of GDP.

This would be indicating that when the weak economic cycle is reversed, additional incentives for tax noncompliance would decrease and that tax revenues recover.

However, this would not be enough to reduce the levels of tax evasion to the average levels observed in the emerging economies, because tax evasion in Peru is related to the size of the informal economy.

INFORMALITY IN THE LABOR MARKET[1/]
(As % of employed population)



1/ Private urban informality rate in non-agricultural over national.
A formal job takes account the social security in ESSALUD.
Source: INEI -ENAHO.

A high level of informality implies a significant flow of transactions and income generated outside the scope of control of the tax authority. Therefore, to reduce high levels of evasion it is necessary to carry out structural reforms that will allow to generate more formal jobs, substantially expanding the base of taxpayers, in addition to maintaining adequate levels of control of the payment of tax obligations.

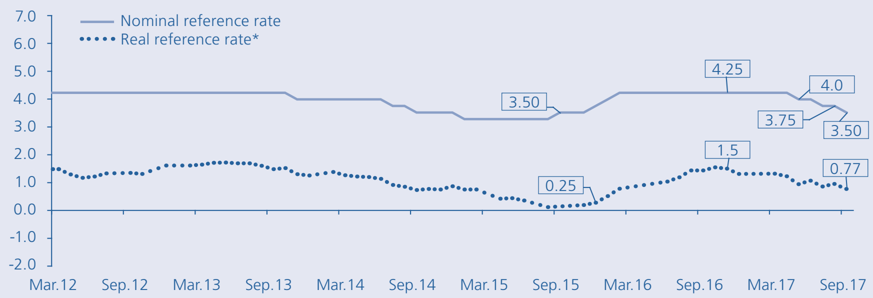
V. Monetary Policy and Financial Markets

Monetary Policy Actions

33. Between June and September, monetary policy actions were oriented to maintaining moderately expansionary monetary conditions in a context in which inflation expectations and inflation without food and energy continued to be within the target range –after the reversal of the supply shocks that affected inflation in the first quarter– while the growth of economic activity remained below its potential level.

    In this context, the Board of BCRP lowered the benchmark rate to 3.75 percent in July, maintained the rate at this level in August, and reduced it to 3.50 percent in September. The rate cut in September was in line with the Bank's monetary policy statement of August, whereby the Board gave a clear signal that BCRP would show greater flexibility in the monetary policy stance in the near future. In addition, after lowering the benchmark rate in September, the Board's communiqué said that the Board oversees "new data on inflation and inflation determinants to assess the convenience of making additional changes in the monetary policy stance if deemed necessary". As a result of these measures, interest rates on term operations in the money market showed a decreasing trend during the quarter.

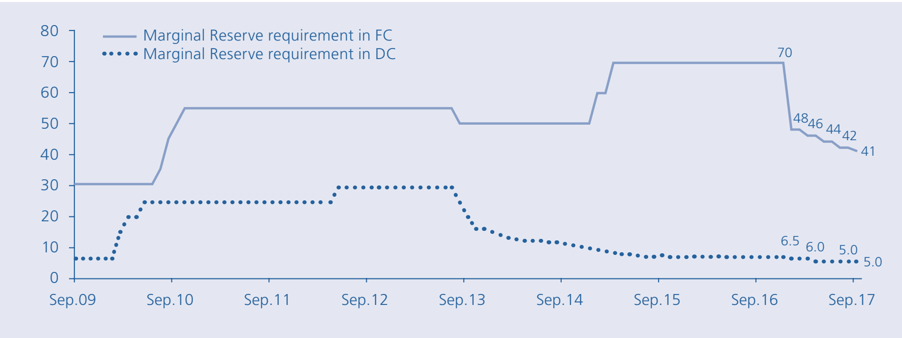
Graph 56
NOMINAL AND REAL* REFERENCE INTEREST RATE
(%)



* Considers expectation of inflation.

In the months of July, August, and September, the BCRP continued reducing the cap of the average rate of reserve requirements and the marginal rate of reserve requirements in dollars –from 44 percent in June to 41 percent in September– with the aim of reducing the impact of future increases in international interest rates on domestic financial and lending conditions.

Graph 57
RESERVE REQUIREMENT IN DOMESTIC AND FOREIGN CURRENCY
(As % banks' liabilities)



Moreover, easing reserve requirements is also contributing to facilitate expansionary monetary conditions in the quarter.

Monetary Operations

34. Between June and August, the Central Bank's monetary operations were oriented to maintaining adequate levels of liquidity in domestic currency in a period characterized by increased seasonal demand for currency due to the national holiday (S/ 1.21 billion) and a greater demand for reserve requirement funds (S/ 687 million) due to the higher growth of deposits in soles observed in the quarter (5.7 percent). Furthermore, net placements of public sector BTPs in this period amounted to S/ 9.20 billion, the placement of 2032 Bonds in July standing out since this placement sterilized liquidity in domestic currency for a total of S/ 2.78 billion[7]. Additionally, net maturities of currency repos placed in 2014 and 2015 as part of the de-dollarization of credit program for a total of S/ 3.70 billion were also recorded in the quarter. In this context, the Central Bank met the increased demand for domestic currency through the net placement of security repos for a total of S/ 1.36 billion and through purchases of foreign currency for an amount equivalent to S/ 7.86 billion (US$ 2.43 billion).

7 The placement of 2032 Bonds was for a total of S/ 10 billion.

As a result of these operations, the balance of repos went from 11.1 to 10.5 percent of the BCRP net assets, reflecting the partial renewal of currency repo operations. Moreover, public sector deposits remained as the most important liability of BCRP even though their ratio in terms of the net assets of BCRP decreased from 34.6 percent to 33.6 percent in the same period. Finally, the ratio of BCRP instruments rose from 13.3 to 15.9 percent due mainly to the increase in the balance of term deposits, CDBCRP, and overnight deposits as a result of the operations of sterilization of liquidity generated by the recent intervention of the Central Bank in the foreign exchange market.

Table 30
SIMPLIFIED BALANCE SHEET OF THE BCRP
(As % of Net Assets)

	Dec.15	Dec.16	Aug.17
I. Net assets	**100%**	**100%**	**100%**
Net International Reserves	**87.4%**	**87.8%**	**89.5%**
	(US$ 61,485 millions)	(US$ 61,686 millions)	(US$ 62,005 millions)
Repos	**12.6%**	**12.2%**	**10.5%**
II. Net liabilities	**100%**	**100%**	**100%**
1. Total public sector deposits	**32.7%**	**34.0%**	**33.6%**
In domestic currency	13.0%	12.2%	13.9%
In foreign currency	19.7%	21.8%	19.6%
2. Total financial system deposits	**37.1%**	**33.4%**	**28.6%**
In domestic currency	4.5%	4.6%	4.4%
In foreign currency	32.6%	28.8%	24.2%
3. BCRP instruments	**10.0%**	**11.1%**	**15.9%**
CD BCRP	6.5%	9.9%	12.6%
CDLD BCRP	0.0%	0.0%	0.5%
CDR BCRP	3.0%	0.3%	0.0%
Term deposits	0.4%	0.0%	2.6%
Overnight deposits	0.1%	0.9%	0.2%
4. Currency	**15.7%**	**17.2%**	**18.1%**
5. Others	**4.5%**	**4.3%**	**3.8%**

* Includes interests, discount and net profits.

BCRP also continued carrying out regular auctions of 6-month, 12-month, and 18-month BCRP-CDs three times a week in order to regulate the amount of liquidity of banks as well as to contribute to develop the short-term yield curve in soles.

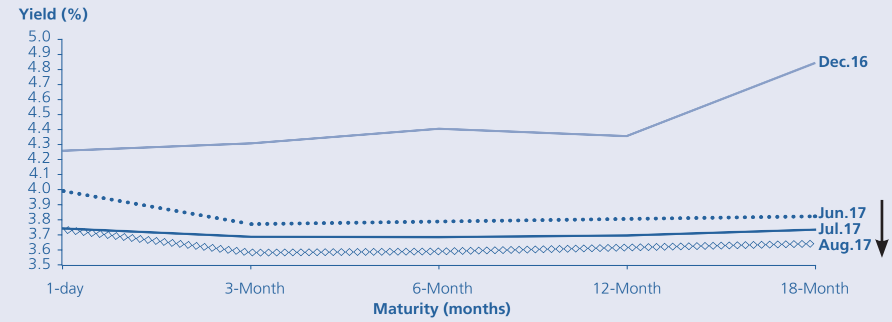
Table 31
INTEREST RATE OF CD BCRP AUCTIONS BY TERMS
(%)

	Months				
	1	3	6	12	18
1-Jun-17				3.85	
5-Jun-17			3.81		
7-Jun-17					3.85
8-Jun-17				3.81	
12-Jun-17			3.79	3.80	
13-Jun-17			3.77	3.79	
14-Jun-17			3.79	3.82	3.82
15-Jun-17				3.80	
19-Jun-17			3.78		
21-Jun-17					3.81
22-Jun-17				3.79	
26-Jun-17			3.78		
28-Jun-17					3.80
3-Jul-17			3.76		
5-Jul-17					3.79
6-Jul-17				3.73	
10-Jul-17			3.73		
12-Jul-17				3.71	3.75
17-Jul-17			3.68		
19-Jul-17					3.72
20-Jul-17				3.64	
24-Jul-17			3.63		
26-Jul-17					3.70
31-Jul-17			3.60		
2-Aug-17					3.67
3-Aug-17				3.61	
7-Aug-17			3.56		
8-Aug-17			3.52		
9-Aug-17		3.48	3.51		3.60
10-Aug-17		3.53	3.51	3.52	
11-Aug-17		3.55	3.53		
14-Aug-17			3.56		
15-Aug-17		3.61			
16-Aug-17		3.60			3.54
17-Aug-17		3.60		3.50	
18-Aug-17		3.63			
21-Aug-17		3.64	3.58	3.62	
22-Aug-17			3.61		
23-Aug-17		3.64	3.64		3.64
24-Aug-17			3.63	3.59	
25-Aug-17		3.62	3.63		
28-Aug-17		3.65	3.61	3.59	
29-Aug-17		3.63	3.64		
31-Aug-17	3.56	3.57	3.58	3.61	

Source: BCRP.

The yield curve of primary emissions of CDBCRP accumulated an average decline of 18 basis points in the third quarter of 2017. The declining conduct registered in interest rates is associated with the rate cut of 25 basis points adopted in the BCRP benchmark rate in July. The reduction in the slope of the yield curve for operations with terms between 3 months and 18 months reflects market expectations of future reductions in the benchmark rate.

Graph 58
YIELD CURVE OF CENTRAL BANK SECURITIES[1/]



1/ Yield of CDBCRP end of period. One day rate corresponds to reference rate.

Interest Rates

35. The interest rates on operations in soles fell in line with the reduction of 25 basis points in the benchmark rate in the month of July. In the money market, the interbank rate fell from 4.00 to 3.75 percent between June and August, while the corporate lending prime rate fell from 4.53 to 4.15 percent, reflecting increased ease in monetary conditions.

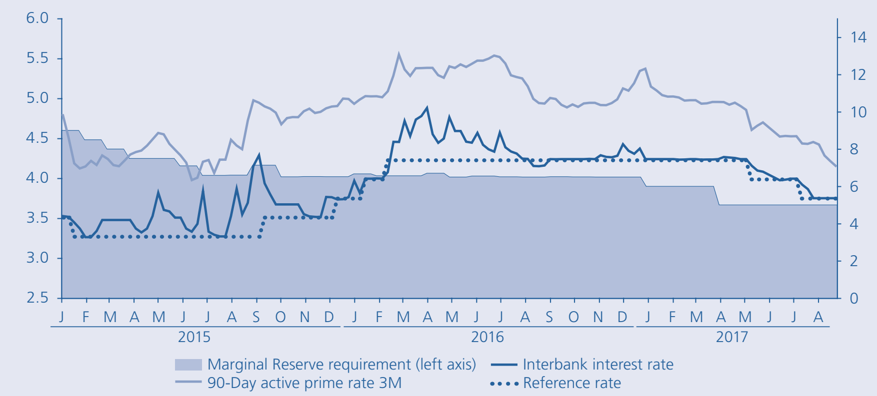
    Commercial banks' lending rates decreased in most segments, with the exception of the lending rates for small businesses and consumer loans. The rate decrease in the corporate sector segment stands out with the largest reduction rate (49 basis points). Deposit rates also registered a declining path, recording a fall of 26 basis points on average for 30 to 360-day operations.

Table 32
INTEREST RATE IN DOMESTIC CURRENCY
(%)

		Dec.15	Sep.16	Dec.16	Mar.17	Jun.17	Jul.17	Aug.17
	Deposits up to 30-day	3.88	3.95	4.31	4.05	3.89	3.85	3.50
Pasive	On 31 to 180-day term deposits	4.53	4.47	4.73	4.42	4.18	4.08	3.95
	On 181 to 360-day term deposits	4.59	4.70	4.91	4.67	4.35	4.33	4.18
	Corporate	6.18	6.07	5.88	5.78	5.31	4.87	4.82
	Large companies	7.12	7.23	7.12	7.52	7.04	7.03	6.91
Active	Medium-sized enterprises	10.23	10.74	10.39	10.47	10.56	10.27	10.55
	Small businesses	20.45	21.59	21.65	21.54	20.78	20.79	20.87
	Consumer	44.03	44.01	46.77	45.24	45.64	47.53	48.41
	Mortgage	8.95	8.82	8.52	8.73	8.53	8.42	8.27

Source: BCRP and SBS.

Graph 59
90-DAY CORPORATE PRIME, INTERBANK OVERNIGHT, AND REFERENCE RATE IN DOMESTIC CURRENCY
(%)



Source: SBS and BCRP.

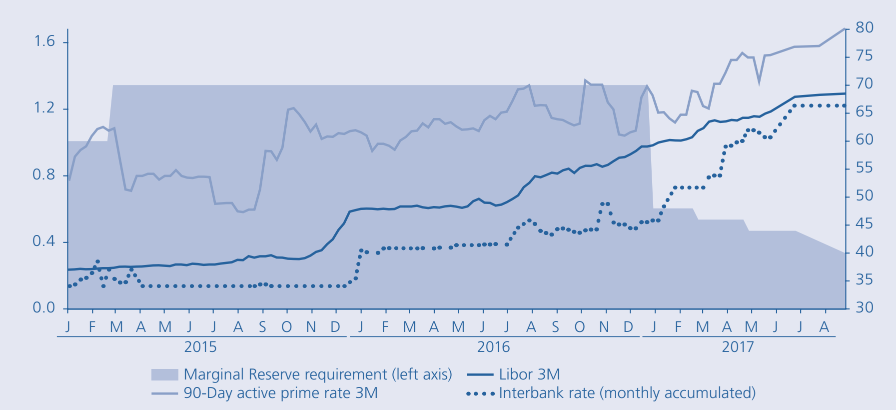
In the case of interest rates for operations in dollars, the measures implemented by BCRP for reserve requirements in foreign currency since January 2017 have allowed money market interest rates to increase at a more moderate pace than the increase observed in international interest rates. Thus, the interbank overnight rate remained at 1.25 percent between June and August, while the 1 month- and 3 month-Libor rates in dollars have increased by 1 and 2 basis points, respectively. In the credit market, two sectors registered higher rates, the increase by 54 basis points of the corporate segment standing out. On the other hand, in the segments of loans to small, large companies, mortgages, and medium-sized companies, the rates decreased by 64, 18, 16, and 10 basis points, respectively.

Table 33
INTEREST RATE IN FOREIGN CURRENCY
(%)

		Dec.15	Sep.16	Dec.16	Mar.17	Jun.17	Jul.17	Aug.17
	Deposits up to 30-day	0.16	0.22	0.23	0.50	0.65	0.70	0.76
Pasive	On 31 to 180-day term deposits	0.38	0.49	0.51	0.69	0.95	0.88	0.90
	On 181 to 360-day term deposits	0.56	0.53	0.60	0.80	0.73	0.74	1.08
	Corporate	2.33	3.00	2.47	3.03	2.42	2.53	2.96
	Large companies	5.54	5.18	5.02	5.12	5.29	5.23	5.11
Active	Medium-sized enterprises	8.06	7.37	6.91	7.07	6.98	6.64	6.88
	Small businesses	11.26	10.00	10.67	9.83	10.56	10.13	9.92
	Consumption	32.07	32.38	32.08	32.54	33.53	33.77	33.64
	Mortgage	6.71	6.46	6.14	6.35	6.13	5.99	5.97

Source: BCRP and SBS.

Graph 60
90-DAY CORPORATE PRIME, INTERBANK OVERNIGHT, AND LIBOR 3 MONTHS IN FOREIGN CURRENCY
(%)



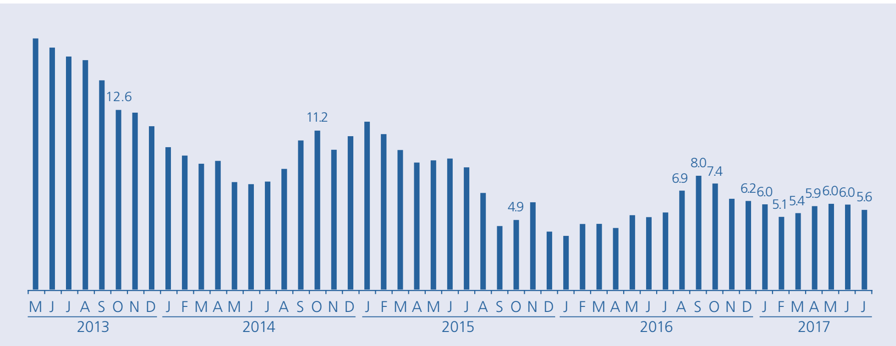
Source: SBS, BCRP and Bloomberg.

These lower interest rates in domestic currency and the lower rates of reserve requirements in both domestic and foreign currency have reflected in expansionary credit conditions, offsetting in part the effects of the rise of international interest rates on domestic credit conditions. In the particular case of interbank interest rates and very short-term corporate rates in dollars, rate rises associated with the lower availability of liquidity were observed in the first two weeks of September due to banks' sales of foreign currency.

Liquidity

36. Average currency in circulation, the monetary aggregate more associated with transactions, showed a year-on-year growth rate of 5.6 percent in July 2017, a lower rate than that observed during the year.

Graph 61
AVERAGE CURRENCY
(Annual % change)



The year-on-year growth rate of private sector deposits increased from 5.5 percent in June to 7.4 percent in July. By currencies, the growth rate of deposits in soles was 12.1 percent higher than the growth rate of deposits in dollars (1.2 percent). This result reflects the continued greater preference for saving in domestic currency in a context of lower expectations of depreciation of this currency, which makes saving in soles more appealing.

Graph 62
DEPOSITS OF THE PRIVATE SECTOR BY CURRENCY
(Annual % change)

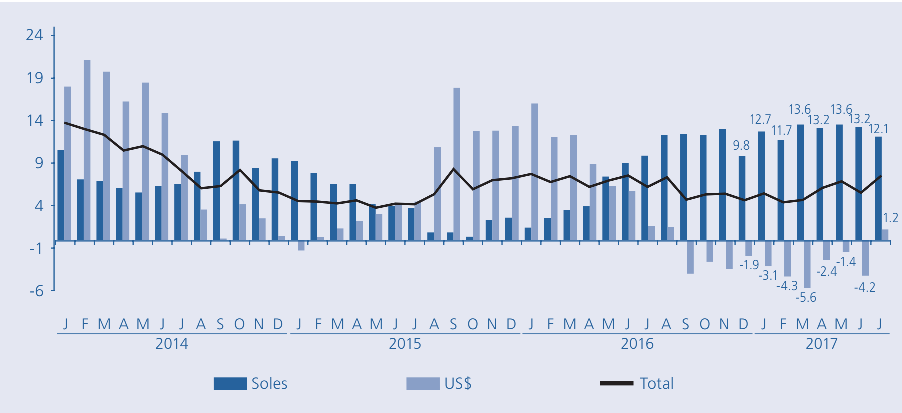


Table 34
MONETARY AND CREDIT ACCOUNTS OF THE DEPOSITORY CORPORATIONS (END OF PERIOD)
(Annual % change)

	Dec.15	Mar.16	Jun.16	Sep.16	Dec.16	Mar.17	Jun.17	Jul.17
1 Currency in circulation (average)	4.1	4.6	5.1	8.0	6.2	5.4	6.0	5.6
2 Deposits in domestic currency	2.6	3.5	9.0	12.4	9.8	13.6	13.2	12.1
3 Total deposits[1/]	7.2	7.4	7.5	4.6	4.6	4.6	5.5	7.4
4 Broad money in domestic currency	3.0	4.1	8.4	11.1	9.0	11.5	10.6	9.0
5 Total broad money[1/]	6.5	7.1	7.5	5.1	5.0	4.7	4.9	6.2
6 Credit to the private sector in domestic currency	28.0	23.1	17.0	9.5	7.2	5.8	3.5	4.0
7 Credit to the private sector[1/]	8.0	7.7	7.1	5.0	5.6	5.6	4.5	5.0

1/ Balances in foreign currency are valuated at constant exchange rate on December 2016.

The ratio of dollarization of deposits remained at 49 percent in July. By type of deposits, dollarization has decreased in personal deposits (mainly in demand deposits and term deposits). On the other hand, the ratio of dollarization of corporate deposits fell from 54.3 percent in December 2016 to 50.2 percent in July of this year.

Table 35
DOLLARIZATION RATIO OF DEPOSITS
(%)

	Dec.14	Dec.15	Dec.16	May.17	Jun.17	Jul.17
Business	**50.7**	**55.5**	**54.3**	**51.2**	**48.8**	**50.2**
Demand deposits	47.1	50.6	52.2	49.7	47.7	48.4
Savings deposits	63.6	68.9	57.6	59.2	52.8	53.1
Term deposits	61.8	71.7	62.7	54.2	51.9	56.0
Individuals	**33.7**	**40.3**	**36.3**	**36.4**	**36.2**	**36.1**
Demand deposits	48.0	50.6	52.2	49.7	47.6	48.4
Savings deposits	35.2	40.7	40.0	40.3	40.1	39.3
Term deposits	30.8	38.5	30.7	29.5	29.1	29.0
CTS	33.9	33.6	30.1	28.4	28.3	28.2
Other terms	29.5	40.3	31.0	29.1	29.2	28.1
Pension funds	**62.0**	**68.3**	**56.9**	**58.1**	**57.2**	**56.8**
Mutual funds	**60.5**	**67.4**	**63.4**	**64.1**	**63.8**	**64.9**
TOTAL	**49.2**	**54.9**	**49.1**	**49.2**	**48.4**	**48.6**

In 2017-2018, the process of de-dollarization of liquidity is expected to continue since lower expectations of depreciation of the sol, 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.

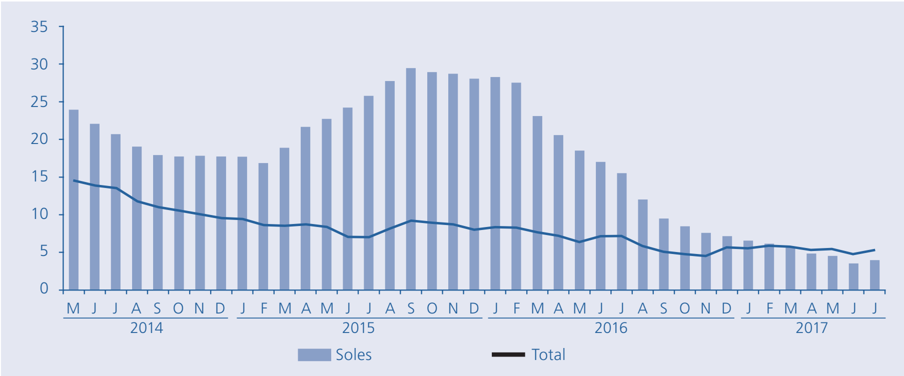
Credit to the Private Sector

37. Credit to the private sector grew 5.3 percent in annual terms in July, with personal loans (6.4 percent) and loans to the corporate sector and to large enterprises (6.3 percent) accounting mainly for this growth rate. As regards personal credit, mortgage loans and other consumer loans maintain rates close to those observed at end 2016 (4.7 percent and 10.6 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 7.9 percent.

Table 36
CREDIT TO THE PRIVATE SECTOR
(Annual % change)

	Jul.16	Dec.16	Jul.17
Domestic currency	15.5	7.2	4.0
Foreign currency	-8.8	2.1	8.4
Total	**7.2**	**5.6**	**5.3**

Graph 63
CREDIT TO THE PRIVATE SECTOR AND IN DOMESTIC CURRENCY
(12-month % change)



Credit to business also showed a faster pace of growth, increasing from 3.8 percent in June to 4.6 percent in July, the growth rate of credit in the segment of corporations and large enterprises standing out (6.3 percent) together with credit to small and micro businesses, whose growth rate increased from 4.2 to 4.4 percent. Moreover, personal credit registered a growth rate of 6.4 percent, showing higher growth rates in the segment of consumer loans than in the segment of mortgage loans.

Table 37
CREDIT TO THE PRIVATE SECTOR
(12-month % change)

	Dec.14	Dec.15	Dec.16	Jun.17	Jul.17
Businesses	**8.6**	**6.2**	**4.8**	**3.8**	**4.6**
Corporate and large companies	9.6	12.7	4.7	4.2	6.3
Medium-sized enterprises	13.1	-2.5	2.6	2.7	1.3
Small business and microbusinesses	1.5	2.7	7.7	4.2	4.4
Individuals	**11.4**	**11.4**	**7.1**	**6.3**	**6.4**
Consumption	11.3	14.5	8.7	7.5	7.6
Car loans	5.8	-8.0	-7.4	-6.9	-6.3
Credit cards	14.9	23.7	8.2	4.2	4.2
Rest	9.9	11.6	10.2	10.5	10.6
Mortgage	11.6	7.3	4.9	4.6	4.7
TOTAL	**9.6**	**8.0**	**5.6**	**4.7**	**5.3**

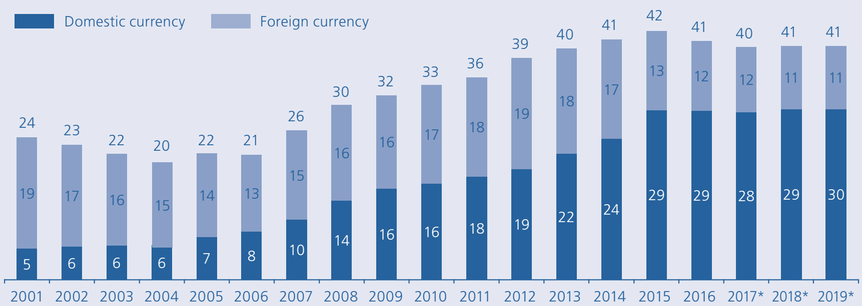
Moreover, in July banks' total credit recorded a growth rate of 2.7 percent (2.6 percent in June). By economic sectors, the recovery of credit is observed mainly in the sectors of mining as well as in the sector of hotels and restaurants, agriculture, and other services.

Forecast on Credit to the Private Sector

38. 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 higher forecast than the one estimated in our previous report 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.

Graph 64
CREDIT TO GDP
(%)



* Forecast.

39. At July, the ratio of dollarization of credit measured at a constant exchange rate recorded 30 percent. In addition to this, personal loans continue to show a declining trend in terms of dollarization, especially in the segments of mortgage loans and car loans.

Table 38
DOLLARIZATION RATIO OF CREDIT TO THE PRIVATE SECTOR
(%)

	Dec.14	Dec.15	Dec.16	Jun.17	Jul.17
Business	**51.4**	**38.4**	**38.3**	**40.2**	**40.3**
Corporate and large companies	62.6	46.1	49.3	52.7	52.9
Medium-sized enterprises	62.1	47.2	42.9	43.2	42.7
Small business and Microbusinesses	12.8	8.7	7.0	5.5	5.3
Individuals	**22.0**	**15.7**	**13.3**	**12.7**	**12.7**
Consumption	10.6	7.8	6.9	6.9	6.9
Car loans	71.4	44.2	26.8	23.7	23.1
Credit cards	7.4	6.3	6.4	7.0	7.2
Rest	6.7	5.9	5.9	5.9	5.8
Mortgage	36.6	26.5	22.4	21.0	20.8
TOTAL	**41.1**	**30.2**	**29.2**	**29.9**	**30.1**
At current exchange rate	*38.2*	*30.5*	*29.2*	*29.3*	*29.4*

As regards credit to business, the process of de-dollarization has continued to be observed in the case of loans to small and micro businesses, and medium-sized businesses, whereas loans to the corporate sector and to large enterprises show an increase in the rates of dollarization, from 49.3 to 52.9 percent between December 2016 and July 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

40. In July, the ratio of non-performing loans was 3.4 percent, similar to the average rate registered year-to-date (3.36 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 credit to medium-sized businesses and credit to micro and small businesses.

Table 39
CREDITS DELINQUENCY INDEX
(%)

	Dec.14	Dec.15	Dec.16	Jun.17	Jul.17
Business	**3.14**	**3.12**	**3.28**	**3.49**	**3.52**
Corporate and large companies	0.37	0.47	0.41	0.54	0.58
Medium-sized enterprises	4.79	5.28	6.10	6.89	7.09
Small business and microbusinesses	7.82	7.46	7.16	7.58	7.64
Individuals	**2.46**	**2.65**	**3.05**	**3.23**	**3.24**
Consumer	3.34	3.32	3.66	3.75	3.73
Credit cards	4.23	4.10	4.86	5.13	5.05
Car loans	4.25	4.41	5.60	6.15	6.26
Mortgage	1.44	1.84	2.28	2.58	2.63
Average	**2.91**	**2.87**	**3.09**	**3.40**	**3.42**

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, particularly in the segments of personal loans and loans to micro and small businesses, which are the segments with less capacity to protect themselves against exchange rate risk. The deterioration of the rates of non-performing loans in the segments of medium-sized enterprises, credit cards, and car loans has been especially noteworthy, even though they are still lower than the corresponding rates for loans in dollars (particularly in the segments of personal loans and loans to micro and small businesses). As for lending in dollars, delinquency rates have increased particularly in the lending portfolios of micro and small businesses, and car loans. Despite this, delinquency rates have remained slightly stable in the segments of corporate loans, mortgage loans, and the rest of consumer loans, which would be supporting the dynamism of credit in the rest of the forecast horizon.

Table 40
CREDITS DELINQUENCY INDEX : DOMESTIC CURRENCY
(%)

	Dec.14	Dec.15	Dec.16	Jun.17	Jul.17
Business	**4.03**	**3.30**	**3.63**	**3.96**	**4.04**
Corporate and large companies	0.24	0.22	0.20	0.33	0.50
Medium-sized enterprises	5.63	5.04	6.07	7.02	7.12
Small businesses and microbusinesses	7.65	6.90	6.63	7.07	7.13
Individuals	**2.57**	**2.53**	**2.90**	**3.09**	**3.11**
Consumer	3.33	3.23	3.57	3.68	3.66
Credit cards	4.31	4.20	5.03	5.31	5.25
Car loans	4.61	1.91	2.58	3.59	3.76
Mortgage	1.33	1.46	1.87	2.23	2.30

Table 41
CREDITS DELINQUENCY INDEX: FOREIGN CURRENCY
(%)

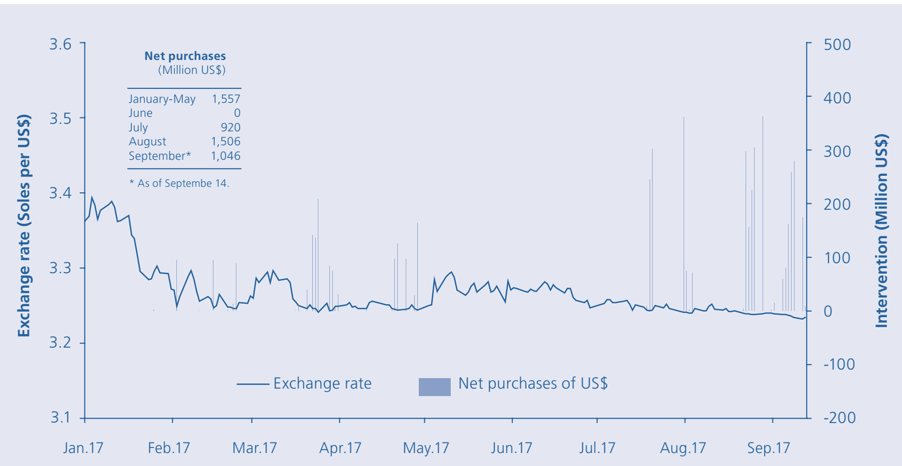
	Dec.14	Dec.15	Dec.16	Jun.17	Jul.17
Crédito a empresas	**2.14**	**2.84**	**2.72**	**2.74**	**2.69**
Corporativo and Large companies	0.45	0.78	0.64	0.74	0.65
Medium-sized enterprises	4.22	5.55	6.15	6.73	7.05
Small businesses and microbusinesses	9.39	15.70	19.58	22.47	23.69
Crédito a personas	**2.06**	**3.28**	**4.08**	**4.25**	**4.21**
Consumer	3.42	4.58	5.29	5.11	5.05
Credit cards	3.07	2.62	2.59	2.67	2.59
Car loans	4.09	7.52	13.86	14.68	14.91
Mortgage	1.64	2.88	3.70	3.96	3.94

Exchange Rate and BCRP Intervention in the Forex Market

41. In the period of June to August 2017, the PEN recorded an appreciation of 0.95 percent against the US dollar (from S/ 3.271 to S/ 3.240 per dollar) and thus shows an appreciation of 3.5 percent against the dollar so far this year.

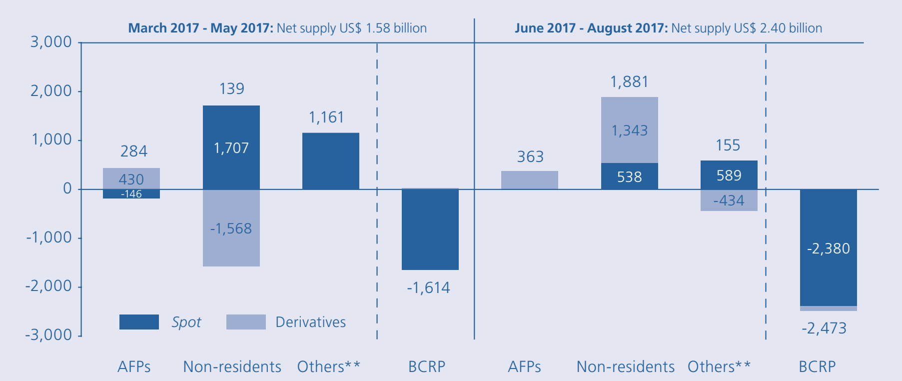
This appreciation of the PEN took place in a context marked by a global weakening of the dollar, together with net inflows of capital of non-resident investors in search of higher yields in local assets and an improvement in the external accounts favored by the sustained recovery of commodity prices. In response to this scenario, between June and August BCRP bought dollars for a total of US$ 2.43 billion to reduce the volatility of the exchange rate.

Graph 65
EXCHANGE RATE AND NET PURCHASES OF US$



With regard to the flows in the local foreign exchange market, between June and August of 2017 the net supply of dollars amounted to US$ 2.40 billion, with mining companies and retail customers accounting for a supply of US$ 2.29 billion, non-residents for a supply of US$ 1.89 billion, and AFPs for a supply of US$ 363 million. This supply was offset by the demand of private agents (US$ 2.02 billion).

Graph 66
QUARTERLY TOTAL FLOW TO THE FOREIGN EXCHANGE MARKET*
(Million US$)

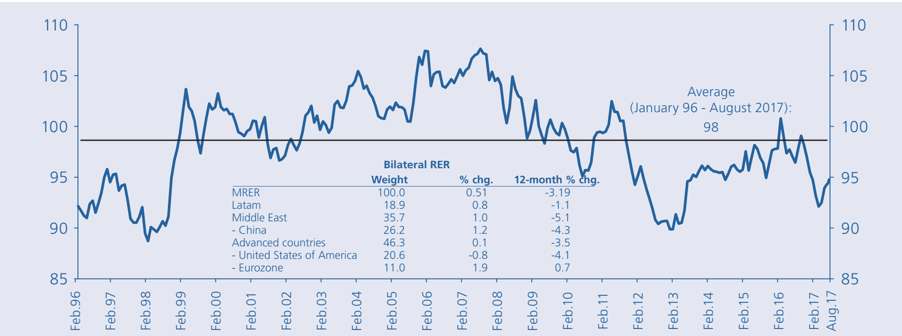


* Negative flows means net demand of US$ in the period.
** Includes Banco de la Nación, financial institutions, mining sector, retail clients, and privates.

In the same period, the Central Bank covered its demand for foreign currency (US$ 2.47 billion) mainly through purchases in the spot market (US$ 2.43 billion) and through the net maturity of currency swaps-sell (US$ 94 million).

42. In August the multilateral real exchange rate index (RER) showed a level of 94.6 relative to the 2009 base period, which is a level 0.7 percent lower than that recorded in December 2016. This decline of the RER index so far this year is associated mainly with the drop of the real exchange rate relative to the currencies of East Asian countries (1.5 percent) and developed countries (1.0 percent), offset by the increase of the exchange rate relative to Latin American currencies (1.2 percent).

Graph 67
MULTILATERAL RER
(Index 2009=100)



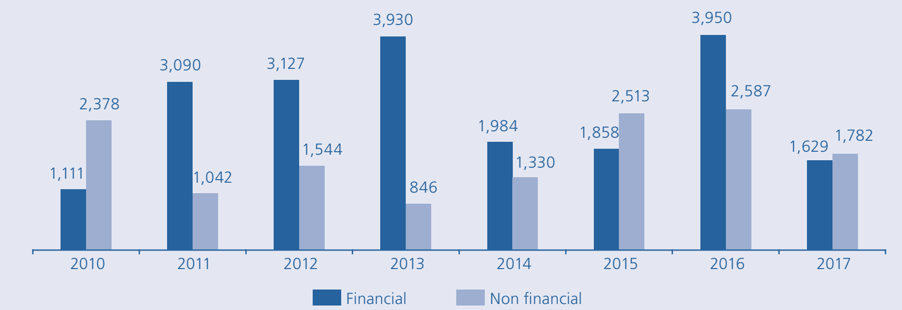
Bilateral RER

	Weight	% chg.	12-month % chg.
MRER	100.0	0.51	-3.19
Latam	18.9	0.8	-1.1
Middle East	35.7	1.0	-5.1
- China	26.2	1.2	-4.3
Advanced countries	46.3	0.1	-3.5
- United States of America	20.6	-0.8	-4.1
- Eurozone	11.0	1.9	0.7

Financial Markets

43. Private companies' issuance of securities in the domestic capital market during the months of July and August was lower than in the same period of 2016. Total placements so far in the third quarter amount to S/ 465 million, the increased participation of non-financial companies standing out (61 percent of the total). Moreover, total securities issued between January and August 2017 amount to S/ 3.41 billion, a higher amount than the average amount of the past five years.

Graph 68
SECURITIES BY SECTOR IN SOLES[1/]
(Million S/)



1/ Total between January and August 2017.
Source: Bloomberg and SMV.

The improvement of financial conditions in soles has encouraged Peruvian companies to continue showing greater preference for placing debt in the local capital market (93 percent of the total).

Between June and August of 2017 public and private companies showed a greater dynamism in the international market, placing securities for a total of US$ 2.65 billion. As a result. the balance of bonds issued by Peruvian private enterprises in the international market amounts to US$ 20.83 billion, of which 35 percent was placed by companies in the financial sector. Peruvian companies have recently been showing an increasing interest in obtaining financing in the external market in a context in which the spread between the interest rates of securities in dollars and Peruvian securities still registers minimum historical levels.

On the one hand, on June 12 Peru's state-owned company Petroperu placed 15-year and 30-year bonds, each for a total of US$ 1 billion. Total demand amounted to US$ 10 billion and the credit rating assigned by S&P and Fitch was BBB- and BBB+, respectively. The bonds were issued at a par value and the yield rates of the 15-year and 30-year bonds were 4.75 and 5.63 percent, respectively. The spread on the 15-year and 30-year US Treasury bonds was 224 and 262 basis points, respectively, while the spread on the similar Peruvian Global Bond was 52 and 126 basis points, respectively. Petroperu pointed out that the funds obtained from the issuance of these bonds will be used for the Modernization of the Talara Refinery project.

On the other hand, on August 9 Peruvian company Cerro del Águila issued bonds for a total of US$ 650 million with a maturity of 10 years and a coupon rate of 4.13 percent. Funds obtained from the issuance of these bonds will be used to refinance the loan for the construction of the hydroelectric power station (US$ 583 million) and for the payment of a subordinated debt of US$ 30 million. Reflecting the high demand for bonds issued by companies of Latin American countries, the demand for these securities amounted to US$ 3.70 billion. Moreover, the credit rating assigned by Moody's and Fitch was Baa3 and BBB-, respectively. The spread of this bond (4.14 percent) relative to the US Treasury bond and a similar Peruvian Global Bond in dollars was 114 and 189 basis points, respectively.

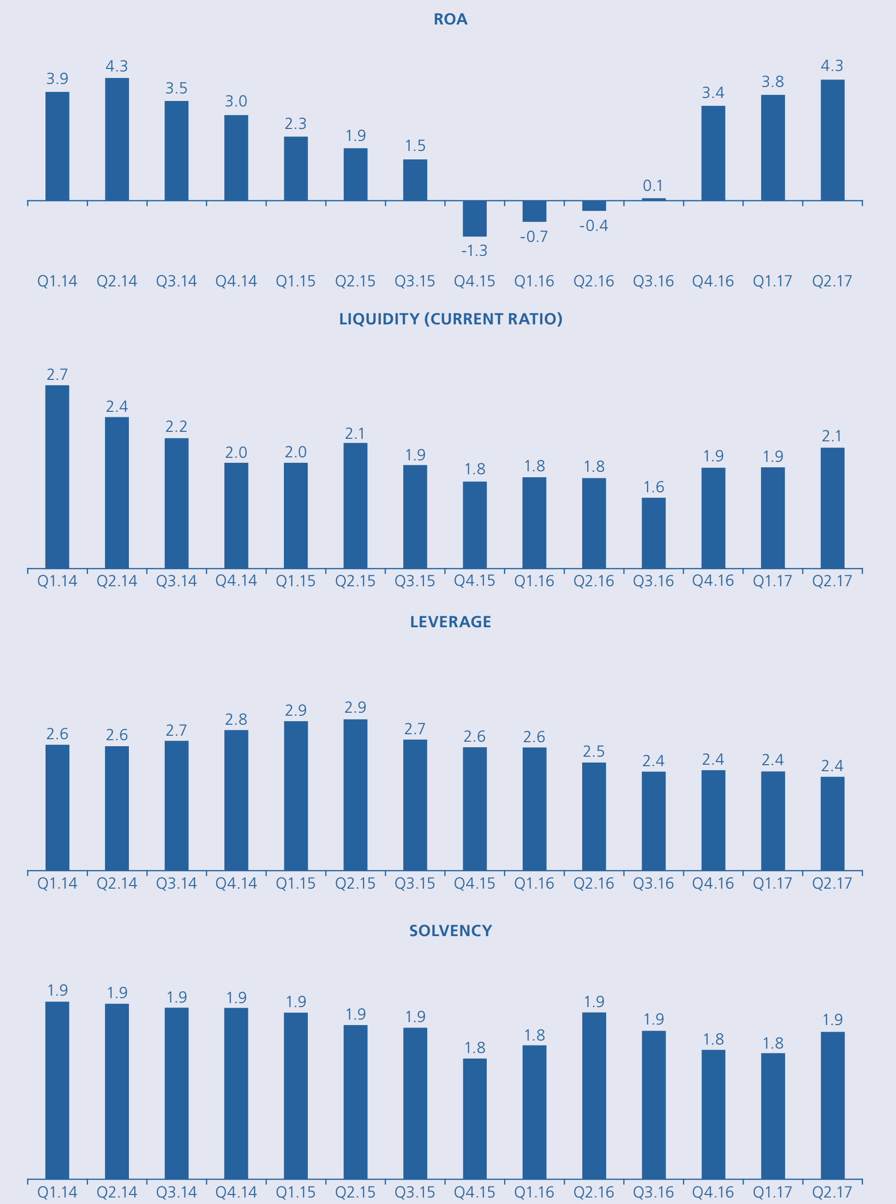
Table 42
BONDS ISSUED IN THE INTERNATIONAL MARKET

Business	Issued date	Amount (Million US$)	Maturity (Years)	Rate
Year 2015		**4,510**		
Non-financial sector		**3,361**		
GyM Ferrovias**	3-Feb	206	25	4.75%
Southern Copper Corporation	17-Abr	500	10	3.88%
Southern Copper Corporation	17-Abr	1,500	30	5.88%
Consorcio Nuevo Metro de Lima	10-Jun	1,155	19	5.88%
Financial sector		**1,149**		
Private financial sector		349		
Intercorp	3-Feb	250	10	5.88%
Interbank*	3-Feb	99	15	7.66%
Public financial sector		800		
COFIDE	7-Jul	200	4	3.25%
COFIDE	7-Jul	600	10	4.75%
Year 2016		**797**		
Non-financial sector		**497**		
Kallpa Generación	19-May	350	10	4.88%
Camposol	20-May	147	5	10.50%
Financial sector		**300**		
Private financial sector		300		
Banco de Crédito del Peru	20-Oct	300	3	2.25%
Year 2017		**4,445**		
Non-financial sector		**3,840**		
Private non financial sector		1,840		
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%
Public non financial sector		2,000		
Petróleos del Peru	12-Jun	1,000	15	4.75%
Petróleos del Peru	12-Jun	1,000	30	5.63%
Financial sector		**605**		
Public financial sector		605		
Fondo MiVivienda*	7-Feb	455	6	7.00%
Fondo MiVivienda	7-Feb	150	7	3.50%

* Emission in Soles.
** Emission in Soles VAC.
Source: Bloomberg and SMV.

It should be pointed out that the Peruvian companies that have issued bonds in the international market continue to show sound financial indicators. In the second quarter of 2017, the average ratios of profitability, liquidity and leverage improved with respect to the indicators recorded in the first quarter, while the companies analyzed maintained stable levels of solvency. By sectors, it is worth highlighting the positive evolution of the financial ratios of mining companies, in line with the recovery in the prices of the major commodities.

Graph 69
FINANCIAL RATIO OF PERUVIAN ENTERPRISES ISSUING BONDS IN THE EXTERNAL MARKET



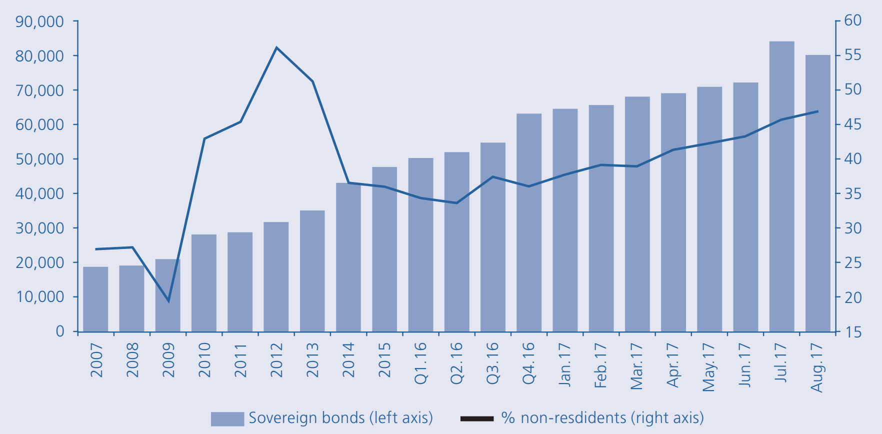
Source: Bloomberg and Economatica. Includes 11 non-financial enterprises in Peru.

In the market of government bonds, the balance of bonds issued by Peru increased from S/ 72.09 billion in June to S/ 80.11 billion in August 2017.

On July 18, the Ministry of Economy and Finance (MEF) issued bonds in the international market for a total of S/ 10.0 billion, with a maturity term of 15 years and a coupon rate of 6.15 percent, through international central securities depository Euroclear. The demand for these securities amounted to S/ 34.00 billion, with about 70 percent being allocated to non-resident investors.

The participation of non-resident investors in the bond market has continued to increase and amounted to S/ 37.55 billion in August 2017 (47 percent of the current balance). Greater preference is observed for bonds with maturity terms of between 12 and 25 years, which indicates an increase in the duration of non-residents' investment portfolio. This increased duration is similar to that observed in securities currently considered as hedge bonds.

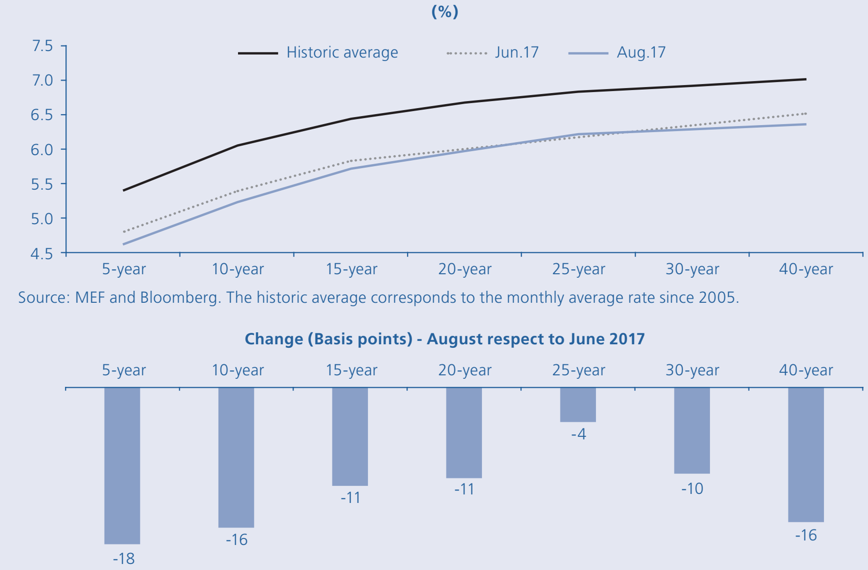
Graph 70
BALANCE OF SOVEREIGN BONDS AND PARTICIPATIONS ON NON-RESIDENT INVESTORS
(Amount in million S/ and participation in %)



Source: MEF.

On the other hand, the yield curve of sovereign bonds has registered significant reductions in its interest rates between June and August. The favorable performance of sovereign bonds is associated with the high demand of non-resident investors and administrators of pension funds for these bonds, as well as with the reduction in the benchmark rate and with expectations of inflation in the short-term.

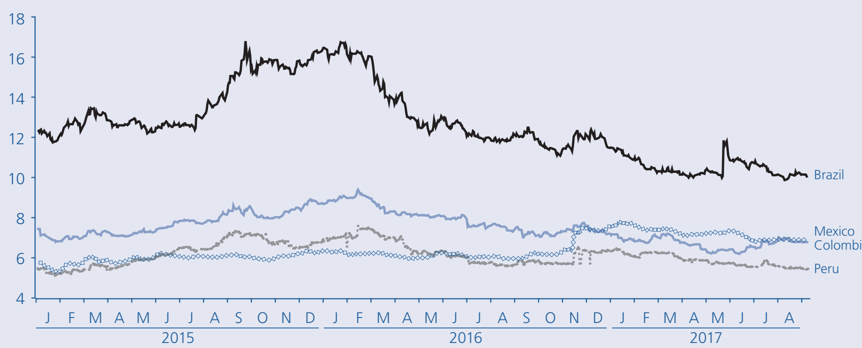
Graph 71
YIELD CURVE OF CENTRAL BANK SECURITIES



Source: MEF and Bloomberg. The historic average corresponds to the monthly average rate since 2005.

In the market of Latin American fixed-rate government debt in local currency, Brazil and Peru stand out with the 10-year bonds that have appreciated the most, while the rates of the bonds of Colombia, Chile, and Mexico have increased by 31, 24, and 12 basis points, respectively. The average positive yield of bonds in the region considers the correction of financial markets following the election of Donald Trump in November 2016. Despite this, however, political and geopolitical risks are still considered to be significant.

Graph 72
10-YEAR TREASURY BOND YIELDS IN DOMESTIC CURRENCY
(%)



Source: MEF and Bloomberg.

Box 2
RE-ESTIMATION OF THE NEUTRAL INTEREST RATE

The neutral or natural interest rate is the short-term real interest rate consistent with a neutral monetary policy stance, and when the economy is growing at its potential rate and the inflation rate is at its long-term equilibrium level. An updated estimation of the Peruvian economy natural interest rate, which includes the revision of its determinants, is offered herein.

The neutral interest rate is a **non-observable variable**, so its dynamics can only be inferred from the movement of observed variables that affect its evolution, considering certain macroeconomic structure that represents the short-run dynamics in an economy like the Peruvian one.

An important determinant of the natural interest rate is the expected growth rate of the potential output, since this variable influences the demand for investment and the savings supply. If higher potential growth is expected, the real interest rate that balances aggregate savings and investment in the economy will also rise.

Moreover, the natural rate may reflect the fiscal stance. Deeper public sector structural deficit involving higher levels of debt raises the natural interest rate of the economy. The natural interest rate also depends on the international interest rate and on the evolution of the country's risk premium. A hike in the international natural interest rate causes a larger share of the economy's savings to be invested abroad, raising the real interest rate in the domestic economy.

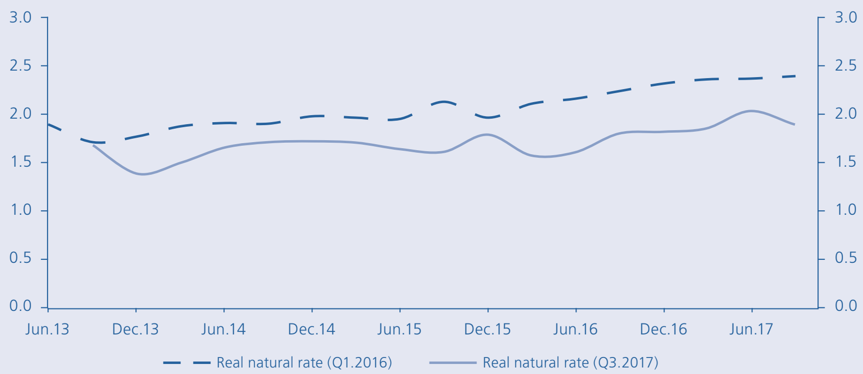
Estimating the natural interest rate is important for monetary policy to determine if its stance is expansionary or contractionary. The monetary stance will be expansionary (contractionary) when the observed real natural interest rate is below (above) the natural interest rate.

Multiple methods are available to estimate the natural interest rate based on the data of observable variables that affect its evolution. A methodology widely used by central banks in advanced economies is the use of macroeconomic models that represent the dynamics of a particular economy. These models establish the relationship between observable variables, such as the output, inflation and the monetary policy interest rate, and the natural interest rate. After the seminal work of Laubach and Williams (2003) estimated the natural rate for the United States economy, several studies that apply this method have been published for other economies, such as the Eurozone, the United Kingdom, and Canada.

To update the estimation of the natural rate, we used a macroeconomic model of the Peruvian economy (the Quarterly Projection Model, or QPM) as a multivariate filter with economic structure to infer the behavior of the natural rate based on a defined set of observable variables. This was accomplished by applying the Kalman filter to the state-space representation of the QPM's numerical solution and we obtained the dynamics of the natural rate consistent with the behavior of the observable variables defined in the model. The re-estimation results are shown in the following graph, which compares the estimates with the latest information of the key determinants of the natural rate (solid line) with the estimates obtained with previous values of these determinants (dotted line).

As it is shown, the most recent estimate indicates lower values for the natural interest rate for the 2014-2017 period. In fact, the average of the most recent estimation for this period declines to 1.8 percent (2.1 percent in the previous estimate).

ESTIMATION OF THE REAL NATURAL RATE IN Q1.2016 AND Q3.2017
(% points)



Thus, this downward revision of the natural interest rate for Peru is consistent with lower observed values for its determinants, such as the international interest rate the potential GDP growth in 2016 and 2017. On average, the 3-month LIBOR rate was 0.5 percentage points lower than expected. Similarly, on average, the potential GDP growth rate was expected to be 0.7 percentage points higher than current estimates.

ESTIMATION OF THE NATURAL INTEREST RATE
(% points)

	Estimation Q1.2016	Estimation Q1.2017
Average natural rate 2005-2016	2.0	1.7
Average natural rate 2014-2017	2.1	1.8
Average LIBOR 3M rate 2016-2017	1.4	0.9
Average potential growth 2016-2017	4.3	3.7

Thus, the downside revision of the natural interest rate reflects, on the one hand, a lower international interest rate, and on the other hand, a somewhat lower potential growth of the Peruvian economy than previously anticipated. This revision of the natural interest rate implies that the BCRP monetary policy stance is expansionary as long as the real interest rate remains standing around 1.0 percent.

Box 3
INFLATION TARGETING AND ECONOMIC GROWTH

The numerical inflation targets used by countries with inflation targeting schemes is the focus of this box. How these numerical goals are related with economic growth and the most appropriate way to evaluate the scheme is discussed herein.

Studies like the one conducted by Horváth and Matějů (How are inflation targets set?, International Finance, 2011) assess the determinants of the numerical inflation targets adopted by countries that initiated inflation targeting (IT) schemes. The macroeconomic conditions prevailing at the start of the implementation of the scheme are key factors. The study finds that countries tend to choose a higher numerical target the higher inflation is and a lower inflation target when the inflation rate is low.

In Peru, the rate of year-to-year inflation in December 2001, prior to the adoption of the IT scheme, was 0.13 percent. An additional factor that contributed to determining the numerical target was the historical context of high dollarization and the recession the economy experienced at the time. No other country had adopted the IT scheme with high dollarization and no other country had done so to raise inflation.

How should we evaluate if the inflation target has been met?

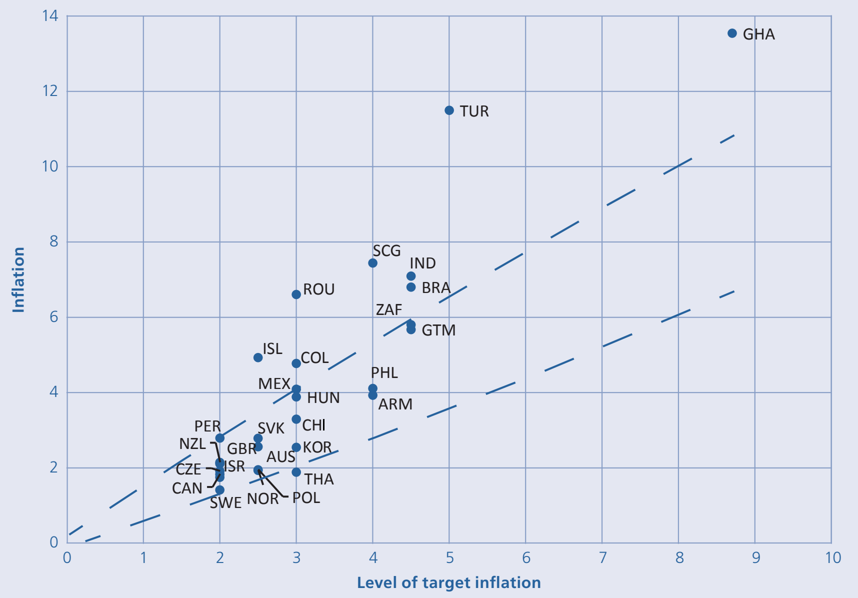
The purpose of setting a numerical inflation target is to establish a long-term nominal anchor and therefore, the most appropriate way to evaluate whether the inflation target is achieving its purpose is to assess if long-term inflation is within the target set by the central bank. A simple way to calculate long-term inflation is measuring the average inflation rate for several years from the moment when IT was adopted.

Measuring this post-adoption inflation average is the way in which several empirical studies have evaluated the inflation targeting scheme. The graph below shows that most central banks with IT regimes have managed to maintain the average inflation rate within permissible tolerance ranges over the past 15 years.

An important observation that emerges from the graph below is that the countries that have higher inflation targets tend also to register, on average, inflation rates above the inflation range of tolerance. This is the case of Ghana, Turkey, Indonesia, and Brazil, for example.

A wrong way of measuring the performance of an inflation targeting scheme is measuring inflation's diversion from the target or from the lower or upper bands of the target range, depending on the direction of inflation's diversion. This way of measuring inflation's performance fails to take into account that the inflationary process is fraught with supply shocks that are transitory or persistent.

AVERAGE INFLATION, TARGET OF INFLATION AND RANGE OF TOLERANCE



Memo: Horizontal axis = inflation target. Vertical axis = average of annual inflation between 2002-2016. Dotted lines mean the average of botton and top limits of tolerance for each odd target.
ARM = Armenia, AUS = Australia, BRA = Brazil, CAN = Canada, CHI = Chile, COL = Colombia, CZE = Czech Republic, GHA = Ghana, GTM = Guatemala, HUN = Hungary, ISL = Iceland, IND = Indonesia, ISR = Israel, KOR = Korea, MEX = Mexico, NZL= New Zealand, NOR = Norway, PER = Peru, PHL = Philippines, POL = Poland, ROU = Romania, SCG= Serbia, SVK= Slovakia, ZAR = South Africa, SWE = Sweden, THA = Thailand, TUR= Turkey, GBR= United Kingdom.
Source: Central banks with inflation targeting.

Countries with inflation targeting have managed to anchor inflation by stabilizing better the demand, which has been documented in a recent study published in the International Journal of Central Banking. In this study, Gillitzer and Simon (Inflation Targeting: A Victim of Its Own Success?, 2015) argue that, with inflation targeting, the nature of the inflationary process has changed. Central banks have stabilized the domestic components of aggregate demand that affect inflation and most of the variability of inflation is now explained by external shocks or idiosyncratic shocks that have aggregate impacts.

Therefore, the inflation target scheme must be assessed according to the average inflation rate observed during a period of time that is long enough. This is the best indicator that inflation is anchored to the central bank's target.

The Nominal Anchor and Inflation's Variability

Official dollarization is a very powerful nominal anchor to lower inflation and competes with the inflation targeting scheme. The advantage of IT is that it provides economic agents with an explicit numerical anchor that facilitates the coordination of prices and reduces inflation uncertainty. That is why the standard deviation of inflation is lower in Peru, a country with partial dollarization of prices and with an inflation target, than in officially dollarized countries.

AVERAGE INFLATION AND STANDARD DEVIATION: DOLARIZED COUNTRIES VS PERU

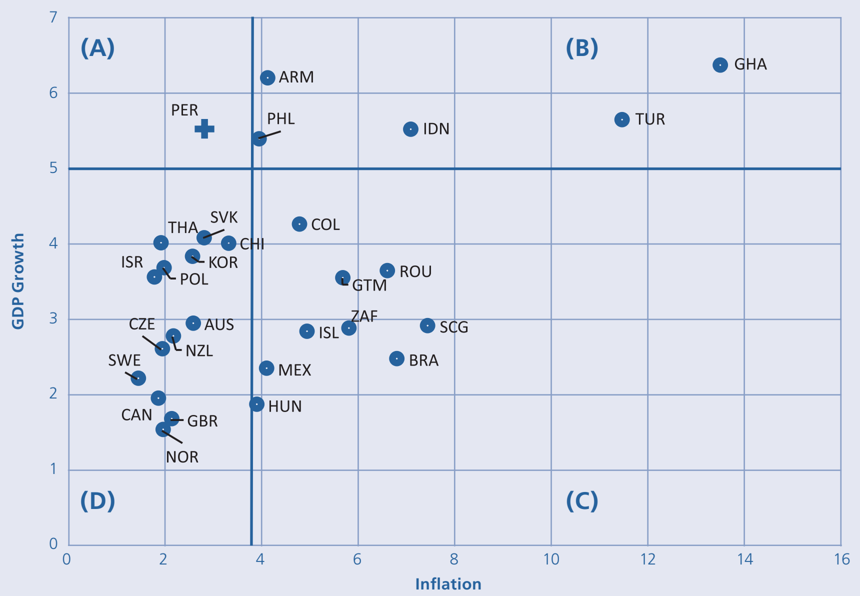
	Inflation median	Standard deviation
Ecuador	4.1	2.0
El Salvador	2.7	2.3
Panama	3.1	2.5
Peru	3.0	1.1

Memo: data is calculated for period 2003-2016, period when Ecuador pegged the inflation.

Inflation Target and Economic Growth

The inflation target is a long-term nominal anchor. In other words, average inflation and long-term inflation expectations are determined thanks to this anchor. The inflation target may be relatively high or low, regardless of the attainable rate of economic growth.

INFLATION AND GDP GROWTH IN COUNTRIES WITH INFLATION TARGETING



Memo: Horizontal axis = Average of annual inflation between 2002-2016. Vertical axis = Average of annual GDP growth between 2002-2016.
ARM = Armenia, AUS = Australia, BRA = Brazil, CAN = Canada, CHI = Chile, COL = Colombia, CZE = Czech Republic, GHA = Ghana, GTM = Guatemala, HUN = Hungary, ISL = Iceland, IND = Indonesia, ISR = Israel, KOR = Korea, MEX = Mexico, NZL= New Zealand, NOR = Norway, PER = Peru, PHL = Philippines, POL = Poland, ROU = Romania, SCG= Serbia, SVK= Slovakia, ZAR = South Africa, SWE = Sweden, THA = Thailand, TUR= Turkey, GBR= United Kingdom.
Source: IMF - WEO April 2017.

This is illustrated in the graph, which shows the average inflation rate between 2002 and 2016 in countries with IT and the average GDP growth rates in the same period. The graph is divided into four sectors, with sectors (A) and (B) including the countries that have average growth rates above 5 percent. These groups of countries may show rates of inflation below 4 percent (sector

A) or high inflation rates (sector B). On the other hand, in the group of countries with GDP growth rates between 1 and 5 percent, there are also countries with low inflation rates (sector D) and countries with high inflation rates (sector C).

As suggested by the graph, there is no positive relationship between economic growth and inflation. If we eliminate the extreme observations of Turkey and Ghana, the correlation between inflation and economic growth becomes statistically insignificant. Moreover, when we analyze the data of all the countries included in the IMF database and if we consider a more consistent long-term period (30 years), we also find that the correlation between inflation and economic growth is zero in the long term.

Conclusion

The numerical target set for inflation is influenced by initial conditions, as well as by structural considerations such as the inflation rate of a country's major trading partners. Countries typically start IT by setting relatively high numerical inflation targets because the inflation rate has been usually high at the time of adopting the scheme and also because, in most cases, the central bank of the country does not have enough credibility. When the rate of inflation decreases, central banks start gaining anti-inflation reputation and the inflation rate follows a convergence path from high to moderate inflation towards the target. In Peru, the IT scheme was adopted in a context of recession and deflationary pressures.

The long-term data used herein show that there is no direct relationship between the high or low level of the inflation target and economic growth in the long term. A low inflation target does not skew monetary policy to achieve lower economic growth on average. The correlation between inflation and economic growth is simply zero.

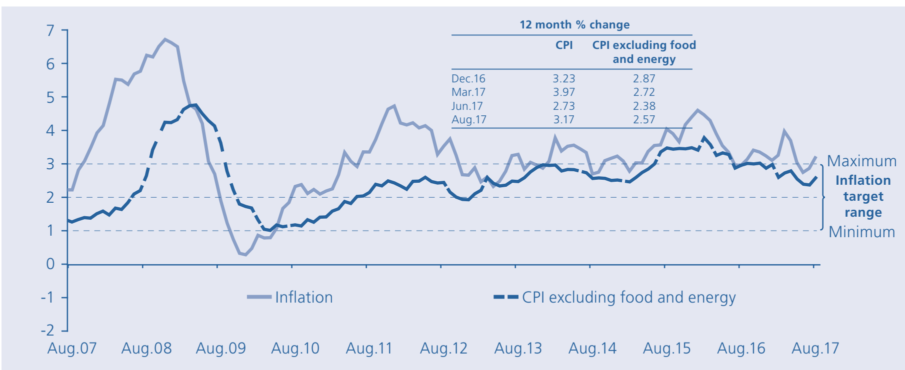
VI. Inflation Forecast and Balance of Risks

Inflation at August 2017

44. After reaching record highs in March due to the effects of El Niño Costero, inflation rates showed a reversal in the next three months recording negative monthly inflation rates and a slower pace of growth in year-to-year total inflation rates and trend inflation rates. However, the increase in the price of lemons between July and August (378 percent in these months) generated a new upturn in overall inflation. Similarly, the rise in the water rates in August accelerated trend inflation that month.

In August inflation showed a year-to-year rate of 3.17 percent. Except for the last month, inflation without food and energy continued showing the downward trend observed since the month of May 2016, this indicator of trend inflation reaching 2.57 percent in August. On the other hand, the average price of food and energy inflation rose 3.87 percent.

Graph 73
INFLATION AND INFLATION TARGETING
(Last 12-month % change)



	CPI	CPI excluding food and energy
Dec.16	3.23	2.87
Mar.17	3.97	2.72
Jun.17	2.73	2.38
Aug.17	3.17	2.57

Table 43
INFLATION
(% change)

	Weight	2012	2013	2014	2015	2016	2017	
							Jan.-Aug.	12-month
CPI	100.0	2.65	2.86	3.22	4.40	3.23	1.90	3.17
1. CPI excluding food and energy	**56.4**	**1.91**	**2.97**	**2.51**	**3.49**	**2.87**	**1.80**	**2.57**
a. Goods	21.7	1.60	2.62	2.43	3.57	3.41	1.07	1.66
b. Services	34.8	2.10	3.18	2.55	3.44	2.54	2.25	3.14
2. Food and energy	**43.6**	**3.55**	**2.73**	**4.08**	**5.47**	**3.66**	**2.01**	**3.87**
a. Food and beverages	37.8	4.06	2.24	4.83	5.37	3.54	2.62	4.13
b. Fuel and electricity	5.7	0.22	6.09	-0.85	6.20	4.48	-2.16	2.03
Fuel	2.8	-1.48	5.95	-5.59	-6.33	0.61	0.56	4.14
Electricity	2.9	2.19	6.23	4.37	18.71	7.53	-4.16	0.45

Table 44
INFLATION
(Average contribution)

	Weight	2012	2013	2014	2015	2016	2017	
							Jan.-Aug.	12-month
CPI	100.0	2.65	2.86	3.22	4.40	3.24	1.90	3.17
1. CPI excluding food and energy	**56.4**	**1.05**	**1.62**	**1.37**	**1.89**	**1.54**	**0.97**	**1.38**
a. Goods	21.7	0.34	0.54	0.50	0.73	0.69	0.22	0.34
b. Services	34.8	0.71	1.08	0.87	1.16	0.85	0.75	1.04
2. Food and energy	**43.6**	**1.60**	**1.24**	**1.86**	**2.51**	**1.69**	**0.93**	**1.79**
a. Food and beverages	37.8	1.59	0.89	1.91	2.15	1.43	1.06	1.67
b. Fuel and electricity	5.7	0.01	0.35	-0.05	0.36	0.26	-0.13	0.12
Fuel	2.8	-0.05	0.18	-0.18	-0.18	0.02	0.01	0.10
Electricity	2.9	0.06	0.17	0.12	0.54	0.25	-0.14	0.01

Between January and August the general level of the consumer price index increased to rates close to its historic levels. However, the prices of perishable farming food products showed a faster pace of growth, registering an increase of 8.1 percent in the first eight months of the year, a higher increase than its long term average variation rate (5.8 percent).

It should be pointed out that the evolution of the prices of these perishable agricultural food goods was not homogeneous throughout the year: in the first months of the year, these prices recorded significant increases due to the effects of climate events –water deficit in the last months of last year and El Niño Costero in the first quarter of 2017–, whereas between the months of April and June, these prices corrected downwards. The rebound of inflation in the last two months is explained mainly by the rise in the prices of lemons.

Table 45
CPI AND PERISHABLE FOODS
(Monthly average %)

	January-August
2002-2016	
CPI	0.27
Perishable foods	0.64
2016	
CPI	0.24
Perishable foods	-0.26
2017	
CPI	0.24
Perishable foods	0.98

Graph 74
PERISHABLE FOOD
(% change, January- August)

45. Since the supply shocks resulting from adverse weather conditions affected foodstuffs especially, most of the products that showed the greater contribution to increase and to decrease inflation in the period of January-August belong to inflation's component of food and energy. The products with a greater positive contribution to inflation include education (tuition and fees), meals outside the home, lemons, water rates, and eggs. Conversely, the products with the greater negative contribution to inflation were potatoes, chicken meat, electricity rates, and avocadoes.

Table 46
ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION: JANUARY - AUGUST 2017

Positive	Weight	% chg.	Contribution	Negative	Weight	% chg.	Contribution
Lemon	0.2	307.3	0.67	Potato	0.9	-32.4	-0.42
Education costs (tuition and fees)	8.8	4.7	0.45	Poultry meat	3.0	-10.7	-0.33
Meals outside the home	11.7	3.1	0.42	Electricity rates	2.9	-4.2	-0.14
Water consumption	1.6	13.0	0.22	Avocado	0.1	-29.3	-0.06
Eggs	0.6	20.2	0.10	Airplane fare	0.4	-12.6	-0.05
Onion	0.4	36.0	0.10	National transportation	0.3	-10.5	-0.04
Banana	0.3	20.6	0.08	Purchase of vehicles	1.6	-1.0	-0.02
Other fresh fruits	0.4	16.0	0.06	Trifle of chicken	0.1	-7.1	-0.01
Toiletries	4.9	1.2	0.06	Fresh legumes	0.2	-2.7	-0.01
Sugar	0.5	8.6	0.06	Olluco and alike	0.1	-8.3	-0.01
Total			**2.22**	**Total**			**-1.09**

Items in the Component of Inflation without Food and Energy

Education

Prices in the category "Education: tuition and fees" rose 4.7 percent mainly due to the increases in the tuitions and fees associated with the start of the new school year, as well as the increases in the tuitions of higher education institutes observed throughout the period. In the last twelve months this category reached a variation of 4.7 percent, which is higher than that recorded in the general price index.

Tuition in public schools increased 4.3 percent in February (vs. 11.8 percent in February 2016) while tuition in private schools increased 5.9 percent (vs. 7.4 percent in February 2016). In March, tuition in private schools increased by 6.9 percent (vs. 8.0 percent in March 2016).

Water Rates

In January-August, 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 (SISFOH) whereby rates were increased by 20 percent in the case of non-subsidized homes (67 percent of households in Lima). This rise in the month of August has been the strongest rise in 17 years (in November 2000, water rates increased 10.2 percent).

The impact on the average residential rate was 9.5 percent, the rate depending on how users are classified according to the SISFOH. The weight of the water rate in the CPI basket is 1.6 percent, so an increase of this magnitude had a direct impact of 0.2 percentage points on the CPI in August. Since 2002, the water rate has increased at an average monthly rate of 0.39 percent, more than the average monthly variation rate of the CPI (0.23 percent).

Table 47
MAXIMUM MONTHLY INCREASES OF WATER FARES

Mes	% chg.
May.93	34.42
Sep.93	7.95
Jan.94	12.65
Mar.96	9.80
Feb.97	8.38
May.98	7.36
Feb.99	7.25
Nov.00	10.16
Aug.06	8.50
Aug.07	9.53

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-August, prices in this category increased 3.1 percent, a higher rate than that recorded in food consumed at home (2.4 percent) and in the general price index (1.90 percent). However, in the last twelve months, the price variation in this category has been 4.1 percent, which reflects a more moderate pace of growth in comparison with the one observed in food consumed in the household (4.1 percent).

Items in the Component of Food and Energy

Electricity Rates

In January-August, electricity rates decreased 4.2 percent (0.5 percent rise in the last twelve months). In the first months of the year, the rate falls reflected mainly the suspension of the portion of the rate charged for "Strengthening of energy security", which was destined to financing the Gasoducto Sur Peruano and implied an increase of approximately 2.5 percent in the rates paid by consumers.

In the month of May electricity rates declined 3.6 percent, which was 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 risen 1.9 percent again in August due to a new update of the prices established in the contracts between electricity generation and electricity distribution companies as a result of the tender processes carried out in this period. 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, and the transmission component was also updated by increasing charges intended to ensure the continuity of electricity services.

Gasoline and Lubricants

The increase in this category in the period of January-August was 0.1 percent (8.1 percent in the last twelve months). In January, the average price increased 4.0 percent, with successive negative variations following thereafter until the month of August when there was an increase of 1.3 percent.

This result reflected the evolution of *ex plant* prices, which vary according to the prices of oil imports (the price of WTI oil fell 6.7 percent in January-August and rose 8.2 percent in the last twelve months).

The price rise in January (4.0 percent) reflected the recovery of the international prices of crude oil from the levels recorded in previous months after the OPEC agreement of reducing oil production. Since February the domestic *ex plant* prices decreased due to the negative variation of the benchmark, in line with the increase of fuel production in the United States and with the seasonal evolution of prices in that country. The international price of oil continued to show low levels due to the increase in gasoline inventories in United States as well as in anticipation that the increased production of oil in the United States would offset the OPEC's production cuts. In the domestic market, the lower price of gasoline in June (-0.9 percent) was also associated with the lower margins of retailers recorded in that month.

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.

Food

The rises in the prices of a number of agricultural goods (lemons, onions, bananas, among other products) in the period January to August were mainly due to the negative impact of the climatic alterations caused by El Niño Costero, which affected both the production and the marketing of farming goods.

Heavy rains and flooding prevented at first the commercialization of products, giving rise to strong increases in March, but most of this negative effect was offset in April by the partial normalization of the roads affected. In spite of this, the supply continued to be affected in the following months by the damage caused to infrastructure (irrigation canals, roads, and bridges), as well as by the alteration of the vegetative cycle of crops.

On the other hand, the prices of products such as potatoes and chicken meat decreased. The supply of potatoes increased as a result of increased cultivation and good yields in the central highlands, while the decline in chicken prices was associated with a level of supply that exceeded demand requirements and with lower production costs.

Lemons

In January-August, the price of lemons rose 307.3 percent, while in the last twelve months this price has recorded a variation of 300.6 percent.

The price of lemon rose 116.4 percent in March, because the rains and floods affected roads, hindering the transfer of this product to Lima. As a result, the entry of lemons to Lima's wholesale market fell 27 percent compared to February and 22 percent compared to March 2016. However, the supply from the north of the country recovered thereafter in April and May, favoring a decrease in the price of lemons of 48.4 percent and 25.1 percent respectively.

New price increases were recorded in July and August (105.3 and 133.0 percent, respectively) since the negative impact of climatic alterations of the preceding months in the process of flowering, fruit set, and harvesting 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. The supply of lemons dropped from 410 TM per day in June to 321 tons per day in July and to 195 tons per day in August (vs. 360 TM per day in August 2016).

Onions

The price of onions increased 36.0 percent in January-August (29.5 percent in the last twelve months), showing 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, 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), influenced by end of the crop season in some valleys of Arequipa. This situation was reversed in the next few months with the supply of seasonal varieties of onion with lower prices that came from Ica and Arequipa, and continued to fall in July with an increased seasonal supply of onions from Camana. In mid-August, however, the supply from the area to Metropolitan Lima began to decline again, influenced by lower yields in the area due to climatic factors.

Potatoes

In January-August the price of potatoes showed a negative variation of 32.4 percent and a negative variation of 20.5 percent in the last twelve months as a result of increased cultivation of this crop in the major producing regions in the first half of the year. The overall supply to Lima in January-August was 11 percent higher than 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. 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 yellow potatoes from Huanuco also increased.

Chicken Meat

In the January-August period, the price of chicken meat decreased 10.7 percent, accumulating a negative variation of 5.2 percent in the last 12 months, and reflecting a level of supply exceeding demand requirements in most of the period. This was influenced by the lower price of the main substitute foodstuffs –fish such as tuna and mackerel have an high demand in low-income strata. On the side of production costs, the price in soles of importing hard yellow corn –the main food of chicken– accumulates a decrease of 13 percent year-to-date.

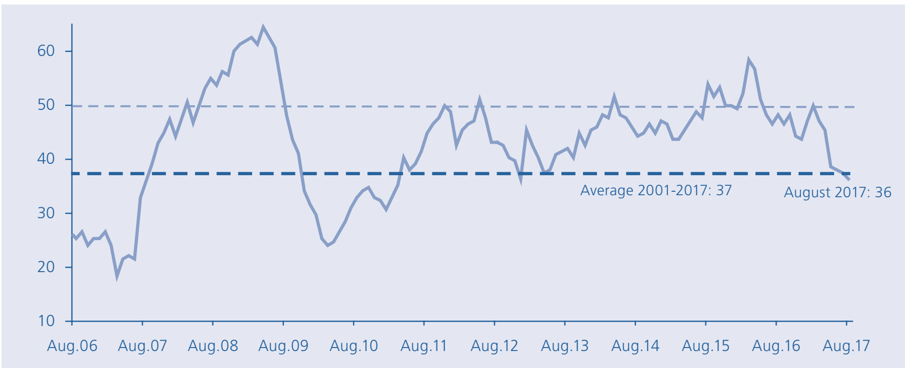
In March the price increased 5.9 percent due to the lower supply associated with the negative effects of El Niño Costero on chicken breeding and on the marketing of poultry (significantly higher temperatures made it difficult to feed the birds in farms and roads were disrupted by the rains and floods). Once these problems were overcome, the price of chicken decrease again in April (-6.4 percent) as a result of a higher supply (1,909 MT a day in distribution centers vs. 1,670 MT a day in March).

In June, the price showed some recovery (2.2 percent), reflecting an increased demand due to the irregular supply of fish. Then in July, the price fell again (-3.8 percent) in line with the lower dynamism of sales, as reflected in the greater weight of chickens which reached a record weight of 2.93 Kg. per unit (2.76 Kg. in June). In August the price fell one more time (-1.5 percent), with high placements of baby chicks being observed in the last two months (the placement of baby chickens is the main indicator of the level of supply: approximately 60 million units nationwide versus 57 million in the last twelve months).

The recent acceleration of inflation registered in recent months is explained by the increase in the prices of small group of items – basically lemons and water rates–, and not by widespread price pressures.

This is corroborated by the behavior of the inflation dispersion index, measured as the percentage of goods of the CPI that show a year-to-year variation of over 3 percent. In August, this rate continued to fall for the sixth consecutive month and recorded 36 percent, a lower rate than its historical average rate (37 percent).   .

Graph 75
PERCENTAGE OF CPI ITEMS WITH ANNUAL VARIATION PRICE OVER 3 PERCENT



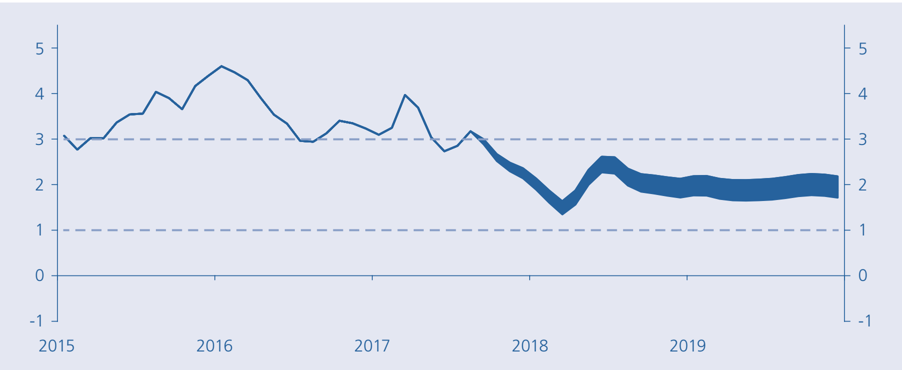
Forecast for 2017-2019

46. 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).

47. **Inflation** is forecast to be within the range foreseen for the inflation target during the fourth quarter of this year and to converge steadily towards 2 percent during 2018. This forecast takes into account the faster-than-expected reversal in the prices of the food products affected by adverse climatic factors caused by El Niño Costero (severe rainfall) in the first quarter of 2017, but which affected the supply of these products during the third quarter.

Graph 76
INFLATION FORECAST: 2015 - 2019
(Last 12-month % change)



Inflation without food and energy shows a lower decline than that estimated in the Inflation Report of June 2017 due to the adjustment of the water rates carried out in August. It is expected to show rates around 2.3 percent at the end of 2017 and rates around 2.0 percent in 2018. This reduction is favored by three factors: (i) the appreciation of the PEN against the dollar recorded so far this year, (ii) a negative output gap which is expected to close gradually in the forecast horizon, and iii) the absence of adverse supply shocks.

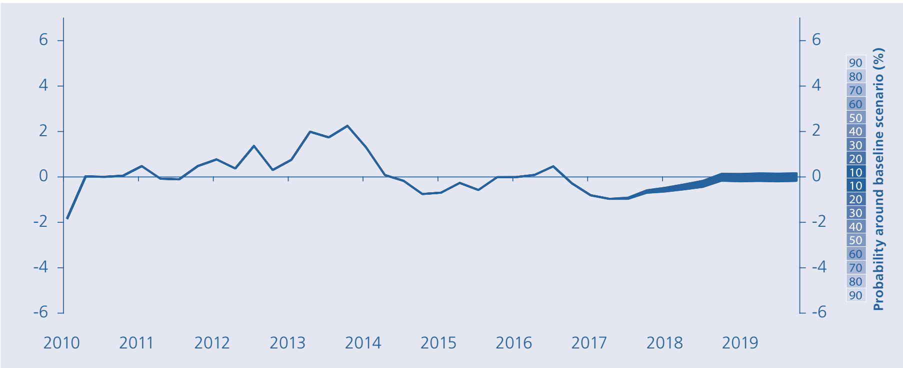
48. The **determinants of the inflation forecast** are discussed below:

a) **Expectations of inflation in 12 months** are foreseen to remain within the target range during the forecast horizon showing a downward trend as long as the reversal of the supply shocks that affected inflation in the first and third quarters of the year continues.

Graph 77
EXPECTATIONS OF INFLATION FOR THE NEXT YEAR
(% points)

b) The postponement of infrastructure projects, lower public spending, and the effects of El Niño Costero have led the output gap to show a slower recovery than expected. Moreover, the estimated indicator of the **output gap** (the difference between GDP and the potential output) has been updated adjusting the initial starting point of the forecast up by 0.3 percentage points of GDP based on the latest macroeconomic data available.

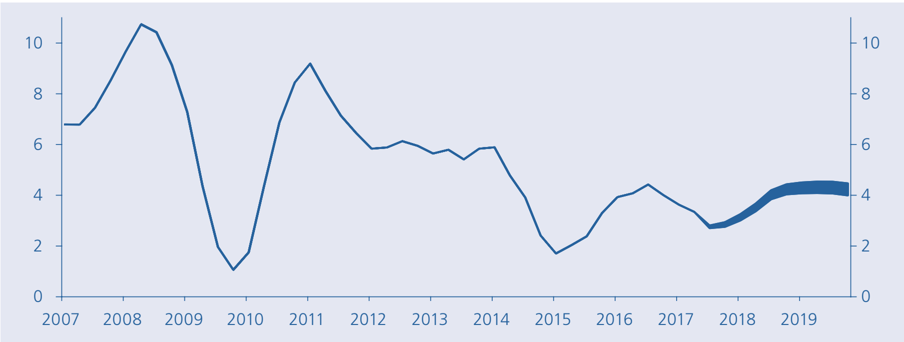
Graph 78
OUTPUT GAP: 2010 - 2019
(% potential GDP)



The economy is estimated to recover from the second half of 2017 and to grow at higher growth rates than those of the potential output in 2018, in line with a recovery of the **output gap**. This recovery of the output gap considers a greater fiscal stimulus in the fourth quarter of 2017, the effect of higher terms of trade, and still expansionary monetary conditions in domestic currency.

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 observed in the output gap.

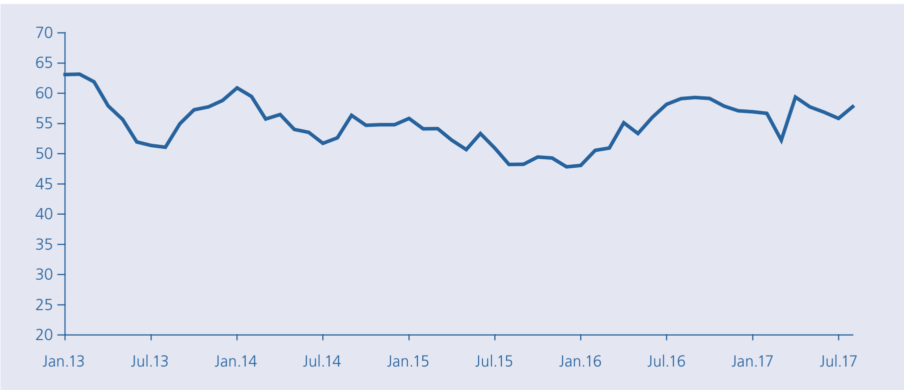
Graph 79
GDP GROWTH FORECAST: 2007 - 2019
(Annual % change)



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

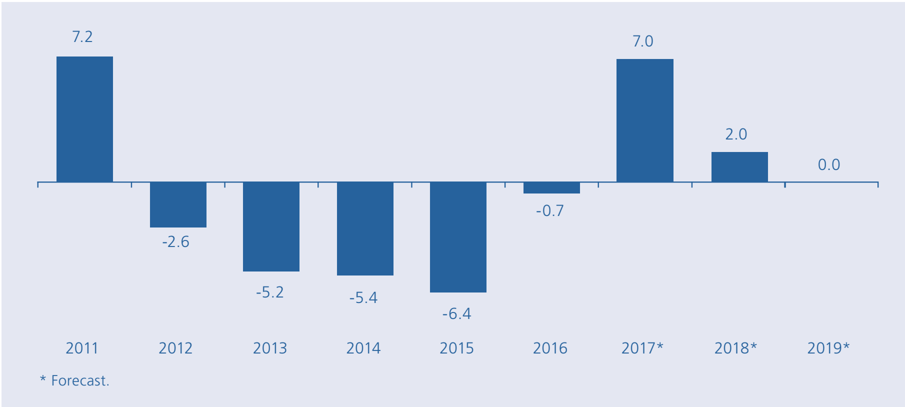
- **Business confidence**: Business confidence is expected to remain within the optimistic side in the forecast horizon, although showing more moderate levels than those observed in the previous report, reflecting the recent evolution of the domestic economy.

Graph 80
EXPECTATION ABOUT THE SECTOR 3-MONTHS AHEAD
(Jan.2013 – Aug.2017)



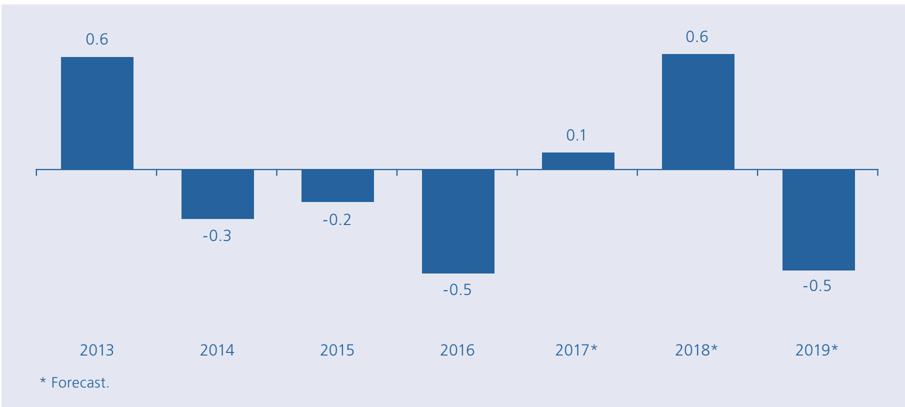
- **External conditions**: More favorable external conditions driven by the increase observed in the terms of trade are foreseen.

Graph 81
TERMS OF TRADE: 2011-2019
(Annual % change)



- **Fiscal impulse:** The weighed fiscal impulse estimated for 2017 would be positive and would be concentrated in the second half of the year, in line with the delay observed in the execution of public investment. A significant fiscal impulse associated with the reconstruction of the infrastructure affected by El Niño Costero is expected in 2018.

Graph 82
WEIGHTED FISCAL IMPULSE: 2013-2019
(% potential GDP)



- **Monetary conditions**: Taking into account the cuts in the benchmark interest rate in May and July, monetary conditions in soles are still expansionary –the real rate is lower than 1.8 percent– and contribute 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 will be offset in part by the reductions of reserve requirements in dollars adopted by BCRP and by more moderate expectations of depreciation.

Graph 83
REFERENCE INTEREST RATE, JAN.2013 - SEP.2017

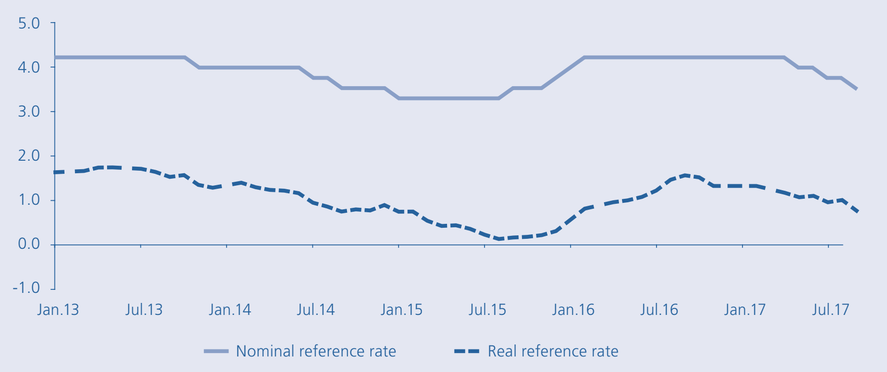


Table 48
SURVEY ON MACROECONOMIC EXPECTATIONS: INFLATION
(% change)

	IR Dec.16	IR Mar.17	IR Jun.17	IR Sep.17*
Financial entities				
2017	2.8	2.9	3.0	2.8
2018	2.5	2.7	2.8	2.6
Economic analysts				
2017	3.0	3.0	3.0	2.8
2018	2.8	2.9	2.8	2.8
Non-financial firms				
2017	3.0	3.0	3.1	3.0
2018	3.0	3.0	3.0	3.0

* Survey conducted during August 31.

c) **Imported inflation** reflects the evolution of import prices and the evolution of the exchange rate. At end-2017, imported inflation is estimated to be lower than that projected in the Inflation Report of June, in line with market expectations of a lower exchange rate in nominal terms at end 2017 and in 2018.

The latest survey on expectations about the US dollar-PEN exchange rate shows that economic agents expect lower levels during the forecast horizon. The higher surplus observed in the trade balance and increased portfolio capital inflows allow us to foresee a lower depreciation of the exchange rate, although this effect could be offset in part by the effect of the rise in the Fed interest rate.

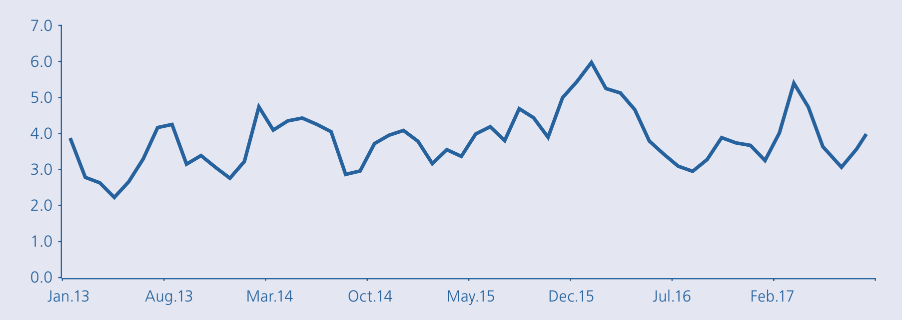
Table 49
SURVEY ON MACROECONOMIC EXPECTATIONS: EXCHANGE RATE
(S/ per US$)

	IR Dec.16	IR Mar.17	IR Jun.17	IR Sep.17*
Financial entities				
2017	3.50	3.41	3.35	3.27
2018	3.60	3.45	3.40	3.30
Economic analysts				
2017	3.50	3.37	3.35	3.28
2018	3.50	3.40	3.40	3.35
Non-financial firms				
2017	3.50	3.40	3.35	3.30
2018	3.55	3.50	3.40	3.40

* Survey conducted during August 31.

d) Some effects of El Niño Costero were observed in August in the supply of some products. Because of this, the rate of growth of food and energy prices projected for 2017 is 2.1 percent, while in 2018 these prices are expected to increase 2.0 percent.

Graph 84
CPI 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 divert 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 divert the inflation forecast from the baseline scenario include the following:

a. **Negative shocks on domestic supply**
The risk of a delay in the reversal of supply shocks during the forecast horizon that could slow down inflation's convergence to the target range has decreased

significantly, together with the probability of being affected by a new severe climate event.

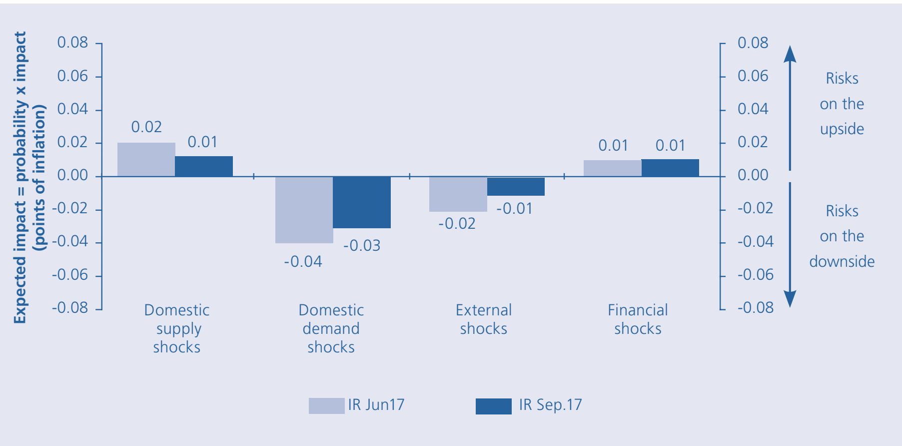
b. **Negative shocks on domestic demand**
Economic recovery could be more gradual if public and private investment grew at lower rates than expected, which would imply a more negative output gap for a longer period of time. As a result of this, inflation would tend to show rates below the baseline scenario.

c. **Negative external shocks**
The baseline scenario considers an external context favorable to our economy. However, a drop in commodity prices would mean a more negative output gap and a rate of inflation below the one considered in the baseline scenario.

d. **Volatility in international financial markets**
A faster-than-expected pace of hikes in the Fed rates could generate abrupt adjustments in the interest rates of long-term bonds and increased capital flows to the United States or the outflow of non-residents' positions in domestic assets, which 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.

Graph 85
BALANCE OF RISKS AGAINST THE BASE SCENARIO



Conclusions

50. Inflation is forecast to converge to the inflation target range in the fourth quarter of 2017 amid a context of economic growth without demand inflationary pressures and with a continued decline in inflation expectations in this horizon.

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

Box 4
RECENT TRENDS IN GASOHOL PRICES

This box compares the evolution of the refinery price of 90-octane gasohol with several international indicators of the cost of fuel. We use the 90-octane gasohol as a representative indicator of this group of products because it accounts for around 60 percent of the local consumption of fuel.

The data show that the domestic refinery price of 90-octane gasohol is relatively high relative to its price in December last year since it has not followed the same trend as some indicators of the international price of fuel, such as the theoretical indicator of Osinergmin, the CIF price of imports of 90-octane gasohol, and the refinery price observed in Chile.

GASOHOL 90 OCTANES
COMPARISON OF REFINERY PRICES

	With OSINERGMIN prices (S/ per gallon)			With CIF prices (S/ per gallon)			With countries of LATAM (US$ per gallon)		
	Refinery	Parity	Diff. %	Refinery	CIF	Diff. %	Perú	Chile	Diff. %
Dec.2016 (a)	6.15	5.85	5.1%	6.15	5.21	18.0%	,1.81	,1.78	1.9%
Aug.2017 (b)	6.38	5.77	10.6%	6.38	5.26	21.3%	,1.97	,1.79	10.1%
% chg.(b)/(a)	3.8%	-1.4%		3.8%	1.0%		8.6%	0.6%	

Source: ENAP-Chile, Petroperú, Osinergmin, and SUNAT.

Refinery Price and Parity Price

The following table compares the refinery price of 90-octane gasohol with the parity price of Osinergmin, a theoretical indicator of the cost of importing this fuel. Between December 2016 and August 2017, the domestic refinery price increased 3.8 percent whereas Osinergmin's indicator fell by 1.4 percent.

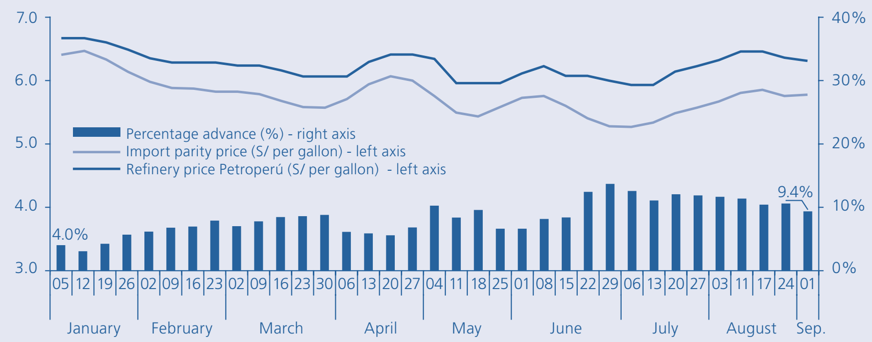
MONTHLY AVERAGE PRICE OF GASOHOL 90
(S/ per gallon)

	Dec.16 (A)	Aug.17 (B)	% chg. B/A
1. Crude WTI (US$ per gallon)	1.18	1.15	-2.4%
2. Parity price of OSINERGMIN[1/]	5.85	5.77	-1.4%
3. Additional margin (=4-2)	0.30	0.61	106.4%
4. Refinery price[2/]	6.15	6.38	3.8%

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

As a result of this, the advancement in the price of this fuel or the average price difference observed in recent weeks has reached levels of between 9.4 and 13.7 percent, which are higher than the levels recorded at the beginning of year (4.0 percent).

WEEKLY PRICE OF GASOHOL 90 OCTANES
(From January 5 to September 1, 2017)

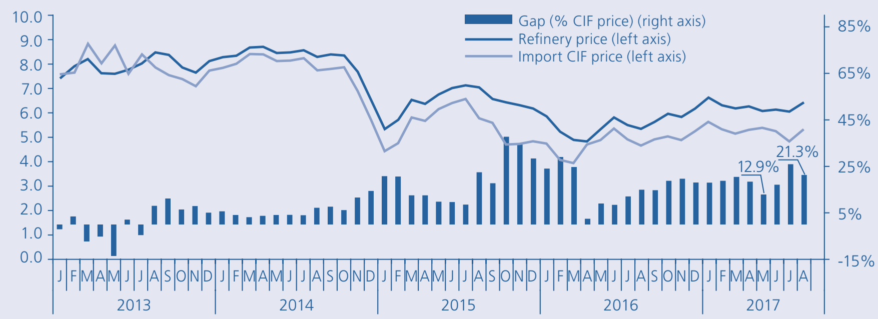


Source: PetroPeru, Osinergmin.

The Refinery Price and the CIF Import Price

Based on the information of SUNAT, we can estimate the CIF import price of the 90-octane gasohol as a reference. It becomes evident that the existing price spread between the refinery price and the CIF price increased from 12.9 percent in May to 21.3 percent in August, which indicates that both prices have not followed the same trend.

REFINERY PRICE AND CIF IMPORT PRICE OF GASOHOL 90
(S/ per gallon)

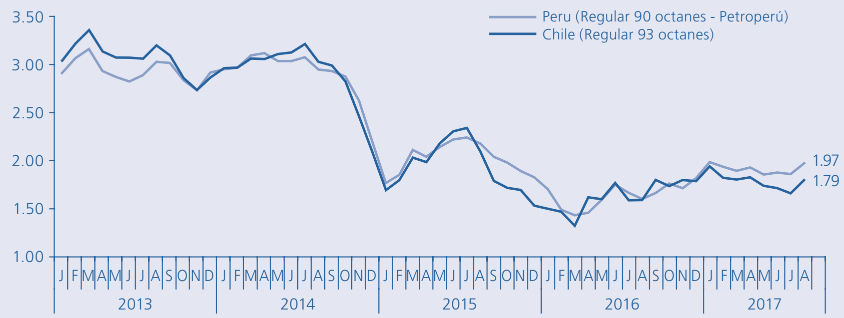


Source: SUNAT and PetroPeru.

Refinery Prices in Chile and in Peru

Furthermore, the following graph shows the evolution of the prices of regular gasohol in dollars per gallon in both Chile and Peru. As we can see, the gap between the refinery price in Peru and in Chile has expanded from US$ 0.05 in January to US$ 0.18 per gallon in August.

REFINERY PRICE OF REGULAR GASOHOL: CHILE AND PERU
(US$ per gallon)



Source: Osinergmin and PetroPeru.

Box 5
CONVERGENCE OF REGIONAL INFLATION RATES

The convergence of regional inflation rates is analyzed herein. The concept of relative purchasing power parity (PPP) is taken as a reference: this concept establishes that, in the absence of regional inflation shocks or that once these shocks have dissipated, the rates of inflation in two regions should converge to a common equilibrium rate, even if these shocks lead to permanent discrepancies in price levels. In other words, the fulfillment of relative PPP implies a situation of stability or a long-term relationship or a convergence between the rates of inflation in different regions.

Based on the available information of price indices at the level of sub-groups of prices for twenty-five cities nationwide and based on the work of Gonzales de Olarte (2003, p. 41) [8], we classify these cities in nine economic regions according to characteristics such as their geographic and historical integration, and their market integration. Moreover, the aggregation of cities to regions is based on the weights used by the National Institute of Statistics and Informatics (INEI), which are calculated on the basis of the participation of each city in national expenditure.

ECONOMIC AREAS IN PERU

In order to test this convergence of inflation rates in statistical terms, we use the methodology of Engle and Granger (1987), which consists of assessing whether the deviation of inflation in a

8 Gonzales de Olarte, E. (2003). Regiones Integradas: Ley de Incentivos para la Integración y Conformación de Regiones. Lineamientos Económicos y Políticos. Fondo Editorial del Congreso del Perú.

region relative to the rest of the country is stationary and equal to zero. Stationary implies that inflation deviations are not persistent and that they are corrected quickly.

With this methodology we studied the convergence of overall inflation, the variation in the prices of education, health, and food, focusing on some products such as meat, fruits, vegetables, and tubers in the case of the latter category. The convergence hypothesis was accepted in all cases.

ENGLE AND GRANGER METHODOLOGY (1987)
Data: Monthly inflation from January 1996 to May 2017
Ho: Convergence of inflation rates

Serie	Result
CPI	Is accepted
Food and beverage	Is accepted
Meat	Is accepted
Fruits	Is accepted
Vegetables	Is accepted
Tuber	Is accepted
Spare and education	Is accepted
Health	Is accepted

In addition to this, we updated the data of the research conducted by Winkelried and Gutierrez (2012)[9], which consists of an error correction model used to estimate if the deviations of the rate of inflation of a region compared to the rest of the country are corrected or if, on the contrary, they are permanent. The conclusion is similar to the one obtained using the previously discussed methodology: there is a convergence of regional inflation rates; in other words, there is a stable long-term relationship between the inflation rates in different parts of Peru. This methodology also allows to identify inflation in Lima as weakly exogenous, which means that when there are movements in the inflation rates in Lima, the inflation rates in the other regions are adjusted to maintain a stable relationship. However, when inflation in a region shows a deviation, it corrects itself and it is not inflation in Lima that records an adjustment.

In summary, both approaches provide evidence of convergence of inflation rates between the regions of Peru. Moreover, the methodology of Winkelried and Gutierrez allows identifying that the inflation rate of Lima leads inflation rates in other regions. For monetary policy matters, this implies that monitoring and stabilizing inflation in Lima is equivalent to act on inflation rates in the rest of the country because all of the rates will converge to the same equilibrium rate.

9 Winkelried, D. and Gutiérrez, J. (2012, December). Dinámica inflacionaria regional y el esquema de metas de inflación en el Perú. Revista de Estudios Económicos(24), 79-98.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