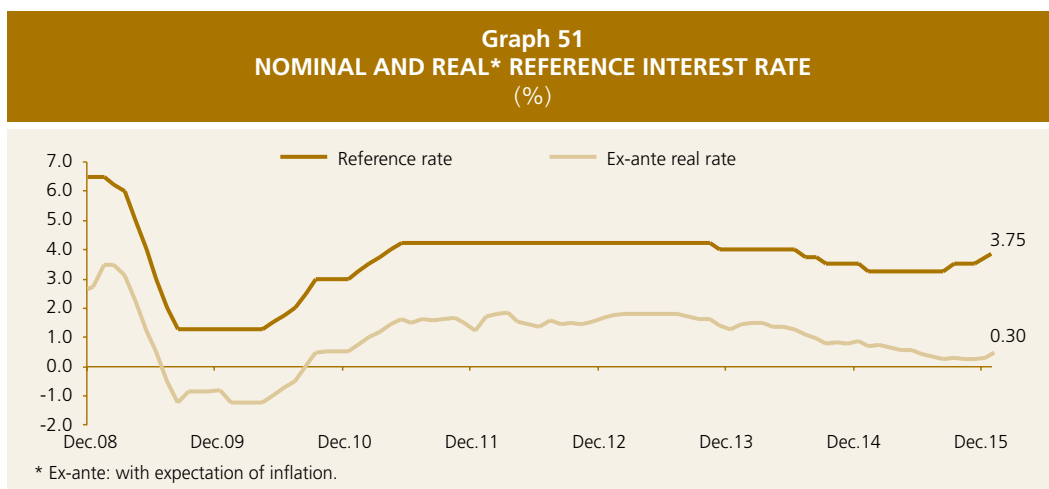


# LIQUIDITY AND CREDIT

## 1. Monetary Policy

During 2015, BCRP maintained an expansionary monetary policy position, setting the policy interest rate at 3.25 percent until September and raising it on two occasions, by 25 basis points each time, to 3.75 percent towards the end of the year. The aim of these adjustments in the benchmark interest rate was to maintain expectations anchored within the inflation target range since expectations had been affected by temporary supply shocks, such as a further depreciation of the sol and an increase in the rates of some utilities, such as electricity rates. Moreover, the Board of BCRP decided to raise the policy rate in a context of gradual recovery of domestic economic activity and high volatility in foreign exchange and financial markets.



In 2015, credit to the private sector grew 9.6 percent and, like in previous years, a greater preference for loans in soles was observed: while credit in domestic currency grew 28.4 percent, credit in foreign currency dropped 20.9 percent. In contrast, on the other hand, the preference for deposits in dollars increased by 13.5 percent in 2015, while deposits in soles grew only 2.3 percent. As a result, banks experienced a lower availability of funding sources for credit in domestic currency, which was offset by the long-term liquidity injection measures taken by the Central Bank.

Thus, the BCRP reduced the rate of reserve requirements in national currency from 9.5 percent in 2014 to 6.5 percent in June 2015 and the current account requirement from 2.5 to 0.75 percent between December 2014 and April 2015 in order to provide the financial system with the necessary liquidity to meet the demand for credit in domestic currency. This measure allowed to inject around S/ 2.68 billion into the financial system.

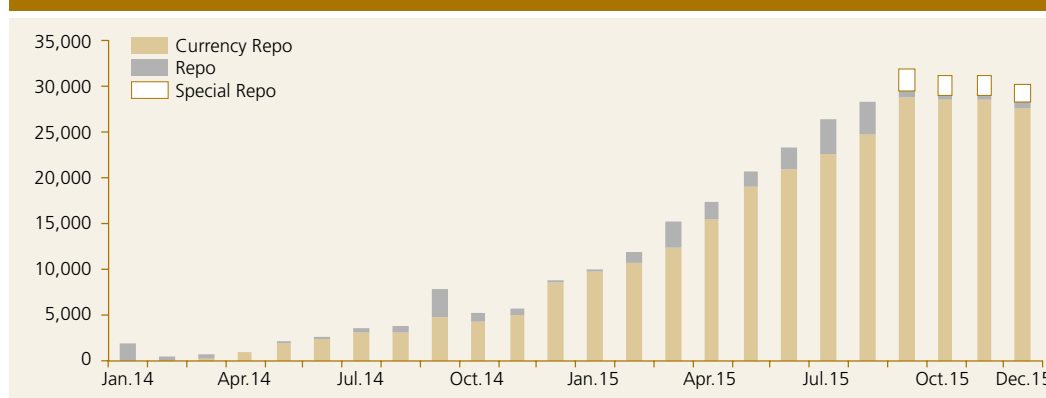
**Table 59**  
**EVOLUTION OF RESERVE REQUIREMENT REGIME**  
 (%)

	Domestic currency			Foreign currency	
	Reserve requirements	Deposits in current account	Legal minimum reserve requirement	General regime	
				Marginal reserve requirement on deposits	Maximum of mean reserve requirement
January 2014	14.0%	3.00%	9.0%	50%	45%
February 2014	13.0%	3.00%	9.0%	50%	45%
March 2014	12.5%	3.00%	9.0%	50%	45%
April 2014	12.0%	3.00%	9.0%	50%	45%
July 2014	11.5%	3.00%	9.0%	50%	45%
September 2014	11.0%	3.00%	9.0%	50%	45%
October 2014	10.5%	3.00%	9.0%	50%	45%
November 2014	10.0%	3.00%	9.0%	50%	45%
December 2014	9.5%	2.50%	9.0%	50%	45%
January 2015	9.0%	2.00%	9.0%	60%	--
February 2015	8.5%	1.50%	8.5%	60%	--
March 2015	8.0%	1.00%	8.0%	70%	60%
April 2015	7.5%	0.75%	7.5%	70%	60%
May 2015	7.0%	0.75%	7.0%	70%	60%
June 2015	6.5%	0.75%	6.5%	70%	60%

In addition, the BCRP implemented other instruments of provision of liquidity in soles in the long run such as currency substitution repos and credit expansion repos to support its De-dollarization of Credit Program and continue to meet the demand for loans in domestic currency. The aim of the first instrument –currency substitution repos– is to support the substitution of credit in foreign currency for credit in soles. The second instrument –credit expansion repos– seeks to meet the growing demand of credit in domestic currency using part of the funds of reserve requirements that banks keep at the BCRP. At end 2015, the balance of currency substitution repos was S/ 4.81 billion while the balance of credit expansion repos was S/ 7.90 billion. Furthermore, regular currency repos for a total of S/ 14.40 billion with an average term of 22 months were also made.

In addition, the Public Sector injected liquidity in soles for a total of S/ 6.48 billion while increasing, at the same time, its deposits in dollars at the BCRP by US\$ 1.68 billion. Thus, although net international reserves have remained stable, there was a re-composition between the foreign exchange position and deposits in the financial system.

**Graph 52**  
**BALANCE OF REPO OPERATIONS: TERM AT THE END OF MONTH**  
 (Million soles)



**Box 4**  
**BCRP PROGRAM OF DE-DOLLARIZATION OF CREDIT**

In December 2014, BCRP changed its scheme of reserve requirements in foreign currency –which limited the growth of credit in foreign currency– to a model aimed at reducing the balance of loans in foreign currency in order to accelerate the pace of the process of financial de-dollarization.

Recently, at the beginning of November 2015, BCRP expanded its program of de-dollarization of credit, implemented since 2013, with the aim of reinforcing the de-dollarization of credit, especially in the segments of car and mortgage loans. Thus, new minimal reductions were established for both total credit in foreign currency and for car loans and mortgage loans in dollars.

**ADDITIONAL RESERVE REQUIREMENT ACCORDING TO CREDIT IN FOREIGN CURRENCY**

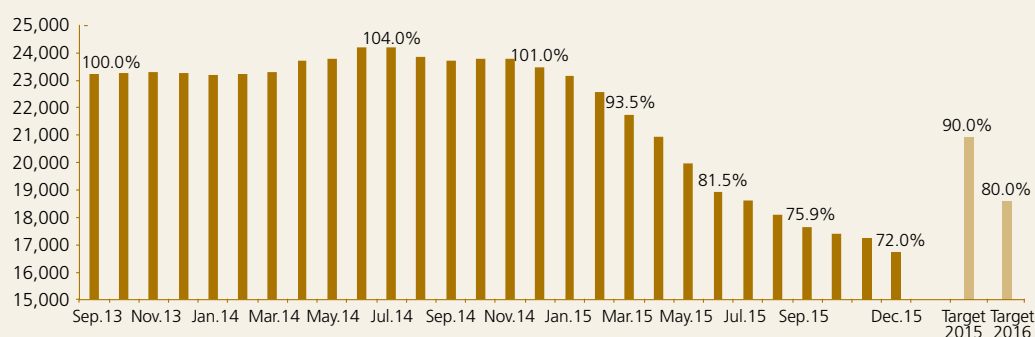
<b>As of June 2015</b>		
<b>In force</b>	<b>Limits*</b>	<b>Additional RR</b>
Total excluding foreign trade <sup>1/</sup> (Base=Sep.13)	0.95 times from Sep.13 or 0.92 times from Dec.14 or 100% PE or US\$ 100 MM	$0.3 \times \left( \frac{C_t}{C_{s13}} - 0.95 \right) \times PT$
Car and mortgage (Base=Feb.13)	0.90 times from Feb. 13 ó 0.86 times from Dec. 14 ó 20% PE	$0.15 \times \left( \frac{CHV_t}{CHV_{f13}} - 0.90 \right) \times PT$
<b>As of December 2015</b>		
<b>In force</b>	<b>Limits*</b>	<b>Additional RR</b>
Total excluding foreign trade <sup>1/</sup> (Base=Sep.13)	0.90 times from Sep.13 or 0.85 times from Dic.14 or 100% PE or US\$ 100 MM	$0.3 \times \left( \frac{C_t}{C_{s13}} - 0.90 \right) \times PT$
Car and mortgage (Base=Feb.13)	0.85 times from Feb.13 or 0.75 times from Dic.14 or 20% PE	$0.15 \times \left( \frac{CHV_t}{CHV_{f13}} - 0.85 \right) \times PT$
<b>As of December 2016</b>		
<b>Approved</b>	<b>Limits*</b>	<b>Additional RR</b>
Total excluding foreign trade <sup>1/</sup> (Base=Sep.13)	0.80 times from Sep.13 or 100% PE or US\$ 100 MM	$0.3 \times \left( \frac{C_t}{C_{s13}} - 0.80 \right) \times PT$
Car and mortgage (Base=Feb.13)	0.7 times from Feb.13 or 15% PE	$0.15 \times \left( \frac{CHV_t}{CHV_{f13}} - 0.7 \right) \times PT$

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

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

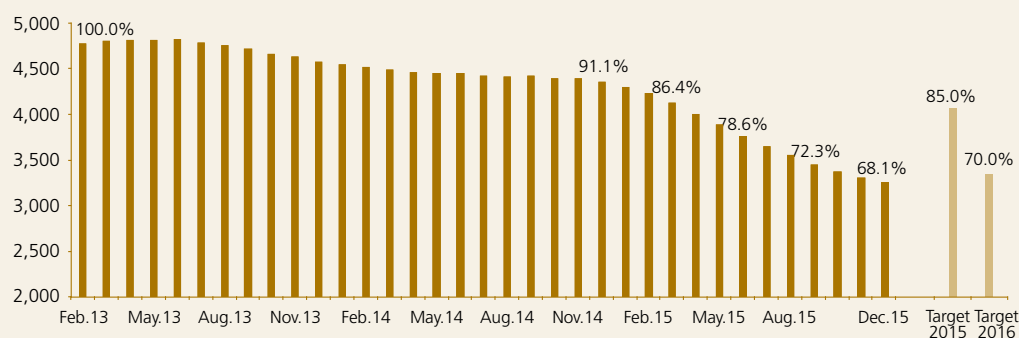
The data show that the measures taken to reduce the dollarization of credit have been effective since financial institutions have been able to meet the targets established, with an ample margin in some cases. As regards total credit in foreign currency, as one can see in the graph below, banks' balance in December was equivalent to 72.0 percent of the balance they had in September 2013, a level quite below the balance required (90 percent of the balance they had in September 2013).

### BANK'S CREDIT IN US\$ EXCLUDING FOREIGN TRADE (Million US\$)



Furthermore, banks have also been able to reduce their balances of car loans and mortgage loans more than required. Thus, at December 2015, the balance of banks' balance of these loans was equivalent to 68.1 percent of the balance they showed in February 2013.

### BANK'S LOANS IN US\$: CAR AND MORTGAGE (Million US\$)



### DOLLARIZATION RATIO OF CREDIT TO THE PRIVATE SECTOR

	Dec.13	Dec.14	Sep.15	Dec.15
<b>Business</b>	<b>52.7</b>	<b>48.4</b>	<b>38.0</b>	<b>35.4</b>
Corporate and large companies	67.1	59.8	45.8	42.7
Medium-sized enterprises	63.7	59.3	47.0	44.2
Small business and Microbusiness	13.0	11.5	8.2	7.6
<b>Individuals</b>	<b>23.1</b>	<b>20.0</b>	<b>15.3</b>	<b>14.1</b>
Consumer	10.5	9.5	7.5	6.9
Car loans	75.9	68.9	48.4	41.3
Credit cards	7.2	6.6	5.8	5.6
Mortgage	40.0	33.9	25.9	24.2
<b>TOTAL</b>	<b>42.2</b>	<b>38.2</b>	<b>29.8</b>	<b>27.6</b>

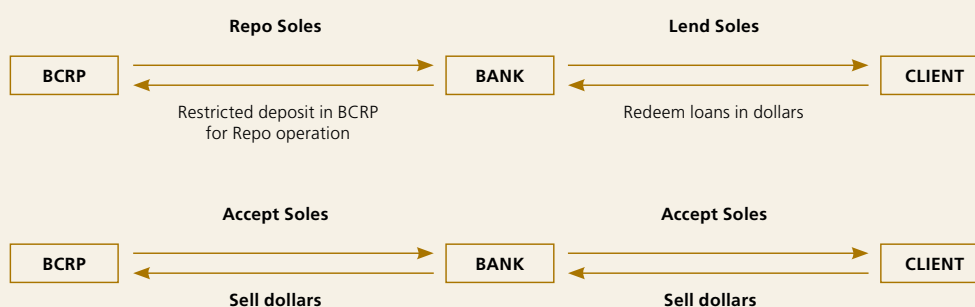
### Box 5 ALTERNATIVE LIQUIDITY INJECTION INSTRUMENTS

The recent implementation of the De-dollarization Program has encouraged banks to reduce their lending in dollars and to convert already granted loans into new loans in domestic currency. In order to make the re-composition of the structure of bank assets viable, the funding sources also have to be in soles. However, because of the external context (low commodity prices and the withdrawal of monetary stimulus in the United States), the expectations of a depreciation of the local currency have risen, which has led economic agents to restructure the composition of their assets (savings) and liabilities (debt). As a result of this, there has been a significant increase in the public's demand for loans in soles as well as for the conversion of deposits in soles to deposits in dollars, all of which has made the availability of funding in domestic currency scarce.

Given that this could be a potential risk faced by banks, since the end of 2014 BCRP has implemented alternative instruments to inject liquidity in local currency in the long term, creating two instruments to provide liquidity to the financial system: currency substitution repos and credit expansion repos. The aim of the former is to counterbalance the negative effect of the substitution of loans in dollars for loans in soles in the foreign exchange position of banks, while the latter instrument allows banks to use part of their reserve requirements in dollars (up to 20 percent their assets subject to reserve requirements in dollars) to obtain liquidity in local currency and meet the increased demand for loans in soles.

#### OPERATING OF REPO OPERATIONS

##### SUBSTITUTION

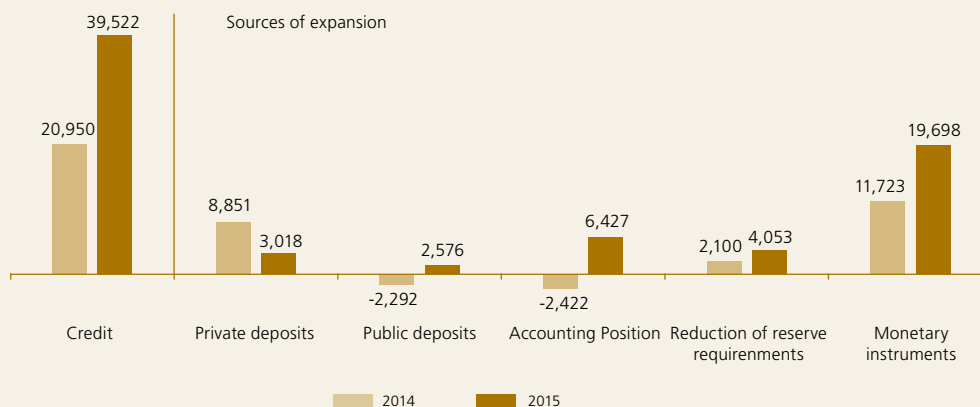


##### EXPANSION



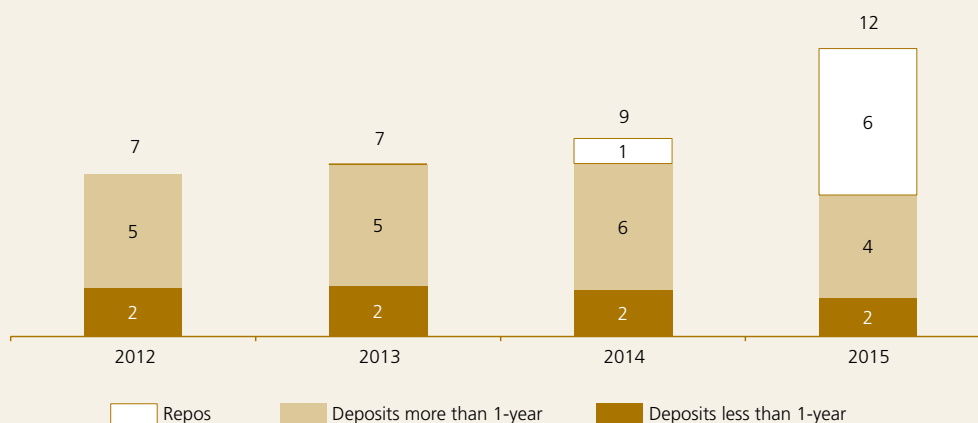
Thus, in 2015 the demand for credit (S/ 39.52 billion) was met mostly by the liquidity injection instruments –either currency repos or security repos– since they accounted for credit for a total of S/ 19.70 billion, of which S/ 19.01 billion was liquidity injected through currency repos. It is worth mentioning that this amount is almost equivalent to that of the contraction of credit in dollars in 2015 (US\$ 6.11 billion). Another important source to provide banks with liquidity in soles was the reduction of banks' foreign exchange position by S/ 6.43 billion and, to a lesser extent, the auctions of Treasury deposits (S/ 2.55 billion). Moreover, private deposits accounted for liquidity amounting to S/ 3.02 billion, a lower amount than in the previous year (S/ 8.85 billion of the total demand for credit which amounted to S/ 20.95 billion).

**CREDIT IN DC OF DEPOSITORY CORPORATIONS: SOURCES OF EXPANSION**  
(Flow in million)



Furthermore, the maturities of credit substitution and credit expansion repos are longer than 2 years, so the average maturity of banks' obligations in soles has been extended. In addition, BCRP has also extended the maturities of regular currency repos and security repos up to 2 years, increasing in this way the average maturity of banks' obligations from 7 months in 2013 to 12 months in December 2015.

**AVERAGE TERM OF BANK'S LIABILITIES IN DOMESTIC CURRENCY**  
(Months)



In conclusion, BCRP has reinforced the de-dollarization of credit through the implementation of innovative liquidity injection instruments in soles whose aim is to transform banks' excess liquidity in foreign currency into long-term liquidity in soles, preventing in this way that banks have to meet an increased demand for credit in soles with less stable sources of credit expansion.

## 2. Interest Rates

The interest rates in domestic currency reflected the changes in the BCRP policy rate during the year as well as the greater volatility observed in the exchange rate. At the end of 2015, the interbank rate rose by 0.2 percent, while the corporate prime rate rose from 4.7 to 4.9 percent.

Table 60 INTEREST RATES ON OPERATIONS IN SOLES (%)						
	2011	2012	2013	2014	Jun.2015	Dec.2015
1. Interbank rate	4.2	4.2	4.1	3.8	3.4	4.0
2. Deposits up to 30 days	3.2	3.0	3.0	3.1	2.8	2.8
3. 31-day to 360-day term deposits	2.8	2.9	2.6	2.6	2.7	3.0
4. More than 360-day term deposits	5.0	5.2	4.5	4.4	3.8	4.4
5. Large companies loans	7.4	7.4	7.1	6.8	6.6	7.1
6. Medium-sized enterprises loans	11.2	11.0	10.1	9.5	9.7	10.2
7. Small businesses loans	23.2	22.5	21.0	20.6	20.8	20.5
8. Microbusinesses loans	33.0	33.2	33.1	33.0	34.6	34.9
9. Mortgage loans	9.4	8.8	9.0	9.0	8.4	9.0
10. Corporate prime rate	5.4	5.0	4.5	4.7	4.1	4.9
11. FTAMN 1/	21.3	22.9	20.1	20.6	20.7	20.2

1/ Average market lending rate of the operations carried out in the last 30 business days. Rates on deposits correspond to individuals.  
Source: BCRP and SBS.

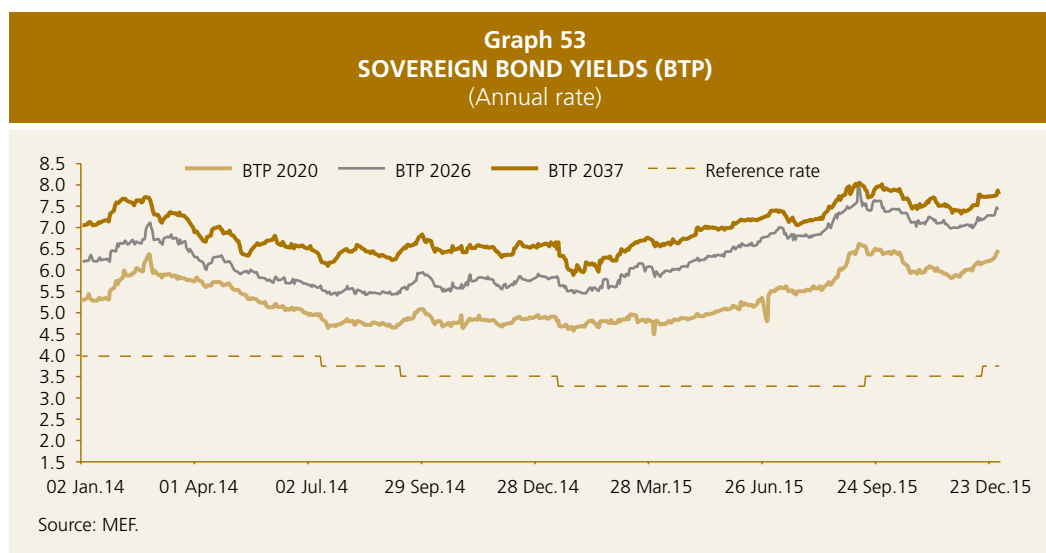
Banks' lending interest rates rose on average 58 basis points in the segments of large, medium, small, and micro businesses, while the deposit interest rates showed a mixed behavior: the interest rate on 31-day to 360-day deposits increased from 2.6 to 3.0 percent whereas the interest rate on deposits of over 360 days remained unchanged at 4.4 percent.

Interest rates in foreign currency recorded a slight upward trend that reflected the increase in the Federal Reserve's monetary policy rate, offset by the effects of banks' increased availability of liquidity in dollars associated with the program of de-dollarization of credit. The corporate prime lending rate in dollars increased by 35 points in 2015 –from 0.7 to 1.1 percent–, while, the rate for up to 30-day deposits rose from 0.18 to 0.23 percent.

Table 61 INTEREST RATES ON OPERATIONS IN US DOLLAR (%)						
	2011	2012	2013	2014	Jun.2015	Dec.2015
1. 3-month libor rate	0.6	0.3	0.2	0.2	0.3	0.6
2. Interbank rate	0.3	1.2	0.2	0.2	0.2	0.2
3. Deposits up to 30 days	0.4	0.8	0.6	0.2	0.1	0.2
4. 31-day to 360-day term deposits	1.0	1.0	0.8	0.5	0.5	0.5
5. More than 360-day term deposits	1.6	1.9	1.5	1.1	1.5	1.3
6. Large companies loans	5.4	6.4	5.5	5.1	4.6	5.5
7. Medium-sized enterprises loans	8.9	9.0	8.3	8.3	8.3	8.1
8. Small businesses loans	16.0	15.5	13.2	12.3	11.7	11.3
9. Mortgage loans	8.2	8.0	8.5	7.6	7.3	6.7
10. Corporate prime rate	2.4	4.0	1.0	0.7	0.8	1.1
11. FTAMEX 1/	6.8	8.1	7.3	7.3	7.4	7.0

1/ Average market lending rate of the operations carried out in the last 30 business days. Rates on deposits correspond to individuals.  
Source: BCRP and SBS.

Long-term interest rates showed a rising trend in a context of greater risk aversion in terms of the demand for assets in emerging markets. This was associated both with the rise in the rate of the Federal Reserve and with expectations of lower global growth expectations. The yields of the BTP maturing in 2020, 2026, and 2037 rose from 4.9, 5.9, and 6.6 percent to 6.5, 7.4, and 7.8 percent, respectively.



### 3. Foreign Exchange Rate

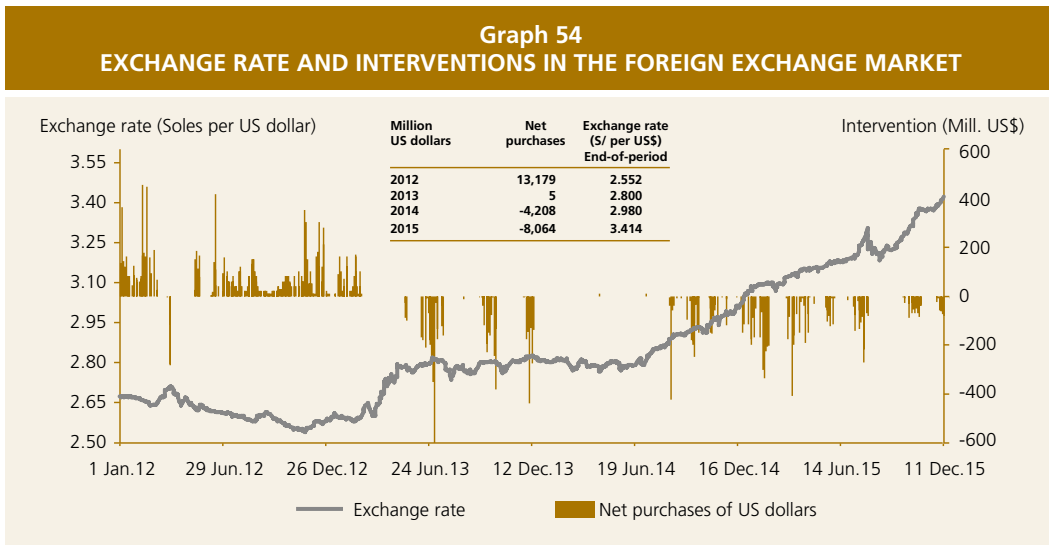
In 2015 the nuevo sol depreciated 14.6 percent in nominal terms (from S/ 2.98 to S/ 3.41 per US dollar) in a context of high volatility in international financial markets and declining commodity prices. This volatility resulted mainly from the signs of a possible recovery of the U.S. economy, the beginning of Federal Reserve cycle of interest rate hikes, and uncertainty about China's growth. It is worth pointing out that the magnitude of the depreciation of the nuevo sol during 2015 has been lower than the depreciation of the currencies of other economies in the region.

**Table 62**  
**EXCHANGE RATE AND PRICE OF COMMODITIES**

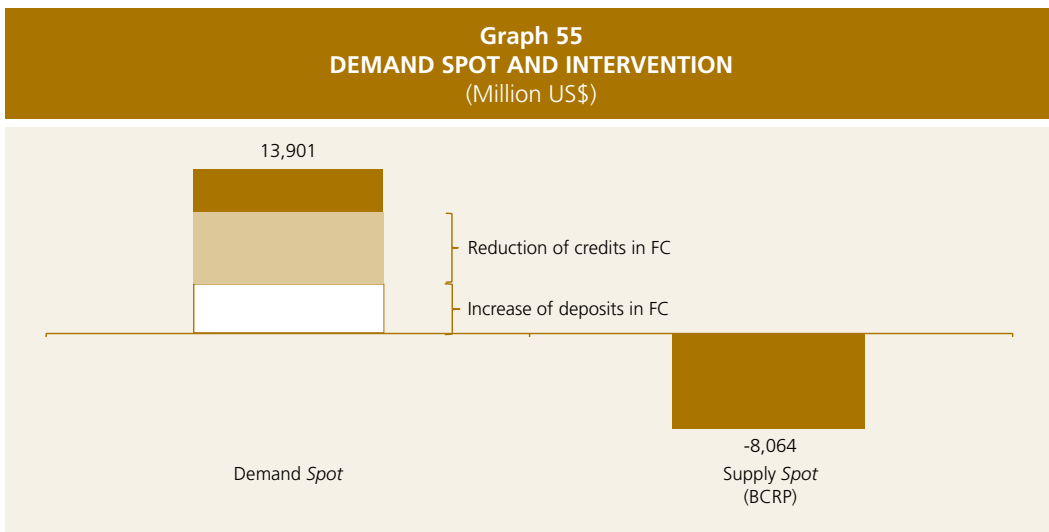
		Dec.12	Dec.13	Dec.14	Dec.15	% change Dec.15:	
						Dec.12	Dec.14
FED Index	C.U. per US\$	99.234	101.877	111.277	117.97	18.9	6.0
EURO	US\$ per Euro	1.319	1.374	1.210	1.086	-17.7	-10.2
Japan	Yen	86.75	105.31	119.78	120.22	38.6	0.4
Brazil	Real	2.052	2.362	2.658	3.961	93.1	49.0
Chile	Peso	479	525	606	709	47.9	16.8
Colombia	Peso	1,767	1,930	2,377	3,175	79.7	33.6
Mexico	Peso	12.85	13.04	14.75	17.21	33.9	16.6
Peru	Sol	2.552	2.799	2.980	3.414	33.8	14.6
Copper	US\$/pound	365.25	339.65	282.55	213.5	-41.5	-24.4
Gold	US\$/troy ounce	1,675.35	1,201.64	1,184.37	1,061	-36.7	-10.4
WTI oil	US\$/barrel	88.66	84.56	61.50	39.1	-55.9	-36.4

Source: Bloomberg.



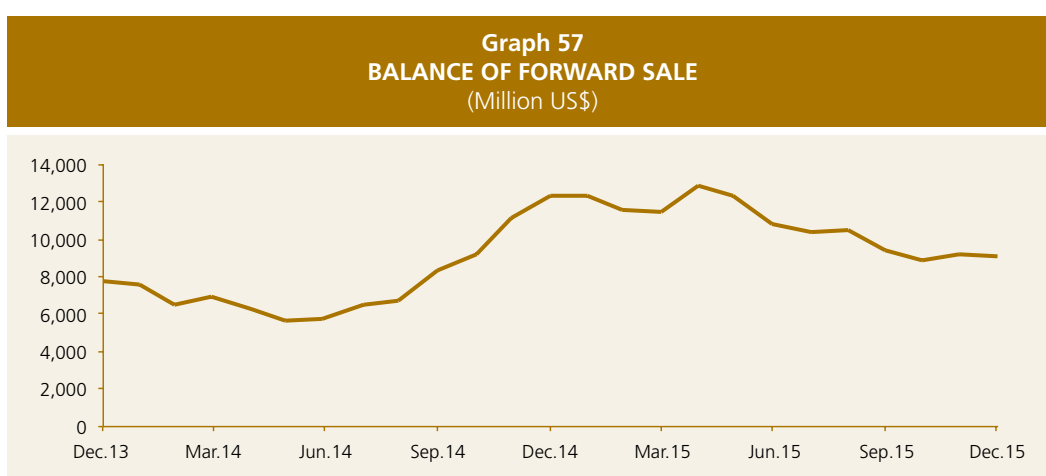
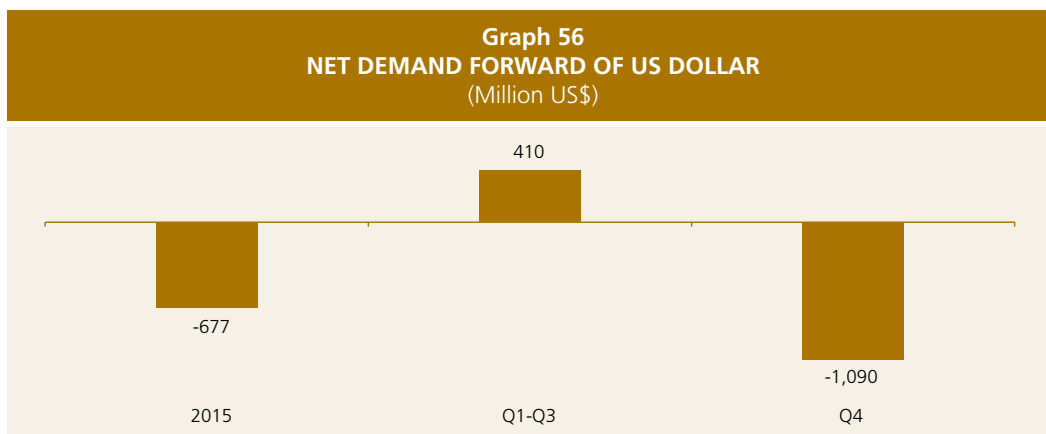


The dollar-nuevo sol exchange rate registered an upward trend during most of the year. The greatest demand for dollars was observed in the spot market (US\$ 13.90 billion) and was associated with changes in residents’ portfolio since they reduced their loans in dollars and increased their deposits in this currency to reduce the exposure of their credit portfolios to foreign exchange-related risks as a result of the depreciation of the domestic currency.

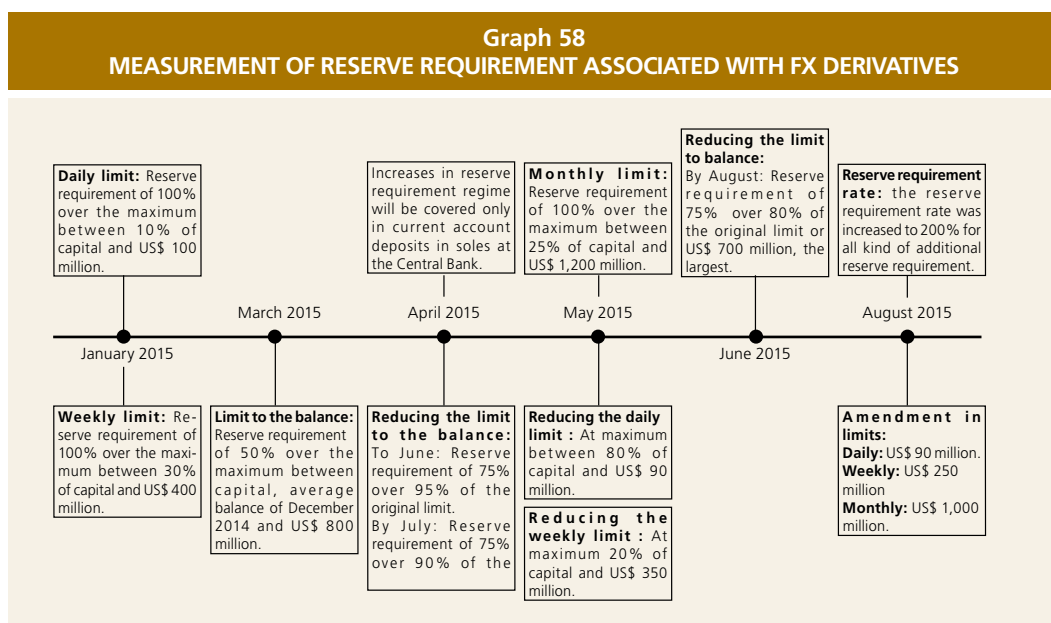


In 2015 the intervention of BCRP in the foreign exchange market was aimed at reducing the volatility of the exchange rate. The Central Bank sold foreign currency for a total of US\$ 8.06 billion during the year, with sales in the spot market being complemented by placements of currency swaps and CDRBCRP (BCRP placed currency swaps for a total of US\$ 2.05 billion and CDRBCRP for a total of US\$ 1.24 billion in 2015).

The demand for dollars in the derivatives market showed a varied evolution during the year: it increased in the first three quarters of 2015 (the demand in the forward market reached US\$ 410 million) and then reversed in the last quarter of the year (with a forward supply of US\$ 1.09 billion), reflecting the reserve requirements measures on banks’ forward positions which raised the cost taking a short position in soles for banks’ clients.



Thus, the following additional requirements in domestic currency associated with sales of forwards of dollars through foreign exchange derivatives were implemented: (i) to daily operations, (ii) to weekly operations; (iii) to monthly operations, and (iv) to the balance. These requirements were adjusted over the year with the aim of discouraging the overuse of these instruments.



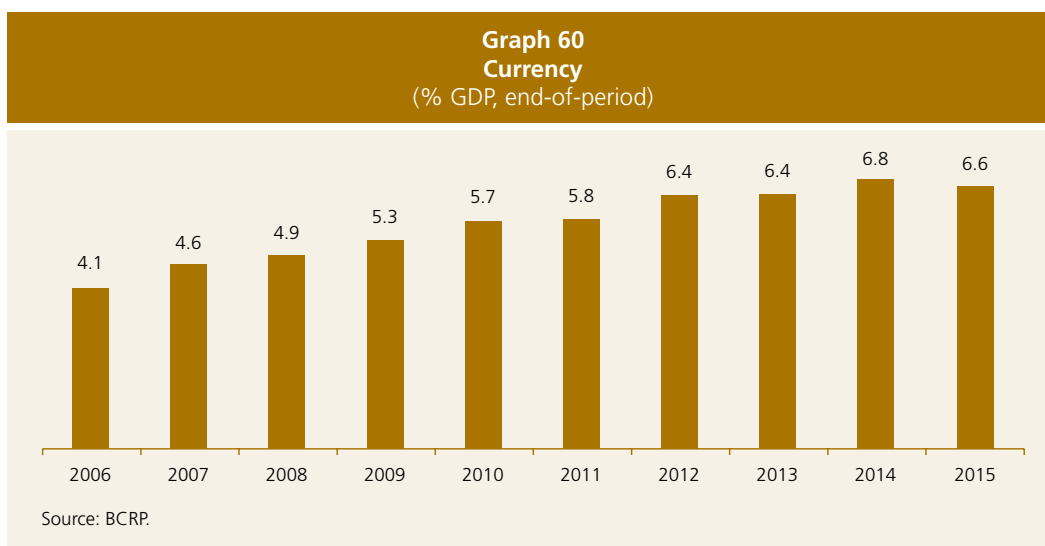
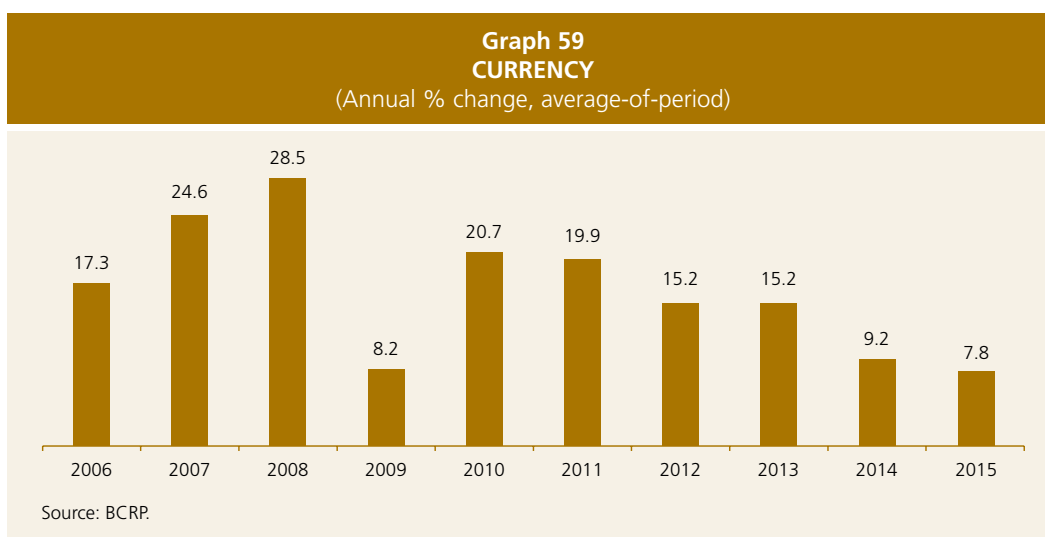
#### 4. Monetary and credit aggregates.

The annual growth rates of liquidity and credit rates slowed down in 2015. Total liquidity grew 6.3 percent (vs. 7.3 percent in 2014), liquidity in domestic currency showing an annual growth rate of 3.0 percent while liquidity in foreign currency showing an annual rate of 13.0 percent. Thus, the ratio of dollarization of liquidity rose from 32.2 percent in December 2014 to 37.4 percent in December 2015.

Total credit to the private sector grew 9.7 percent, less than in 2014 (10.1 percent). Credit in local currency grew 28.6 percent, while credit in foreign currency decreased by 20.7 percent. The ratio of dollarization of credit decreased from 38.2 percent in December 2014 to 30.4 percent in December 2015.

##### 4.1 Currency in circulation

Currency showed an average daily balance of S/ 37.40 billion in 2015, which represented a growth rate of 7.8 percent compared to the average growth rate in the previous year. Moreover, as a percentage of GDP, currency declined 0.2 percentage points compared to 2014.





The balance of currency at December 2015 was S/ 40.64 billion, S/ 1.47 billion (3.8 percent) higher than the balance recorded in December 2014. The BCRP operations, oriented to meet the demand of the public for liquidity and guarantee the flow of transactions in the money market, were consistent with actions aimed at sterilizing the BCRP net sales of dollars which were higher than in the previous year.

Public sector deposits in soles dropped by S/ 5.79 billion, while currency in circulation decreased by S/ 28.10 billion –amount equivalent to net sales of US\$ 8.92 billion) as a result of the foreign exchange operations of BCRP. Deposits of reserve requirements in soles fell by S/ 4.04 billion due to the reduction of the rate of reserve requirements in domestic currency over the year. Moreover, there were also temporary purchases of securities for a total of S/ 1.20 billion.

Foreign exchange operations generated a reduction of US\$ 8.92 million in foreign currency as a result of BCRP net sales of foreign currency (US\$ 8.06 billion), purchase of foreign currency to the public sector (US\$ 657 million), and other sales of foreign currency (US\$ 1.51 billion).

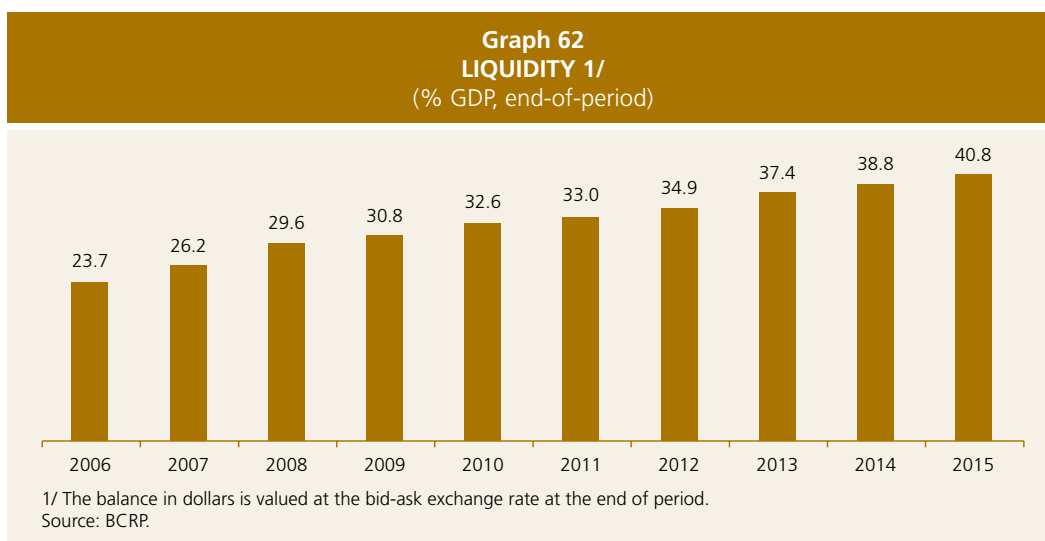
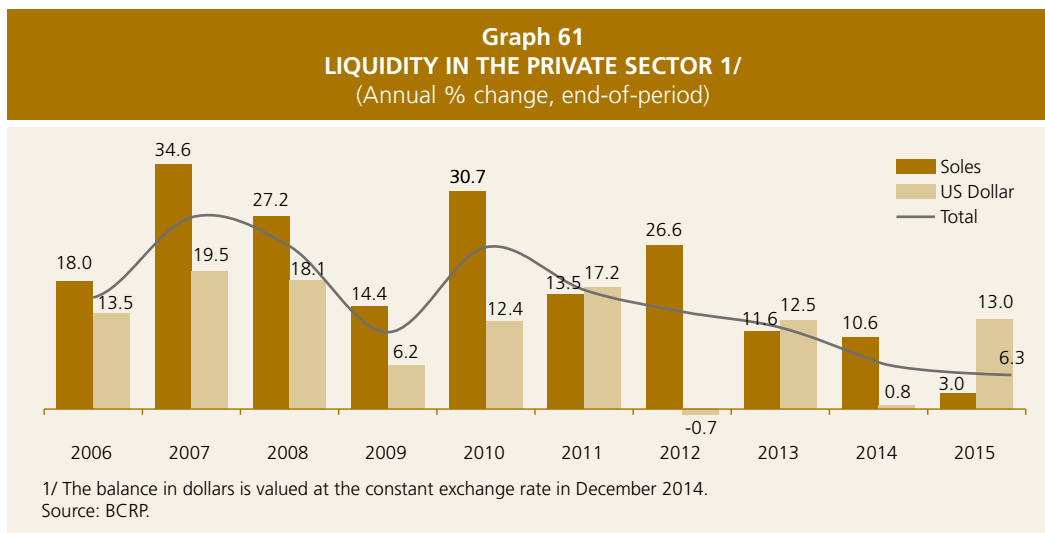
In response to depreciation pressures on the sol, the sales of foreign currency were accompanied by auction of certificates of deposit indexed to the exchange rate (CDR-BCRP) and by swap operations. As a result of these operations, the balance of CDR-BCRP at end 2015 increased to S/ 7.25 billion because of higher placements of these instruments. Moreover, the flow of net placements of CD-BCRP in 2015 amounted to S/ 195 million.

**Table 63**  
**MONETARY ACCOUNTS OF THE CENTRAL RESERVE BANK OF PERU**  
(Million soles)

	Balance			Flows	
	2013	2014	2015	2014	2015
<b>I. NET INTERNATIONAL RESERVES (Million US\$)</b>	<b>183,857</b>	<b>185,678</b>	<b>209,663</b>	<b>1,821</b>	<b>23,985</b>
	<b>65,663</b>	<b>62,308</b>	<b>61,485</b>	<b>-3,355</b>	<b>-823</b>
1. Exchange position	41,097	35,368	25,858	-5,729	-9,511
2. Financial system deposits	14,290	15,504	22,477	1,214	6,974
3. Public sector deposits	10,852	12,064	13,683	1,212	1,618
4. Others	-576	-628	-533	-52	95
<b>II. LONG -TERM NET EXTERNAL ASSETS (Million US\$)</b>	<b>54</b>	<b>58</b>	<b>67</b>	<b>4</b>	<b>8</b>
	<b>20</b>	<b>20</b>	<b>20</b>	<b>0</b>	<b>0</b>
<b>III. NET DOMESTIC ASSETS (1+2+3)</b>	<b>-148,767</b>	<b>-146,564</b>	<b>-169,078</b>	<b>2,203</b>	<b>-22,514</b>
1. <u>Financial sector</u>	<u>-77,390</u>	<u>-65,489</u>	<u>-77,172</u>	<u>11,901</u>	<u>-11,683</u>
a. Repos	950	1,300	2,500	350	1,200
b. Currency repos	0	8,600	27,605	8,600	19,005
c. Securities issued	-18,437	-13,478	-18,873	4,960	-5,396
d. Reserve requirement in domestic currency	-16,792	-14,692	-10,649	2,100	4,043
e. Other deposits in domestic currency	-3,097	-1,016	-1,115	2,080	-99
f. Deposits in domestic currency (Million US\$)	-40,014	-46,202	-76,649	-6,189	-30,446
	-14,291	-15,504	-22,478	-1,214	-6,974
2. <u>Public sector (net)</u>	<u>-69,128</u>	<u>-75,165</u>	<u>-78,455</u>	<u>-6,038</u>	<u>-3,290</u>
a. Banco de la Nacion	-8,556	-8,051	-7,205	505	847
i. Domestic currency	-8,296	-7,621	-6,926	675	695
ii. Foreign currency (Million US\$)	-93	-145	-82	-52	63
b. Central Government	-55,753	-62,234	-67,257	-6,481	-5,023
i. Domestic currency	-28,317	-28,616	-22,835	-299	5,781
ii. Foreign currency (Million US\$)	-9,798	-11,281	-13,027	-1,483	-1,746
c. Others (includes COFIDE)	-1,153	-156	-77	997	78
d. Securities owned by the Public Sector	-3,666	-4,725	-3,917	-1,059	808
3. <u>Other Net Accounts</u>	<u>-2,249</u>	<u>-5,910</u>	<u>-13,450</u>	<u>-3,661</u>	<u>-7,541</u>
<b>IV. CURRENCY (I+II+III)</b>	<b>35,144</b>	<b>39,173</b>	<b>40,643</b>	<b>4,028</b>	<b>1,470</b>

## 4.2 Liquidity

In 2015 liquidity registered a growth rate of 6.3 percent –less than in 2014–, while total deposits increased by 1.2 percentage points, from 5.7 percent in 2014 to 6.9 percent in 2015.



**Table 64**  
**MAIN MONETARY AGGREGATES**

	Balance in million soles			Growth rate (%)	
	2013	2014	2015	2014	2015
Currency	35,144	39,173	40,643	11.5	3.8
Money	62,229	68,382	71,324	9.9	4.3
<b>Deposits 1/</b>	<b>170,440</b>	<b>180,222</b>	<b>192,631</b>	<b>5.7</b>	<b>6.9</b>
In soles	99,016	108,491	111,323	9.6	2.6
In US Dollar (Million US\$)	23,968	24,071	27,285	0.4	13.4
<b>Liquidity 1/</b>	<b>208,456</b>	<b>223,629</b>	<b>237,644</b>	<b>7.3</b>	<b>6.3</b>
In soles	136,976	151,549	156,170	10.6	3.0
In US Dollar (Million US\$)	23,987	24,188	27,340	0.8	13.0

1/ The balance in dollars is valued at the constant exchange rate in December 2014.  
Source: BCRP.

The deposits of natural persons grew 9.8 percent (especially deposits in foreign currency) while the deposits of legal entities grew 1.7 percent. In terms of currencies, both natural persons and legal entities showed a greater preference for assets in dollars.

<b>Table 65</b>					
<b>DEPOSITS BY TYPE OF DEPOSITOR</b>					
	<b>Balance in million soles</b>			<b>Growth rate (%)</b>	
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>2015</b>
<b>Individuals 1/</b>	<b>107,221</b>	<b>115,791</b>	<b>127,115</b>	<b>8.0</b>	<b>9.8</b>
In soles	69,321	76,714	79,988	10.7	4.3
In US Dollar (Million US\$)	12,718	13,113	15,814	3.1	20.6
<b>Legal entities 1/</b>	<b>63,219</b>	<b>64,431</b>	<b>65,516</b>	<b>1.9</b>	<b>1.7</b>
In soles	29,695	31,777	31,334	7.0	-1.4
In US Dollar (Million US\$)	11,250	10,957	11,470	-2.6	4.7
<b>Total 1/</b>	<b>170,440</b>	<b>180,222</b>	<b>192,631</b>	<b>5.7</b>	<b>6.9</b>
In soles	99,016	108,491	111,323	9.6	2.6
In US Dollar (Million US\$)	23,968	24,071	27,285	0.4	13.4

1/ The balance in dollars is valued at the constant exchange rate in December 2014.  
Source: BCRP.

In 2015, liquidity in domestic currency grew 3.0 percent (vs. 10.6 percent in 2014), all the components of liquidity showing a slowdown during the year. Thus, the growth rate of demand deposits declined from 7.8 percent in 2014 to 5.0 percent in 2015, while the growth rate of savings deposits and term deposits declined from 14.6 percent in 2014 to 3.3 percent in 2015 and from 6.9 percent to 0.5 percent, respectively.

<b>Table 66</b>					
<b>LIQUIDITY IN DOMESTIC CURRENCY IN THE PRIVATE SECTOR</b>					
	<b>Balance in million soles</b>			<b>Growth rate (%)</b>	
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>2015</b>
<b>Currency</b>	<b>35,144</b>	<b>39,173</b>	<b>40,643</b>	<b>11.5</b>	<b>3.8</b>
<b>Deposits</b>	<b>99,016</b>	<b>108,491</b>	<b>111,323</b>	<b>9.6</b>	<b>2.6</b>
Demand deposits	27,084	29,209	30,681	7.8	5.0
Savings deposits	31,061	35,591	36,751	14.6	3.3
Term Deposits	40,870	43,691	43,890	6.9	0.5
<b>Securities and other instruments</b>	<b>2,816</b>	<b>3,885</b>	<b>4,204</b>	<b>38.0</b>	<b>8.2</b>
<b>TOTAL</b>	<b>136,976</b>	<b>151,549</b>	<b>156,170</b>	<b>10.6</b>	<b>3.0</b>

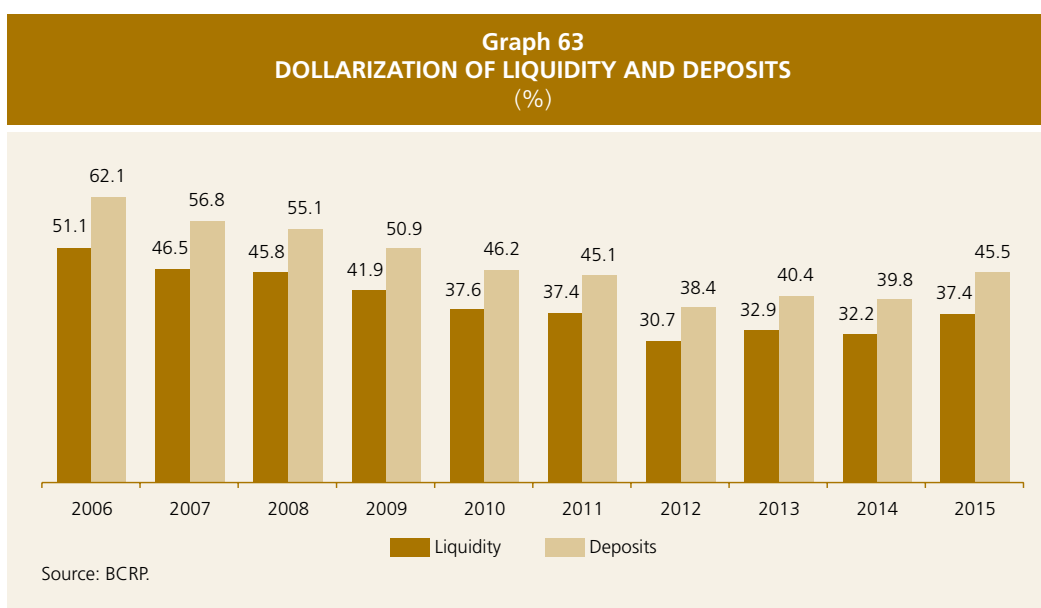
Source: BCRP.

Liquidity in foreign currency grew 13.0 percent, driven basically by term deposits which grew 23.3 percent during the year (after showing a contraction of 12.8 percent in the previous year). Demand deposits also showed a faster pace of growth (up from 2.7 in 2014 to 5.0 percent in 2015), while savings deposits showed a lower rate than in 2014 (18.7 percent) recording a growth rate of 11.9 percent.

Table 67 LIQUIDITY IN FOREIGN CURRENCY IN THE PRIVATE SECTOR					
	Balance in millones US Dollar			Growth rate (%)	
	2013	2014	2015	2014	2015
<b>Deposits</b>	<b>23,968</b>	<b>24,071</b>	<b>27,285</b>	<b>0.4</b>	<b>13.4</b>
Demand deposits	8,533	8,763	9,205	2.7	5.0
Savings deposits	5,876	6,974	7,802	18.7	11.9
Term Deposits	9,558	8,333	10,278	-12.8	23.3
<b>Securities and other instruments</b>	<b>19</b>	<b>117</b>	<b>56</b>	<b>523.4</b>	<b>-52.5</b>
<b>TOTAL</b>	<b>23,987</b>	<b>24,188</b>	<b>27,340</b>	<b>0.8</b>	<b>13.0</b>

Source: BCRP.

In this scenario, the ratio of dollarization of increased by 5.2 percentage points during the year (from 32.2 percent in December 2014 to 37.4 percent in December 2015), reaching a similar growth rate to that registered in 2011. In addition, the dollarization ratio of deposits rose from 39.8 percent in December 2014 to 45.5 percent in December 2015.



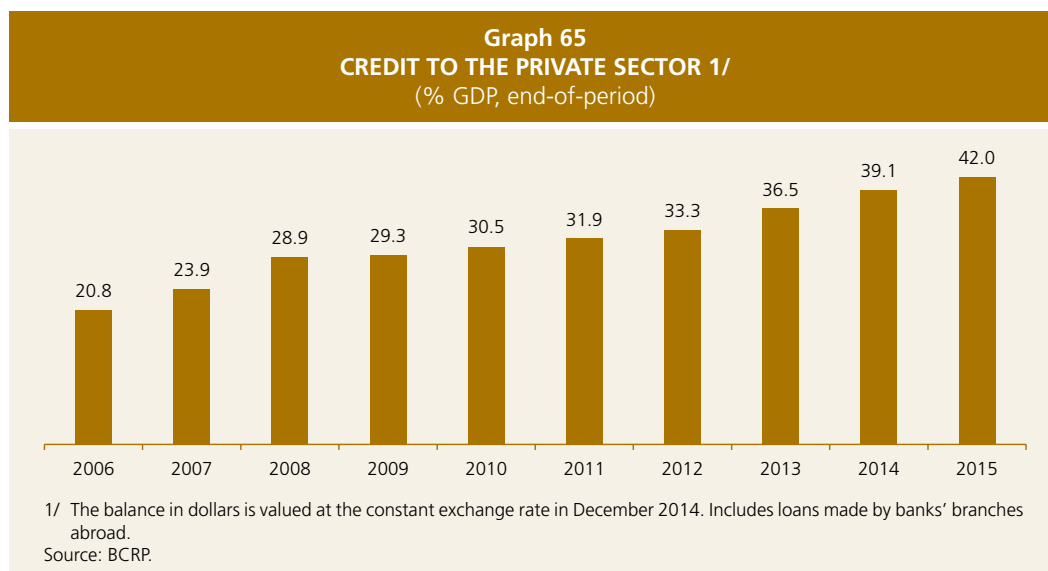
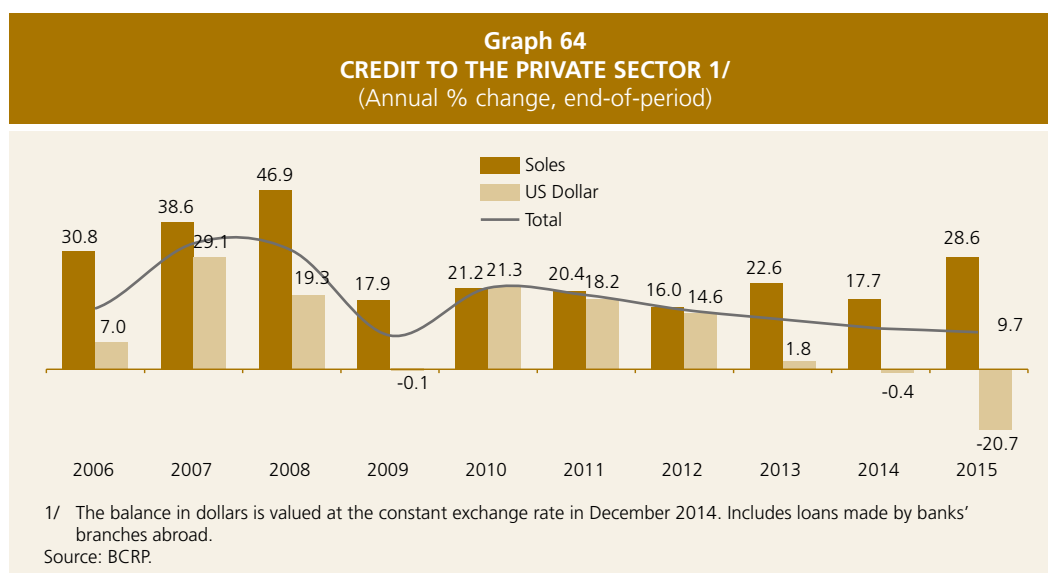
### 4.3 Credit to the private sector

The growth rate of total credit to the private sector slowed down for the fifth consecutive year, from 10.1 percent in 2014 to 9.7 percent in 2015. It should be pointed out that this balance includes the credit of local banks to their branches abroad, which are accounted for as credit granted by these branches.

Credit in foreign currency decreased by 20.7 percent (vs. a reduction of 0.4 percent in 2014) as a result of the appreciation of the dollar against the sol and the de-dollarization measures implemented

by the BCRP. On the other hand, credit to the private sector in domestic currency was the most dynamic component with an increase of 28.6 percent (vs. 17.7 percent in 2014).

Thus, the ratio of dollarization of credit to the private sector continued showing a downward trend, declining from 38.2 percent in December 2014 to 30.4 percent in December 2015.



By type of borrower, the main segments of credit showed different trends: credit in the corporate segment slowed down from 9.2 percent in 2014 to 8.4 percent in 2015, whereas loans to individuals increased slightly, from 11.8 percent to 12.2 percent, due to a greater demand for consumer loans (particularly, through credit cards). Mortgage loans, on the other hand, slowed down from 12.4 to 8.6 percent between 2014 and 2015.



**Table 68**  
**TOTAL CREDIT TO THE PRIVATE SECTOR 1/**

	Balance in million soles			Growth rate (%)	
	2013	2014	2015	2014	2015
<b>Business</b>	<b>132,180</b>	<b>144,284</b>	<b>156,390</b>	<b>9.2</b>	<b>8.4</b>
Corporate and large companies	63,863	70,588	81,928	10.5	16.1
Medium-sized enterprises	35,373	40,211	39,908	13.7	-0.8
Small businesses and microbusinesses	32,944	33,486	34,554	1.6	3.2
<b>Individuals</b>	<b>72,180</b>	<b>80,716</b>	<b>90,540</b>	<b>11.8</b>	<b>12.2</b>
<b>Consumer</b>	<b>41,395</b>	<b>46,114</b>	<b>52,952</b>	<b>11.4</b>	<b>14.8</b>
Car loans	2,318	2,473	2,350	6.7	-5.0
Credit cards	13,312	15,308	18,963	15.0	23.9
Rest	25,765	28,333	31,639	10.0	11.7
<b>Mortgage</b>	<b>30,785</b>	<b>34,602</b>	<b>37,588</b>	<b>12.4</b>	<b>8.6</b>
<b>TOTAL</b>	<b>204,360</b>	<b>225,000</b>	<b>246,931</b>	<b>10.1</b>	<b>9.7</b>

1/ The balance in dollars is valued at the constant exchange rate in December 2014. Includes loans made by banks' branches abroad.

Source: BCRP.

As regards credit to business by economic sectors, the growth of credit was driven mainly by the sector of trade (S/ 3.05 billion), real estate activities (S/ 1.85 billion), and manufacturing (S/ 1.75 billion), which accounted for 57 percent of the demand for business loans during the year.

**Table 69**  
**TOTAL CREDIT BY ECONOMIC SECTOR 1/**

	Balance in million soles			Growth rate (%)	
	2013	2014	2015	2014	2015
Agriculture and livestock	6,091	6,475	7,154	6.3	10.5
Fishing	1,717	1,343	1,289	-21.8	-4.0
Mining	7,088	6,464	7,406	-8.8	14.6
Manufacturing Industry	28,477	31,967	33,715	12.3	5.5
Electricity, Gas and Water	6,419	7,227	7,865	12.6	8.8
Construction	4,335	5,445	5,542	25.6	1.8
Commerce	34,013	37,200	40,251	9.4	8.2
Hotels and Restaurants	3,044	3,499	3,960	14.9	13.2
Transportation and Communications	10,690	11,611	11,794	8.6	1.6
Real Estate and Business	14,120	16,379	18,226	16.0	11.3
Rest	16,186	16,675	19,188	3.0	15.1
<b>TOTAL</b>	<b>132,180</b>	<b>144,284</b>	<b>156,390</b>	<b>9.2</b>	<b>8.4</b>

1/ The balance in dollars is valued at the constant exchange rate in December 2014. Includes loans made by banks' branches abroad.

Source: SBS.

Moreover, the growth of credit to the private sector in domestic currency (28.6 percent) was driven by credit to businesses, which grew 35.7 percent, while credit to individuals grew 20.3 percent, with the growth rate of consumer loans (18.0 percent) and mortgage loans (24.6 percent) standing out.

**Table 70**  
**CREDIT TO THE PRIVATE SECTOR IN DOMESTIC CURRENCY**

	Balance in million soles			Growth rate (%)	
	2013	2014	2015	2014	2015
<b>Business</b>	<b>62,540</b>	<b>74,424</b>	<b>101,023</b>	<b>19.0</b>	<b>35.7</b>
Corporate and large companies	21,038	28,405	46,899	35.0	65.1
Medium-sized enterprises	12,837	16,377	22,250	27.6	35.9
Small businesses and microbusinesses	28,665	29,642	31,874	3.4	7.5
<b>Individuals</b>	<b>55,522</b>	<b>64,589</b>	<b>77,728</b>	<b>16.3</b>	<b>20.3</b>
<b>Consumer</b>	<b>37,047</b>	<b>41,718</b>	<b>49,239</b>	<b>12.6</b>	<b>18.0</b>
Car loans	558	770	1,380	38.1	79.1
Credit cards	12,348	14,299	17,893	15.8	25.1
Others	24,141	26,648	29,966	10.4	12.5
<b>Mortgage</b>	<b>18,476</b>	<b>22,871</b>	<b>28,489</b>	<b>23.8</b>	<b>24.6</b>
<b>TOTAL</b>	<b>118,063</b>	<b>139,013</b>	<b>178,751</b>	<b>17.7</b>	<b>28.6</b>

Source: BCRP.

On the other hand, credit to the private sector in foreign currency shrank by 20.7 percent, influenced in part by the recent de-dollarization measures implemented by the BCRP. By type of borrower, the segment of credit to business in dollars fell 20.7 percent, while credit to individuals dropped 20.6 percent. The latter was mainly associated with the decline of mortgage and car loans, which dropped by 22.4 and 43.0 percent, respectively.

**Table 71**  
**CREDIT TO THE PRIVATE SECTOR IN FOREIGN CURRENCY 1/**

	Balance in million US Dollar			Growth rate (%)	
	2013	2014	2015	2014	2015
<b>Business</b>	<b>23,369</b>	<b>23,443</b>	<b>18,580</b>	<b>0.3</b>	<b>-20.7</b>
Corporate and large companies	14,371	14,155	11,755	-1.5	-17.0
Medium-sized enterprises	7,562	7,998	5,926	5.8	-25.9
Small businesses and microbusinesses	1,436	1,290	899	-10.2	-30.3
<b>Individuals</b>	<b>5,590</b>	<b>5,412</b>	<b>4,299</b>	<b>-3.2</b>	<b>-20.6</b>
<b>Consumer</b>	<b>1,459</b>	<b>1,475</b>	<b>1,246</b>	<b>1.1</b>	<b>-15.5</b>
Car loans	591	571	326	-3.2	-43.0
Credit cards	324	339	359	4.6	6.0
Rest	545	565	561	3.8	-0.7
<b>Mortgage</b>	<b>4,131</b>	<b>3,937</b>	<b>3,053</b>	<b>-4.7</b>	<b>-22.4</b>
<b>TOTAL</b>	<b>28,959</b>	<b>28,855</b>	<b>22,879</b>	<b>-0.4</b>	<b>-20.7</b>

1/ Includes loans made by banks' branches abroad.  
Source: BCRP.

Credit to the private sector continued to show lower levels of dollarization in all of its types at end 2015, the ratio of dollarization of credit to the private sector declining by 7.8 percentage points, from 38.2 percent in December 2014 to 30.4 percent in December 2015.

Declining by 10.0 percentage points relative to the previous year, credit to business showed a dollarization ratio of 38.5 percent in 2015 (vs. 48.4 percent in 2014). The ratio of dollarization of credit to individuals showed a lower decrease (down from 20.0 percent in 2014 to 15.9 percent in 2015, but the ratio of dollarization of mortgage loans fell from 33.9 percent in 2014 to 26.8 percent in 2015).

**Table 72**  
**DOLLARIZATION RATIO OF CREDIT TO THE PRIVATE SECTOR 1/**  
(%)

	2013	2014	2015
<b>Business</b>	<b>51.1</b>	<b>48.4</b>	<b>38.5</b>
Corporate and large companies	65.7	59.8	46.1
Medium-sized enterprises	62.3	59.3	47.6
Small businesses and microbusinesses	12.3	11.5	8.8
<b>Individuals</b>	<b>22.0</b>	<b>20.0</b>	<b>15.9</b>
<b>Consumer</b>	<b>9.9</b>	<b>9.5</b>	<b>7.9</b>
Vehicular	74.8	68.9	44.6
Credit cards	6.8	6.6	6.4
Others	5.9	5.9	6.0
<b>Mortgage</b>	<b>38.5</b>	<b>33.9</b>	<b>26.8</b>
<b>TOTAL</b>	<b>40.7</b>	<b>38.2</b>	<b>30.4</b>
Memo:			
Dollarization of credit at constant exchange rate	42.2	38.2	27.6

1/ Includes loans made by banks' branches abroad.  
Source: BCRP.

**Graph 66**  
**DOLLARIZATION RATIO OF CREDIT TO THE PRIVATE SECTOR**  
(%)



## 5. Funding to the private sector

Total funding to the private sector grew 9.7 percent in 2015, 2.2 percentage points less than in 2014. The concept of total funding provides a wider overview of the funding obtained by private non-financial companies, because in addition to the credit channel of depository institutions, it includes the funding obtained from other financial institutions, such as mutual funds, insurance companies, and private pension funds, as well as direct loans obtained abroad.

As previously mentioned, during 2015 the annual growth of credit to the private sector through depository institutions showed a slower pace of growth, declining from 10.1 percent in 2014 to 9.7 percent in 2015. On the other hand, credit from other financial entities, which had grown 17.6 percent in 2014, grew 15.4 percent in 2015, driven mainly by loans in domestic currency.

Finally, the amount of direct funding obtained by Peruvian companies abroad grew 7.4 percent (US\$ 1.77 billion), recording a lower growth rate than in 2014 (15.9 percent). Most of this funding was medium- and long-term debt, which grew 9.5 percent in the year (US\$ 1.90 billion).

Direct short-term loans, on the other hand, fell by 3.3 percent as a result of the international context.

<b>Table 73</b>					
<b>FUNDING OF THE PRIVATE SECTOR 1/</b>					
	<b>Balance in million soles</b>			<b>Growth rate (%)</b>	
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>2015</b>
<b>I. CREDIT OF DEPOSITORY CORPORATIONS</b>	<b>204,360</b>	<b>225,000</b>	<b>246,931</b>	<b>10.1</b>	<b>9.7</b>
Domestic currency	118,063	139,013	178,751	17.7	28.6
Foreign currency (Million US\$)	28,959	28,855	22,879	-0.4	-20.7
<i>Dolarization (%)</i>	<i>40.7</i>	<i>38.2</i>	<i>30.4</i>		
<b>II. CREDIT OF OTHER FINANCIAL CORPORATIONS 2/</b>	<b>24,289</b>	<b>28,561</b>	<b>32,964</b>	<b>17.6</b>	<b>15.4</b>
Domestic currency	11,804	14,416	17,051	22.1	18.3
Foreign currency (Million US\$)	4,190	4,746	5,340	13.3	12.5
<i>Dolarization (%)</i>	<i>49.8</i>	<i>49.5</i>	<i>51.6</i>		
<i>Of which:</i>					
AFP's loans	14,306	16,369	16,636	14.4	1.6
Loans of mutual funds	1,136	1,045	864	-8.0	-17.3
Loans of insurances	5,751	6,987	10,628	21.5	52.1
<b>III. EXTERNAL PRIVATE INDEBTNESS (Million US\$)</b>	<b>61,840</b>	<b>71,674</b>	<b>76,947</b>	<b>15.9</b>	<b>7.4</b>
Short-term (Million US\$)	3,815	3,947	3,816	3.5	-3.3
Medium- and long-term (Million US\$)	16,937	20,105	22,005	18.7	9.5
<b>IV. TOTAL</b>	<b>290,489</b>	<b>325,234</b>	<b>356,842</b>	<b>12.0</b>	<b>9.7</b>
Domestic currency	129,867	153,429	195,802	18.1	27.6
Foreign currency (Million US\$)	53,900	57,653	54,040	7.0	-6.3
<i>Dolarization (%)</i>	<i>53.7</i>	<i>52.8</i>	<i>48.5</i>		

1/ The balance in dollars is valued at the constant exchange rate in December 2014.  
2/ Includes loans and investments in fixed-income bonds of institutional investors.  
Source: BCRP.

## 6. Financial indicators

Banks' financial indicators showed a slight improvement during 2015. The indicator Return on assets (ROA) increased from 1.9 percent in 2014 to 2.1 percent in 2015 and the indicator of Return on equity (ROE) increased from 19.7 to 22.1 percent. Moreover, the ratio of non-performing loans remained stable at 2.5 percent, while the level of provision coverage of the high risk portfolio rose slightly, from 116.5 percent to 117.5 percent.

<b>Table 74</b>			
<b>FINANCIAL INDICATORS ON COMMERCIAL BANKS</b>			
(%)			
	<b>2013</b>	<b>2014</b>	<b>2015</b>
Overdue loans / gross placements 1/	2.1	2.5	2.5
High risk portfolio / gross placements 2/	3.1	3.5	3.6
Allowance for loans / high-risk portfolio	131.6	116.5	117.5
Return on equity (ROE)	21.2	19.7	22.1
Return on assets (ROA)	2.0	1.9	2.1

1/ Credits due and in judicial collection processes.  
2/ The high-risk portfolio is equal to the most backward refinanced and restructured portfolio.  
Source: SBS.

By size of debtor, credit to corporations and large enterprises recorded the lowest rates of delinquency. Loans to medium-sized businesses had a delinquency rate of 5.2 percent, while loans to small businesses and micro-enterprises recorded ratios of 8.6 and 2.9 percent, respectively. Moreover, the delinquency rate for consumer loans was 3.3 percent, while mortgage loans recorded a rate of 1.8 percent.

<b>Table 75</b>			
<b>BANKS: DELINQUENCY RATES BY TYPE AND SIZE OF DEBTOR</b>			
<b>(%)</b>			
	<b>2013</b>	<b>2014</b>	<b>2015</b>
Corporate loans	0.0	0.0	0.0
Loans to large companies	0.4	0.7	1.0
Loans to medium-sized companies	3.7	5.0	5.2
Loans to small companies	7.3	8.8	8.6
Loans to microbusinesses	3.6	3.9	2.9
Consumer loans	3.4	3.3	3.3
Mortgage loans	1.0	1.4	1.8
<b>TOTAL</b>	<b>2.1</b>	<b>2.5</b>	<b>2.5</b>

Source: SBS.

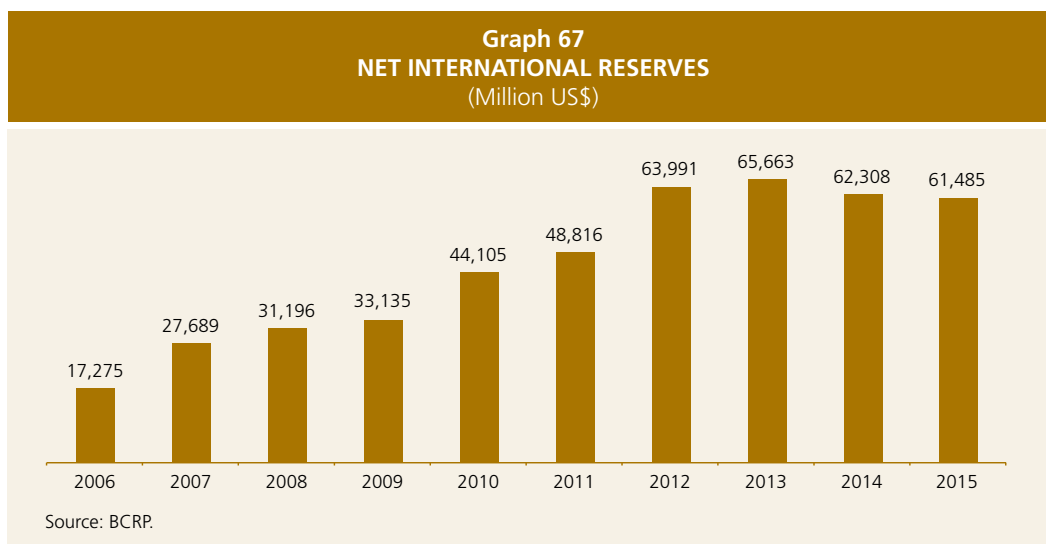
A slight increase was observed in the delinquency rates of financial firms and Edpymes in non-banking financial institutions. Municipal savings banks, on the other hand, recorded slight improvements in their rates of delinquency and coverage of their high-risk portfolios. In addition to this, both financial firms and municipal savings banks registered an increase in their ROE indicators, whereas this indicator fell in the case of rural savings banks and Edpymes due to the losses they generated in the year.

<b>Table 76</b>			
<b>FINANCIAL INDICATORS OF NON-BANK COMPANIES</b>			
<b>(%)</b>			
	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Overdue loans / gross placements 1/</b>			
Financial Firms	5.2	5.6	5.7
Municipal savings banks	5.8	5.8	5.7
Rural savings banks	6.7	12.6	9.2
Edpymes	4.8	4.1	4.2
<b>Provision for loans / high-risk portfolio 2/</b>			
Financial Firms	123.4	124.1	123.2
Municipal savings banks	105.4	105.2	106.1
Rural savings banks	84.0	63.2	92.3
Edpymes	115.2	120.6	132.7
<b>Ratio on equity (ROE)</b>			
Financial Firms	13.5	9.0	19.5
Municipal savings banks	12.8	13.2	14.5
Rural savings banks	1.2	-6.2	-9.7
Edpymes	5.0	4.2	-0.6

1/ Overdue loans and loans in judicial collection processes.  
2/ The high-risk portfolio is equal to the non performing loans plus the refinanced and restructured portfolio.  
Source: SBS.

## 7. International reserves

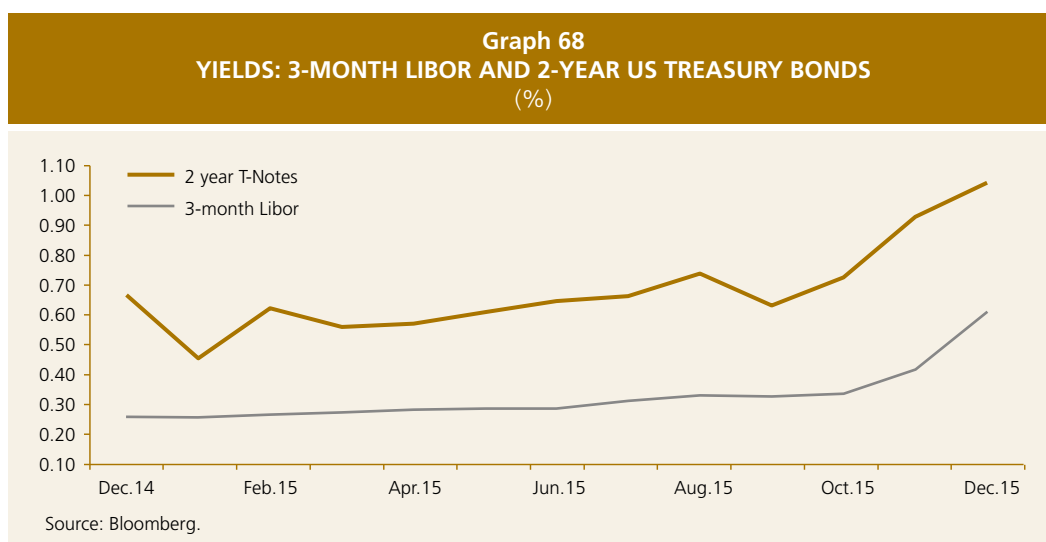
Peru's net international reserves (NIRs) decreased by US\$ 823 million in 2015, as a result of which the balance of NIRs at the end of the year was US\$ 61.46 billion. This reduction resulted mainly from the foreign exchange operations (US\$ 8.92 billion), although it was in part offset by banks' higher deposits (US\$ 6.91 billion) and higher public sector deposits (US\$ 1.68 billion).



### 7.1 Management of international reserves

Gross international reserves, also called international reserve assets, reached a balance of US\$ 61.54 billion at end 2015. This balance is US\$ 816 million lower than that recorded in 2014.

In 2015 the yield curve of the U.S. Treasury bonds rose, as a result of which the yield of the 2-year T-Note 2 years increased from 0.67 percent at the end of December 2014 to 1.05 percent at the end of 2015. Moreover, the 3-month dollar Libor rate rose from 0.26 to 0.61 percent in the same period.



In this context, the BCRP investment of reserves was carried out maintaining a conservative approach, following specific criteria for the placement of deposits in low-risk banks abroad, and diversifying investments in securities with the highest credit quality. A neutral position was held in terms of the duration of the investment portfolio, some operations being carried out as a strategy of tactical deviations to optimize the portfolio yield.

It is worth mentioning that a priority in the BCRP investment policy of the country's international reserves is to preserve capital and ensure the liquidity of these reserves. Once these conditions are met, BCRP seeks to maximize the yield of these international assets. In general, the management of these assets is closely related to the characteristics of the sources of such resources in terms of value, currency, maturity, and volatility. In this way, BCRP seeks to minimize the market risks that could affect the value and availability of these assets.

## 7.2 Composition of International Reserve Assets (IRA)

At the end of 2015, 62 percent of the international reserve assets (IRA) was invested in liquid securities of high credit quality, 33 percent in first-class banks overseas, and the remaining 5 percent in gold and other assets. The portfolio consists of debt securities issued by sovereign issuers, supranational organizations and foreign government entities with credit ratings of A+ or higher.

In 2015, international reserve assets generated a yield of S/. 907 million. This yield was lower than in the previous year due mainly to the decline in reserves and to changes in the composition of fund sources.

**Table 77**  
**INTERNATIONAL RESERVE ASSETS**  
(Million US\$)

Item	December 2014		December 2015	
	Amount	%	Amount	%
Deposits abroad	13,611	21.8	20,122	32.7
Securities	45,411	72.8	38,491	62.5
Gold	1,320	2.1	1,181	1.9
Others 1/	2,011	3.2	1,743	2.8
<b>TOTAL</b>	<b>62,353</b>	<b>100.0</b>	<b>61,537</b>	<b>100.0</b>

1/ Includes contribution to the FLAR and BIS, and balance of assets associated with international agreements.  
Source: BCRP.

**Table 78**  
**COMPOSITION OF LIQUID INTERNATIONAL ASSETS**  
(% structure)

	December 2014	December 2015
<b>By maturity term</b>	<b>100</b>	<b>100</b>
0-3 months	39	52
3-12 months	26	23
> 1 Year	35	25
<b>By long-term rating</b>	<b>100</b>	<b>100</b>
AAA	53	49
AA+/AA/AA-	32	33
A+/A/A-	15	18

Source: BCRP.

Liquid IRA<sup>10</sup> recorded a balance of US\$ 59.95 billion at the end of the year. As regards the quality of the portfolio, 49 percent of IRA was held in entities with a long-term credit rating of AAA and the rest mostly in entities with credit ratings between AA+ and AA-. Furthermore, the mean duration of the investment portfolio in 2015 was 0.61 years.

The effective exposure of the BCRP foreign exchange position to the U.S. dollar was 86 percent, higher than at end 2014 (70 percent).

<b>Table 79</b>		
<b>INTERNATIONAL POSITION: EFFECTIVE EXPOSURE</b>		
<b>(% structure)</b>		
	<b>December 2014</b>	<b>December 2015</b>
US\$	70	86
Other currencies	26	9
Gold	4	5
<b>Total</b>	<b>100</b>	<b>100</b>

Source: BCRP.

## 8. Financial savings and capital markets

Financial savings includes the total amount of assets that enterprises and households have in the financial system in the form of savings deposits; term deposits; securities, and holdings of life insurance, mutual funds and contributions to private pension funds.

During 2015, the average balance of financial savings increased by 12.0 percent compared to 2014 and was equivalent to 50.1 percent of GDP. The growth rate of financial savings was more accelerated than in 2014 due to the slowdown observed in attracting people's deposits and in contributions to mutual funds in dollars.

<b>Table 80</b>			
<b>FINANCIAL SAVINGS</b>			
<b>(Average balance in the period, as % GDP)</b>			
	<b>Domestic currency</b>	<b>Foreign currency</b>	<b>Total</b>
2006	18.0	13.8	31.7
2007	24.2	14.1	38.4
2008	24.9	13.6	38.5
2009	25.1	15.3	40.4
2010	27.6	13.8	41.3
2011	28.4	13.7	42.1
2012	30.5	12.7	43.2
2013	32.8	12.7	45.5
2014	33.7	13.7	47.4
2015	34.5	15.6	50.1

Source: BCRP.

By currencies, financial savings in nuevos soles grew 8.5 percent (vs. 8.3 percent in 2014) while financial savings in dollars (valued in soles) grew 20.8 percent (vs. 13.8 percent in 2014). The ratio of

<sup>10</sup> Easily tradable assets in international financial markets. Therefore, capital contributions to international organizations –such as the FLAR and BIS–, contributions and funds to the IMF –except holdings of SDRs–, the active balances associated with international conventions, and the gold held in the BCRP vaults are excluded from the IRA.



financial savings in nuevos soles in GDP terms increased from 33.7 to 34.5 percent, while the ratio of savings in dollars increased from 13.7 to 15.6 percent.

### 8.1 Fixed-income market

At end 2015 the balance of non-governmental fixed-income securities placed through public offering during the year amounted to S/. 22.20 billion, 15.8 percent higher than in 2014 (S/. 19.16 billion)<sup>11</sup>.

The balance of fixed-income securities placed through public offering during 2015 (valued at the constant exchange rate of December 2015) was S/. 4.57 billion, higher than the flow of securities placed the previous year (S/. 3.40 billion). In addition to this, Peruvian companies placed securities in the international market for a total of US\$ 8.80 billion, both in dollars (US\$ 2.05 billion) and in soles (S/ 930 million). In 2014 these placements valued at a constant exchange rate amounted to S/ 15.70 billion: US\$ 2.65 billion in dollars and S/ 141 million in soles.

Table 81 FIXED-INCOME SECURITIES ISSUED BY PRIVATE COMPANIES					
	Amounts			Growth rate (%)	
	2013	2014	2015	2014	2015
<b>Balance at the end of period (Million soles)</b>	<b>18,647</b>	<b>19,162</b>	<b>22,198</b>	<b>2.8</b>	<b>15.8</b>
Non-financial sector	10,683	11,076	14,171	3.7	27.9
Financial sector 1/	7,964	8,086	8,027	1.5	-0.7
<b>Composition by currency (%)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>		
Soles	49.8	51.7	51.3		
VAC	11.1	10.6	9.3		
US dollars	38.1	36.7	39.3		
Others	1.0	1.0	-		
<b>Balance as % GDP</b>	<b>3.4</b>	<b>3.3</b>	<b>3.6</b>		

1/ Securities issued or originated by a financial organization.  
Source: SMV.

Classifying bond issuances in the domestic market by type of issuer, non-financial companies issued bonds for a total equivalent to S/ 2.90 billion valued at a constant exchange rate (vs. S/ 1.51 billion in 2014) and the balance of current bonds increased 25.2 percent compared to the previous year. On the other hand, financial entities placed bonds for a total of S/ 1.56 billion (vs. S/ 1.89 billion in 2014) and their balance grew 6.5 percent.

The largest bond issuers in the year were Scotiabank Peru S.A.A. (S/ 636 million), Yura S.A. (S/ 502 million), Alicorp S.A.A. (S/ 500 million), Gloria S.A. (S/ 443 million), and Norvial S.A. (S/ 365 million), all of these issuances being securities issued in soles.

Moreover, the largest bonds issuances in the international market were those of Consorcio Nuevo Metro de Lima (US\$ 1.16 billion) and COFIDE (US\$ 1 billion). Furthermore, the largest bond issuance in soles in the international market was that placed by GyM Ferrovías (S/ 629 million).

The average maturity term of domestic bond issuances in soles, weighed by the amount placed, was 9.4 years (11.0 years in 2014) while the average maturity term of bond issuances in dollars

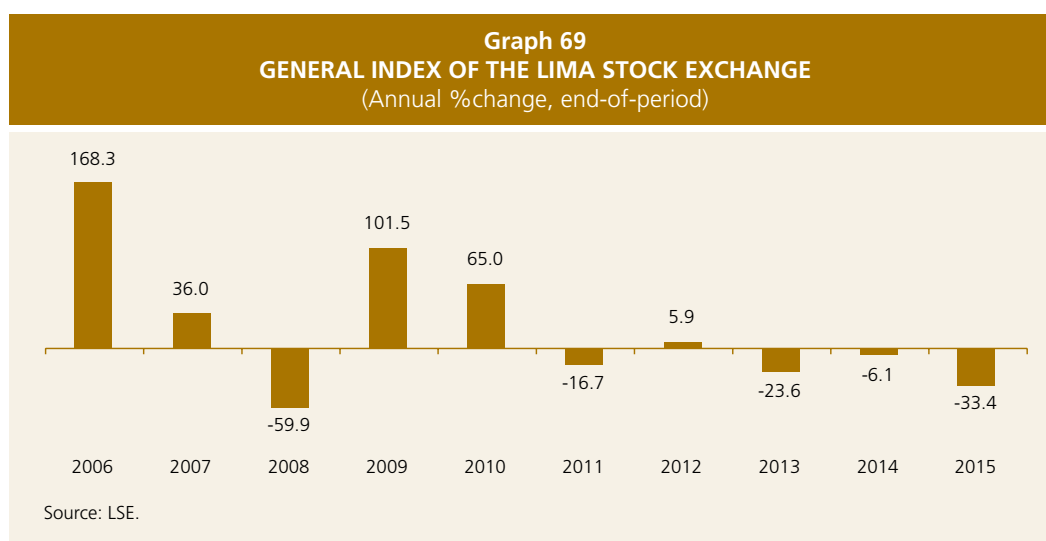
<sup>11</sup> Including short term bonds and instruments placed through public offering in the domestic market. The effect of exchange rate variations is isolated for comparison purposes.

was 11.6 years (5.7 years in 2014). The longer maturity terms for bonds in soles was 25 years, in the bonds issued by Yura S.A. (S/ 200 million placed in May), and 20 years, in the the bonds placed by Gloria S.A. (S/ 150 million placed in February) and Falabella Perú (S/ 98 million placed in July).

By currencies, bonds in soles represented 60.9 percent of the balance of existing public offering (62.3 percent in 2014), while bonds in dollars represented 38.8 percent (36.7 percent in 2014). Moreover, bonds at fixed-rates in soles represented 51.7 percent of the balance (the same ratio as in 2014), while inflation-indexed bonds (VAC) represented 9.2 percent (10.6 percent in 2014).

## 8.2 Stock Exchange

During the year, the performance of the Lima Stock Exchange (LSE) was influenced by a rather unfavorable international environment. China’s economic slowdown, the decline in the prices of Peru’s exports, the delicate situation of Greece, and expectations that the Federal Reserve would raise its interest rate were all factors that prompted investors to dump their portfolios and seek shelter in the dollar. Thus, the General Index and the Selective index of the LSE fell 33.4 and 36.3 percent, respectively, while the value of market capitalization declined 14.3 percent.



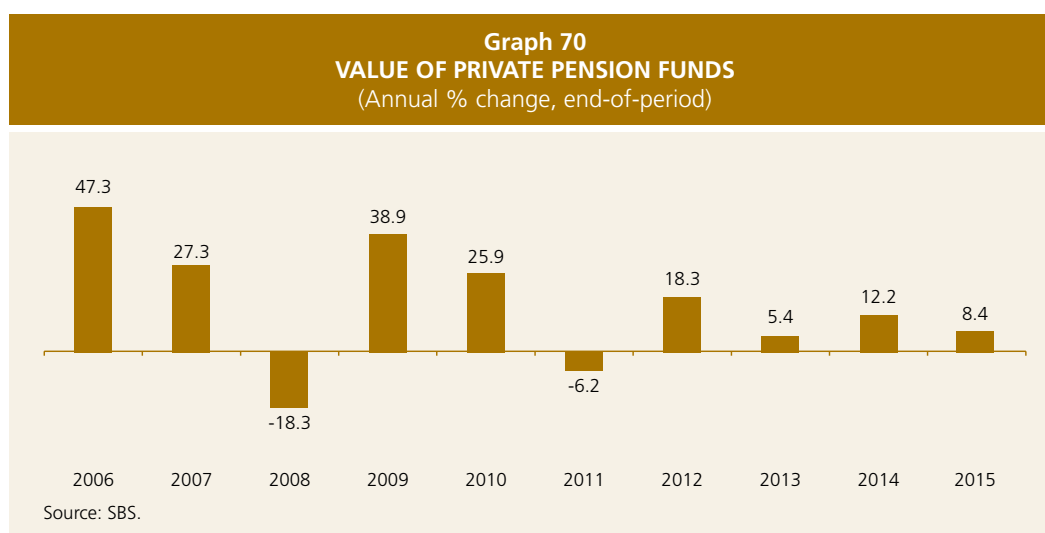
At the sector level, stocks in all the sectors showed negative performances, the biggest losses being observed in the mining sector, where the shares of junior mining companies fell 62.7 percent; the construction sector, which showed a fall of 48.0 percent, and the industrial sector, which recorded a decline of 41.1 percent. The sector of services was the one that showed the lowest losses (down 14.7 percent).

The volumes traded increased by 32.2 percent compared to 2014. By segments, the volume of shares traded dropped by 45.1 percent relative to 2014, while the volume of debt instruments traded decreased by 23.8 percent. On the other hand, repos transactions increased 6.9 percent, both in the case of shares (6.7 percent) and in the case of fixed-income instruments (13.1 percent).

The amount of dematerialized shares at year end –i.e. the amount of shares recorded electronically at CAVALI– was S/ 147.90 billion, which is equivalent to 49.5 percent of the value of market capitalization (S/ 298.82 billion). The ratio of dematerialized stocks held by non-resident investors in terms of total dematerialized stocks declined from 39.9 percent in December 2013 to 34.6 percent in December 2015.

### 8.3 Private pension system

Affected in part by the decline of the LSE indices, the net worth of private pension funds increased 8.4 percent during the year. At December, the networth of these funds amounted to S/. 124.2 billion. The number of participants in the private pension system grew 4.1 percent to over 5.9 million members.



After recording a real profitability of 5.5 percent in 2014, the profitability of private pension funds fell to 1.2 percent in real terms in 2015.

The composition of the investment portfolio reflected international conditions, investments in variable-income securities declining from 22.5 to 17.3 percent during the year. Deposits in the local financial system, on the other hand, increased from 6.6 percent to 11.4 percent. In terms of the fund, the ratio of investments abroad decreased from 40.6 percent to 40.2 percent, the maximum limit allowed for the investment of pension funds abroad being 42 percent.

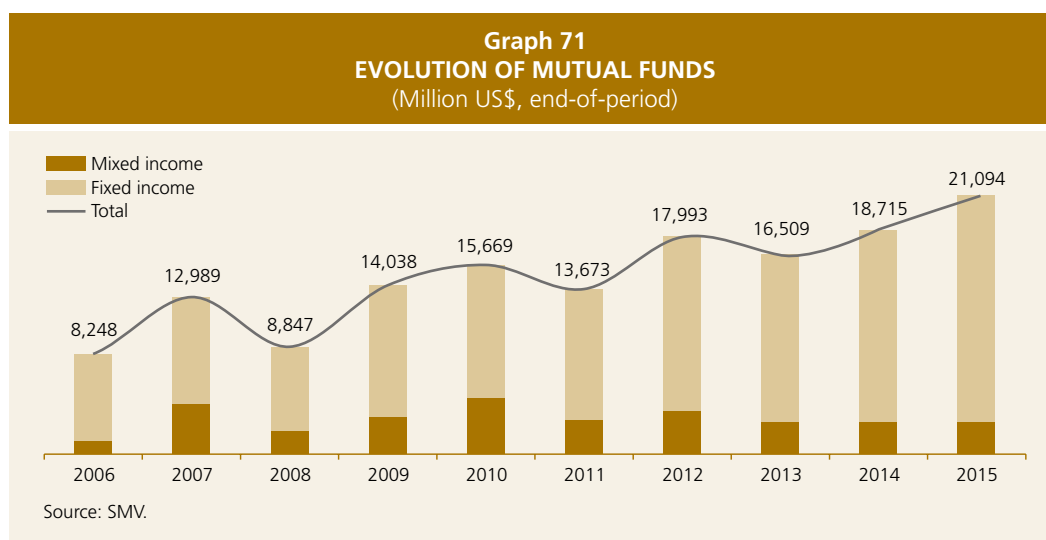
**Table 82**  
**COMPOSITION OF THE PRIVATE PENSION SYSTEM PORTFOLIO**  
(%)

	2013	2014	2015
<b>I. DOMESTIC INVESTMENTS</b>	<b>64.8</b>	<b>59.4</b>	<b>59.8</b>
<u>Deposits</u>	<u>12.9</u>	<u>6.6</u>	<u>11.4</u>
In soles	2.2	0.8	0.8
In US dollars	10.7	5.8	10.6
<u>Bonds and fixed income</u>	<u>26.0</u>	<u>30.3</u>	<u>31.1</u>
Central Bank securities	2.1	0.4	-
Sovereign bonds	11.3	17.3	17.8
Values issued by the private sector	12.6	12.6	13.4
<u>Stocks and variable income</u>	<u>25.9</u>	<u>22.5</u>	<u>17.3</u>
Shares	16.2	12.6	7.4
Investment funds	9.6	9.8	9.9
<b>II. FOREIGN INVESTMENTS</b>	<b>35.2</b>	<b>40.6</b>	<b>40.2</b>
<b>III. TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Million soles	102,192	114,527	124,168
% GDP	18.7	19.9	20.4

Source: SBS.

## 8.4 Mutual funds

Mutual funds' joint net worth increased 12.7 percent compared to 2014 with a balance of S/. 21.09 billion (3.5 percent of GDP) at year-end. Given expectations of higher yields in international markets, mutual funds reacted increasing their participation in investments abroad from 22.2 percent to 33.3 percent, whereas in terms of domestic investments, they reduced their participation in deposits from 62.8 percent to 54.4 percent and their participation in bonds and fixed-income securities from 11.8 to 1.4 percent. Moreover, the participation of domestic shares declined from 2.5 to 2.4 percent.



**Table 83**  
**COMPOSITION OF MUTUAL FUNDS' INVESTMENT**  
(%)

	2013	2014	2015
<b>I. DOMESTIC INVESTMENTS</b>	<b>88.9</b>	<b>77.1</b>	<b>64.2</b>
Deposits	62.1	62.8	54.4
In soles	28.7	30.2	27.0
In US Dollar	33.4	32.6	27.3
Bonds and fixed income	23.1	11.8	8.5
Central Bank securities	6.3	1.1	0.5
Sovereign bonds	5.4	2.6	0.9
Values issued by the private sector	11.4	8.1	7.0
Stocks and variable income	3.7	2.5	1.4
Others	2.3	0.6	2.4
<b>II. FOREIGN INVESTMENTS</b>	<b>8.8</b>	<b>22.2</b>	<b>33.3</b>
<b>III. TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Million nuevos soles	16,509	18,715	21,094
% GDP	3.0	3.3	3.5

Source: SMV.

## 8.5 Payment Systems

The oversight of payment systems by the Central Bank is essential for the settlement of transactions of goods, services, and securities, as well as for the implementation of monetary policy. During 2015, BCRP continued carrying out its roles of overseeing and regulating payment systems, promoting increased access and greater use of these systems, and supporting innovation. Thus, in addition to

greater financial inclusion, higher levels of safety and efficiency were achieved in payment systems in this period.

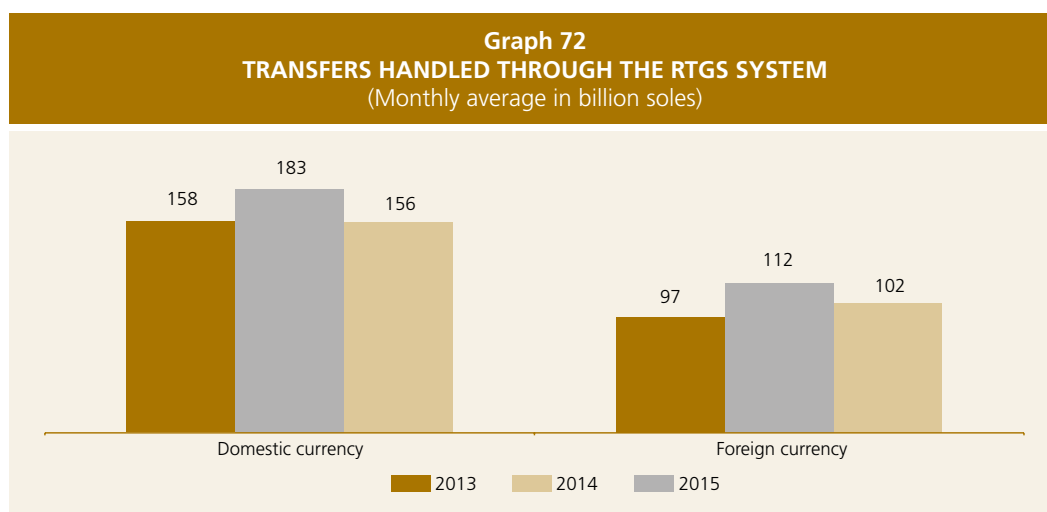
The value of transfers made through payment systems showed a decline of 12.2 percent in a context of exchange rate volatility. Thus, the total value of funds transferred through the payment systems was equivalent to 5.5 times the value of annual GDP in 2015 (vs. 6.6 times the value of annual GDP in 2014).

As part of its oversight role, the Central Bank carried out its annual inspection visit to Cámara de Compensación Electrónica-CEE (Electronic Clearing House) and CAVALI to evaluate opportunities for improvement and compliance with regulations. The Central Bank can confirm that payment systems meet current standards of safety, efficiency, and risk management.

### **Real Time Gross Settlement System (RTGS System)**

This system is mainly used to make high-value transfers among the entities integrating the financial system as well as to make transfers on behalf of their clients. In 2015 the transfers made through the RTGS system accounted for 92.1 percent of the total value transferred through payment systems.

Moreover, the average value of transfers handled through the RTGS system decreased by 12.5 percent in 2015 due mainly to the reduction of foreign exchange operations –purchase and sale of foreign currency– between banks, while the number of transactions declined by 5.1 percent. By currencies, the value of payments in domestic currency represented 60.6 percent of total operations handled by the RTGS system.



The Central Bank continued promoting the electronic access of micro finance entities –i.e. municipal and rural savings banks and non-bank financial entities– to the RTGS system, which is the main infrastructure of payment systems in Peru. The entities that established electronic connections with this system in 2015 included Caja Municipal de Ahorro y Crédito de Arequipa –preceded earlier by the savings banks of Trujillo, Sullana, Piura, and Tacna–, as well as Caja Municipal de Crédito Popular de Lima and Financiera TFC.

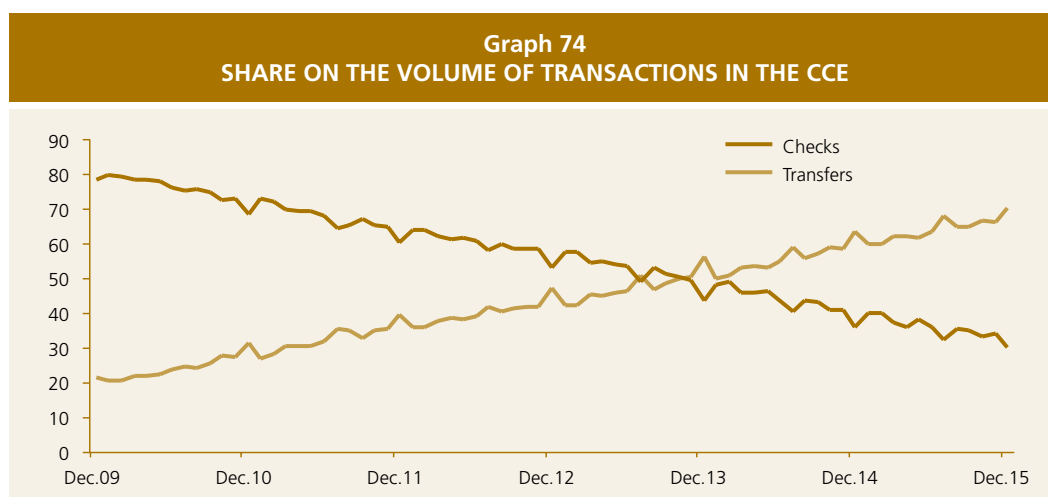
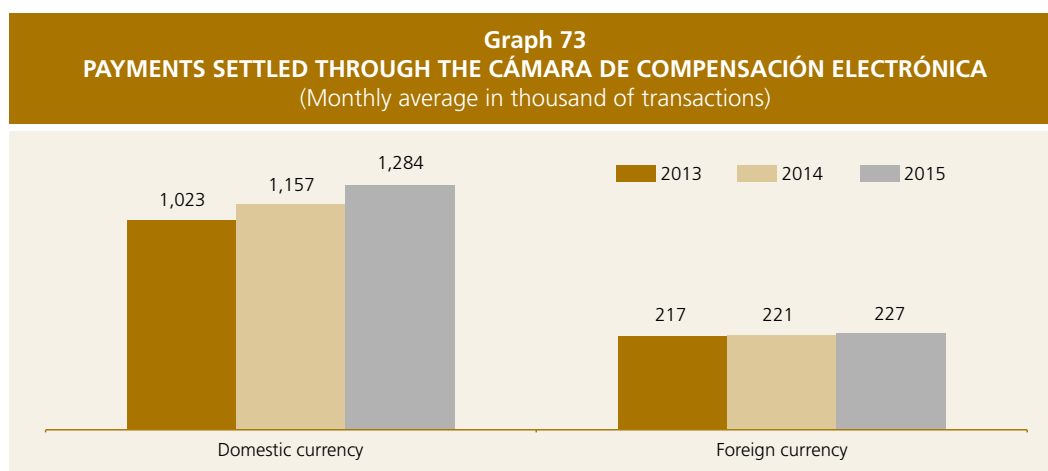
The process “Interbank Transfers” in the RTGS system obtained an international certification of information security management (ISO /IEC 27001-2013), reflecting high confidentiality, integrity, and availability in the use of information in the system.

Moreover, a process of modernization of the technological platform of the RTGS system has been onset to strengthen the system’s security. The process should be completed in the first half of 2016.

### Electronic Clearing House (Cámara de Compensación Electrónica - CEE)

The CCE is a payment system used to settle checks and credit transfers among the clients of the various financial entities that participate in this system. These transactions represent 95.4 percent of the total number of transactions handled through payment systems.

In 2015, the average number of transactions handled by the CCE each month grew 9.7 percent since credit transfers increased 25.9 percent. This greater dynamism reflects the rising trend observed in the use of electronic payment systems and that checks are no longer used as a payment instrument. The ratio of credit transfers in terms of total daily average transactions processed through the CCE increased from 56.4 percent in 2014 to 64.8 percent in 2015.



The average value of the transactions processed through the CCE each month increased 6.6 percent in the year, with the value of credit transfers showing an increase of 19.9 percent. On the other hand, the value of checks decreased by 13.9 percent.

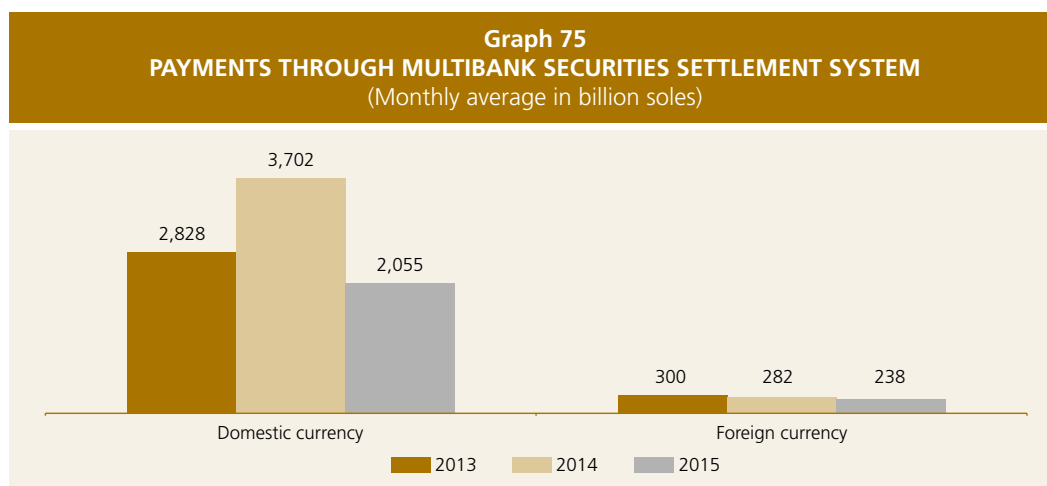
Under the supervision of BCRP, CCE continued implementing its project of Online Transfers. In September 2015, the Central Bank published the regulations governing online transfers by Electronic Clearing Houses (Circular 035-2015-BCRP), which establishes the legal framework for this new clearing instrument, and developed the settlement process in the RTGS system.

Online Transfers will be processed almost in real time, thus eliminating the time lag that affects payments between clients when other interbank instruments are used. The system will include accounts with resources that will be used for the specific purpose of securing the settlement of Online Transfers. This innovation will contribute to the efficiency and security of the payment system managed by CEE, which will contribute to promote the use of electronic payments.

In addition, CCE continued promoting the use of the so-called Social TIN, that is, fund transfers of less than S/ 350 or US\$ 135, which imply a very low cost or no cost to end users. The campaign of TIN Social was launched a little over 2 years ago and will continue until March 2016.

### **Multibank Securities Settlement System (MSSS)**

The MSSS, managed by CAVALI, handles payments for transfers of stock exchange securities and Treasury bonds. In 2015, the monthly average value of payments in this system declined by 42.5 percent, while the monthly average volume of payments declined by 42.7 percent, reflecting both the lower values and volumes of transfers for stock exchange operations, such as fund transfers for government securities traded in the secondary market.



## **8.6 Financial inclusion**

As a member of the Multi-sector Committee on Financial Inclusion, the Central Bank has participated in the design and the elaboration of the National Strategy for Financial Inclusion, leading actions in terms of Payments and Settlements and promoting the development of channels and digital instruments for retail payments. The actions carried out by BCRP and other government and private organizations are aimed at improving the access to and the use of quality financial services, promoting the ecosystem of electronic payments and the development of the infrastructure required to facilitate the access of all social sectors to these services.

The Central Bank actions in terms of Payments and Settlements include promoting the development of the legal framework, carrying out studies, and implementing actions that contribute to facilitate electronic payments –e.g. creating a payment ecosystem that will allow to reduce the need of using cash for payments. Important aspects in this sense have been the digitalization of the payments made by or to the Government and the integration of businesses to electronic payments. Therefore, together with the Ministry of Economy and Finances, the Central Bank has started a project aimed at the digitalization of Government payments both at the national and at the sub-national levels and continues supporting actions aimed at increasing cashless payments and online payments.



### **Modelo Perú**

The private sector, ASBANC, continued developing the Platform of e-Money, a payment infrastructure project that centralizes the amounts of electronic money of the entities participating in this project –banks, microfinance entities, and issuers of e-money (Empresas Emisoras de Dinero Electrónico - EEDes) which will operate with several telecommunications companies. The Central Bank has been contributing to set the standards and regulations governing EEDes and to establish the adjustments that non-financial entities have to implement in order to be able to operate as issuers of e-money. It should be pointed out that BCRP has excluded e-money accounts as obligations subject to reserve requirements and has included EEDes as entities not subject to reserve requirements.

#### **Box 6**

##### **EVOLUTION AND DETERMINANTS OF HOUSEHOLDS' ACCESS TO FINANCIAL SERVICES**

There is consensus in economic literature about the multiple benefits generated by people's increased access to financial services. On the one hand, the direct effects on people's well-being are well known: lower transaction costs in the acquisition of goods and services, less vulnerability to negative shocks, lower financing costs, and overall, better opportunities to increase their level of savings and loans to finance either physical assets or human capital.

On the other hand, a growing number of studies has been analyzing the macroeconomic effects of increased access to financial services. Levine<sup>12</sup> (2005) shows a positive relationship between the latter and economic growth resulting from people's greater capacity to invest in physical and human capital by reducing the informal economy and increasing productivity. Moreover, Mehrotra and Yetman<sup>13</sup> (2015) emphasize the impact of increased access to financial services on monetary policy efficiency: i) it increases the efficiency of interest rates (as operational instruments) in maintaining price stability, and ii) it improves people's capacity to smooth consumption and reduces the costs of volatility of GDP, allowing a greater control of inflation by the Central Bank.

Finally Sahay<sup>14</sup> et al. (2015) analyze the links between increased access to financial services and financial stability: the former may improve the latter because it allows a greater diversification and a lower volatility in financial institutions' funding.

Given the importance of access to financial services, it is necessary to have indicators through which we may monitor the evolution of people's access to financial services and to analyze the factor determining this access.

##### Measuring Access to Financial Services through Household Surveys

An analysis describing how people's access to some financial products has evolved between 2005 and 2014 has been elaborated based on information collected from household surveys. The analysis distinguishes households according to their levels of income, savings, living conditions (monetary and non-monetary poverty), and education levels. Households have been selected as the unit of analysis because most of the variables selected in the survey are collected at this level. The households were classified in two groups:

- \* Group 1: households that use financial services on their own initiative.
- \* Group 2: This group includes the households of Group 1 as well as the households that are beneficiaries of government social programs that provide conditional cash transfers to household members (e.g. Juntos, Pension 65, Beca 18) and are required to open an account at Banco de la Nación.

12 Levine, R (2005): "Finance and growth: theory and evidence", in P Aghion and S Durlauf (eds), Handbook of Economic Growth, Elsevier.

13 Mehrotra, A and J Yetman (2015): "Financial inclusion: Issues for Central Bankers", BIS Quarterly Review, March.

14 Sahay, R. et al. (2015): "Financial Inclusion: Can It Meet Multiple Macroeconomic Goals?", IMF Staff Discussion Notes SDN 15/17, September.



## a) Evolution of the Level of Access to Bank Services 2005-2014

The number of households that used financial services on their own initiative (Group 1) in the period 2005-2014 increased from 1.3 million to 2.4 million (84.7 percent). When we include recipients of conditional transfers (Group 2), the number increased from 1.4 million in 2005 to 3.5 million in 2014 (160 percent). Two trends are observed in this period. A trend of high-growth in the access to these services was observed between 2005 and 2009, with households in Group 1 showing levels of access of 71.1 percent and Group 2 showing levels of access of 95.4 percent, and another trend of slowdown in the access to these services between 2010 and 2014, when Group 1 recorded a level of greater access to financial services of 2.6 percent and Group 2 showed a level of 25.6 percent.

### METHODOLOGY TO ESTIMATE THE LEVEL OF USE OF FINANCIAL SERVICES BY HOUSEHOLDS (change in thousand)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	% Chg. 2014/2005
<b>GROUP 1*</b>											
<b>Net</b>	<b>1,305</b>	<b>1,455</b>	<b>1,847</b>	<b>2,046</b>	<b>2,233</b>	<b>2,350</b>	<b>2,303</b>	<b>2,495</b>	<b>2,410</b>	<b>2,411</b>	<b>84.7</b>
Accept CTS	396	543	670	702	857	862	787	755	800	848	113.9
Bank remittances			150	161	177	151	134	111	79	96	
Pensioner	810	834	852	878	847	888	922	999	995	1,002	23.7
Interests on deposits	40	33	63	88	117	117	98	94	77	53	31.2
Mortgage loans	80	96	163	193	205	231	244	382	379	349	335.5
Financial services*	136	178	374	507	591	633	559	621	435	424	212.2
Operations in electronic banks			249	304	485	445	435	495	456	488	
<b>GROUP 2**</b>											
<b>Group 1</b>	<b>1,305</b>	<b>1,455</b>	<b>1,847</b>	<b>2,046</b>	<b>2,233</b>	<b>2,350</b>	<b>2,303</b>	<b>2,495</b>	<b>2,410</b>	<b>2,411</b>	<b>84.7</b>
Benefit of social programs **	45	67	213	361	405	445	459	575	884	1,099	2,344.1
<b>Total</b>	<b>1,350</b>	<b>1,522</b>	<b>2,060</b>	<b>2,408</b>	<b>2,638</b>	<b>2,796</b>	<b>2,762</b>	<b>3,069</b>	<b>3,294</b>	<b>3,510</b>	<b>160.0</b>

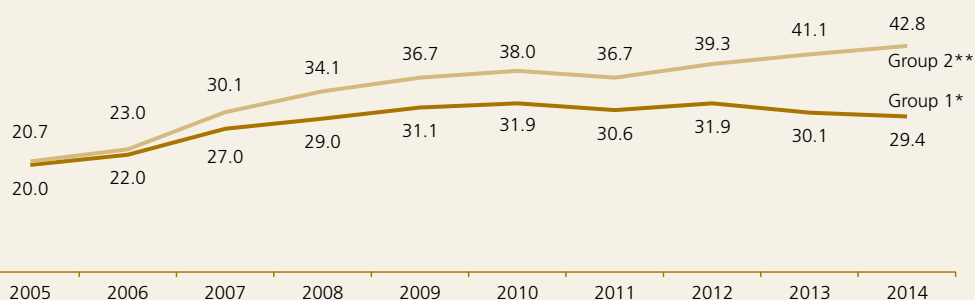
\* Household using some kind of financial services.

\*\* Group 1 + beneficiaries of social programs: Juntos (since 2005) and Pensión 65 and Beca 18 (since 2012). Beneficiaries in group 1 are subtracted to avoid duplicity.

Source: INEI, ENAHO.

The rate of financial penetration –or use of financial services– in Group 1 rose from 20 percent in 2005 to 29.4 percent in 2014 (up 9.4 percentage points), while the rate in Group 2 reached 42.8 percent (up 22 percentage points) due to the impetus provided by the social programs involving conditional cash transfers.

### EVOLUTION OF HOUSEHOLD USING FINANCIAL PRODUCTS (%)



\* CTS, interest on deposits, mortgage loans, receive bank remittances, pensioners, spending on financial services, electronic banking operations.

\*\* Group 1 + beneficiaries of social programs.

Source: INEI, ENAHO.

b) Socioeconomic Characterization of Households that Use Financial Services: Income, Savings, Standards of Living, and Education.

Low income is a factor that affects people's access to financial services. This is evidenced in the limited access to these services in the poorest quintiles in Group 1, where only 3.6 percent and 13.8 percent of households in the first and second quintile, respectively, used financial services in 2014, a level far below the one observed in the two quintiles with higher income levels (41.1 and 61.1 percent in 2014).

Because of the size of social programs involving conditional fund transfers, these programs have been an important vehicle through which the poor have increased their access to banking services in the first two quintiles (40.5 and 32.4 percent), although the increase in the latter quintiles has been lower than in quintiles IV and V (43.8 and 61.7 percent).

USAGE OF FINANCIAL SERVICES PER QUINTIL 1/ (%)										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Group 1</b>										
Total	20.0	22.0	27.0	29.0	31.1	31.9	30.6	31.9	30.1	29.4
Q1	1.2	1.4	1.2	2.2	2.8	3.5	4.0	4.6	3.9	3.6
Q2	5.6	6.5	8.8	12.1	13.4	14.8	14.9	15.3	14.6	13.8
Q3	15.7	17.9	23.7	26.8	27.8	30.8	28.6	30.2	28.6	27.2
Q4	30.5	31.9	39.0	42.1	45.7	46.7	43.9	45.7	43.3	41.0
Q5	47.1	52.2	62.2	61.5	65.5	63.7	61.6	63.9	60.1	61.1
<b>Group 2</b>										
Total	20.7	23.0	30.1	34.1	36.7	38.0	36.7	39.3	41.1	42.8
Q1	1.8	5.2	12.8	21.6	22.3	23.7	25.0	28.7	35.9	40.5
Q2	6.6	7.5	12.1	17.2	20.2	22.2	21.9	23.9	30.4	32.4
Q3	16.6	18.1	24.3	27.8	29.1	33.0	30.4	33.2	34.2	35.4
Q4	30.9	31.9	39.1	42.3	46.1	47.1	44.4	46.7	44.8	43.8
Q5	47.7	52.2	62.3	61.5	65.8	63.7	61.8	63.9	60.4	61.7

1/ Quintil average income per capita of household in Metropolitan Lima, prices 2014.  
Source: INEI, ENAHO.

According to the estimates of ENAHO (Encuesta Nacional de Hogares), the number of households with saving capacity (those in which incomes were higher than expenditure) would have increased from 3.5 million in 2004 to 5.3 million in 2014, which represents an increase of over 8 percent –up from 55.9 to 64.3 percent– in the ratio of households with saving capacity relative to the total number of households reported during that period.

When we divide households according to their use of financial services, we find that those that use bank services show a greater saving capacity (79.6 percent in Group 1 and 71.1 percent in Group 2 in 2014).

Main Factors Determining Access to Financial Services in Peru

A standard binary Probit Model was used to quantitatively assess the factors determining the probability of whether households will become part of the financial system or not, and we examined the variables that have greater impact on this probability. The source of data are the ENAHO surveys carried by INEI in 2004 to 2014 (about 20 thousand households per year), which represents a total of 258,130 observations that provide greater robustness to the analysis.

Households' decision of becoming part of the financial system (dependent variable) is influenced by various factors associated with the characteristic of the household in terms of standard of living (poverty, income, savings) and with the occupation, education level, age, sex, and marital status of the head of

the household. The dependent variable refers to the households that have the characteristics of Group 1, that is, to those households that decided to use the financial system on their own initiative.

The analysis of marginal effects led us to conclude that the income (measured through spending), age, and education level of the heads of the households have a greater impact on the probability that a household will decide to be part of the financial system, which coincides with the results of the studies carried out by Peña (2014) and Murcia (2007). For example, the probability of using bank services in the quintiles with higher incomes increases by 25 percent compared to the quintile with the lowest income levels, while this probability increases by 30 percent in household headed by older individuals compared to households headed by younger individuals. In addition, the probability is higher if the household is headed by someone with higher education (12 percent) and secondary education (8.2 percent), whereas the probability is lower (3.5 percent) in households headed by individuals with only primary education. Furthermore, having a saving capacity influences the decision of being part of the financial system by 9.7 percent.

### HOUSEHOLD CHARACTERISTICS AND BELONGING TO FINANCIAL SYSTEM

	Coefficient	Marginal effect	Std. Errors
Extreme poverty	-0.374***	-.0679704	(0.0340)
Non-extreme poverty	-0.0669***	-.0142038	(0.0169)
Condition of houses	-0.224***	-.0491073	(0.00812)
Purchased houses	0.135***	.0280393	(0.00800)
Primary	0.159***	.0351795	(0.0160)
High school	0.357***	.0823649	(0.0171)
Superior	0.479***	.1202618	(0.0181)
Pack of basic services	0.169***	.0370772	(0.00849)
Computer	0.251***	.0591875	(0.00861)
Vehicles	0.103***	.0223157	(0.0103)
Mobile phone	0.112***	.0240842	(0.00775)
Woman	-0.00443	-.0009576	(0.00791)
From 25 to 29 years	0.327***	.0822183	(0.0296)
From 30 to 59 years	0.423***	.0858932	(0.0256)
More than 60 years	1.126***	.3048853	(0.0264)
Ability to savings	0.469***	.0971427	(0.00718)
Q2 spending	0.271***	.0638733	(0.0199)
Q3 spending	0.464***	.1160373	(0.0251)
Q4 spending	0.624***	.1629278	(0.0257)
Q5 spending	0.888***	.2464406	(0.0261)
Living in rural area	-0.429***	-.0886211	(0.00988)
Formal job	0.269***	.0640138	(0.00852)
Constant	-2.700***		(0.0399)
<b>Observation</b>	<b>258,130</b>		

Standard errors in parentheses.  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1  
 Source: ENAHO 2004-2014.

Other factors that also influence this probability are having bought a house or any kind of a motor vehicle and gaining access to a package of basic services (3.7 percent), and working in the formal market. Despite their importance in terms of the dissemination of e-banking, the variables computer and cell phone have less influence (5.9 and 2.4 percent, respectively). On the other hand, living in rural areas or in conditions of extreme poverty decreases the probability of having access to banking services and being part of the financial system (-8.9 and -6.8 percent, respectively), a similar trend to that pointed out by Cámara and Tuesta (2013).

The evidence shows that it is possible to generate a virtuous circle between access to financial services and economic growth, higher levels of education and income contributing to generate greater access to these services. In turn, as several studies show, greater access to financial services and credit will enable an increase in investment and productivity, with the resulting rising on growth.

This is precisely the aim of the actions set in the National Strategy for Financial Inclusion in order to accelerate financial penetration, as well as in the recent launching of the Electronic Wallet (e-wallet) which will allow greater population segments to reduce their transaction costs.