

# **INFLATION REPORT:**

# Recent trends and macroeconomic forecasts





**CENTRAL RESERVE BANK OF PERU** 

# **INFLATION REPORT:** Recent trends and macroeconomic forecast

January 2006

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This Inflation Report was prepared using information at November for gross domestic product; at December for monetary accounts, balance of payments, central government operations; and at January for inflation and exchange rate.

Inflation Report. January 2006

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# FOREWORD

- The monetary policy of the Central Reserve Bank of Peru has been based on an Inflation Targeting framework since 2002. The annual inflation target is 2.5 percent, plus or minus one percentage point. Starting in 2006, this target is measured continuously against the last twelve months' growth of the Consumer Price Index (CPI) for Metropolitan Lima. Inflation may temporarily fall outside the target range during a specific period, in which case the Central Bank will determine the necessary action to return inflation it to that range, taking into account the lags in monetary policy operation.
- Transparency is a key element of the Inflation Targeting framework, and for that reason the Bank and economic agents share the relevant information used in monetary policy formulation. As part of this policy, the Bank publishes an Inflation Report three times a year, informing the public about compliance with its constitutional mandate to maintain monetary stability and with the functions stipulated in its organic law concerning money market regulation and information on public finances.
- This first Report for the year describes the factors responsible for inflation in 2005 and contains the macroeconomic forecasts for 2006.
- Since 2001, the BCRP has been publishing a schedule of the meetings of its Board of Directors, held on the first Thursday of every month to approve monetary policy decisions. The schedule is published at the beginning of each year, together with a Press Release about the January Monetary Program.
- Decisions on the monetary policy position taken by the Central Bank Board include the announcement of a reference

interest rate for the interbank lending market. BCRP monetary operations are aimed at maintaining this short-term interest rate at the announced reference target level and, as a result, affect the entire array of economic variables that determine the inflation rate.

• Publication schedule for the Inflation Report in 2006:

February 3 June 2 October 6

• Publication schedule for Press Releases and Information Reports about the Monetary Program in 2006:

March 2	April 6	May 4	June 1	July 6
August 3	September 7	October 5	November 2	December 7

# **EXECUTIVE SUMMARY**

- This first Report for the year contains an analysis of monetary policy execution in 2005 and macroeconomic forecasts for 2006. According to the forecast baseline, inflation will remain within the target range during the period and economic activity will continue to show sustained growth.
- The inflation in 2005 was 1.5 percent, at the lower limit of the target range, due mainly to a reversal of the external and internal shocks of 2004 that raised inflation temporarily to the upper limit of the target range (3.5 percent) that year. Compensatory fiscal measures taken to cushion the impact of higher international fuel prices throughout 2005 and the appreciation of the nuevo sol, particularly between August 2004 and August 2005, also contributed to the reduction of inflation in 2005. It is important to add here that the low inflation environment helps enhance consumer negotiation capacity and boosts market competition.
- Inflation over the forecast horizon is expected to approach 2.5 percent, as noted in January of this year when annualized inflation reached 1.9 percent. GDP, for its part, is predicted to remain in the neighborhood of 5 percent, in a continuation of the trend of recent years.
- Economic growth continued to accelerate, rising from 4.8 percent in 2004 to an estimated 6.3 percent in 2005, the highest rate since 1997. Instrumental in this showing was the strong performance of exports (real growth of 14.7 and 13.9 percent in 2004 and 2005, respectively), combined in the second semester with an increase in domestic demand, which was reflected in an annual growth rate of 5.4 percent in 2005 (as compared with 3.9 percent in 2004).
- The baseline scenario for 2006 considers a 5.4 percent increase in domestic demand led by dynamic private investment topping 10 percent per annum. This is consistent with larger imports of capital goods associated in part with a stronger investment.

- The international environment remained favorable, with terms of trade rising 7.0 percent in 2005, after a 9 percent increase in 2004. Higher prices of gold, copper, zinc and molybdenum, Peru's foremost mineral exports, more than compensated for the negative impact of rising international fuel prices. The trade and current account surpluses are expected to reach 6.5 and 0.9 percent of GDP in 2006, respectively.
- Our terms of trade are expected in 2006 to remain at their 2005 level and then to reverse partially in 2007 and drop to levels similar to those of 2004, reflecting the probability of an improvement in the world mineral supply.
- The macroeconomic scenario for 2006 considers a fiscal deficit of less than 1.0 percent of GDP (legal ceiling), favored by income from high export prices.
- The current growth in financial volatility touched off by election uncertainties was among the risks forecast in previous Central Bank reports. The BCRP preventively raised international reserves over a three-year period to a level of US\$ 14,097 million by the close of 2005, a sum equivalent to 2.6 times one year's foreign debt maturities and the bill for 14 months of imports.
- The Central Bank raised its reference interest rate three times (25 basis points each time), from 3.0 to 3.75 percent in December 2005, January and February 2006 considering the strong economic growth and to prevent election-associated depreciation of the nuevo sol from fueling inflation.
- If necessary, the Central Bank will continue to intervene in the foreign exchange market with the aim of reducing exchange rate volatility through spot market operations and sales of exchange rate-indexed Readjustable Certificates of Deposit (CDRBCRP), in such a way as to avoid undesired effects on inflation and the level of economic activity.

# I. EVOLUTION OF INFLATION

Inflation in 2005 was 1.5 percent, at the lower limit of the target range, due mainly to the reversal of the external and internal economic shocks of 2004 that temporarily raised inflation to the upper limit of the target range (3.5 percent) for that year. Compensatory fiscal measures taken to cushion the impact of higher international fuel prices throughout 2005 and the appreciation of the nuevo sol, particularly from August 2004 to August 2005, also contributed to lower inflation in 2005.

#### Graph 1 INFLATION AND TARGET INFLATION









 The rate of inflation in 2005 was 1.5 percent, at the lower limit of the Central Bank's target range (between 1.5 and 3.5 percent), and the average inflation for the period since the introduction of the Inflation Targeting framework is 2.2 percent.

#### I.1 Weighted contribution to inflation

- 2. Inflation is lower in 2005 than it was in 2004 precisely because of the reversal of supply shocks that brought down rice and sugar prices; lower average international wheat prices that kept the average price of bread stable; elimination of the excise tax (ISC) and of the import duty on Liquefied Petroleum Gas (LPG), reducing the consumer cost of this product; and the larger supply of electricity which, combined with more use of natural gas, precipitated a drop in electricity rates.
  - The products that contributed most heavily to the drop in inflation between 2004 (3.5 percent) and 2005 (1.5 percent) were rice (from 19 to -6 percent), bread (from 13 to 0 percent) and gas (from 15 to -11 percent).

#### BOX 1

#### LOW INFLATION AND WELL-BEING

Use of the Inflation Targeting framework has made it possible to consolidate lower inflation levels, helping to grow in an environment of macroeconomic stability.

Low inflation has a positive impact on economic growth by reducing future uncertainty, making investment decisions of economic agents more efficient. It also helps influence economic agents to choose productive over speculative activities. This negative relationship between inflation and sustained economic growth is corroborated by economic literature and holds true in Peru's case, in which the lower the inflation, the higher the per capita GDP growth.

Furthermore, stable, low inflation over long periods of time fuels competition and increases consumer well-being. Taylor<sup>1/</sup> argues that enhanced market competition will reduce the impact of supply shocks on inflation.

According to this author, the capacity of companies to pass-through production costs to prices depends on inflation inertia. Companies easily transfer cost increases to prices when inflation is most persistent (inertial), reducing consumer well-being because company profit margins are wider in those cases and competition is weaker as a result. Macroeconomic evidence reveals inflation to be most persistent precisely when its level is highest. For that reason, the degree of inflation persistence declines in low inflation environments, reducing the capacity of companies to pass-through cost increases to final prices, with the result that their profit margins shrink. By making the prices of final goods less sensitive to cost increases, low inflation promotes competition and benefits consumers.

The reduction of inflation persistence in Peru is benefiting consumers by affecting the capacity of companies to transfer cost increases to prices, thus narrowing their profit margins and heating up competition.

As shown in the table, monthly inflation persistence was 0.9 in the period before the adoption of the inflation targeting framework, and 0.3 afterwards. Additionally, the long-term impact of shocks on inflation decreased substantially between both periods, from 9.5 to 1.5 on a monthly basis<sup>2/2</sup>. Furthermore, economic agents in an economy with low inflation receive more information about relative price evolution because the pricing mechanism sends off a stronger signal to both consumers and companies that result in more efficient decision-making and an improvement in well-being.

# **GDP PER CAPITA AND PRICES**

(Average % changes)

## INFLATION PERSISTENCE

(January 1992 - June 2005)

	GDP	Population	GDP per capita	CPI		Infla	ation
	05.	ropulation	obi poi oupitu		Persistence 3/	In Monthly 0.89 0.34	Quarterly
1951-1960	5.2	2.7	2.5	7.3	lan 02 Doc 01	0.80	0.96
1961-1970	5.9	2.9	2.9	9.7	Jan.92-Dec.01	0.09	0.90
1971-1980	3.5	2.8	0.7	32.6	Jan.02-Jun.05	0.34	0.78
1981-1990	-1.0	2.3	-3.2	369.5	Long term impact		
1991-2000*	4.0	1.6	2.3	24.6	Jan 92-Dec 01	9 50	24.83
2001-2005*	4.0	1.3	2.7	1.8	Jan.02-Jun.05	1.52	4.58

\* Population forecasted by BCRP.

1/ "Low inflation, pass-through, and the pricing power of firms", European Economic Review 44 (2000) 1398-1408.2/ The long-term impact is the total effect of a shock on inflation, measured by:

 $\overline{ \left[ \begin{array}{c} 4 \\ 1-\sum\limits_{i=1}^{k} a_i \end{array} \right] }$  , where aj are the coefficients in the autoregressive process.

3/ Measured as the sum of the correlation coefficients in a fourth-order autoregressive model of the form:

 $\pi_{t} = \alpha_{0} + \alpha_{1}\pi_{t\text{-}1} + \alpha_{2}\pi_{t\text{-}2} + \alpha_{3}\pi_{t\text{-}3} + \alpha_{4}\pi_{t\text{-}4}$ 

- a. The larger area sown with rice (23 percent more during the August 2004-July 2005 harvest than in the previous farming season) because of the availability of more water on the northern Peruvian coast was responsible for the reduction in the price of rice. The enlarged rice sowing was reflected in a 31 percent increase in the production of pounded rice between January and November 2005.
- b. In the case of bread prices, the 2004 increase was strongest in January and February because of the effect of the rise in international wheat prices (from US\$ 116 to US\$ 147 between July 2003 and January 2004) on the price of wheat flour. The international price of wheat was 3.5 percent lower in 2005 than in 2004, on average, keeping bread prices stable.

## Table 1 WEIGHTED CONTRIBUTION TO THE DIFFERENCE BETWEEN 2004 AND 2005 INFLATIONS

	Weighting	2004	2005	Weighted contribution to the difference
CPI	100.0	3.48	1.49	-1.97
Rice	2.3	18.8	-6.1	-0.57
Bread	3.7	12.9	-0.3	-0.53
Gas	1.3	15.3	-10.9	-0.40
Electricity	2.2	12.0	-2.5	-0.32
Sugar	1.4	23.3	-1.2	-0.31
Total				-2.13

4. Inflation in January 2006 was 0.5 percent, due mainly to an increase in the item food and beverages (1.07 percent) associated with supply problems. Inflation was mostly explained by the increase in the price of chicken (8.6 percent) due to a recovery in demand after a fall associated with bird flu concerns, and by a decrease in informal sector production in response to lower prices of potatoes (7.8 percent), fresh vegetables (27.4 percent), and papaya (22.3 percent) in October and November. As a result, the annualized rate of inflation increased to 1.9 percent.

## I.2 Core inflation

5. Core inflation without foods rose from 0.8 percent in 2004 to 1.3 percent in 2005, and 1.4 percent in January 2006, reflecting the favorable trend in economic activity. The inclusion of foods brings core inflation down from 2.6 percent in 2004 to 0.7 percent in 2005, due to the reversal of factors

that were detrimental to that activity in 2004. Heavier rainfall on the northern coast was responsible for a drop in the price of rice, while the lower international wheat price kept the price of bread stable.

# Table 2 INFLATION 2003 - 2006

(Cumu	lialive	percer	nage	chang	e)
-------	---------	--------	------	-------	----

		Weighting	2003	2004	2005	Annual	Janu	ary 2006
_						average 2002-2005	Month	12-month
I.	Core	68.3	0.77	2.63	0.70	1.44	0.08	0.73
	1. Food	18.5	0.54	7.53	-0.76	2.34	-0.21	-0.86
	2. Non-food	49.9	0.85	0.80	1.28	1.11	0.19	1.36
	a. Goods	23.3	0.08	-0.29	0.71	0.47	0.33	0.85
	b. Services	26.6	1.53	1.75	1.77	1.65	0.07	1.79
١١.	Non-core	31.7	6.21	5.20	3.10	3.90	1.33	4.22
	1. Food	14.8	5.24	1.85	4.31	2.22	3.24	6.25
	2. Non-food	16.9	7.00	7.90	2.17	5.30	-0.14	2.65
	a. Fuel	3.9	8.94	17.77	6.89	12.21	-0.02	7.82
	<ul> <li>b. Transportation</li> </ul>	8.4	10.99	3.49	1.29	3.88	-0.36	1.12
	c. Public services	4.6	-1.98	6.19	-1.72	1.06	0.15	-0.48
111	. Total	100.0	2.48	3.48	1.49	2.24	0.50	1.90

#### I.3 Non-core inflation

6. Non-core inflation, applicable to the group of goods and services subject to supply shocks or with regulated prices, showed an annual change of 3.1 percent (5.2 percent in 2004). Twelve-month non-core inflation as of January rose to 4.2 percent due to temporary increases in the prices of chicken (8.6 percent) and food items affected by the harvest delay, such as potatoes and vegetables.

The largest price increases in the non-core inflation group were to be found in foods (4.3 percent), particularly onions, papaya and potatoes, whose prices were offset by the drop in chicken and egg prices, and fuels (6.9 percent).

### Foods

7. In the case of onions, smaller areas were sown in Arequipa, Lima's main supplier (21 percent less than in the previous farming season), while papaya production declined 12 percent over the January-November period, mainly because of Huánuco's reduced harvest due to phytosanitary problems. Prices of potatoes were higher because of reductions in the crop growing areas of the previous farming season, particularly in the important supply centers of Huánuco (10.2 percent) and Lima (5 percent).

Graph 3 CORE INFLATION AND NON-CORE INFLATION (% change over the last 12 months)



The drop in chicken and egg prices can be attributed to the 12 percent increase in sales of baby chicks over 2004 in the former case and, in the latter, to the 6 percent rise in egg production between January and November.

#### Fuels

- 8. Fuel prices closely followed the evolution of the international price of West Texas Intermediate (WTI) crude, which rose from US\$ 43.3 to US\$ 59.2 a barrel between December 2004 and December 2005 (37 percent) due to security problems in the Middle East, growing world demand (particularly that of China) and the Hurricane Katrina effects.
  - The increase in international oil prices failed to touch off a like increase in Peruvian fuel prices, unlike what happened in other countries, because of the application of fiscal compensation measures, like the Fuel Price Stabilization Fund, and reduction of the excise tax, together with the appreciation of local currency between August 2004 and August 2005. As a result, the average increase in fuel prices in 2005 was 6.9 percent. A breakdown of fuel prices shows rises of 9.2 and 21.0 percent in gasoline and kerosene, respectively, with a 10.9 percent drop in the price of gas due to elimination of the excise tax and of the import duty on this product.

# Table 3 FUEL PRICES

(Monthly percentage change)

	2003	2004		2005											
			Jan.	Feb.	Mar.	Apr	. May	. Jun	. Jul.	Aug	Sep.	Oct	Nov.	Dec.	Accum.
Fuels	8.9	17.8	-0.9	-0.6	0.8	1.2	0.2	0.8	-1.9	2.6	3.4	0.9	0.7	-0.3	6.9
Gasoline	9.7	17.7	-0.3	-0.6	0.6	1.4	0.3	1.1	1.4	2.4	3.3	0.5	0.0	-1.4	9.2
Gas	4.2	15.3	-2.6	-1.8	1.1	0.6	-0.2	0.1	-10.2	-1.6	-0.1	1.9	2.1	-0.3	-10.9
Kerosene WTI price	13.0	20.3	0.0	0.5	0.7	1.4	0.2	1.1	1.6	6.2	5.9	0.7	0.4	0.8	21.0
US\$ per barrel % change	8.9	34.9	47.1 9.0	48.1 2.0	54.3 12.9	53.0 -2.4	49.9 -5.8	56.4 13.0	58.7 4.1	64.8 10.4	65.6 1.3	62.5 -4.8	58.3 -6.6	59.2 1.5	36.8

Source: INEI and Bloomberg.

## **Public utilities**

10. **Public utility** rates dropped 1.7 percent on average in 2005. The 2.5 percent reduction in electricity rates was due to the fact that the conversion of the Ventanilla TG3 and TG4 power stations to natural gas (325 MW) in 2004, the entry into operation of the Yuncán hydroelectric generating station (130 MW) in 2005 and the conversion of the Ventanilla TG4 power station (225 MW) to a combined cycle in 2006 offset the effect on electricity rates of the increase in the price of natural gas.



## BOX 2 PRICE OF CAMISEA GAS FOR THE ELECTRICITY SECTOR

The License for Hydrocarbon Exploitation in Block 88 sets the wellhead base price of Camisea gas at US\$ 1.00 per million BTUs for local electric generating companies. According to the natural gas supply contracts with these companies the base price is updated monthly using a readjustment factor based on the average international prices of Residual 6 over the 12 months prior to the factor's calculation. This produces a lag in the passthrough of the Residual 6 price increase to the readjustment factor, creating a larger temporary saving. In the case of a decrease in the price of Residual 6, the adjustment factor will be reduced. For example, it would decrease from 1.66 to 1.16 as a result of a 30 percent drop in the average price of Residual 6 over the previous twelve months. For a greater price reduction, a resulting factor of less than one will be considered equal to one, implying that the minimum price is US\$ 1 per million BTUs.

$$P_t = P_a x Adjustment factor$$

Pt = Readjusted maximum price. Pa = Base price.

Adjustment factor =  $\begin{pmatrix} 0,5^* & \frac{FO1_j}{FO1_a} \\ +0,25^* & \frac{FO2_j}{FO2_a} \\ +0,25^* & \frac{FO3_j}{FO3_a} \end{pmatrix}$ 

FO1 = Fuel Oil N° 6 US Gulf Coast Waterbone (1% sulfur) FO2 = Fuel Oil N° 6 Rotterdam (1% sulfur) FO3 = Fuel Oil N° 6 New York (3% sulfur)

The prices considered are the arithmetic averages of daily residual prices published in Platt's Oilgram Price Report.

Average  $FO1_{j}$ ,  $FO2_{j}$  and  $FO3_{j}$  prices correspond to the 12 months prior to the factor calculation date, while  $FO1_{a}$ ,  $FO2_{a}$  and  $FO3_{a}$  correspond to the average for the 12 months prior to the signing of the License Contract for Hydrocarbon Exploitation in Block 88 (December 1999 - November 2000).

In August 2005, the factor amounted to 1.33, making the maximum wellhead price US\$ 1.33 per million BTUs. The price readjustment, however, depends upon the commercial policy of Pluspetrol, which decided to apply the readjustment only partially during 2005. In September 2005, it was decided by agreement of the generating companies and Pluspetrol not to make any new readjustments in the gas price until February 2006 in order not to affect electricity rates. The readjustment factor in January 2006 was 1.65 and had the wellhead gas price been applied, the maximum would have been US\$1.65 per million BTUs.

The readjustment factors for electricity rates depend upon macroeconomic indicators and the prices of various fuels, among them natural gas. Electricity bills of Lima residential users reflect the effect of the price readjustment, in which natural gas accounts for approximately 17 percent of the final rate.

AND THE IMPACT IN THE FINAL TARIFF 1/						
Components	Weight Final tariff					
Energy 2/	37.0					
Natural gas	17.4					
Residual 6	10.0					
Exchange rate	4.3					
Coal	4.3					
Diesel 2	1.1					
Power 2/	15.0					
Wholesale price index	12.0					
Exchange rate 3/	3.0					
Transmission 2/	9.0					
Wholesale price index	3.3					
Exchange rate	5.7					
Distribution 2/	30.0					
Wholesale price index	26.4					
Exchange rate 3/	3.6					
Main network guarantee - Camisea	9.0					
Total	100.0					
Source: Osinerg. Prepared by BCRP.						

ELECTRIC TARIFFS FORMULAS FOR UPDATING

Notes:

- 1/ The National Interconnected Electric System (SEIN) serves users in Metropolitan Lima. For users in Northern Lima, each variable is weighed against the low-voltage residential electricity rate (BT5B) structure.
- 2/ Electricity generation (energy and power)and transmission readjustment formulas are applied when there is an upward or downward change of over 5 percent in any electricity system (SEIN or the separate systems) adjustment factor. Distribution is updated when there is an upward or downward change of over 1.5 percent in any of adjustment factor or when generating prices are updated.
- 3/ The effect of the exchange rate on power price readjustment also depends upon the import tariff on generating equipment and, in the case of distribution rate readjustment, also on the prices of copper and of aluminum.

11. Telephone rates have dropped (7.0 percent) because of the application of the increase in productivity factors established by Osiptel, corrected for inflation: -8.5 percent for local calls and -6.3 percent for long distance calls.

# Table 4 PUBLIC UTILITIES RATES

(Monthly percentage change)

2003	2004							2	005					
		Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Accum.
-2.0	6.2	-1.1	-0.2	-0.5	0.0	-1.9	0.5	0.2	-0.2	0.8	0.2	0.1	0.4	-1.7
-4.6	12.0	-2.1	-0.3	0.0	0.0	-3.7	2.3	0.2	-0.2	1.9	0.3	-2.0	1.3	-2.5
0.3	-2.0	0.0	-0.2	-2.1	0.0	0.0	-2.6	0.0	-0.6	-0.7	0.1	-0.1	-0.9	-7.0
0.9	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	5.2
	<b>2003</b> - <b>2.0</b> -4.6 0.3 0.9	2003         2004           -2.0         6.2           -4.6         12.0           0.3         -2.0           0.9         3.0	2003         2004         Jan.           -2.0         6.2         -1.1           -4.6         12.0         -2.1           0.3         -2.0         0.0           0.9         3.0         0.0	2003         2004         Jan.         Feb.           -2.0         6.2         -1.1         -0.2           -4.6         12.0         -2.1         -0.3           0.3         -2.0         0.0         -0.2           0.9         3.0         0.0         0.0	2003         2004         Feb.         Mar.           -2.0         6.2         -1.1         -0.2         -0.5           -4.6         12.0         -2.1         -0.3         0.0           0.3         -2.0         0.0         -0.2         -2.1           0.9         3.0         0.0         0.0         0.0	2003         2004         Feb.         Mar.         Apr.           -2.0         6.2         -1.1         -0.2         -0.5         0.0           -4.6         12.0         -2.1         -0.3         0.0         0.0           0.3         -2.0         0.0         -0.2         -2.1         0.0           0.3         -2.0         0.0         0.0         0.0         0.0	2003         2004         Feb.         Mar.         Apr.         May.           -2.0         6.2         -1.1         -0.2         -0.5         0.0         -1.9           -4.6         12.0         -2.1         -0.3         0.0         0.0         -3.7           0.3         -2.0         0.0         -0.2         -2.1         0.0         0.0           0.9         3.0         0.0         0.0         0.0         0.0         0.0	2003         2004         Feb.         Mar.         Apr.         May.         Jun.           -2.0         6.2         -1.1         -0.2         -0.5         0.0         -1.9         0.5           -4.6         12.0         -2.1         -0.3         0.0         0.0         -3.7         2.3           0.3         -2.0         0.0         -0.2         -2.1         0.0         0.0         -3.6           0.9         3.0         0.0         0.0         0.0         0.0         0.0         -2.6	2003         2004         Feb.         Mar.         Apr.         May.         Jun.         Jul.           -2.0         6.2         -1.1         -0.2         -0.5         0.0         -1.7         0.2         -0.2           -4.6         12.0         -2.1         -0.3         0.0         0.0         -3.7         2.3         0.2           0.3         -2.0         0.0         -0.2         -2.1         0.0         0.0         2.0         0.0           0.9         3.0         0.0         0.0         0.0         0.0         0.0         0.0	2003         2004         Feb.         Mar.         Apr.         May.         Jun.         Jul.         Aug.           -2.0         6.2         -1.1         -0.2         -0.5         0.0         -1.9         0.5         0.2         -0.2           -4.6         12.0         -2.1         -0.3         0.0         -0.0         -3.7         2.3         0.2         -0.2           0.3         -2.0         0.0         -0.2         -2.1         0.0	2003         2004         Feb.         Mar.         Apr.         May.         Jul.         Jul.         Aug.         Sep.           -2.0         6.2         -1.1         -0.2         -0.5         0.0         -1.7         0.5         0.2         -0.2         0.8           -4.6         12.0         -2.1         -0.3         0.0         0.0         -3.7         2.3         0.2         -0.2         1.9           0.3         -2.0         0.0         -0.2         -2.1         0.0         0.0         2.0         0.0         -0.7           0.9         3.0         0.0	2003         2004         Feb.         Mar.         Apr.         Mar.         Jun.         Jun.         Apr.         Other         Jun.         Jun.         Apr.         Other         Jun.         Jun.         Apr.         Apr.         Jun.         Jun.         Apr.         Apr.         Apr.         Jun.         <	2003         2004         Feb.         Mar.         Apr.         Mar.         Jul.         Jul.         Sep.         Sep.         Nov.           -2.0         6.2         -1.1         -0.2         0.5         0.0         -1.7         0.5         0.0         -0.5         0.5         0.2         -0.2         1.9         0.3         -0.1           -4.6         12.0         -2.1         -0.3         0.0         0.0         -3.7         2.3         0.2         -0.2         1.9         0.3         -2.0           0.3         -2.0         0.0         -2.2         1.0         0.0         0.0         -2.6         0.0         -0.7         0.1         -0.1           0.3         0.00	2003         2004         Feb.         Mar.         Apr.         May.         Jun.         Jul.         Aug.         Sep.         Oct.         Nov.         Dec.           -2.0         6.2         -1.1         -0.2         -0.5         0.0         -1.9         0.5         0.2         -0.2         0.8         0.2         0.1         0.4           -4.6         12.0         -2.1         -0.3         0.0         0.0         -2.6         0.0         -0.2         1.9         0.3         -0.0         1.3           0.3         -2.0         0.0         -0.2         -2.1         0.0         0.0         -2.6         0.0         -0.2         1.9         0.3         -0.0         1.3           0.3         -2.0         0.0         0.0         0.0         -2.6         0.0         0.

Source: INEL

#### I.4 Imported inflation and other inflation indicators

Graph 5 INFLATION: DOMESTIC AND IMPORTED COMPONENT (12-month % change)



12. **Imported inflation**, applicable to goods in the family shopping basket that are directly or indirectly affected by international prices and the exchange rate, showed an accumulated change of 2.2 percent in 2005 (11.3 percent in 2004). Food products like bread, noodles and edible oils were primarily responsible for the improved showing in 2005, due to the reversal of shocks in the international prices of wheat and soy oil.

# Table 5 IMPORTED & DOMESTIC INFLATION: 2003 - 2005

(Cumulative percentage change)

	Weighting	2003	2004	2005	Average annual % change Jan.02 - Dec.05
I. IMPORTED CPI	12.1	3.0	11.3	2.2	6.6
Food	5.4	-0.1	10.9	-1.5	4.7
Fuels	3.9	8.9	17.8	6.9	12.2
Electrical appliances	1.0	-1.9	-2.8	-1.2	-0.7
Others	1.8	1.4	3.2	2.3	2.6
II. DOMESTIC CPI	87.9	2.4	2.3	1.4	1.6
III. CPI	100.0	2.5	3.5	1.5	2.2
Exchange rate		-1.2	-5.5	4.4	-0.1

### Wholesale price index

13. The Wholesale Price Index (WPI), which covers both domestic and imported consumer, intermediate and capital goods, showed a variation of 3.6 percent in 2005. Oil refining byproducts, basic chemicals and products, rubber and plastic products, and machinery and electric appliances contribute most heavily to the WPI.

## Table 6

WEIGHTED CONTRIBUTION TO 2005 WHOLESALE PRICE INDEX (Percentage points)

Item	% change	Weighted contribution
WPI		3.6
of which:		
Refined petroleum products	16.8	2.1
Chemical products	4.8	0.5
Rubber and plastic products	7.8	0.2
Electric machinery and appliances	12.8	0.3

### **Domestic inflation**

14. The INEI has been preparing the national aggregated consumer price index since 2003, based on the price indexes for 25 cities. The accumulated price increase in 2005 was 1.43 percent, with 9 cities showing a smaller-than-average increase and the remaining 16 a higher-than-average inflation.

The strongest price growth was to be found in the cities of Cerro de Pasco (4.58 percent), Puerto Maldonado (4.08 percent), Tacna (3.53 percent) and Huancavelica (3.18 percent), while in 4 other cities, price growth was negative: Trujillo (-0.53 percent), Tumbes (-0.47 percent), Moyobamba (-0.37 percent) and Chiclayo (-0.16 percent).



Graph 6

# II. MONETARY POLICY

The Central Bank kept its reference interest rate at 3.0 percent from October 2004 to November 2005 because inflation pressures for that year was at the lower level (1.5-2.5 percent) of the target range. It has, since then, raised that reference interest rate three times, in December 2005, January and February 2006, to a level of 3.75 percent, in light of the country's strong economic growth and to prevent the sol's depreciation because of uncertainty over the results of the forthcoming general election in 2006 from having an inflationary impact.

- 15. Ever since the Inflation Targeting framework was introduced in January 2002, the Central Bank has maintained a position of monetary stimulation, consistent with inflation target compliance and the economic recovery following the recession that preceded the framework's implementation.
- 16. The interbank reference interest rate has fluctuated between 2.5 and 3.75 percent over the past three years. The lowest level (2.5 percent) was in effect until July 2004, and from October 2004 to November 2005, the reference interest rate was 3.0 percent. The Bank's monetary operations have been aimed at keeping the interbank rate at those reference levels.

The effects of the Bank's monetary stimulation are reflected in the low levels of the real (ex-post) interbank interest rate, which for the past three years has been below 1.5 percent and in 2004 was even negative.

17. Stronger economic growth, particularly starting in the fourth quarter of the year, and a more upwardly volatile exchange rate made it advisable to reduce monetary stimulation in order to avoid creating inflationary pressures that could affect future inflation target attainment. The reference interest rate was accordingly raised 75 basis points between December 2005 and February of this year (25 basis points each month)

Graph 7 REAL EX-POST INTERBANK INTEREST RATE (Annual averages)



Graph 8



December 2002 - February 2006



### BOX 3

## MONETARY POLICY POSITION

Central Bank monetary policy positions take the form of setting a reference level for the interbank market interest rate. To fight inflation (deflation), the Bank raises (lowers) reference interest rates preventively, plus (3.5 percent) or minus (1.5 percent) 1 percentage point, in order to reach its 2.5 percent inflation target.

The shift from a monetary policy regime based on control of monetary aggregates to an inflation targeting scheme rate resulted in lower volatility and greater predictability of the operative interbank interest rate. Historically low interest rates, with a 2.5 percent minimum, have characterized the years since the Inflation Targeting framework entered into effect. This low level is in keeping with the BCRP's use of monetary stimulation to act on the other macroeconomic variables, particularly varied-term nominal interest rates and real interest rates, in order to affect economic activity and inflation. The speed with which monetary stimulus is withdrawn will depend upon domestic economic conditions. That is why the Central Bank gauges its monetary policy position monthly by consulting all of the information it receives about the state of the economy.

In the United States, for example, the reference interest rate has been readjusted continuously since the second semester of 2004 to take it to a neutral level. Other central banks, like the European or that of Sweden, have made periodic adjustments that do not necessarily result in a cycle of interest rate boosts. Similarly, withdrawing monetary stimulation does not mean turning to a tight-money position because the latter refers to an increase in the interest rate to above its neutral level or a long-term trend consistent with the need to fight economic overheating through inflationary pressures above and beyond the target range. On the contrary, a reduction of monetary stimulation corresponds to an economy that has recovered from recession and has overcome the risk of deflation.





18. BCRP monetary operations in 2005 were aimed at sterilizing its intervention in the monetary market in order not to influence the interbank interest rate to move away from the announced reference level.

Monetary operations up until the third quarter were oriented toward sterilizing dollar purchases through the placement of Certificates of Deposit (CDBCRP). Extreme upward exchange rate volatility in the fourth quarter led the Bank to intervene in the exchange market through dollar sales and net placements of Readjustable Certificates of Deposit (CDRBCRP), for a total of US\$ 784 million.

The monetary impact of those interventions was offset by the maturity of CDBCRPs, whose balance declined from S/. 9,700 million in September to S/. 7,700 million in December, and by temporary CDBCRP and Treasury Bond (repo) purchases that closed the year with a balance of S/. 2,850 million.

## BOX 4

#### INFLATION TARGETING FRAMEWORK IN A PARTIALLY DOLLARIZED ECONOMY

Peru is the only economy today to have instituted an inflation targeting framework in a strongly financially dollarized environment, with highly positive results in terms of inflation and the reduction of dollarization.

Financial dollarization involves economic risks, because it produces two types of mismatch in the balances of economic agents, currency and maturity.

Currency mismatches create an exchange rate risk. The income of families and non-financial companies is generally in soles, but their debts to the financial system are in dollars for the most part. This currency mismatch means that a large and unexpected devaluation of the sol would raise their debt (in terms of soles), without a corresponding increase in earnings. This is known as the "balance sheet" effect.

Maturity mismatches, for their part, create a liquidity risk. Although this phenomenon is inherent to banking systems, the liquidity risk is stronger when intermediation is not in local currency --in other words, when the central bank issuing the intermediated currency is foreign.



The Central Reserve Bank has taken a series of measures to contain these risks.

a. An initial group of measures is aimed at reducing financial dollarization and includes:

- the Inflation Targeting framework itself, which is conducive to the recovery of confidence in the sol and
- · measures that have led to development of long-term sol-denominated financial instruments.
- b. A second group of measures is intended to give the economy an appropriate capacity for response to strong pressures that push up the exchange rate or restrict dollar liquidity, and includes:
  - the BCRP's high level of international reserves,

.....

- a banking system with a high level of liquid foreign currency assets, and
- · a currency flotation system with interventions to reduce sharp exchange rate fluctuations.

In addition, a strong fiscal position and appropriate banking supervision help reduce risks associated with financial dollarization.

# **III. EVOLUTION OF EXCHANGE RATE**

After following an appreciatory trend since 2003, between August 2005 and January 2006, the nuevo sol reverted this trend moving away from the evolution of its exchange-oriented economic fundamentals (like maintaining a positive trade balance) to become more closely attuned to inter-currency portfolio movements and political and election uncertainties. However, upward pressures on the exchange rate dissipated in the second half of January.

19. The nominal exchange rate rose from S/. 3.28 to S/. 3.43 per dollar between December 2004 and December 2005, a depreciation of 4.4 percent against the U.S. dollar and of 1.9 percent against the currencies of our main trading partners. In 2004, the nuevo sol appreciated 5.5 percent against the dollar and 1.5 percent against the currencies average of our main trading partners.

In real terms, the nuevo sol has depreciated 6.3 against the U.S. dollar and 3.8 percent against the basket of currencies of our main trading partners. The inflation differentials (3.4 percent in the United States and 3.4 percent in our trading partners, against 1.5 percent locally) combined with the nominal depreciation cited above to produce this result.

## Table 7 NOMINAL AND REAL CHANGES OF THE NUEVO SOL WITH RESPECT TO THE CURRENCIES OF ITS MAIN TRADE PARTNERS AS OF DECEMBER 2005

	Nom respe	ninal ect to:	Real respect to:			
	Dec. 2003	Dec. 2004	Dec. 2003	Dec. 2004		
JSA	-1.3%	4.4%	0.3%	6.3%		
Euro zone	-4.8%	-7.5%	-5.4%	-6.7%		
Japan	-10.1%	-8.4%	-14.2%	-9.8%		
Brazil	26.2%	24.1%	36.8%	29.3%		
Jnited Kingdom	-1.6%	-5.6%	-0.9%	-4.9%		
Chile	15.8%	17.0%	17.2%	19.6%		
China	1.1%	7.0%	0.7%	7.6%		
Colombia	21.5%	10.7%	28.2%	14.3%		
Vexico	4.5%	10.1%	8.2%	12.1%		
Argentina	-4.4%	2.0%	8.5%	12.9%		
Korea	15.0%	7.3%	15.8%	8.5%		
Taiwan	0.8%	1.0%	-0.3%	1.7%		
/enezuela	-26.6%	-6.8%	-4.7%	5.0%		
Canada	11.4%	9.3%	10.7%	10.0%		
Bolivia	-3.3%	5.4%	1.2%	9.1%		
Basket	0.4%	1.9%	2.3%	3.8%		





Graph 12 CURRENCY DEPRECIATION AND APPRECIATION OF PERU'S MAIN TRADE PARTNERS AGAINST US DOLLAR: 2005



The evolution of the real exchange rate was influenced by the appreciation of the U.S. dollar in international markets --following its depreciation of recent years--, fueled by better growth prospects and a larger interest rate differential in its favor.

#### BOX 5

#### THE EQUILIBRIUM REAL EXCHANGE RATE IN PERU

Nominal exchange rate (NER) is the local price in terms of a foreign currency (for example, nuevo soles per US dollar) or of a basket of currencies. The real exchange rate (RER), for its part, can be expressed as the relative price of foreign goods with respect to domestic goods.

$$RER = \frac{NER.P^*}{P}$$

where:

P\*: external price index of the country's main trading partners

P: Peru's consumer price index

The RER index changes over time because of exchange rate and price fluctuations that affect currency competitiveness. If the RER is high (low) in terms of any equilibrium value (or equilibrium real exchange rate, ERER), domestic goods will be less (more) expensive than foreign goods. In other words, in this situation, currency is "really undervalued (overvalued)."

The degree of RER under or overvaluation is not directly observable, but must be estimated indirectly.

There is more than one possible way to estimate ERER.<sup>1/</sup> The "Behavioral Real Exchange Rate" (BEER) is one of the most widely used methods in the case of emerging economies like the Peruvian and involves an estimated ERER Behavior Model<sup>2/</sup>. This procedure is based on determining the long-term ratio between the RER and several variables that are important in explaining its behavior. This series of variables is known as "RER fundamentals." The ERER established through use of this methodology would be the RER level that is compatible with the internal and external economic equilibriums for some values of certain macroeconomic fundamentals that could influence those equilibriums.<sup>3/</sup> These variables include:

-Terms of trade: a rise in this variable produces an income effect on the economy, boosting domestic demand and consequently raising the price of non-tradables, which would lead to an appreciation of the RER. Terms of trade have risen about 17 percent in recent years.

-Productivity in the tradable relative to the non-tradable sector: an increase in tradable sector productivity alters the terms of domestic supply and demand, pushing up prices in the non-tradable sector, with the result that the RER appreciates.

-Medium and long-term net external liabilities: countries with large net external liabilities need to become more competitive and to generate a trade account surplus in order to pay their debts and, as a result, need a more depreciated equilibrium real exchange rate. This reveals the existence of a direct relationship between this fundamental and the RER. Over the past 2 years, the country's net medium and long-term external liabilities dropped from US\$ 27,600 to US\$ 25,500 million between December 2003 and December 2005.

According to studies made by Goldman Sachs<sup>4/</sup> and by Deutsche Bank<sup>5/</sup> using different methodologies, Peru's RER around May 2005 was undervalued by 6 and by 4 percent, respectively.

<sup>1/</sup> A review of the methodologies can be found in Driver, R. and P. Wetaway (2004), "Concepts of Equilibrium Exchange Rates", Bank of England Working Paper No. 248.

<sup>2/</sup> See Clark, P. and R. MacDonald (1998), "Exchange Rates and Economic Fundamentals: A Methodological Comparison of BEERs and FEERs", IMF Working Paper 98/67.

<sup>3/</sup> Ferreyra, J. and R. Herrada (2003), "Tipo de Cambio Real y sus Fundamentos: Estimación del desalineamiento", Revista de Estudios Económicos No. 10, Central Reserve Bank of Peru.

<sup>4/</sup> Goldman Sachs (2005) "Merging GSDER and GSDEEMER: A Global Approach to Equilibrium Exchange Rate Modelling", Global Economics Paper No. 124.

<sup>5/</sup> Deutsche Bank (2005), "From Fundamentals to FX rates: An Equilibrium Real FX Model for EM Currencies", Global Market Research.

Graph 13 EXCHANGE RATE AND TRADE BALANCE: January 1996 - December 2005



Graph 14 EXCHANGE MARKET (August 2005 - January 2006)





\* Source: Banks.





20. The nominal exchange rate showed variable behavior in 2005, dropping during the first half of the year basically because of the favorable evolution of Peru's external accounts and the stable regional context.

Between August of last year and January of this year, the exchange rate fluctuated between S/. 3.25 and S/. 3.45 per dollar because of the continue recomposition of the investor portfolio (mainly institutional) and uncertainty over the results of the forthcoming Presidential election in 2006. During this period, purchases of US\$ 799 million in the forward market and of US\$ 543 million by pension funds (PF) created a pressure on the demand for foreign currency in the exchange market. The BCRP countered this demand with direct sales of US\$ 539 million and the placement of US\$ 359 million worth of CDRBCRP.

Table 8 EXCHANGE MARKET (Millions of US\$)

Month	Ban Forward market	k operations 1 Spot ma Pensions Funds	operations 1/ Spot market Pensions Total Funds		BCRP operations 1/ Intervention CDR Spot sales placement		End of period exchange rate
Average JanJun.	58	8	297	3	-353	0	3,254
Jul.05	361	-7	452	49	-765	0	3,254
Aug.	211	-192	-43	-46	-214	0	3,281
Sep.	37	-66	-35	-31	-33	0	3,344
Oct.	-105	-51	67	45	34	50	3,376
Nov.	-107	-113	122	68	53	0	3,416
Dec.	-525	-76	-78	40	345	300	3,419
Jan. 06 2/	-309	-45	-118	-69	355	9	3,307

1/ Negative sign for demand / positive sign for supply.

2/ Preliminary.

Source: Banks.

The trend toward depreciation of the nuevo sol continued into January, with a maximum value of S/. 3.447 per dollar being reached by the close of January 12 (0.8 percent depreciation compared with the close of 2005). As of that date, there has been an observable downward pressure on the exchange rate, which closed at S/. 3.307 per dollar (3.3 percent appreciation compared with the closing rate for 2005).

#### Graph 16 PENSION FUND'S US DOLLAR PURCHASES AND EXCHANGE RATE



Graph 17 FORWARD NET SALES BALANCES AND INTERBANK EXCHANGE RATE



Graph 18 FORWARD RATES SPREADS: ASK PRICES



Graph 19 BANK'S COVERED EXCHANGE POSITION AND INTERBANK EXCHANGE RATE (End of period)



- 21. The exchange rate was affected by the following factors:
  - a. **Dollarization of the pension funds (PF) portfolio**: the PF portfolio dollarization ratio, which at June had dropped to 41 percent from 44 percent in December 2004, rose to 47 percent in December 2005.

It should be explained that in August and in November, the PF invested a total of US\$ 515 million in four funds of foreign currency-denominated instruments containing a percentage of external assets that are treated as local investment under the regulator's norm.

Forward operations: stronger expectations b. of depreciation created a demand for exchange risk protection instruments (forward selling operations), particularly during December. Foreign investors who had acquired sovereign bonds in the domestic market and had failed to cover their positions were responsible for a significant percentage of those operations. As a result, the balance of forward net sales increased US\$ 328 million in December (by rising from US\$ 699 million in December 2004 to US\$ 1,027 million in December 2005 and rose to US\$ 1,229 million at January 31, 2006). Non-residents accounted for 68 percent of those sums in December and in January, respectively.

Between August 2005 and January 2006, the financial cost of hedging forward sales contracts (against the risk of depreciation) rose because of the narrowing of the interest rate differential between soles and dollars. In January, interest rate differences continued to widen throughout the entire curve, reaching levels similar to those recorded in the first semester of 2005.

c. **Covered foreign currency position**: Between August and December 2005, adding to these (spot and forward) demand pressures on the part of the public was by the banking system's demand to recover its foreign currency position, which increased by US\$ 76 million, from US\$ 404 million to US\$ 480 million. In January 2005, the banking system reduced its foreign currency position by US\$ 69 million, bringing it down to US\$ 411 million.

Graph 20 COUNTRY RISK AND EXCHANGE RATE (January 2004 - January 2006) Bps.



S/. per US\$

Graph 21

**CENTRAL BANKS INTEREST RATES AND INFLATION** (In percentage)



- d. **Country risk**: electoral uncertainty also influenced the country risk, which rose from 163 basis points (bp) in November to 206 bp at the close of December, after a decreasing trend until October, having reached its lowest level on October 3 (134 bp). During the second half of January, however, the country risk dropped to about 160 bp.
- 22. The rise in short-term dollar interest rates may also have strengthened the dollar, as was the case with other currencies in 2005. The interest rates of countries like Sweden, Norway and Canada, among others, and that of the Central European Bank, like that of Peru, are below the announced FED rate and in some cases the differential in their short-term interest rates is even wider than that of Peru. The reason for this is that central banks set the levels of their reference interest rates according to inflation behavior in their respective countries.

# BOX 6 EXCHANGE RATE AND INTEREST RATE DIFFERENTIAL

One of the theories used to explain the price fluctuations of one currency against another is the uncovered interest rates parity (UIP). This indicates that the expected depreciation of the local currency relates to the differentials of interest rates considering a structure of short and long term rates. Thus, the future evolution of the exchange rate will depend on the information that provide the interest rates of the market.

The international empirical evidence shows that the differential of short term interest rates is not useful to predict the movements of the exchange rate. A recent study by Chinn and Meredith (2005) <sup>1/</sup> suggests that, for a sample of developed countries (Germany, Japan, UK, Italy, and Canada), the interest differential for government bonds does not predict changes in the exchange rate vis-à-vis the U.S dollar in the case of short maturities (three, six, and twelve months).

This conclusion results from empirical tests of the Uncovered Interest Rate Parity theory (UIP), defined as the relation between the interest rate for assets denominated in domestic currency and that for identical assets  $2^{i}$  denominated in foreign currency, when there is arbitrage in capital markets and investors are risk-neutral. If  $i_t$  is the interest rate in domestic currency,  $i_t^*$  is the interest rate in foreign currency, and  $\tilde{e}_t$  is expected devaluation, the UIP can be expressed as  $3^{i}$ :

$$i_t = i_t^* + \tilde{e}_t \tag{1}$$

which indicates that the nominal interest rate in soles is equivalent to the foreign interest rate plus expected devaluation.

The UIP can be expressed as a function of future interest rates, which are also relevant for the analysis, the reason being that investors do not consider only the yield of short-term interest rates (such as the monetary policy reference rate), but the maturity structure as a whole. Therefore, the latter equation can be expressed for successive periods to establish the evolution of the exchange rate as a function of the expected path of interest rate differentials between both currencies, of which the current differential is but one component.

To make this relationship explicit, expected devaluation  $\tilde{e}_t = \tilde{E}_{t+1} - E_t$  can be expressed as the difference between the expected exchange rate in the period t+1 ( $\tilde{E}_{t+1}$ ) and the current exchange rate ( $E_t$ ), both in logs. From equation (1) the exchange rate is equal to:

$$E_{t} = \tilde{E}_{t+1} - (i_{t} - i_{t}^{*})$$
(2)

If we carry the equation one period forward and express it in terms of expectations, we obtain  $\tilde{E}_{t+1} = \tilde{E}_{t+2} - (\tilde{i}_{t+1} - \tilde{i}_{t+1}^*)$  where  $\tilde{E}_{t+2}$  is the expected exchange rate for the period t+2 and  $(\tilde{i}_{t+1} - \tilde{i}_{t+1}^*)$  is the expected interest rate differential for the period t+1. Thus, (2) can be re-expressed as:

$$E_{t} = \tilde{E_{t+2}} - (\tilde{i_{t+1}} - \tilde{i_{t+1}^{*}}) - (i_{t} - i_{t}^{*})$$
(3)

This expression indicates that the current exchange rate level depends on the current rate differential  $(i_t - i_t^*)$ , the expected rate differential  $(i_{t+1} - i_{t+1}^*)$ , and the expected exchange rate two periods forward  $\vec{E}_{t+2}$ . Iterating k periods forward, the current exchange rate can be expressed as a function of the expected rate differentials for such projection horizon:

$$E_{t} = \tilde{E}_{t+k} - \sum_{j=1}^{k-1} (\tilde{i}_{t+j} - \tilde{i}_{t+j}^{*}) - (i_{t} - i_{t}^{*})$$
(4)

Equation (4) suggests that the impact of the current interest rate differential on the exchange rate will not be significant if such differential is expected to be reversed in the future.

In order to contrast the UIP empirically, (1) must be converted into a regression of the form:

$$\tilde{e}_{t} = \alpha + \beta \left( i_{t} - i_{t} \right)^{*} + \mu_{t}$$
(5)

Clearly, the UIP holds if  $\alpha = 0$ ,  $\beta = 1$  and the stochastic shock  $\mu$  behaves as a simple stochastic error (white noise). Given that expected devaluation is not directly observable, it is necessary to make an assumption about the way in which investors form their expectations about the exchange rate. The standard assumption (used in Chinn's and Meredith's study, 2005) is that agents do not fail systematically in their forecasts, and therefore observed devaluation ( $e_t$ ) would be equal to expected devaluation ( $\tilde{e}_t$ ) plus a forecasting error ( $\varepsilon_t$ ). Thus, (5) can be expressed as:

$$e_t = \alpha + \beta (i_t - i_t^*) + \mu_t + \varepsilon_t$$

When calculating this equation<sup>4/</sup>, Chinn and Meredith (2005) found that the estimated value for  $\beta$  varies between -0.76 (for three-month interest rates) and -0.54 (for twelve-month interest rates), which shows that the UIP does not operate for short periods. For the latter, it is not reasonable to use interest rate differentials to predict exchange rate variations. When the authors expanded the maturity to five years, they found that the estimated  $\beta$  coefficient does not differ significantly from the theoretical value 1, which shows that the UIP is an equilibrium condition in capital markets operating with long maturities.



In the case of Peru, the following figure shows that there is not a systematic relationship between the interest rate differential and nominal devaluation<sup>5/</sup>.

Additionally, when calculating Chinn's and Meredith's equation for Peru, the value for the  $\beta$  coefficient was preliminary estimated at -0.2, which is consistent with the evidence found for other countries. If the UIP is valid, an expected annual depreciation of 1 percent would correspond to an interest rate differential of 1 percent, while the depreciation in the second semester was 5.5 percent.

This shows that, in the short run, deviations from the UIP can be explained by several other fundamental factors that complement the interest rate differential -the country risk, the growth differential between countries, the trade balance, balance sheet variables like the country's net liabilities, and variables that explain movements in assets- could help explain the relationship between interest rate differentials and the nominal exchange rate.

Summarizing, it is not correct from a conceptual or empirical point of view to use the interest rate differential as an indicator of short-run exchange rate movements.

- Calculated using the Generalized Method of Moments to correct the standard error of the estimators. 4/
- 5/ Interest rates are the interbank rate in domestic currency and the Fed's rate. Nominal devaluation was calculated for the end-or-period ask exchange rate. Interest and devaluation rates are expressed in annualized terms.

AND BCRP INTERVENTION: DEC.05-JAN.06 Millions of US\$ S/, per US\$ 3.48 120 3.46 100 3.44 80 3.42 3.40 60 3.38 40 3.36 3.34 20 3.32 3.30 1 5 7 12 14 16 20 22 26 28 30 3 5 9 11 13 17 19 23 25 27 31

Sales of US\$ CDRBCRP

January 2006

ER

**INTERBANK EXCHANGE RATE (END OF PERIOD)** 

Graph 22

December 2005

23. The BCRP bought US\$ 3.13 billion between January and September 2005. Afterwards, in a context of strong depreciation pressures, the BCRP intervened through direct sales (US\$ 786 million) and issuance of Readjustable Certificates of Deposit, CDRs (US\$ 359 million) between October 2005 and January 2006. It should be noted that the greater part of such intervention took place between December 2005 and January 2006.

In the current bimester, BCRP interventions amounted to US\$ 1,009 million (US\$ 700 million in direct sales and US\$ 309 million in CDR placements). In the second half of January the exchange rate reversed its upward trend by falling from S/. 3.45 to S/. 3.31 per dollar, as the public decelerated its demand for forward dollars and banks' restored their foreign exchange position. In a context of renewed confidence, the stock exchange reported profits of 18 percent and the country risk decreased 59 basis points. The BCRP's most recent foreign exchange sale took place on January 17.

Chinn, Menzie D. and Guy Meredith (2005), "Testing uncovered interest parity at short and long horizons during the post-Bretton Woods Era", National Bureau of Economic Research, Working Paper 11077. That is, with the same risk, transaction costs, tax conditions, and any other relevant financial characteristics. 1/

Obtained after some simplifications. The derivation of the equation can be found in textbooks such as Blanchard O. (2003), 'Macroeconomics", Prentice Hall.

#### BOX 7

# CENTRAL BANK EXCHANGE INTERVENTION: CONCEPTUAL AND OPERATIONAL ASPECTS

#### Speculative bubbles in the exchange market and the Central Bank's reaction

The exchange rate not only represents the local currency price of foreign currency --the price of the dollar in soles-- , but is also the price of a financial asset. Financial asset prices are known to be highly volatile because they incorporate future expectations of their fundamentals. Formally speaking, this price is the net present value of the expected future returns on the asset. Expectations about the future value of that asset should ideally reflect only the expected value of its fundamentals, in the cases of the exchange rate, capital flows, and levels of domestic and foreign inflation, for example.

It is not unusual, however, for markets to incorporate expectations that are not based on the expected evolution of the fundamentals, a situation that is known as bubbles.<sup>1/</sup> These feed on the irrational and emotional behavior of participants in the market.<sup>2/</sup> In some cases, this behavior is magnified because a group of participants in the market, usually the least informed, follow its evolution blindly, led by more informed agents with a capacity for influencing market price. This type of strategy is usually known in financial markets as herd behavior.

When bubbles exist, the asset price may follow an unstable course, moving steadily away from its fundamentals, because speculators keep buying it despite its overvalued price because they consider that the bubble will continue to grow and that they will be able to take profits before it deflates. Financial bubbles create highly volatile asset prices that can bring on financial, exchange and stock market crises. The exchange rate, because it is the price of a financial asset, is also subject to bubbles that set off periods of high volatility that have a negative impact on the financial system and the productive sector, particularly in dollarized economies.<sup>30</sup>

Monetary policy theory and practice recognize the need for Central Bank intervention to cushion the negative impact of widely fluctuating asset prices only in the degree to which these affect final monetary policy objectives such as inflation and the product. In other words, asset prices or exchange rate are important only so long as they signal the existence of inflationary pressures (see Bernake and Gertler 2000). Central bank intervention is justified, however, when sudden potential changes in assets result in financial crises or, in the case of dollarized economies, widespread bankruptcy. By way of example, after the Russian government announced its foreign debt moratorium in August 1998, the U.S. Federal Reserve open market committee decided to lower interest rates despite the absence of inflationary economic pressures, in order to keep nervousness over the debt moratorium from having a negative impact on the financial system and inducing the deflation of the bubble in the asset market. The Federal Reserve, through this behavior, revealed its concern for reducing the likelihood of a highly costly potential financial crisis, even at the risk of a probable increase in inflation.

Recent contributions from Hansen and Sargent (2004), and Svensson, (2000) explain this response by the Federal Reserve to sudden fluctuations in asset prices as prudent monetary policy that takes explicit account of the risks associated with unlikely, but highly costly, events.

In dollarized economies, exchange rate bubbles, like financial asset price bubbles in developed economies, can generate sizeable asymmetric costs that justify central bank intervention to reduce their volatility. In this way, the Central Bank's intervention in the exchange market seeks to minimize the probability that a sudden increase in the exchange rate triggered by the economic dollarization will have costly consequences in terms of business bankruptcy and the reduction of financial system stability. Interventions of this kind, therefore, are consistent with prudent monetary policy.

#### Operational aspects of exchange intervention

Canales-Kriljenko, Guimaraes and Karacadag (2003) analyze the operational aspects of central bank intervention in the exchange market. In emerging economies with a floating exchange rate, the bank is usually faced with a monetary policy dilemma (interest rate versus exchange rate).

These authors have the following recommendations to make for better exchange intervention:

- Intervention success depends upon how consistent the operation is with the main macroeconomic objectives. In line with its
  Inflation Targeting framework, the Central Bank's most important variable is its credibility. As a result, it is impractical to put
  forward a rule for intervention, because the exchange rate could be viewed as being more important than inflation, thereby
  reducing the Bank's credibility. It is therefore necessary to call upon the monetary authorities' discretionality.
- The Central Bank needs a certain measure of discretionality in order to determine the amount of and the proper moment for the intervention, in order to adjust to market conditions. Rule-based interventions could be appropriate in given short-term circumstances, but are not needed in the long-term, because a nominal anchor is already available (inflation).
- Central banks must be cautious in their interventions because exchange rate misalignments are fairly difficult to identify. Furthermore, interventions to reduce exchange volatility should not defend an explicit level.
- Determination of the amount of and the proper moment for the intervention is a subjective exercise that depends largely on the economic shocks.
- The intervention should be transparent and clearly specified (type of instrument) in order to guarantee the Central Bank's credibility. This does not mean, however, that the Central Bank should reveal its negotiating tactics to the market, because that would take away from the efficiency of the intervention (in terms of the amount involved and number of interventions).
- The necessary actions for good intervention practice are tied in with specific conditions in each country, among which we can mention the Central Bank's credibility and also its participation in the market.

#### References

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<sup>1/</sup> Bubbles in financial markets are known as "Irrational Exuberance," the term used by Alan Greenspan to describe the most intense moment of a speculation attack in financial markets. See Shiller, 2000, for further references. It should be added that not all financial bubbles are necessarily irrational (Bernanke y Gertler 2000).

<sup>2/ &</sup>quot;Behavioral Finance" literature (see Thaler, R. Advance in Behavioral Economics 1993) points out the importance of understanding the behavior of both rational and irrational agents in order to explain asset movements. In other words, consideration of the effect of irrational behavior by a group of agents is key to understanding the market. "Irrational decision" models, in line with Tversky and Kahneman (1981 " The Framing of Decisions and the Psychology of Choice", Science 453-458) can help explain the behavior of speculative markets.

<sup>3/</sup> Empirical evidence showing the existence of bubbles in the Dollar and Sterling markets and in other similar markets can be found in Meese (1986) and in MacDonald and Taylor (1993), respectively.



24. Despite this, BCRP net international reserves increased by US\$ 1,466 million, to a balance of US\$ 14,097 million at the close of December, due mainly to the US\$ 1,250 million increase in financial system deposits and US\$ 767 million in net dollar purchases, offsetting the withdrawal of US\$ 587 million from public sector deposits. Its net dollar purchases also allowed the BCRP to raise its exchange position by US\$ 811 million (balance of US\$ 7,450 million at year end). In January 2006, BCRP net international reserves reached US\$ 14,139 million, in spite of a US\$ 230 million reduction in its exchange position (US\$ 7,220 million balance)

# **IV. EVOLUTION OF FINANCIAL MARKETS**

## IV.1 Interbank market interest rate

Interest rate behavior was mixed. While average lending rates in soles declined over the year, interest rates on corporate loans and short-term depositor rates showed increases in recent months.

25. The corporate 90-day prime rate and the up-to-30-day deposit rate both rose, in the former case from 3.8 percent in August to 4.4 percent in December and on up to 5.1 percent in January, and in the latter, from 3.2 percent in August to 3.6 percent in December and then 4.2 percent in January.

Increases in the corporate 90-day prime rate and in the upto-30-day deposit rate were larger than the December and January increases in the reference interest rate. Short-term deposit rates of up to three months rose in response to bank demands for more sol funding to cover dollar purchases in the exchange market and the increase in their foreign currency forward positions (concentrated in three-month terms), together with the rising growth of demand for loans in soles.

26. Drops in the other lending rates lasted until December, apparently as a result of declining defaults and improved risk perception triggered by economic growth. Deposit interest rates, for their part, remained relatively stable until December, except in the case of short-term deposits. Most lending and deposit rates began to rise in January, after the BCRP raised its reference interest rate for the second time.

	Domestic currency					Foreign currency				Differential					
	Dec. 2004	May. 2005	Aug. 2005	Dec. 2005	Jan. 2006	Dec. 2004	May. 2005	Aug. 2005	Dec. 2005	Jan. 2006	Dec. 2004	May. 2005	Aug. 2005	Dec. 2005	Jan. 2006
1. Interbank and FED funds rate	3.00	3.00	3.00	3.25	3.50	2.20	3.00	3.50	4.25	4.50	0.8	0.0	-0.5	-1.0	-1.0
2. Deposits up to 30 days	3.1	3.3	3.2	3.6	4.3	2.1	2.8	2.9	3.6	3.7	1.0	0.5	0.2	-0.1	0.6
3. Term deposits between 31 to 180 days	3.2	3.4	3.6	3.6	3.9	1.7	1.9	2.4	2.9	3.0	1.5	1.5	1.2	0.7	0.9
4. Corporate prime	3.8	4.0	3.8	4.4	5.1	2.6	3.6	4.3	5.5	5.7	1.2	0.4	-0.5	-1.1	-0.6
5. Average lending up to 360 days	14.7	15.1	15.2	13.9	14.9	7.7	8.2	8.7	9.4	9.7	7.0	6.9	6.4	4.6	5.2
6. Average lending constant structure	18.2	18.1	17.7	17.0	17.2	9.4	9.7	9.8	10.3	10.4	8.8	8.4	7.9	6.7	6.8

#### Table 9 INTEREST RATES IN DOMESTIC AND FOREIGN CURRENCY (Percentages)

- 27. The differential between interest rates in soles and in dollars narrowed during the final months of 2005. This behavior is associated with the 50-basis point increase by the United States Federal Reserve in its reference interest rate between September 2005 and December 2005, lifting interest rates in dollars in the local market, while the BCRP raised its reference interest rate 25 basis points for the period.
- 28. In January 2006, after the additional 25-basis points increase in the BCRP reference interest rate, the narrowing interest differential reversed for almost all maturities. By way of example, in the case of term deposits of between 31 and 180 days, the differential, which dropped from 1.2 to 0.7 percentage points between August and December, rose to 0.9 percentage points in January 2006.
- 29. The average lending rate differential followed a narrowing trend in 2005, dropping from 8.8 percentage points in December 2004 to 7.9 percentage points in August 2005 and on down to 6.7 percentage points in December. This behavior can be attributed to the increase in interest rates in dollars in response to rising international rates, and the reduction of interest rates in soles, in keeping with the banks' improved perception of economic agents' credit risk.
- 30. To give an idea of the banks' perception of economic agents' credit risk, we can observe the course followed by interest rates on loans to the highest-risk borrowers. The average interest charged by banks for loans in soles to microenterprises dropped from 48.1 to 44.1 percent between December 2004 and January 2006.





Graph 25 DOMESTIC CURRENCY INTEREST RATES FOR COMMERCIAL, MICROBUSINESSES AND CONSUMPTION LOANS



#### IV.2 Bond market

Interest rates on CDBCRPs and sovereign Treasury bonds (BTP) followed an upward course between September 2005 and the first half of January 2006, reversing the drop noted between April and August of that year. In the case of the Treasury Bonds, interest rates dropped during the second half of January, given the cooling of expectations of local currency devaluation.

31. The increased strength of the sol noted in the first half of the year made it possible to heavily reduce sovereign bond interest rates in soles. Starting in October, however, the increase in the country risk (50 basis points in the fourth quarter) and growing expectations of the sol's devaluation due to uncertainty over the results of the 2006 general election, pushed up those rates.

# Table 10 INTEREST RATES OF SOVEREIGN BONDS IN THE SECONDARY MARKET 1/

(Percentages)

	12Aug.06	09Oct.07	09Jul.08	11Feb.09	10Mar.10	10Aug.11	31Jan.12	05May.15	12Aug.16	12Aug.17	12Aug.20
2004											
December	5.70	6.76	7.11	8.14	8.51	9.60	-	-	-	-	-
2005											
March	5.03	5.69	6.36	6.79	7.68	7.79	8.59	-	-	-	-
June	4.47	5.40	6.03	6.52	7.06	7.65	7.83	8.72	-	-	-
July	4.19	5.04	5.51	6.08	6.51	7.10	7.21	7.86	-	8.45	7.87
August	4.00	4.80	5.36	5.69	6.31	6.76	6.96	7.34	7.36	7.65	7.86
September	4.01	4.79	5.24	5.53	6.11	6.44	6.47	7.15	6.92	7.28	7.45
October	4.14	4.91	5.39	5.57	6.44	6.65	6.83	6.70	7.75	7.79	7.79
November	3.99	5.09	5.52	5.85	6.30	6.60	6.67	7.24	7.48	7.69	7.80
December	4.45	-	5.62	6.32	6.77	7.11	7.06	7.88	7.99	8.21	8.15
2006											
January (1-15)	4.63	5.40	6.05	6.63	7.09	7.25	7.40	8.00	8.05	8.28	8.30
January (16-31)	4.54	5.35	5.80	6.20	6.74	6.95	7.05	7.44	7.62	7.87	7.99
				1							*

#### Graph 26 GOVERNMENT SECURITIE'S AVERAGE INTEREST RATES IN SOLES



#### Graph 27 SECONDARY MARKET OF PUBLIC TREASURY SOVEREIGN BONDS <sup>1/</sup>



1/ Average interest rate for each period.

This trend continued in December and through the first half of January, reflecting in part the two raises of the reference interest rate (25 basis points in each case). As a result, the interest on a 15-year bond was 8.3 percent in the first half of January, 2006, up from 7.45 percent in September.

Sovereign Treasury bond interest rates, in a context of declining expectations of a sol devaluation, reversed their upward trend in the second half of January and dropped for almost all maturities.

### **IV.3 Monetary aggregates**

32. Monetary aggregates continued to perform dynamically in 2005. Average balances of the narrowest of the monetary aggregates, like currency and monetary base, settled at 26 percent. Total monetary aggregates and total credit to the private sector rose 18.3 and 16.1 percent, respectively. Strong economic growth, particularly as of the second semester, was responsible for this increase in monetization.

#### Table 11

## MONETARY AGGREGATES OF THE BANKING SYSTEM (Annual % change, end-of-period)

	2002	2003	2004	2005
Currency	13.5	13.5	26.1	25.9
Monetary base	11.0	10.1	25.3	25.7
Deposits in domestic currency	9.3	9.2	29.0	16.2
Liquidity in domestic currency	10.6	10.5	28.1	19.2
Total liquidity	5.8	1.0	8.2	18.3
Credit to the private sector in domestic currency	7.1	5.1	11.9	34.6
Total credit to private sector	0.1	-4.5	-0.3	16.1

33. Credit **dedollarization** continued in 2005, in a context of progressive reduction of the cost of loans in soles. Dollarization of private sector loans by both the financial and banking systems was 4 percentage points lower than in 2004 (5 percentage points lower, if the effects of exchange fluctuations are discounted).

# Table 12

#### FINANCIAL DOLLARIZATION INDICATORS

(In percentages of the total monetary aggregate)

Year	Total liquidity of the banking system	Credit of the banking system to the private sector	Credit of the financial system to the private sector
1993	69	76	77
1994	64	74	74
1995	63	71	72
1996	67	74	72
1997	65	77	75
1998	69	80	79
1999	70	82	82
2000	70	82	81
2001	67	80	78
2002	65	79	76
2003	62	77	73
2004	55	74	71
2005	55	70	67



62

2003

75

58

2004

Credit to the private sector

70

2005



73

63

58 53

68 67

2001

2002

\* Valued with the exchange rate as of December 2001.

Monetary aggregate

#### Graph 29 CREDIT TO THE PRIVATE SECTOR (YoY % changes)



Monetary aggregate dollarization behavior varied throughout the year. During the first months, the trend toward dedollarization continued, but in the second semester there was a slight reversal, due basically to the depreciation of the sol, but discounting this effect, the dollarization of monetary aggregates declined 2 percentage points.

- 34. In 2005, for the sixth straight year, financial system loans in soles to the private sector outpaced the growth of loans in dollars. Sol lending showed an annual growth of 33.3 percent, triple that of the previous year, while dollar lending totaled 5.5 percent per annum at the end of the year, surpassing its growth level for 2004.
- 35. Banks were responsible for the lion's share (S/. 3,134 million) of the growth in **sol lending** (S/. 5,485 million) because of the increase in their commercial and consumer loans (S/. 2,210 million and S/. 1,052 million, respectively). The largest commercial bank loans went to manufacturing (S/. 780 million), commerce (S/. 622 million), and transportation, storage and communications (S/. 210 million).

Loans in soles to microfinance institutions (S/. 1,512 million) and loans made by institutional investors (S/. 598 million) from the proceeds of fixed-income securities in soles, also expanded. As a result, the annual growth of microfinance loans to the private sector rose from 18.1 percent in 2004 to 34.9 percent in 2005, while the loans by institutional investors to the private sector shot up from annual growth of 5.8 percent in 2004 to 25.9 percent over the year.

# Table 13 FINANCIAL SYSTEM LOANS IN SOLES TO THE PRIVATE SECTOR

	Balanc	es in millions	of soles	Rates of growth		
	Dec.03	Dec.04	Dec.05	Dec.04/	Dec.05/	
				Dec.03	Dec.04	
Banks 1/	8.221	8.464	11.598	3.0	37.0	
Banco de la Nación	511	1.051	1.277	105.9	21.5	
Microfinance institutions	3,666	4,329	5,841	18.1	34.9	
Banks (microfinance loans)	730	1,120	1,545	53.4	37.9	
Municipal savings an loans	1,083	1,376	1,847	27.1	34.2	
Rural savings and loans	181	253	345	40.0	36.6	
Cooperatives	459	511	598	11.2	17.1	
Edpymes	172	229	350	33.6	52.6	
Finance companies	1,042	840	1,156	-19.4	37.7	
Institutional investors 2/	2,180	2,307	2,905	5.8	25.9	
Pension funds	1,449	1,337	1,821	-7.7	36.2	
Insurance companies	568	812	757	42.9	-6.8	
Mutual funds	163	158	328	-2.9	107.1	
Leasing companies and others	247	306	320	23.9	4.7	
Total for Financial System	14,824	16,457	21,942	11.0	33.3	

1/ Excludes microfinance loans.

2/ Mainly securities issued by the private sector.

.35

Growth in sol lending accelerated in the fourth quarter of the year, with the narrowing of the differential between interest rates in soles and in dollars and rising expectations of the sol's depreciation.

36. The increase in **dollar lending** (US\$ 662 million) was also attributable to the rise in bank financing (US\$ 391 million) and, above all, to the larger mortgage (US\$ 307 million) and commercial loans (US\$ 160 million). Microfinance institutions supplied US\$ 117 million of this total, but the annual growth of their loans to the private sector slowed from 30.2 to 17.6 percent between 2004 and 2005. At the same time, the annual growth of dollar lending by institutional investors dropped from 22.2 percent in 2004 to 10.3 percent in 2005.

## Table 14 FINANCIAL SYSTEM LOANS IN DOLLARS TO THE PRIVATE SECTOR

	Balances i	n millions o	Rates of growth		
	Dec.03	Dec.04	Dec.05	Dec.04/	Dec.05/
				Dec.03	Dec.04
Banks 1/	9,409	9,465	9,856	0.6	4.1
Banco de la Nación	22	22	22	-1.2	-1.2
Microfinance institutions	511	665	782	30.2	17.6
Banks (microfinance loans)	87	126	177	45.8	40.1
Municipal savings and loans	186	250	292	34.6	16.7
Rural savings and loans	48	55	55	16.1	0.0
Cooperatives	116	154	166	31.9	8.2
Edpymes	40	49	55	20.6	13.1
Finance companies	34	32	37	-7.7	17.4
Institutional investors 2/	1,091	1,333	1,470	22.2	10.3
Pension funds	517	729	733	41.1	0.5
Insurance companies	60	89	124	49.8	38.8
Mutual funds	514	515	613	0.1	19.2
Leasing companies and others	637	639	657	0.2	2.8
Total for Financial System	11,670	12,124	12,786	3.9	5.5

1/ Excludes microfinance loans.

2/ Mainly securities issued by the private sector.
# V. DETERMINANTS OF INFLATION

# V.1 Supply and demand

# Aggregate demand



Graph 31 DOMESTIC DEMAND GROWTH (Real % changes)



Economic activity in 2005 expanded 6.3 percent, in a continuation of the trend in growth without inflation preassure of the past 4 years. Last year's accelerated growth was triggered by a stronger domestic demand, particularly for consumption and private investment, in an international context of favorable terms of trade, more strongly growing financing of the private sector, and greater confidence on the part of consumers and businessmen.

Growth in the neighborhood of 5 percent is forecast for 2006, in line with the growth trends of recent years.

37. **Domestic demand** showed stronger growth in 2005, due to greater consumption and private investment brought on by higher levels of employment and income, together with easier access to credit. There was a noticeable acceleration in the components of domestic demand in the second semester of 2005, which was reflected in stronger growth of capital good imports, mortgage loans, consumer loans, imports of household appliance and new vehicle sales.

Growth in 2006 is expected to be driven mainly by domestic demand, while exports will grow more slowly mainly because of the decline in gold production after reaching record levels in 2005. Increased private consumption and the growth of private investment will be instrumental in the expansion of domestic demand. Graph 32

1996 1997 1/ Forecast.

# Table 15 GLOBAL DEMAND AND SUPPLY

(Annual real % changes)

		2004	2	005	20	06 1/
			August RI 2005	January IR 2006	Augusto RI 2005	January IR 2006
١.	Global demand (1+2)	5.6	6.3	6.8	5.3	5.3
	1. Domestic demand 2/	3.9	5.4	5.4	5.2	5.4
	a. Private consumption	3.4	4.4	4.4	4.4	4.2
	b. Public consumption	4.1	10.0	10.1	2.8	3.5
	c. Fixed private investment	9.0	12.5	13.9	11.3	10.6
	d. Public investment	5.5	21.3	13.4	6.5	10.3
	2. Exports	14.7	10.8	13.9	5.9	5.1
١١.	Global supply (3+4)	5.6	6.3	6.8	5.3	5.3
	3. GDP	4.8	5.5	6.3	5.0	5.0
	4. Imports	10.4	10.7	9.7	7.0	7.5

1/ Forecast.

2/ Includes inventory changes.

Source: INEI and BCRP.



1998 1999 2000 2001 2002 2003 2004 20051/ 20061/

38. The 4.4 percent growth in **private consumption** in 2005 was associated with an increase in national disposable income, a rise in employment and stronger consumer confidence. Private consumption, like private investment, accelerated during the second half of the year, showing growth of 4.6 percent.

Disposable income rose 6.5 percent in 2005, with stronger growth in the second semester (7.3 percent) due to larger earnings generated by favorable terms of trade and transfers from abroad.

# Table 16 NATIONAL DISPOSABLE INCOME

(Real percentage values compared to same period in previous year)

	2004	2005		2006 *		
		August IR 2005	January IR 2006	August IR 2005	January IR 2006	
Gross domestic product (GDP)	4.8	5.5	6.3	5.0	5.0	
Gross national product (GNP) 1/	3.2	4.6	4.6	6.4	4.3	
Gross national income (NI) 2/	5.3	5.4	6.2	5.0	4.4	
National disposable income (NDI) 3/	5.5	5.4	6.5	5.0	4.6	

\* Forecast.

1/ Excludes from GDP the net income paid to non-resident productive factors.

2/ Includes profits and losses from changes in foreign terms of trade.

3/ Net transfers from non-residents is added to NI.

Source: INEI and BCRP.

According to the Labor Ministry, the growth rate of **national urban employment in private companies with 10 or more employees** rose from 2.7 percent in 2004 to 4.5 percent in 2005. Employment growth was higher in the interior --urban

Graph 33 URBAN EMPLOYMENT IN COMPANIES WITH 10 OR MORE WORKERS



#### Graph 34 URBAN EMPLOYMENT IN COMPANIES WITH 10 OR MORE EMPLOYEES: 2005



Graph 35

**BANKS' CONSUMPTION LOANS PER PERSON** (S/.)



Graph 36 SALES OF NEW CARS



Graph 37 IMPORTS OF ELECTRIC APPLIANCES



areas-- (6.4 percent) than in Metropolitan Lima (3.8 percent) for the second consecutive year.

In 2005, eleven cities, in particular, showed stronger growth than the national average (growth in Sullana, Talara, Ica and Chincha was above 10 percent). The increase in employment in the interior can be attributed primarily to the strong growth of extractive activities (agriculture and mining), manufacturing (mainly export-oriented agribusiness) and services.

INEI information about the evolution of employment in Metropolitan Lima reveals that in 2005 independent employment dropped 2.2 percent and dependent employment rose 3.1 percent, reflecting the larger demand for labor.

More access to loans and the growth of consumer loans made by banks and financial institutions, which at November showed a 28.6 percent increase, influenced the evolution of private consumption.

# Table 17 20 MAIN IMPORTED CONSUMER DURABLE GOODS\* (Millions of US\$)

	JanNov. 04	JanNov. 05	% change 05/04
CARS AND OTHER SELF-PROPELLED VEHICLES	169.1	209.3	23.8
TELEVISION RECEPTIONS	79.7	101.7	27.6
DEVICES OF DOMESTIC USE	67.4	75.3	11.7
RECORDING OR SOUND EQUIPMENTS	45.0	50.1	11.5
TOYS	40.0	47.5	18.8
RADIOS	35.9	45.3	26.2
PLASTIC ARTICLES	31.0	33.9	9.5
MOTORCYCLES	25.5	30.8	21.1
FURNITURE. BEDS. MATTRESSES	20.8	26.3	26.5
HOUSEHOLD GOODS OF COMMON METALS	20.8	25.7	23.8
TELECOMMUNICATIONS EQUIPMENTS	15.9	18.9	19.4
ELECTRICAL APPLIANCES AND MACCHINERY	14.7	15.4	5.3
TRUNKS. SUITCASES. TOILETRIES KITS. BRIEFCASES	11.5	14.7	28.0
RUBBER ARTICLES	10.7	14.0	30.7
CUTLERY	11.2	12.8	14.7
OTHER MANUFACTURINGS	9.1	12.6	38.6
APPLIANCES AND LIGHTING ACCESSORIES	6.0	8.0	32.6
FLAT COVERS	5.4	7.5	37.5
SUBTOTAL	619.6	750.0	21.0
REST	64.9	61.5	- 5.2
TOTAL	684.5	811.5	18.6

\* Comprises only goods in a definitive regime. Ordered according to the accumulated of the current year.

An analysis of several indicators reveals that sales of new station wagons rose 41.6 percent in a context of more earnings and better financing conditions, with interest rates



Graph 39 CONSUMER CONFIDENCE INDEX: INDICCA 44 42 -40 -40 41 43



Graph 40 ¿WILL YOUR ECONOMIC SITUATION



Graph 41 PRIVATE FIXED INVESTMENT



at less than 10 percent. These sales took off particularly in the second semester and were 52.9 percent higher than during the same period of the previous year.

Imports of consumer goods rose 16.2 percent in 2005, driven by the larger demand in the interior and the lower prices of household appliances.

Imports of consumer durables were 17.5 percent higher in the second semester than in the first.

The growth forecast for private consumption in 2006 is 4.2 percent, spurred by a 4.6 percent increase in disposable income and an improvement in the consumer confidence index prepared by Apoyo (INDICCA), which reached an average level of 43 points in the fourth quarter of 2005, its highest level since the indicator was created.

Furthermore, the percentage of families expecting to see a worsening of their economic situation in the following year was 11 points lower in December 2005 than in December 2004.

39. The economic expansion of the past 4 years has been accompanied by important growth in **private investment**, at rates of 5.6 percent and 9.0 percent in 2003 and 2004, respectively, and 13.9 percent in 2005.

This dynamic performance can be attributed to the favorable economic environment characterized by monetary stability, strengthened public finances, better financing conditions, and larger profits, together with prospects for growth in foreign markets.

The favorable external environment resulted in larger profits for mining companies and the country's good economic performance pushed up profits in manufacturing and financial companies. Profits at the third quarter of 2005 were 36 and 60 percent higher than for the same period of the previous year, as shown in the graph 42.

The vigorous growth of private investment was widespread in 2005, the most important investment projects being, among others, those of Sociedad Minera Cerro Verde, (US\$ 237 million), Southern Perú Copper Corporation, with the start of work on the Ilo Smelter (US\$ 280 million), Minera Yanacocha (US\$ 238 million), Minera Barrick Misquichilca (US\$ 172 million) and Telefónica del Perú (US\$ 166 million).



#### Graph 43 MORTGAGE LOANS





### Graph 44 CAPITAL GOODS IMPORTS



1996 1997 1998 1999 2000 2001 2002 2003 2004 2005<sup>1/</sup> 2006<sup>1</sup> 1/ Forecast. Excludes building materials. The increase in private investment is reflected in the growth of mortgage loans, which rose from rates of 14.4 and 12.6 percent in 2003 and 2004, respectively, to 24.4 percent at November 2005. The latter reveals the acceleration during the second semester of 2005, boosted by larger loans from other financing sources complementary to those of the MiVivienda program.

Imports of capital goods rose 28 percent in 2005, outpacing 22 percent growth in 2004. As in the case of the other indicators, the growth of capital good imports accelerated in the second half of 2005 to reach 31 percent.

# Table 18

# 20 MAIN CAPITAL GOODS IMPORTS FOR INDUSTRY\* (Millions of US\$)

	JanNov. 04	JanNov. 05	% change 05/04
TELECOMMUNICATIONS EQUIPMENTS	281.7	342.0	21.4
MACHINERY FOR AUTOMATIC DATA PROCESSING	205.2	211.0	2.8
MACHINERY AND EQUIPMENT OF CIVIL ENGINERING	124.4	167.5	34.7
OTHER MACHINES	98.5	100.0	1.5
PUMPS	77.3	97.5	26.2
ELECTRIC EQUIPMENT FOR JUNCTIONS	61.6	89.7	45.6
HEATING AND COOLING EQUIPMENTS	45.5	85.6	88.2
MEASURING INSTRUMENTS	53.9	67.4	25.0
MECHANIC EQUIPMENTS FOR HANDLING	29.2	62.3	113.2
OTHER MACHINERY. INSTRUMENTS AND MECHANIC EQUIPMENTS	53.1	60.7	14.4
PUMPS FOR LIQUIDS	46.2	55.2	19.6
ELECTRIC ROTATING EQUIPMENT	30.4	49.2	61.9
INSTRUMENTS FOR MANUAL USE OR IN MACHINERY	36.0	45.9	27.4
INSTRUMENTS AND EQUIPMENT FOR MEDICINE. SURGERY	27.3	32.4	18.8
WATER STEAM TURBINES	0.6	30.0	5,213.8
ELECTRIC EQUIPMENTS	23.8	29.6	24.5
PRINT AND BIND MACHINERY	18.2	28.3	55.4
OFFICE MACHINERY	20.9	24.8	18.9
NON-ELECTRIC MOTORS AND EQUIPMENT	10.8	21.5	98.1
SUBTOTAL	1,244.6	1,600.7	28.6
REST	224.0	287.3	28.3
TOTAL	1,468.5	1,888.0	28.6

\* Comprises only goods in a definitive regime. Ordered according to the accumulated of the current year.

According to the Survey of Macroeconomic Expectations prepared by the BCRP from a sample of representative companies in all economic sectors, investment is predicted to be larger in 2006 than the previous year, particularly in the mining and manufacturing sectors. The most noteworthy projects in the mining sector are expected to be those of Sociedad Minera Cerro Verde and Minera Yanacocha, while a 28.9 percent increase over the previous year is forecast for plant expansion and equipment modernization projects in the manufacturing sector.

Sector	2005	2006	% change
Agriculture & livestock and fishing	80	59	-26.4
Mining	1,182	1,214	2.7
Fuel	79	60	-23.3
Manufacturing	344	443	28.9
Electricity and gas	317	372	17.2
Commerce and services	153	184	20.4
Transport and communications	328	443	35.2
TOTAL	2,482	2,775	11.8

 Table 19

 INVESTMENT 2005 - 2006

 (Millions of LIS®)

(Millions of US\$)

In 2005, ProInversión signed investment commitments for a total of US\$ 2,330 million under its concession program. The amount estimated for 2006 is US\$ 600 million, the most important projects being the competitive bidding for the Michiquillay mining project, the concession of the fifth mobile telephony band, and highway concessions of sections of Road Network 1, Road Network 4 and the execution of Coast-to-Highlands programs.

Private investment accounted for 16.1 percent of GDP in 2005 and is expected to show growth of 10.6 percent in 2006, raising its share of GDP to 17.2 percent that year.

40. **Public consumption** rose 10.1 percent in 2005, due to an increase in wages and salaries, together with larger purchases of goods and services by the central government, local governments and EsSalud. At the same time, **public investment** expanded 13.4 percent, triggered mainly by increased spending by the central government during the second semester, and by Sedapal, Enapu and Petroperú.

**Public consumption** is forecast to show growth of 3.5 percent in real terms in 2006, in comparison with the preliminary execution in 2005, reflecting for the most part the wage increases already announced for 2006 and the effect of the increases granted to government employees in 2005.

A 10.3 percent increase in real terms is forecast for **public investment** in 2006 due to both improved access to external disbursements for investment projects (expected to rise from US\$ 341 million in 2005 to US\$ 500 million in 2006) and the rescheduling of some projects not executed during fiscal 2005.







Graph 46 PUBLIC INVESTMENT



# Main proyects for consession in 2006 <sup>1/</sup>

Proyect	Investment estimate (US\$ Millions)	Award	Description
INFRASTRUCTURE	1,771		
Network 1: Piura - Sullana, Sullana - Macara bridge, Sullana - Aguas Verdes.	122	II Quarter	The project considers the construction of an expressway in Piura, the restoration and a road enlargement of the Piura - Sullana, Sullana - La Tina - (Puente Macará) and Sullana-Aguas Verdes stretch.
Network 4: Pativilca - Trujillo and Pativilca - Conococha - Huaraz - Caraz.	90	II Quarter	The project includes the construction of an expressway in Chimbote, the restoration of the Pativilca - Huarmey - Casma - Chimbote - Trujillo and Pativilca - Conococha - Huaraz - Caraz stretchs, and the maintenance of them.
Costa - Sierra program.	292	l Quarter	The program consists in awarding the following stretches that link coastal interandean valleys: Empalme 1B - Buenos Aires - Chancaque; Cañete - Lunahuana - Zuñiga; Ov. Chancay / Dv. Pasamayo - Huaral - Acos; Chiclayo - Chongoyape - Puente Cumbil - LLama.
Center Amazonas axis: Pucallpa - Tingo Maria - Huanuco - La Oroya - Ricardo Palma bridge, La Oroya - Huancayo.	100	I Quarter	The project consist in awarding the road stretches of the multimodal axis Amazonas IIRSA center. This road network is 867 km. long, from the Ricardo Palma bridge to Pucallpa, thus linking Lima to Brazil.
Peru - Brazil Interoceanic road proyect	892	II Quarter	Stretches 1 and 5.
Regional airports	100	I Quarter	1st. package: Tumbes, Piura, Lambayeque, La Libertad, Amazonas, Loreto, Ucayali, Huaraz, Cajamarca, San Martin and Ica.
New sea dike terminal	175	l Quarter	The project considers the design, construction, financing, operation and maintenance of a new sea dike terminal close to the south breakwater of the Callao port, for no more than 30 years.
FUELS	180		
Regional gasducts	180	II Quarter	The project aims at award to private investors the design, construction, operation and maintenance of natural gas (NG) distribution systems to serve areas comprising Cusco, Ayacucho, Ica and Junin.
TELECOMMUNICATION	150		
Fifth band for cellular phone system	120	II Quarter	Is the national award, except Lima and Callao.
Fixed phone system	30	II Quarter	
LANDS AND AGRICULTURE	27		
Casa Grande	21	l Quarter	The project consists in the incorporation of a private investor in the Agroin- dustrial Casa Grande S.A.A. company, in which the govenment has the 31.36% of the shares. Done: January 26.
Land sales in Jequetepeque - Zaña	6	II Quarter	The project consist in transfer to the private sector lots without water in Lambayeque and La Libertad. In total, the private sector would dispose of approximately 6,000 hectares in lots with no less than 1,000 hectares each one.
MINING	300		
Bid on Michiquillay	300	II Quarter	Michiquillay is a copper porphyry type deposit, with contents of gold and silver. The extension of the mining concession covers 18,978 hectares and a superficial property of 1,206 hectares.
PLUMBING AND DRAINAGE	544		
Plumbing and drainage in Paita and Piura	134	I Quarter	Drinking water and sewer system services in Piura and Paita.
Drinking water supply for Lima	300	II Quarter	
Plumbing and drainage services of SEDAM Huancayo S.A.C.	110	II Quarter	Drinking water and sewer system services in the company SEDAM HUANCAYO S.A.
TURISM	56		
Project for "Centro Civico" in Lima	20	I Quarter	The project consists of award the rehabilitation and conditioning of the entirely real state (with exception of the tower and two flats of the lateral area). The private investment promotion will be carry out through a rental agreement for 30 years.
Turistic project in Playa Hermosa	36		The project consists of fit out 69.9 ha. in order to develop a tourist complex of 1,365 hotel rooms, restaurants and a shopping center (705 in the 1st. phase).
Total	3,028		

 $1/\operatorname{Based}$  on the Proinversion webpage as of December 20, 2005.



41. **Exports**, after expanding 14.7 percent in 2004, continued to show strong growth of 13.9 percent in 2005, influenced by the favorable international environment, among other factors. The most important traditional exports were minerals like copper, gold, lead and iron, while agribusiness, textile, chemical and metallurgical iron and steel products led non-traditional exports, which followed an upward trend over the year.

Exports are expected to continue performing positively in 2006, driven by larger gold exports and a rise in nontraditional exports, particularly agricultural goods and heavy engineering products, together with expectations of introducing new products into new markets.

42. **Imports** performed well in 2005, with real growth of 9.7 percent, in response to larger industrial purchases of both raw materials (19.6 percent) and capital goods (27.3 percent). The importation of more consumer goods, both durables (15.7 percent) and non-durables (16.4 percent) was also instrumental in this showing. Imports are predicted to continue growing at present rates in 2006, led by capital goods.

#### **Sector Production**

Growth in the non-primary sectors continued to be noteworthy in 2005 for the third straight year. The highest growth rates at the sector level were to be found in construction, non-primary manufacturing, mining, and agriculture. The non-primary sectors are expected to lead GDP growth in 2006.

# Table 21 GROSS DOMESTIC PRODUCT

(Percentage value compared to same period in previous year)

	2004	200	5 1/	2006 1/		
		August IR 2005	January IR 2006	August IR 2005	January IR 2006	
Agriculture & livestock	-1.1	4.3	4.7	4.3	3.0	
Agriculture	-3.2	5.4	3.6	4.5	1.3	
Livestock	2.0	2.9	6.3	3.6	5.9	
Fishing	30.5	1.6	1.6	2.1	3.1	
Mining and fuel	5.4	6.4	8.7	4.3	1.6	
Metals	5.3	4.4	7.4	3.7	0.7	
Fuel	7.1	24.8	24.0	12.1	13.1	
Manufacturing	6.7	6.4	6.1	5.2	5.5	
Based on raw materials	5.9	-0.4	-0.3	2.5	3.5	
Non-primary	6.9	8.0	7.6	6.0	6.2	
Electricity & water	4.6	4.2	5.4	4.4	5.0	
Construction	4.7	6.5	8.5	8.0	8.0	
Commerce	4.8	6.2	5.7	4.9	5.3	
Other services	4.7	5.2	6.4	5.0	5.2	
GROSS VALUE ADDED (GVA)	4.6	5.6	6.3	5.0	5.0	
Taxes on products and						
import duties	6.4	5.1	6.7	4.9	4.9	
GLOBAL GDP	4.8	5.5	6.3	5.0	5.0	
Primary GVA	3.1	4.2	5.1	3.9	2.6	
Non-primary GVA	5.1	5.9	6.6	5.3	5.6	

1/ Forecast.

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43. Agricultural recovery in 2005 (4.7 percent) was tied in with the 113 thousand- hectare increase in sown areas during the 2004-5 crop year that had been unplanted the previous year because of a water shortage.

# Table 22

SOWED AREAS - AGRICULTURAL CAMPAIGNS 2003-04 AND 2004-05 (Thousand of hectares)

	Campaign	Total	Rice	Amilaceous maize	Hard yellow maize	Potato	Wheat	Cotton	
Total	2003-04 2004-05	1,358 1,471	287 352	232 238	264 279	261 268	125 133	88 93	
Lambayeque	2003-04 2004-05	43 84	14 42	3 5	13 17	1 2	1 1	2 10	-
Cajamarca	2003-04 2004-05	159 170	21 24	50 50	16 17	25 26	26 30	0 0	
Ancash	2003-04 2004-05	64 71	3 2	15 16	16 16	10 11	11 17	7 6	-
Pasco	2003-04 2004-05	13 16	1 1	1 1	2 3	9 10	0 0	0 0	
Huancavelica	2003-04 2004-05	30 36	0 0	10 13	0 0	14 15	5 5	0 0	-
Cusco	2003-04 2004-05	70 75	2 3	26 25	4 6	26 29	10 10	0 0	
San Martin	2003-04 2004-05	143 160	63 77	0 0	70 72	0 0	0 0	5 4	
Loreto	2003-04 2004-05	79 85	35 40	0 0	32 34	0 0	0 0	0 0	-
Ucayali	2003-04 2004-05	28 37	8 16	0 0	8 11	0 0	0 0	8 7	

Source: MINAG.

Thanks to an improvement in weather conditions, rice, potato, hard yellow and amillaceous white corn, and wheat production rose in 2005. Strong growth of poultry breeding (poultry and eggs) and of agricultural exports (asparagus, mangoes and olives) contributed to agricultural recovery, as shown in the following table:

#### Table 23 **AGRICULTURAL EXPORTS** (Tons)

	2004 1/	2005 1/	% change
Asparagus	103,714	111,423	7.4
Paprika	25,558	50,369	97.1
Mango	42,764	48,027	12.3
Banana	24,498	38,825	58.5
Tangerine	13,717	18,745	36.7
Avocado	14,598	18,669	27.9
Artichoke	8,266	16,473	99.3
Grapes	6.815	13,642	100.2
Olives	9,141	12,103	32.4
Rest	696,958	746,908	7.2
Total	946,029	1,075,183	13.7

1/ January - November Source: SUNAT.

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The larger domestic supply of rice led to a 6.1 drop in the consumer price of rice, after an 18.8 percent increase in 2004. Rice imports accelerated early in the year, fueled by expectations of low production due to the delay of rain, with the result that nearly 70 percent of the annual rice imports were obtained in January-May. A bumper crop was harvested, taking the initial rice inventory for 2006 to a level equivalent to over two months of domestic consumption (250 thousand MT).

Smaller harvests of sugarcane due to a long drought in 2004 pushed up imports of that product. As a result of the larger domestic supply, the price of sugar dropped (-1.2 percent), after having seen a 23.3 percent increase in 2004.

The larger domestic supply of mainly imported hard yellow corn and the drop in its international price, from US\$ 93.7 per MT to US\$ 74.3 per MT, encouraged more poultry production in a context of a larger demand for that product.

	2003	2004	2005*	% ch	ange
				2004	2005
Rice	1,511	1,352	1,765	-11	31
Production 1/	1,495	1,272	1,642	-15	29
Imports	16	80	123	404	54
Sugar	909	889	918	-2	3
Production	958	746	693	-22	-7
Imports	12	184	266	1,446	44
(-) Exports	61	41	42	-32	0
Hard yellow maize	2,039	2,068	2,438	1	18
Production	1,097	963	1,027	-12	7
Imports	942	1,105	1,412	17	28

# Table 24 DOMESTIC SUPPLY - MAIN FOODS

1/ Pounded rice.

\* Forecast.

Source: MINAG.

Agricultural growth in 2006 is forecast at 3.0 percent, based on the recovery of sugarcane --hard hit by a prolonged drought--, larger coffee crops --due to better foreign market positioning-- and more dynamic agroexports --with an increase in diversity and in value-added-- and a growing poultry industry --that will continue developing export projects launched at the end of 2005.

# BOX 8

#### WEATHER CONDITIONS AND THE POSSIBILITY OF AN OCCURRENCE OF LA NIÑA

The changing weather of recent months and the delay of rain in the highlands have reduced the area sown with the main food crops by 7 percent, affecting potatoes, hard yellow corn and amillaceous white corn most heavily.

		Thousand	l of hecta	res	Advances	
	2004-05	2005-06	%	Absolute	%	
			change	change		
Total	742	690	-7.0	-52	46	
Maize	128	109	-14.6	-19	42	
Potato	200	184	-8.4	-17	68	
Amilaceous maize	191	180	-5.8	-11	70	
Cotton	46	40	-13.7	-6	54	
Yucca	52	48	-8.4	-4	36	
Onion	6	5	-19.7	-1	42	
Rice	115	120	4.1	5	19	

**POECHOS - PIURA** 

SOWING AREA: AUGUST - NOVEMBER

Source: MINAG.

In mid 2005, water stored in the Poechos Reservoir in Piura reached a level high enough to encourage more rice sowing for the minor harvest (20 thousand hectares out of an annual 40 thousand hectare sowing). A series of control measures were introduced early this year to ensure the supply.

As the graph below shows, on January 31 the Poechos Reservoir contained 176 million cubic meters of water, more than the minimum 150 million cubic meters required by the Water Irrigation Board to start sowing for the major harvest. Water levels also continued to rise in the San Lorenzo Reservoir in Piura and the volume of water in the Gallito Ciego Reservoir in La Libertad, although smaller on January 31 than in previous months, still surpasses the minimum required. Water levels are still low in the Tinajones Reservoir, however.



#### SAN LORENZO - PIURA

Minimun required

volume 50 mill m3

48

Jan.2006

The rainfall has intensified in the central and southern areas in recent weeks and could affect yields of certain crops like potatoes. On parts of the northern coast, from Tumbes to La Libertad, the rainfall is still very moderate and the Senamhi is recommending austerity measures.



The absence of rainfall and cold weather and ocean temperatures lengthen the production cycle of crops like mangos, but have not affected major crops on the northern coast.

The Multisector Committee Responsible for Studying "El Niño" (ENFEN) issued a press release on January 19 predicting slightly colder weather than usual until February, with a return to normal temperatures in March. The latest report of the United States National Oceanic and Atmospheric Administration (NOAA) foresees favorable conditions for the development of "La Niña" within the next three to six months, but in the central equatorial area of the Pacific (zones 3 and 4 on the map), and not on the Peruvian coast (zones 1 and 2).

In order for this phenomenon to occur, the surface of the ocean off our coast would have to show negative anomalies or abnormal cooling (-2 degrees centigrade) for three consecutive months, and that has not happened to date.

#### ANOMALY -SUPERFICIAL SEA TEMPERATURE In degrees centigrade - Paita harbor

	2003	2004	2005	2006 1/
January	0.6	0.2	0.3	0.5
February	-1.1	-0.6	-0.8	
March	0.1	-0.9	-2.3	
April	-2.1	-0.2	-0.4	
May	-1.7	-1.7	0.9	
Jun	-1.5	-1.5	-0.9	
July	-0.7	0.0	-0.4	
August	1.3	-0.5	1.2	
September	0.9	1.3	-0.2	
October	1.8	1.2	-0.6	
November	1.7	1.1	0.9	
December	-0.7	-0.8	0.4	

1/ Of January 21.

Source: IMARPE.

In this context, growth of some traditional crops like rice, potatoes and corn is expected to be smaller due as much to the delay in sowing as to climate changes that affect yields. Even so, larger inventories and a better yield from the minor harvest will ensure sufficient rice for domestic consumption. Export crops will also emerge unscathed because of their technified irrigation systems and agronomical practices.



Graph 48 ANCHOVY ANNUAL CATCHES: 1970-2005



44. The **fishing sector** expanded 1.6 percent in 2005 because of larger catches for human consumption, particularly for canning and freezing, which offset the slide in anchovy catches (8.5 million MT in 2005, down from 8.6 million MT in 2004). Even so, the fact is that for the second straight year anchovy catches exceeded 8 million MT, a feat unheard of since 1970. The larger production of canned and frozen tuna fish, abalone, shrimp and snails for human consumption was in sharp contrast to the smaller catches for consumption in a fresh state, due to adverse weather conditions (low temperatures and wind changes) in the 5-nautical mile fishing zone.

The forecast for 2006 is 3.1 percent growth, which would reflect the continued expansion of the canning industry, based on the diversification of species, recovery of catches for freezing, due to better scallop and shrimp farming techniques, and more fishing for consumption in a fresh state resulting from the diversification of species and the recovery of hake and horse mackerel with the return of ocean temperatures to normal starting in February 2006. Anchovy catches are expected to drop only slightly from their 2005 level of 8.4, to 7.9 million MT because of the strong presence of juvenile anchovy in recent years and record catches. Hake, however, are expected to show recovery due to the biological control of the species.

45. The growth of the mining and hydrocarbons sector (8.7 percent) can be traced to the entry into operation of Alto Chicama and Yanacocha's increased production, raising gold mining 19.0 percent in a context of high prices (the average price per ounce of gold rose from US\$ 410 to US\$ 446 between 2004 and 2005, respectively). More iron (7.5 percent) and lead (4.4 percent) were produced, as well. Copper production, on the other hand, fell 2.8 percent due to the reduction of BHP Billiton Tintaya's output because of problems with neighboring communities, while Antamina's reduced mining of zinc brought down production of that mineral 0.6 percent. Hydrocarbon production, however, showed strong growth of 24.0 percent, spurred by mushrooming (73.6 percent) natural gas recovery, as a result of Camisea's increased production and a larger contribution from Aguaytia, which raised the monthly output from 2,529 million cubic feet in 2004 to 4,391 million cubic feet in 2005.

Growth is predicted to slow in 2006 (1.6 percent), because the larger production of zinc (6.8 percent), copper (2.2 percent) and iron (5.0 percent) would be offset by a drop in gold production (-3.7 percent) resulting from Yanacocha's

Graph 49 NON-PRIMARY MANUFACTURING GROWTH BY DESTINY (Percentage points)



smaller output. That company stated in a press release that its target for 2006 is 2.7 million ounces because the presence of more sulfur on the land to be mined will make the operation more difficult. Hydrocarbon recovery is forecast to rise 13.1 percent, driven by the growth of oil (12.7 percent) -as a result of the increased recovery at Pluspetrol's blocks 8 and 1-AB in Loreto- and natural gas production (15.6 percent) -due to the increase in Camisea gas.

46. **Manufacturing** production expanded 6.1 percent in 2005. The 7.6 percent increase in non-primary manufacturing was instrumental in this performance and offset the decline in primary manufacturing stemming from a reduction in fishmeal and fish oil production and in the refining of non-ferrous metals.

The growth of **non-primary manufacturing** took place in a context of a growing demand for employment, recovery of wages and salaries, and rising exports. The highest production could be noted in food, beverages and tobacco; paper and printing; chemical products; rubber and plastics; and non-metallic minerals. This positive showing was the result of the execution of some mining projects, dynamic activity in the construction sector and the increase in domestic demand incentivated by the presentation of new products and, in lesser degree, by the rise in non-traditional exports (22.9 percent).

The branches that showed the strongest growth between January and November 2005 were basic chemicals (due to larger exports), other paper and cardboard articles (for the packing of export products), cement (as a result of the larger domestic demand and more exports) and beer and malt (due to the increase in domestic demand).

# Table 25

# MAIN BRANCHES WITH THE HIGHER INCREASES:

(January - November 2005)

CIIU	% c	hange
	Annual	Contribution % 1/
Basic chemicals	33.0	0.7
Other articles of paper and paperboard	29.3	0.6
Cement	10.8	0.5
Beer and malt	21.6	0.4
Metallic products for estructural use	18.6	0.4
Different manufacturings	14.8	0.4
Ceramic tiles	16.6	0.3
Knitted fabrics 2/	7.0	0.3
Dairy products	8.0	0.3

1/ Percentage contribution with respect to the non-primary manufacturing.

2/ The change corresponds to the number of produced clothes.

Source: Ministerio de la Producción.

# BOX 9

## NON-PRIMARY MANUFACTURING: GROWTH IN 2004-2005

Non-primary manufacturing1/, continuing a period of uninterrupted growth started in 2000, closed 2005 with growth of apparently 7.6 percent. A stage of industrial recomposition in the aftermath of the crisis of 1998-1999 led a large number of businessmen to look to the foreign market as a possibility for stemming the decline in their domestic sales. This search for new markets called for a series of changes in both company infrastructure and management. Imports of capital goods for the industry jumped 72 percent, from US\$ 1,227 million to US\$ 2,110 million between 2002 and 2005.

Given Peru's stronger participation in the world economy, it is to be expected that the country will specialize in certain branches of manufacturing that have grown most strongly in recently years due to improvements in competitiveness. There are other branches of manufacturing, however, whose output has been hampered by stronger competition from imports.

The changes in business management included a wide range of productivity-generating reforms aimed at enhancing competitiveness so that companies can take advantage of Peru's larger role on the world scene. The reforms (the most important of which have to do with logistics, labor, and equity restructuring, among other things) went hand-in-hand with a permanent reduction of interest rates in a context of low inflation that made it possible for the companies to evolve in an environment favorable to investment.

Although the boosting of exports proved important for the expansion of non-primary manufacturing, as can be seen in the table above, it was only in 2003 that the growth of the domestic market started to take shape, resting on the increase in employment and in people's earnings, together with the expansion of urban centers of consumption incorporating growing numbers of cities in the interior, and in 2005 that the participation of the domestic market was consolidated, showing the largest contribution to growth of the past five years.

In order to get a more detailed idea of the nature of the growth of non-primary manufacturing over the past two years, the graph below shows the growth distribution of the 39 industrial groups broken down into three main categories. The first includes industries that saw a decline in growth during the past two years; the second, industries that showed average growth of up to 10 percent; and the third, more-rapidly growing industries --those with growth of more than 10 percent. It should be added that during the period in question, non-primary manufacturing showed average annual growth of 7.2 percent.

It can be noted that only 5 of the 39 industrial groups had negative growth rates, which can be attributed to specific factors that kept them from taking advantage of the larger domestic and foreign demands. Among these are tobacco and machinery and equipment, due to the stoppage of operations of the most important companies (Tabacalera Nacional, which changed its focus from industrial to commercial activity, and Faminco), leather and footwear, due to the increased presence of informal producers, and pharmaceutical products because of both heavier competition and the fire that broke out in 2004 in one of the most important companies in that industry.

The factors that were instrumental in the growth of up to 10 percent of the second group are linked to a combination of heavier demand stemming from the strong growth of the domestic economy and the increase in exports. This group consists of food, beverages, toiletries and cleaning products and garments, whose growth was due to greater domestic consumption; fertilizers and pesticides, because of the larger agricultural demand for these products; rope, cords and nets, because of the increased supply for fishing; and plastics, rubber, paper products, and paper and cardboard packaging, due to larger sales to industry, and non-traditional export activities.

### NON-PRIMARY MANUFACTURING GROWTH RATE

		Markets				
	Total	Domestic	Foreign			
1997	6.2	5.2	1.1			
1999	-4.7	-4.5	-0.2			
2000 2001	4.9 1.4	4.0 0.3	0.9 1.1			
2002 2003 2004	5.1 3.1 6.9	4.8 2.3 4.0	0.3 0.8 2.9			
2005	7.6	5.4	2.2			

Source: Ministerio de la Producción, BCRP.

The third group encompasses industries showing growth of more than 10 percent, in which the influence of the domestic market played a major part, although larger foreign orders were of key importance for some industries, like the U.S. orders within the framework of the APTDEA in the case of knitwear. The increase in domestic sales was associated with expanding activity in the areas of mining (explosives), construction (cement and tiles, as well as other building materials) and commerce, of which the boosting of "mototaxi" production is an example.

In the case of the beer industry, heated competition touched off by the entry of a new company (Cía. Cervecera Ambev) together with the launching of new products (lower prices) boosted growth. The expansion of dairy products, also showing growth of over 10 percent, encouraged local livestock production, incentivated by an increase in domestic sales and in exports to Central America.



Larger exports and more promotions (advertising brochures), linked to commercial activities, pushed up the growth of publishing and printing. The growth of basic chemicals, for their part, was boosted by larger exports of natural and chemical dyes and of caustic soda in response to higher international prices and the larger production of industrial gases to meet domestic health and industrial demands.

1/ Manufacturing that does not depend upon the supply of natural (primary) resources, but that is linked, rather, to domestic and foreign demand.





Manufacturing is predicted to expand 5.5 percent in 2006. Primary resources processing would rise 3.5 percent, reflecting stronger activity by sugar, meat products and the fishing industry. Non-primary manufacturing (6.2 percent), would be driven by larger production of non-metallic minerals, paper and printing, and chemicals, rubber and plastics.

47. The **construction sector** grew 8.5 percent in 2005, in response to an increase in self-building activities, construction of shopping centers and strong activity in the mortgage market, where financial institutions saw their loans rise 26.2 percent in a context where local and foreign currency interest rates on mortgage loans continued to fall, reaching rates of 12.7 and 10.1 percent, respectively, in December. This expansion was led by the Mivivienda program, whose loans had increased almost 50 percent the previous year, together with the growth of other financing sources in the second half of the year.

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# Graph 51 INTEREST RATES FOR MORTGAGE LOANS



The execution of projects in southern Peru, like the improvement of the IIo Smelter, construction of the Pillones Dam, expansion of the Sociedad Minera Cerro Verde's Primary Sulphates Plant and the new projects of regional governments contributed to the growth of this sector. This growth was reflected in a 10 percent rise in domestic cement consumption.

The forecast for this sector in 2006 is growth of 8.0 percent, due to the favorable performance of private investment, particularly in building housing complexes and offices, with more dynamic activity in northern Peru where income has risen sharply and various commercial projects are to be carried out. The execution of mining projects, electric and hydroelectric works and major road construction will also play an instrumental part in this performance.

# V.2 Public Finances

The overall balance in 2005 showed a deficit of 0.4 percent of GDP, 0.7 percentage points lower than the previous year and the lowest level reached since 1997. The fiscal deficit for 2006 is predicted to reach its ceiling of 1 percent of GDP and the increase in real public spending to reach the 3 percent per annum limit established in the Fiscal Responsibility and Transparency Act (LRTF).

48. Peru's better fiscal position in 2005 (deficit of 0.4 percent of GDP) can be traced to a primary balance of 1.6 percent of GDP, 0.5 percentage points higher than the previous year because of the increase in the central government current revenues, due mainly to income tax receipts, larger primary balances of local governments, which have accumulated a sizable portion of central government transfers, and the less public debt interest due.

Public debt interest amounted to 2.0 percent of GDP, 0.1 percent less than in 2004 because its was smaller in terms of the GDP due to the appreciation of foreign exchange in the first part of the period, despite the rise in dollar maturities from US\$ 1,159 million to US\$ 1,280 million.

An expansion of the fiscal deficit is forecast for 2006 (0.7 percent of GDP), reflecting in part an increase in public debt interest due to the impact of higher international interest rates and the lengthening of public debt terms through debt swap operations carried out to reduce debt refinancing risk. The primary balance would be 1.5 percent of GDP, but the deficit could be larger in the degree to which subnational

Graph 52 NON-FINANCIAL PUBLIC SECTOR DEFICIT (As a % of GDP)



governments increase their spending rate, drawing on resources not used in previous years.

# Table 26 NON-FINANCIAL PUBLIC SECTOR

(Millions of nuevos soles)

	2004	2005		2006*	
		Aug.05 IR	Jan.06 IR	Aug.05 IR	Jan.06 IR
1. Central government current revenue	<b>35,381</b>	<b>39,800</b>	<b>41,175</b>	<b>42,016</b>	<b>44,032</b>
(% of GDP)	15.1	15.7	15.9	15.6	15.8
Real % var.	8.1	10.5	14.5	3.2	4.4
2. Central government non-financial expenditure	-34,165	-38,250	-38,546	-39,920	-40,650
(% of GDP)	-14.6	-15.1	-15.0	-14.8	-14.6
Real % var.	4.8	10.0	11.0	2.0	3.0
Current	-29,870	-33,250	-33,607	-34,364	-35,422
(% of GDP)	-12.8	-13.1	-13.0	-12.8	-12.7
Real % var.	5.3	9.3	10.7	1.0	2.9
Capital	-4,295	-5,000	-4,938	-5,556	-5,228
(% of GDP)	-1.8	-2.0	-1.9	-2.1	-1.9
Real % var.	1.5	14.4	13.2	8.6	3.4
3. Others	<b>1,184</b>	<b>1,127</b>	<b>1,499</b>	<b>1,378</b>	<b>726</b>
(% of GDP)	0.5	0.4	0.6	0.5	0.3
4. Primary balance	<b>2,400</b>	<b>2,677</b>	<b>4,129</b>	<b>3,474</b>	<b>4,108</b>
(% of GDP)	1.0	1.1	1.6	1.3	1.5
5. Interest (% of GDP) Of which: Pension reform bonds External debt (Millions of US\$)	<b>-4,865</b> -2.1 -333 -\$1,159	<b>-5,153</b> -2.0 -163 -\$1,280	<b>-5,173</b> -2.0 -105 -\$1,280	<b>-6,036</b> -2.2 -237 -\$1,337	<b>-6,103</b> -2.2 -232 -\$1,344
6. Overall balance	<b>-2,465</b>	<b>-2,476</b>	<b>-1,044</b>	<b>-2,563</b>	<b>-1,995</b>
(% of GDP)	-1.1	-1.0	-0.4	-1.0	-0.7
Millions of US\$	-\$754	-\$759	-\$271	-\$777	-\$603

\* Forecast.

- 49. Central government current revenues amounted in 2005 to 15.9 percent of GDP, 0.8 percent more than in 2004 (real increase of 14 percent). This performance can be attributed mainly to an improvement in income tax receipts, which rose 22 percent in real terms, triggered by economic growth, higher mineral prices and the raising of the income tax rate from 27 to 30 percent as of fiscal 2004. The latter two factors explain the increase amounting to 0.8 percent of GDP from increased filing to regularize annual income tax payments.
  - 50. General sales tax (IGV) receipts increased 11 percent in real terms, due to dynamic economic activity and the rise in imports, together with the enlargement of the sphere of application of income tax payment mechanisms introduced in August 2004 (inclusion of goods and services in the deductions system) and starting in January 2005 (application of receipts to local sales of different products). Also instrumental in this increase was the implementation of the Temporary Tax on Net Assets (ITAN) that generated 0.4 percent in revenues

Graph 53 CURRENT REVENUES OF THE CENTRAL GOVERNMENT (As a % of GDP)



Graph 54 MINING SECTOR INCOME TAX (Millions of S/.)



and larger oil, gas and mining royalties (0.2 percent of GDP). These revenues offset the fiscal loss produced by the average 19 percent reduction in the fuel tax to moderate the impact of international prices.

A sum of S/. 180 million has been debited to fiscal accounts for Fuel Prices Stabilization Fund liabilities accrued mainly in 2005. Furthermore, reductions in the excise tax in July, August and September meant S/. 160 million less in tax receipts, added to the S/. 620 million lost because of reductions made to that tax in 2004.

It should be stressed, however, that these costs were offset by larger revenues from sales taxes, income taxes, royalties and duties due to the increase in international prices of oil and its byproducts.

51. Central government current revenues are forecast at 15.8 percent of GDP for 2006, 0.1 percent of GDP less than those received in 2005, which translates into an increase of 4.4 percent in real terms. This projection takes into consideration both a reduction in tax receipts as a result of the lowering of tax on crude oil and diesel, and the recent increase in the excise tax on Diesel 2 (of S/. 0.44 per gallon).

Income tax receipts are expected to amount to 4.4 percent of GDP because the accrual of more taxes in fiscal 2005 will result in larger income tax payments on account, together with the expected regularization of annual tax payments, equivalent to 0.8 percent of GDP, a figure similar to that of the previous year. General sales tax receipts, for their part, are predicted to rise 0.1 percent of GDP mainly because of an increase in the volume of imports. This would be offset in part by a reduction in tax on domestic sales due to nonrecurring receipts in 2005 associated with a transfer of equity holdings. The projected excise tax, for its part, assumes a loss of 0.1 percent of GDP, stemming from increased use of natural gas, which would also be reflected in larger royalty payments. Tax refunds would amount to 1.7 percent of GDP because of stronger export growth.

52. The non-financial expenditure in 2005 amounted to 15.0 percent of GDP, an increase in real terms of 11 percent over the previous year, attributable to the larger transfers made to local governments and to the Oficina de Normalización Previsional -ONP-, together with more spending on gross capital formation. Current transfers increased 0.2 percentage points of GDP and central government investments rose 0.1 percent of GDP. The salary increases granted starting in the

Graph 55 CENTRAL GOVERNMENT NON-FINANCIAL EXPENDITURES (As a % of GDP)



Graph 56 GENERAL GOVERNMENT NON-FINANCIAL EXPENDITURES (As a % of GDP)



second semester of 2004 and in 2005, mainly to teachers and health professionals, whose annual cost is estimated at S/. 528 million, also contributed to this increase. The capital expenditure, for its part, was 13 percent higher in real terms because of more investment project execution.

Central government non-financial expenditure is forecast at 14.6 percent of GDP for 2006, a figure 0.4 GDP percentage points lower than in 2005. This slowdown in spending is based on the assumption of salary increases already announced and on smaller pension payments, because a start was made at the end of 2005 on pension payments for which the ONP is responsible. The rate of investment in project execution is expected to remain at its level of 2005 (1.9 percent of GDP). It should be mentioned that non-financial expenditure at the general government level would rise to a level of 3 percent in real terms (measured against the GDP deflator), a figure consistent with Peru's Fiscal Responsibility and Transparency Act (LRTF).

Measurement of the limit on real growth of non-financial expenditure, set in the LRTF at 3 percent a year, using the GDP deflator introduces a procyclical bias into fiscal management, in the sense that this price indicator allows favorable (adverse) variations in terms of trade to be transferred to more (less) government spending.

53. Public debt amortization amounted to US\$ 4,460 million, reflecting prepayments to the Paris Club (of US\$ 1,555 million) and to JAPECO (of US\$ 757 million) and US\$ 388 million in D. S. 138-2000-EF bond amortizations carried out under the Financial System Consolidation Program. It should be added that domestic debt amortization was financed mainly through the swapping of those bonds for S/. 1,244 million (equivalent to US\$ 380 million) in new sovereign bonds.

Public debt amortization in 2006 is forecast at US\$ 1,526 million and would consist of US\$ 1,132 million of external and US\$ 394 million of domestic debt maturities. This prediction takes into account that less debt will be payable in 2006 (an estimated US\$ 771 million for the year) because of Paris Club and Japeco external debt prepayments in 2005.

54. The public sector borrowing requirement was US\$ 4,732 million in 2005. If the financing for the cited external debt prepayment operations is subtracted from that sum, this would bring the borrowing requirement to US\$ 393 million less than in 2004, reflecting the smaller fiscal deficit generated in 2005. External disbursements totaled US\$ 2,628 million, of

	2004	2	005	200	)6*
		Aug.05 IR	Jan.06 IR	Aug.05 IR	Jan.06 IR
1. Overall balance (Millions of nuevos soles)	-2,465	-2,476	-1,044	-2,563	-1,995
(% of GDP)	-1.1	-1.0	-0.4	-1.0	-0.7
Millions of US\$	-754	-759	-271	-777	-603
2. Amortization (Millions of US\$)	-2,068	-3,695	-4,460	-1,550	-1,526
Redemption of pension reform bonds	-215	-197	-192	-94	-95
Internal repayments	-505	-588	-591	-306	-299
External repayments	-1,348	-2,909	-3,678	-1,150	-1,132
3. Borrowing requirements (Millions of US\$)	2,822	4,454	4,732	2,327	2,129
External disbursements	2,474	2,223	2,628	1,000	999
Freely available	2,158	1,723	2,277	500	499
Investment projects	315	500	351	500	500
Domestic bonds	766	1,803	2,096	1,150	674
Privatization	114	97	56	24	24
Others	-532	331	-49	153	432

# Table 27 NON-FINANCIAL PUBLIC SECTOR FINANCING

\* Forecast.

which US\$ 1,682 million corresponded to global bond issues. Sovereign bond issues in the domestic market amounted to S/. 6,688 million (equivalent to US\$ 2,096 million). Of the total bond issues, US\$ 1,250 million from the global bonds and US\$ 1,042 million from the sovereign bonds were used for external debt prepayment.

Maturities were extended to up to 15 years in the case of sol-denominated nominal bonds and up to 30 years for VAC bonds, thereby extending the maturity of the public debt in soles from 5.3 years in December 2004 to 9.8 years in December 2005. Among the most significant bond placements are two made in July 2005, for S/. 1,500 million and S/. 1,050 million (at 12 and 15 years, respectively), to finance the Paris Club debt prepayment and another, of S/. 811 million (at 15 years), made in December of that same year for the JAPECO debt prepayment.

It should be stressed that between September and December, the Treasury continued its strategy of placing both fixed-term (11 and 15 years) and VAC (19 and 29 years) long-term sol-denominated sovereign bonds in the domestic public debt market. Foreign investors were active participants in the bond auctions and by the end of December owned 26 percent of the outstanding balance of the sol-denominated sovereign bonds.

## Table 28 SOVEREIGN BONDS PLACED THROUGH THE MARKET MAKERS PROGRAM

Bond		Primary issue			
Denominated	Residual term (years)	Amount (mill. S/.)	Interest rate	Settlement date	

#### SEPTEMBER 2005

13-Oct2024 1/	19.1	349.1	5.74%+VAC	8/9/05
12-Aug2016	10.9	150.0	7.10%	20/9/05
31-Jan2035	29.4	150.0	5.20%+VAC	20/9/05
Total		649.1		

#### OCTOBER 2005

10-Mar2010	4.4	75.0	6.49%	18/10/05
31-Jan2035	29.3	31.5	5.25%+VAC	18/10/05
Total		106.5		

#### NOVEMBER 2005

10-Mar2010	4.3	42.4	6.30%	15/11/05
12-Aug2016	10.7	75.0	7.50%	15/11/05
Total		117.4		

#### **DECEMBER 2005**

12-Aug2020 2/	14.7	811.0	8.15%	12/12/05
Total		811.0		

1/ In the framework of the internal operation of bond swaps (D.S. N° 052-2005-EF).

2/ In the framework of the prepayment operation with JAPECO (D.S. N° 162-2005-EF).

Some US\$ 56 million were received over the year in privatization resources, including revenues from the concession of the fourth cellular telephony band, sales of equity holdings in several companies, and installment payments from previous privatization operations.

The borrowing requirement in 2006 is forecast at US\$ 2,129 million and would be covered by US\$ 499 million in multinational organization disbursements, US\$ 500 million in disbursements for investment projects, S/. 2,310 million (equivalent to US\$ 674 million) in Sovereign Bonds and the withdrawal of US\$ 432 million from government bank deposits.

55. The public debt-to-GDP ratio dropped from 45.1 to 38.4 percent of GDP between December 2004 and December 2005, reflecting both the smaller deficit observed during the period and a favorable combination of strong GDP growth and low public debt interest. The composition of the public

**Graph 57 PUBLIC DEBT: 1999-2006** (As a % of GDP)





debt evolved positively, with the local currency component rising from 16.0 percent in 2004 to 25.8 percent at the end of 2005. This can be attributed mainly to the external debt prepayment operations financed in part by sol-denominated sovereign bond issues and by the swap of foreign currencydenominated D.S. 138-2000-EF bonds maturing in 2005 for sovereign bonds in nuevos soles.

The public debt balance is expected to be brought down from 38.4 percent of GDP to the end of 2005 to 36.8 percent at December 2006 as a result of the small fiscal deficit which reduces the demand for new public debt and the high growth rate foreseen in real GDP.

# V.3 International Environment

The international environment continued to remain quite favorable in 2005, contributing to an improvement in terms of trade and pushing up demand for our export products. Similar growth is expected over the next few years in the context of marginal increases in international interest rates reflecting the return to normal of external monetary conditions. Commodity prices are expected to remain high during 2006, and could even rise as a result of international liquidity and market inflexibility.

# **Evolution of trading partners**

- 56. The world economy (weighted by each country's importance to our foreign trade), after achieving record growth (4.7 percent) in 2004 after almost three decades, slowed in 2005 to 3.9 percent. This rate, although lower than that of the previous year, is consistent with the gradual withdrawal of monetary stimulation by the principal economies (the United States, in particular) and with a rate that is sustainable in the medium term.
- 57. An indicator to gauge world economic growth and its importance to the Peruvian economy requires a weighting criterion, which consists of the use of the recently existing (2004) foreign trade structure.

The basket of countries employed consists of the United States, China, United Kingdom, Chile, Japan, Spain, Germany, Holland, Brazil, Canada, Italy, Switzerland, Colombia, Taiwan, Mexico, Ecuador, Korea, Venezuela, Belgium and Argentina. The most important recent changes are the growing participation of China (now our second trading partner) and Spain. Furthermore, almost one-quarter of our trade is with Latin American countries. .....

# Table 29 FORECAST FOR THE MAIN TRADE PARTNERS' GDP GROWTH 1/

(Percentages)

			Forecast				
			200	5	20	06	
	Weighting 2/	2004	Aug.05 IR	Jan.06 IR	Aug.05 IR	Jan.06 IR	
Trade partners	100%	4.7	3.7	3.9	3.5	3.8	
North America	35%	4.1	3.5	3.5	3.3	3.4	
USA	33%	4.2	3.6	3.5	3.3	3.4	
Canada	2%	2.9	2.7	2.9	2.9	3.0	
Europe	26%	2.5	1.7	1.9	2.1	2.2	
Germany	3%	1.6	0.9	0.9	1.3	1.6	
Belgium	1%	2.4	1.4	1.5	2.0	2.0	
Spain	8%	3.1	3.1	3.4	3.0	3.1	
Netherlands	2%	1.7	0.4	0.8	1.7	2.0	
Italy	2%	1.0	-0.2	0.2	1.2	1.3	
United Kingdom	6%	3.2	2.0	1.7	2.2	2.1	
Switzerland	3%	2.1	1.1	1.8	1.6	2.0	
Asia	15%	7.1	6.0	6.7	5.6	6.1	
China	8%	10.1	9.1	9.9	8.1	8.7	
Korea	2%	4.6	3.6	3.9	4.9	4.9	
Japan	4%	2.3	1.6	2.5	1.5	2.2	
Taiwan	2%	6.1	3.7	3.8	4.1	4.0	
Latin America	23%	6.6	4.6	5.1	4.1	4.6	
Argentina	2%	9.0	6.9	8.9	4.1	6.2	
Brazil	5%	4.9	3.0	2.5	3.4	3.4	
Chile	7%	6.1	5.9	6.3	5.2	5.5	
Colombia	4%	4.0	3.8	4.7	3.8	4.3	
Ecuador	2%	6.9	3.1	2.8	3.1	3.1	
Mexico	2%	4.4	3.6	3.1	3.5	3.5	
Venezuela	2%	17.9	5.9	9.4	4.5	6.2	
	1	1					

1/ Consensus Forecast data as of the corresponding month (except for some actual date).

2/ Weighted according to the 2004 trade.

58. The **United States**, our most important trading partner, showed growth of 3.5 percent. Vigorous real estate activity, improvements in the labor market and favorable financial conditions continued to drive the growth of domestic demand. The strong demand counteracted the adverse supply shocks (higher oil prices and Hurricane Katrina). This development took place in a context marked by relatively contained inflationary pressures, but still strong external and fiscal imbalances.

# Table 30 MAIN USA INDICATORS

	2002	2003	2004	2005	2006
GDP growth (%)	1.6	2.7	4.2	3.5	3.4
Personal consumption (annual % change)	2.7	2.9	3.9	3.5	2.8
Investment in businesses (annual % change)	-9.2	1.3	9.4	8.9	8.3
Prices					
Inflation (average)	1.6	2.3	2.7	3.4	2.8
Laboral costs (annual % change)	3.8	3.9	3.9	3.2	3.5
Interest rates					
3-month treasury bonds (annual % change / end-of-period)	1.2	0.9	2.2	4.0	4.5
10-year treasury bonds (annual % change / end-of-period)	3.8	4.4	4.2	4.4	4.9
Spread between short and long term rates (bps.)	260	350	200	40	40

Source: Consensus Forecast of January 2006.

The growth forecast for the next few years is slightly lower, in keeping with the slowing of consumption brought on by the withdrawal of monetary stimulation and the gradual correction of real estate prices. Even so, investment is expected to remain vigorous, given the relative stability of long-term interest rates.

59. **China**, which has become Peru's second largest trading partner, experienced growth of 9.9, more than had been forecast in the Report for January 2005 (8.2 percent), reflecting in part the increase in its manufacturing exports. Chinese authorities have been taking measures to avoid overheating by slowing the expansion of credit and, in midyear, raised the value of the yuan 2.1 percent (after having kept it fixed since 1994).

	2002	2003	2004	2005	2006
GDP growth (%)	9.1	10.0	10.1	9.9	8.7
Prices					
Inflation (average)	-0.8	1.2	3.9	1.9	2.1
Interest rates					
For 1-year working capital (annual $\%$ change / end-of-period)	5.9	5.3	5.3	5.6	5.6

# Table 31 MAIN CHINA INDICATORS

Source: Consensus Forecast of January 2006.

Slightly lower growth rates are expected over the next few years because of restrictions on investment in certain activities. An impact on the export sector is likely if the United States imposes restrictions on trade with China or the yuan appreciates (Consensus Forecast predicts an estimated 4 percent increase in the value of Chinese currency in 2006). Even so, most investment houses consider 2008 as the starting date for a possible significant slowdown.

60. In the **Eurozone**, economic growth accelerated in the second semester, led by strong growth in Germany's export sector and increased consumption in Spain and France. Oil shock-generated inflationary pressures accompanied this growth, with inflation for the year settling above the Community target level of 2 percent. As a result, the European Central Bank raised its reference rate 25 basis points for the first time in over two years (from 2.00 to 2.25 percent). Given performance in the second semester, export-driven recovery is expected.

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# Table 32 MAIN EURO ZONE INDICATORS

	2002	2003	2004	2005	2006	
GDP growth (%)	1.0	0.7	1.8	1.4	1.9	
Private consumption (annual % change)	0.9	1.1	1.4	1.3	1.5	
Gross fixed capital formation (annual % change)	-2.0	0.8	1.7	2.2	3.2	
Prices						
Inflation (average)	2.3	2.1	2.1	2.2	2.0	
Laboral costs per hour (annual % change)	3.7	3.3	3.5	2.5	2.4	

Source: Consensus Forecast of January 2006.

61. **Japan** showed signs of economic recovery and of even putting deflation to rest. Domestic demand-wise, both private consumption and investment recovered somewhat (improvements in business confidence and in leading indicators were noted toward the end of the year). Export growth has been significant, particularly in the automotive and technology sectors and this trend is expected to continue over the next few years.

# Table 33 MAIN JAPAN INDICATORS

	2002	2003	2004	2005	2006
GDP growth (%)	0.1	1.8	2.3	2.5	2.2
Private consumption (annual % change	1.1	0.6	1.9	2.0	1.7
Investment in businesses (annual % change)	-5.2	6.2	4.6	8.0	6.6
Prices					
Inflation (average)	-0.9	-0.3	0.0	-0.3	0.2
Corporations good prices (annual % change)	-2.1	-0.8	1.2	1.7	1.2
Interest rates					
3-month CD'S (annual % change / end-of-period)	0.1	0.1	0.1	0.1	0.1
10-year government bonds (annual %change / end-of-period)	0.8	1.4	1.4	1.5	1.7
Spread between short and long term rates (bps)	70	130	130	140	160

Source: Consensus Forecast of January 2006

62. Latin America continued to experience strong economic activity, with growth averaging 5.1 percent (albeit lower than the previous year's 6.6 percent). World growth pushed up international export prices and trade had a positive impact on disposable income in the countries of the region. Overseas workers' remittances were also an important source of income. As a result, the region's growth was accompanied by an improvement in its external accounts, unlike what happened in other periods. Some of the countries even boasted current account surpluses, for the first time in several decades.

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#### Graph 58 CURRENT ACCOUNT (As a % of GDP)



**TERMS OF TRADE** (% change)



# Table 34 MAIN INDICATORS IN LATIN AMERICA 1/

	2002	2003	2004	2005	2006
GDP growth (%) Argentina Brazil Chile Mexico	-10.9 1.9 2.2 0.8	8.8 0.5 3.7 1.4	9.0 4.9 6.1 4.4	8.9 2.5 6.3 3.1	6.2 3.4 5.5 3.5
Private consumption (annual % change) Argentina Brazil Chile Mexico	-12.8 -0.4 2.4 1.6	7.0 -1.5 4.1 2.3	8.3 4.1 5.6 5.5	8.2 2.7 6.9 4.7	5.5 3.5 6.0 4.5
Gross fixed capital formation (annual % ch Argentina Brazil Chile Mexico	ange) -36.4 -4.2 1.5 -0.6	38.2 -5.1 5.7 0.4	34.4 10.9 12.7 7.5	20.5 2.0 22.5 6.6	11.8 6.0 10.3 6.0
Current account (US\$ billions) Argentina Brazil Chile Mexico	8.6 -7.6 -0.6 -13.5	7.7 4.2 -1.1 -8.6	3.3 11.7 1.4 -7.3	4.4 14.8 -0.1 -7.9	3.4 8.3 -1.5 -11.1
Overall balance of the Public Sector (% of Argentina Chile Mexico	GDP) 2/ -1.5 -1.3 -1.2	0.5 -0.4 -0.6	2.6 2.2 -0.3	1.9 4.3 -0.2	1.8 2.9 -0.1
Inflation (accumulated) Argentina Brazil Chile Mexico	41.0 12.5 2.8 5.7	3.7 9.3 1.1 4.0	6.1 7.6 2.4 5.2	12.3 5.7 3.7 3.3	13.2 4.8 3.1 3.6

1/ Source: Latin American Consensus Forecast of January 2006.

2/ For Argentina is the overall balance of the non-financial Public Sector. For Chile is the overall balance of the General Government. For Mexico is the overall balance of the Public Sector including privatización.

63. High international liquidity levels and the region's improved macroeconomic indicators boosted demand for bonds issued by these economies, leading consequently to narrower spreads over most of the year (even dropping to successive record lows in the final months of the year). The region's countries took advantage of these narrow spreads to issue sovereign bonds (in order to improve debt profiles) and to prepay debt (as in the cases of Brazil and Argentina). Some countries placed local currency issues in a context of local currency appreciation against the dollar (in contrast to weakening currencies of developed countries).

# Table 35 EMBI+SPREADS

(End-of-period. in basis points)

	Dec.03 (1)	Dec.04 (2)	Aug.05 (3)	Dec.05 (4)	bps.changes (4)-(2)
Emerging economies	418	356	296	245	-111
Latin America	521	466	337	283	-183
Brazil	463	382	413	311	-71
Colombia	431	396	309	238	-158
Mexico	199	180	152	126	-54
Argentina	5,632	4,703	439	504	n.d.
Peru	312	220	169	206	-14

- 64. Emerging Market Bond Index (EMBI+) spreads and those of certain economies (like Brazil) narrowed to minimum levels<sup>1/</sup>. This behavior in the region can be traced basically to: (i) the moderate raises in FED rates that incentivate larger capital inflows into the emerging markets, (ii) the region's improved macroeconomic fundamentals, (iii) the favorable impact of higher oil and mineral (copper and gold) prices on certain export economies, and (iv) the cancellation of Argentina's and Brazil's debt to the IMF and Brazil's announced prepayment of the Paris Club. Most of region's currencies appreciated as spreads narrowed.
- 65. **Chile**, one of our most important trading partners, showed 6.3 growth, triggered by high copper prices and a strong increase in domestic demand that has been moderated through successive interest rate hikes. **Brazil**, for its part, had one of the lowest growth rates (2.5 percent). Although its external accounts showed a substantial improvement, the impact of high interest rates on investment and consumption reduced domestic demand (interest rates were brought down in the second semester because of the slowing of inflation, but remain high in real terms).
- 66. The 2006 forecast for our **Latin American** trading partners is growth of 4.6 percent, favored by the existence of a still positive external context. It should be stressed that the region's countries today are better prepared externally and fiscally to confront any domestic or foreign shock.

# International interest rates

67. The FED continued its cycle of interest rate hikes in 2005, gradually withdrawing its monetary stimulation. The FED reference rate was raised 25 bp on eight occasions, taking it from 2.25 to 4.25 percent, for an accumulated increase of 325 basis points since June 2004. Lately, in January 31, the FED increase its reference rate to 4.50 percent.

Interest rates have taken this course in a favorable context marked by economic growth and inflationary pressures. Annualized inflation, after reaching a maximum high of 4.7 percent in September, settled at 3.4 percent at the close of 2005 due to adverse supply shocks, like the oil price and Hurricane Katrina.

<sup>1/</sup> It should be added that Argentina's spread was recalculated following that country's debt restructuring in the first half of the year (defaulted bonds were replaced by new bonds listed in the JP Morgan Index) and narrowed to about 400 basis points. Toward the end of the year, the spread widened to above 500 bp due to political uncertainty over the resignation of the Minister of Economy and the announced prepayment of the IMF debt. Argentina's domestic market, unlike that of Brazil, reacted negatively to the announcement.







Graph 61 INTEREST RATES: 2-YEAR AND 10-YEAR USA TREASURY BONDS







- 68. The possibility that these shocks could affect the rest of the economy influenced the decision to raise interest rates. Core inflation, which does not consider the effect of energy and food products, remained at low levels. The annual variation in core inflation was 2.2 percent in December 2005.
- 69. The movement of short-term interest rates was not reflected in a similar evolution of longer-term interest rates. In 2005, despite the 2 percentage-point-hike in the FED rate, longterm rates continued to fluctuate between 3.9 and 4.7 percent, leading to a reduction of the difference between long- and short-term rates. In fact, in the last days of 2005, the yield on two-year Treasury notes was higher than the yield on ten-year Treasury notes, a phenomenon known as an inverted curve.

Fear over the presence of an inverted curve attracted the attention of market investors and analysts because of past experience associating this situation with subsequent recession or slowdown (the case at the end of the eighties and at the beginning of this decade).

However, as the August Inflation Report pointed out, other factors not linked to recession prospects are involved in long-term interest rates. Foremost among these, which are keeping interest rates on longer-term bonds at low levels, are the demand of foreign central banks and the demand of petroleum exporting countries for dollar-denominated bonds.

70. The market expects the FED to raise its interest rate to 4.75 percent toward the first semester of 2006. So long as inflationary pressures are kept under control, these raises are expected to bring the cycle of adjustments to the FED reference interest rate to an end, as stated in its December 2005 press release.

# Evolution of the dollar in international markets

- 71. The cycle of increases in FED reference interest rates helped in 2005 to strengthen the dollar against other strong currencies (like the euro and the yen), against all market predictions. The dollar appreciated 11 percent against the euro and 14 percent against the yen.
- 72. Dollar values evolved positively despite United States fiscal and external imbalances. Fiscal and current account deficits were estimated at 4 and 6 percent of GDP, respectively, in

#### Graph 63 USA: CURRENT ACCOUNT AND INVESTMENT POSITION (Billions of US\$)



2005, bringing the negative net external asset position to a level of almost 20 percent of GDP.

73. It is difficult, given these imbalances, to predict the dollar's evolution over the next few years. Most banks and investment houses, however, foresee a moderate depreciation against the yen and the euro in 2006, boosted by recent improvements of economic conditions in Europe and Japan. The possible raising of interest rates by the BCE, given the near end of the FED cycle of increases, would reduce the interest rate differential to favor the euro. Foreign exchange management in the Asian economies, particularly China, which already in 2005 revalued its currency by 2.1 percent against the dollar, could also influence the dollar's evolution.

### **Terms of trade**

World economic growth and the narrow balance of many commodity markets continued in 2005 to foster positive terms of trade better than initial market forecasts. The outlook for prices in 2006 remains good, in a context of slight world economic slowing, but still high growth rates and abundant market liquidity, but with imbalances in the fundamentals of many products.

- 74. The terms of trade improved 7.0 percent in **2005**, surpassing previous predictions, due to the 18.4 percent increase in the prices of exports, particularly copper (31 percent), gold (10 percent), zinc (33 percent) and molybdenum (106 percent) and the smaller growth of import prices (10.6 percent). The latter can be attributed mainly to the rise in oil prices (41 percent), which was offset by lower prices of foods like wheat (10 percent), corn (14 percent) and soybeans (15 percent).
- 75. **Copper** prices rose steadily through 2005, closing the year at a record level of US\$ 2.109 per pound. This reflected restrictions in the supply, particularly of concentrates, that made it impossible to keep pace with the growth of industrial demand, led by China, and of investment funds. Critical levels of copper inventories heightened the impact. Western hemisphere inventories closed at levels of below 250 thousand MT compared to 1.3 million MT in 2003. The Metal Bulletin Research (MBR) estimates that 730 thousand MT of supply were lost due to labor disputes in important world producers (United States, Zambia, and Chile, among others), social problems with neighboring communities (Peru), and the disruption of production for technical reasons (Zambia, Thailand, and India). Added to this were the effect on prices of announcements of smaller outputs of mined ore (due to

Graph 64 TERMS OF TRADE: 1996-2005 IV Q (Index 1994=100)



Graph 65 TERMS OF TRADE: 1996-2006 (Index 1994=100)



lower copper ore grade or priority production of byproducts like molybdenum), the indirect impact of hurricanes in the United States (the effect of higher oil prices on inflation and the demand for investment funds against hurricane risk and their impact on the rebuilding of devastated areas) and, more recently, the speculation touched off by news of the short positions of the State Reserve Bureau of China.

**Copper** prices are expected, based on prices in the futures market, to reach US\$ 1.65 a pound at December 2006 and US\$ 1.81 on average for the year (US\$ 2.08 and US\$ 1.67 a pound at the close of 2005 and as an average for the year, respectively).

According to projections for 2006 of the International Copper Study Group, mine production should increase 5.1 percent and refinery production 8.1 percent. This would cover the demand, whose growth is estimated at 5.5 percent, allowing inventories to rise slightly (about 300 thousand MT) and a gradual price correction to take place. In the context of a very tight copper market, like that of 2005, the key factor in the evolution of copper prices will be the availability of mined material. A strike at CODELCO, the world's largest producer, early this year has already affected production, taking copper prices to record high levels.

76. In the case of **zinc**, the International Lead & Zinc Study Group estimates the growth in 2005 of China's and India's demand at between 9 and 10 percent and that of Korea at over 6 percent, offsetting partially the 10 percent and 4 percent reductions in demand on the part of the United States and of Europe, respectively. As a result, there have been no significant changes in global demand and the refinery supply offered has altered very little, although there are also estimates that the global deficit has widened. The concentrates market shows signs of strong inflexibility that brought on the closing of various zinc smelters in 2005 and that is keeping zinc prices high.

The zinc prices forecast for **2006** are an average of US\$ 0.78 per pound by the close of the year and US\$ 0.80 per pound for the year. Growth in the demand for zinc in all regions is estimated to be on the order of 5.7 percent, led by China and India, whose demands are expected to rise about 10 percent. The MBR estimates that the global deficit is still around 500 thousand MT, enough to reduce reported global inventories to less than one week's consumption, although unreported inventories could add to the market's volatility. Zinc could,

in this connection, prove to be the exception to projections for base metals in 2006 by showing growth throughout the year, at an average level of 28 percent.

77. The price of **gold** has been rising steadily over the past 5 years and in 2005 reached a maximum of US\$ 537 per ounce in December, the highest level since April 1981. This increase took place despite the relative strength of world economic activity and increases in international interest rates for reasons that affect the decisions of investors. Among these are the increase in risks because of terrorist activities, world economic imbalances and higher oil prices and their impact on inflation. Large gold purchases by Japan to shore up a weak yen, combined with abundant world liquidity, have improved the positions of investment funds. Also important is the increased demand for gold for traditional uses such as jewelry because of the income effect in the most heavily growing countries like India and China and in the oil-exporting countries. This has weakened the inverse relationship between the dollar and gold.

International gold prices are expected in 2006 to rise to US\$ 525 an ounce by December 2006 and US\$ 521 an ounce on average. The supply is predicted to show slight growth of roughly 2 to 3 percent and the demand to continue expanding over the year, keeping pace with world economic activity. Continued existence of the factors on which investors' decisions are based would underpin the higher price expected by the market, given the evidence that less jewelry will be demanded at existing prices, together with the slight depreciation of the dollar that is expected due to the narrower rate differential and the improved prospects for Europe and Japan. Furthermore, portfolio decisions by central banks or institutions with important positions, as well as by investors (the investment funds' proportion of gold holdings is still low in comparison with their holdings of other instruments like bonds) could introduce a measure of volatility into the market.

78. **Oil** prices, for their part, were highly unstable in 2005, ranging between US\$ 47 and US\$ 70 per barrel, with two differentiated trends. Prices rose up until September, reaching their highest level at the end of August due to Hurricane Katrina's rampage through the oil-producing zone in the Gulf of Mexico. In October, they started to decline when Member Countries of the International Energy Agency (IEA) released strategic reserves (60 million barrels), the OPEC quota system was suspended, facilities on the Gulf of Mexico started to recover, and there were expectations of

Graph 66 PETROLEUM WEST TEXAS INTERMEDIATE PRICE (US\$ per barrel)



higher temperatures in the Northern Hemisphere. Although the triggering factors of the two periods were different, they shared the same limitation in fundamentals.

The inflexibility of oil market fundamentals can be attributed to the still favorable demand conditions of the largest consumer countries (particularly China and India) and, in the case of supply, to the very limited capacity for heavily increasing production of both crude and refined oil. As a result, interruptions of the short-term supply (due to weather conditions and political factors) have impacted prices strongly, in a context of low inventories (United States inventories are below the average of the past 30 years).

A 3 percent increase is foreseen in the prices of West Texas Intermediate (WTI) oil futures. The Energy Information Administration (EIA) estimates that production will remain at maximum levels in 2006, while demand expands rapidly. World demand is expected to rise from 1.2 to 1.6 million barrels a day, driven basically by the reversal of the United States demand in 2005, while China's demand would remain similar. As for the supply, production is forecast to increase slightly in both the OPEC and non-OPEC countries, easing the market's rigidity somewhat.

The market continues to remain unstable, rocked by rumors of a reduction in exports from Iraq, a cutback in OPEC quotas or attacks on facilities, like the recent one in Nigeria, which, together with international tensions over Iran, have pushed prices of crude back up to levels unheard of since last September.

- 79. In the case of foods, the prices of wheat futures are expected to be 6 percent higher in 2006 because of both smaller world production and a growth in expected demand, given the possibility that India may become a net wheat importer due to stagnating production and a large increase in consumption. Furthermore, very low temperatures forecast for the United States southern plains have created uncertainty over the 2006 winter crop.
- 80. In this context, a slight change in the terms of trade is foreseen for **2006** (0.5 percent), although after the large increases of the past two years, their level would still be the highest of the past 9 years. Export prices are forecast to rise 4.6 percent and import prices, 4.1 percent. A deterioration in the terms of trade is predicted for 2007, brought on by continued gradual price correction.





Graph 68

### **GOLD PRICE: ACTUAL AND FUTURES**



# Table 36 TERMS OF TRADE

(Annual change)

	2004	2005		2006	
		August IR	January IR	August IR	January IR
		2005	2006	2005	2006
Terms of trade	9.0	3.5	7.0	-6.1	0.5
Export prices index	20.8	14.1	18.4	-1.3	4.6
of which international prices:					
- Gold (US\$/ troy ounce)	409.9	443.4	445.5	440.7	520.7
- Copper (cUS\$/ pound)	130.0	155.1	166.9	137.1	180.8
- Zinc (cUS\$/ pound)	47.5	57.2	62.7	56.7	80.3
Import prices index of which international prices:	10.8	10.2	10.6	5.1	4.1
- Petroleum WTI (US\$/ barrel)	41.4	57.9	56.5	66.9	61.0
- Wheat (US\$/ per MT)	127.3	123.4	127.8	129.4	141.9

Source: BCRP.

# V.4 Balance of payments

The continued existence of the favorable international context noted since 2004 led in 2005 to a current account surplus of 1.4 percent of GDP, a level not reached since 1979 when the largest improvement in terms of trade of the past 30 years was to be seen. A surplus of 0.9 percent is forecast for 2006.

81. The **current account** surplus is expected to amount to US\$ 1,070 million (1.4 percent of GDP) for 2005, the best showing of the past 26 years. It can be attributed mainly to the improvement in the trade balance and, in lesser degree, to the 29 percent increase in remittances from Peruvians living abroad (amounting to US\$ 1,449 million). This performance was offset in part by the increase in profits earned by companies with foreign shareholdings due to our high commodity prices.

Good conditions in commodities markets influenced by China's growth and the limited impact of elimination of the international textile quotas system and of China's increased participation in the multifiber market, together with strong growth in other non-traditional sectors, particularly agriculture, pushed exports and trade surpluses up to record levels.

A current account surplus of US\$ 707 million (0.9 percent of GDP) is forecast for **2006**, in keeping with a continued positive trade balance, lower profits due to gradual international price correction, and a moderate increase in remittances from Peruvians abroad.

ZINC PRICE:





## **COPPER PRICE:**

ACTUAL AND FUTURES, AND INVENTORIES



PETROLEUM WTI PRICE: ACTUAL AND FUTURES, AND INVENTORIES



# Graph 69 BALANCE OF PAYMENTS' CURRENT ACCOUNT

(As a % of GDP)



# Table 37 BALANCE OF PAYMENTS

(Millions of US\$)

	2004	2	005*	2006**		
		August IR	January IR	August IR	January IR	
		2005	2006	2005	2006	
I. CURRENT ACCOUNT BALANCE	- 10	140	1.070	116	707	
(% of GDP)	- 0.0	0.2	1.4	0.1	0.9	
1. Trade balance	2,793	3,839	5,163	3,015	5,247	
a. Exports	12,617	16,097	17,247	16,856	18,839	
b. Imports	- 9,824	- 12,258	- 12,084	- 13,841	- 13,591	
2. Services	- 843	- 870	- 930	- 939	- 950	
3. Investment income	- 3,421	- 4,505	- 4,964	- 3,774	- 5,563	
4. Current transfers	1,461	1,676	1,800	1,814	1,973	
II. CAPITAL ACCOUNT	2,336	903	458	- 187	228	
1. Private sector	1,348	2,107	1,876 <sup>1</sup>	285	506	
2. Public sector	988	- 1,204	- 1,418	- 472	- 278	
III. EXCEPCIONAL FINANCING	26	105	100	28	65	
IV. NET FLOW OF CRBP RESERVES (1-2) (Increment carries negative sign)	- 2,352	- 1,398	- 1,628	- 100	- 1,000	
1. Variation in NIR balance 2. Effect of valuation and monetarization of gold	- 2,437 - 85	- 1,200 199	- 1,466 162	- 100 0	- 1,000 0	

\* Preliminary. \*\*Forecast.

1/ Includes US\$ 853 millions of sovereign bonds adquisitions by non-residents.

Source: BCRP, MEF, SBS, SUNAT, Ministerio de Relaciones Exteriores, Cofide, ONP, FCR, Zofratacna, Banco de la Nación, Cavali ICLV S.A., Proinversión, BIS and companies.

- 82. The **trade balance** for 2005 is expected to show a surplus for the fourth straight year, amounting to US\$ 5,163 million, US\$ 2,370 million larger than that of the previous year. Instrumental in this performance was the 37 percent increase in exports, outpacing imports, which rose 23 percent.
- 83. Valuing exports in 2005 at 2004 prices has a price effect equivalent to US\$ 2,579 million. If those exports are valued at 2003 prices, that effect doubles (US\$ 5,110 million). The following graph illustrates that effect and the impact of the prices on imports (US\$ 564 million at 2004 prices and US\$ 963 million at 2003 prices). If we were to discount the favorable net effect of the terms of trade of the past two years, the trade balance would still be positive by US\$ 1,001 million.

A trade balance surplus of US\$ 5,247 million is forecast for 2006, taking into account the growth projections for our main trading partners and the evolution of terms of trade.

#### Graph 70 TRADE BALANCE WITH TERMS OF TRADE EFFECT (Millions of US\$)



Graph 71 TRADE BALANCE





# Table 38 TRADE BALANCE

(Millions of US\$)

							% ch	ange	
	2004	20051/		2006 <sup>2/</sup>		2005		2006	
		August IR	January IR	August IR	January IR	August IR	January IR	August IR	January IR
		2005	2006	2005	2006	2005	2006	2005	2006
1. EXPORTS	12,617	16,097	17,247	16,856	18,839	27.6	36.7	4.7	9.2
Traditional products	9,028	11,775	12,839	11,960	13,649	30.4	42.2	1.6	6.3
Non-traditional products	3,476	4,178	4,271	4,738	5,009	20.2	22.9	13.4	17.3
Other products	113	144	137	157	180	27.4	20.9	9.1	31.8
2. IMPORTS	9,824	12,258	12,084	13,841	13,591	24.8	23.0	12.9	12.5
Consumer goods	1,973	2,310	2,290	2,560	2,568	17.1	16.1	10.9	12.1
intermediate goods	5,356	6,784	6,598	7,505	7,284	26.7	23.2	10.6	10.4
Capital goods	2,365	3,064	3,078	3,669	3,624	29.5	30.1	19.8	17.8
Other goods	130	101	118	106	116	-22.0	- 9.2	5.0	- 1.8
3. TRADE BALANCE	2,793	3,839	5,163	3,015	5,247				

1/ Preliminary.

2/ Forecast.

Source: BCRP, SUNAT, Zofratacna, Banco de la Nación and companies.

84. **Exports** in 2005 reached a level of US\$ 17,247 million, US\$ 4,630 million higher than in 2004. Not only the rise in international prices (18 percent, on average), but also the larger volumes shipped abroad (15 percent) contributed to this performance. Growth in traditional exports was 42 percent and in non-traditional, 23 percent.

Export growth is forecast to slow in 2006 to 9 percent for the year (5 percent by price and 5 percent by volume) because of gradual international price correction. An increase of 6 percent in traditional and 17 percent in non-traditional exports is expected to underpin this growth.

85. The expansion of **traditional exports** in 2005 was led by growth of mining products, particularly gold, copper and molybdenum, whose prices rose an average of 23 percent, while volumes climbed 15 percent. The launching of the Alto Chicama project in the second semester, together with Yanacocha's larger output in the third quarter, were conducive to larger gold sales (20 percent by volume), while the recovery of the marine biomass contributed to the 13 percent increase in the volume of fishery exports.

#### Graph 72 EXPORTS (Billions of US\$)


In 2006, smaller volumes of fishery exports that in 2005 were favored by the accumulation of the previous year's inventories are expected to offset in part the increase in volumes of mining products.

86. Growth of **non-traditional exports**, fueled by world demand and the effect of investments in recent years, particularly in the agricultural sector, is expected to reach 23 percent. Textile exports were relatively unharmed by the elimination of textile quotas, due basically to the imposition of a quota system by the United States and by Europe on Chinese exports, and showed growth of 17 percent. Higher international prices had a positive impact on metallurgical steel and jewelry exports and the other sectors, particularly chemicals, showed strong growth.

Growth forecasts for non-traditional exports in 2006 are 17 percent because of the slowdown of world growth and smaller increases in the prices of base metals.

### BOX 10

#### THE RESPONSE OF THE TEXTILE SECTOR TO THE ELIMINATION OF QUOTAS

In accordance with the multilateral Multifiber Agreement, the last stage of the phase-out of textile quotas came to a close in January 2005 within the framework of World Trade Organization (WTO) negotiations. In this context, the predicted impact of the quota elimination on Peruvian textile exports, which had showed growth of 33 percent in 2004, ranged from very low rates indicative of a decline in textile exports of up to 5 percent to growth forecasts of 10 percent for 2005 that were considered optimistic. The results have been even better, however, with growth of 17 percent in textile exports, led by clothing at 20 percent. The following factors played a part in this performance:

- The imposition by the United States of temporary quotas on China starting in May when orders began to dwindle. The
  restrictions applied to spun cotton goods, cotton socks, cotton knit shirts and blouses, and cotton slacks, among other
  garments. The importation of Chinese textiles and clothing into the United States as of January 1, 2006 is limited by the
  safeguard agreement affecting 34 categories that was signed by the two countries in November 2005 and will expire in 2008.
  In light of the imminent imposition of restrictions on China by the United States, Chinese exports of the categories pertinent
  to Peru rose approximately 612 percent (from US\$ 58 million to US\$ 413 million for cotton knit shirts and blouses).
- The tariff preference of approximately 20 percent offered by the ATPDEA, which cushions the difference in costs in order to cope with Chinese competition.
- The maintenance of niche export markets for quality cotton and garments with a greater value added.
- Existence of garments with small numbers of the same model, rapid response to customer orders, flexibility, working hours
  that are the same as those of the United States, the existing level of technology, and a sample and prototype system for
  product promotion. The fact that Peru's textile industry consists of vertically-integrated medium-sized companies allows for
  changes in orders up to 10 days before the close of the production cycle.
- Productivity improvements such as:
  - o Weighing and measuring optimization for garment standardization.
  - o Processing optimization for uniform lot color.
  - o Fabric use optimization through computerized programs, such as for cutting, to minimize fabric loss.
  - o Introduction of gas use in fabric manufacturing and finishing processes.
  - o Adjustments in staff roles and rotation.



87. **Imports** showed growth of 23 percent in 2005, reaching a level of US\$ 12,084 million, led by larger purchases of capital goods (30 percent) associated with private investment. Imports of inputs rose 23 percent, spurred by higher fuel prices and stronger industrial activity. The recovery of disposable income and of private consumption in keeping with the better terms of trade, was reflected in the strong growth of imported consumer goods, which expanded 16 percent.

The forecast for imports in 2006 is 13 percent growth, in the context of a slight slowdown in economic activity and a small reduction in volumes of imported fuels, given the replacement of propane and butane gas purchases by the larger domestic supply of Camisea gas. Imports would amount to US\$ 13,592 million, resting mainly on raw materials for industry and capital goods that would show growth rates of 16 and 18 percent, respectively.

88. The **capital account** is expected to end 2005 with a positive balance of US\$ 458 million, consisting of positive flows of US\$ 1,876 million to the private sector, offset by a negative flow of US\$ 1,418 million to the public sector.

The negative public sector flow is made up mainly of the prepayments of US\$ 1,555 million to the Paris Club in August and of US\$ 757 million to the Japan Peru Oil Co. Ltd. (JAPECO) at the end of the year. In the former case, the prepayments were for debt due from September 2005 to December 2009 and in the latter, for 90 percent of the balance due to that creditor.

The duration of the external debt was extended through prepayment of a 5.6 year debt and its financing through 20and 15-year bonds (with a joint duration of 10.7 years).

As in the case of the Paris Club foreign debt prepayment in August 2005, this transaction was financed through domestic and foreign bond issues, making it possible to partially replace debt in foreign currency by debt in soles, thereby reducing the exchange risk for the Treasury.

Private capital in 2005 showed a positive flow of foreign direct investment associated largely with the undistributed profits of companies with foreign shareholdings and also with public foreign debt prepayments through participation by foreign investors in local bond issues, in an amount of roughly US\$ 853 million. This capital inflow was offset in part by the negative outflow of private loans due mainly to

the prepayment of private debt by mining companies with a larger cash flow as a result of higher international metal prices and by the increase in investment abroad on the part of institutional investors (mainly Private Pension Fund Management Companies).

The capital account forecast for 2006 is US\$ 228 million. The private sector is expected to have a US\$ 506 million flow, due in part to the financing of mining investment projects like those of Cerro Verde, Southern, and Yanacocha and the second stage of Camisea, which would be offset in part by the overseas investments of financial institutions. The private sector capital flow would be less negative than in 2005 because no new foreign debt prepayment operations would be undertaken.

89. A gain of US\$ 1,466 million in **net international reserves** was chalked up for 2005, bringing the balance up to the equivalent to 2.6 times one year's foreign debt maturities, 14 months of imports of goods and 70 percent of the banking system's total liquidity. International reserves of US\$ 1,000 million are forecast for 2006.

# VI. ECONOMIC OUTLOOK AND INFLATION FORECASTS

#### **VI.1 Market expectations**

90. GDP growth forecasts for 2006 rose between August and January from a range of 4.6 to 4.9 percent to one of 4.8 to 5.0 percent.

Inflation expectations of both economic analysts and financial institutions remain at a level of 2.5 percent.

Both groups expected a depreciation of the nuevo sol in 2006 from S/.3.30 to S/. 3.40 per dollar.

## Table 39 MACROECONOMIC EXPECTATIONS SURVEY

	Month of the survey			
	May.05	Aug.05	Jan.06	
Inflation (%)				
Economic analysts	2.5	2.5	2.5	
Financial system institutions	2.6	2.5	2.5	
GDP growth (%)				
Economic analysts	4.5	4.6	5.0	
Financial system institutions	4.2	4.9	5.0	
Exchange rate (Nuevos soles per US\$)				
Economic analysts	3.34	3.30	3.40	
Financial system institutions	3.32	3.30	3.40	
Interbank interest rate (%)				
Economic analysts	4.2	3.5	4.0	
Financial system institutions	4.5	3.8	4.0	

#### **VI.2 Inflation**

The twelve-month inflation rate is expected to continue moving toward the 2.5 percent target and to remain in that vicinity for one to two years, in a context of about 5 percent economic growth.

91. The inflation forecasts presented in this report correspond to 2006 and, therefore, take into consideration the normal lags that occur between monetary policy decisions and their impact on inflation. As in previous reports, the methodological assumption is that monetary stimulus will be gradually reduced in 2006 to keep it in line with the inflation target. As the Bank collects new information about the state of the economy, the monetary policy position will be adjusted accordingly, in a manner consistent with the BCRP inflation target. This target will be measured continuously starting in 2006 (see box 11).

## BOX 11 CONTINUOUS INFLATION TARGET EVALUATION

Up until 2005, the BCRP inflation target was set in terms of the December CPI compared with that of the previous December --in other words, it was evaluated on the basis of a specific point in time. This criterion has been used in countries moving toward low inflation rates, where the adoption of the Inflation Targeting framework has helped guide inflation expectations. Increasingly lower targets are established in these frameworks and the final evaluation (end of the calendar year) is a way to check convergence toward the long-term target.

In the Peruvian case, the disinflation process culminated with the adoption of a framework of inflation targets and over this period (2002-2005) inflation has remained stable around the long-term target. For that reason, the BCRP will start evaluating the inflation target continuously as of 2006, as announced in the December 2005 Monetary Program press release. With this change, Peru joins the group of countries with stable, low inflation rates that evaluate their inflation targets continuously.

Country	IT Adoption	Target (2006) 1/	Middle value of the target in the long run	e Target horizon 2/	
Australia	April 1993	2.5%	2.5%	Medium term	
Brazil	June 1999	4.5%	No especified	Annual	
Canada	February 1991	2.0%	2.0%	Medium term	
Chile	September 1999	3.0%	3.0%	Medium term	
Colombia	September 1999	4.5%	3.0%	Annual	
Philippines	January 2002	4.5%	4.5% (2007)	Annual/Bi-annual	
Mexico	January 2001	3.0%	3.0%	Medium term	
New Zealand	March 1990	2.0%	2.0%	Medium term	
Peru	January 2002	2.5%	2.5%	Medium term	
United Kingdom	October 1992	2.0%	2.0%	Medium term	

#### INFLATION TARGETING FRAMEWORK CHARACTERISTICS IN SELECTED COUNTRIES

1/ If a target is defined as a range, the reported value constitutes the center of that range.2/ If the target horizon is annual, the target evaluation is periodic.

Sources: Roger, Scott and Mark Stone (2005), "On target? The International Experience with Achieving Inflation Targets", IMF Working Paper 05/163; World Economic Outlook (September 2005); and central bank web pages.

This new evaluation method is consistent with the idea that the BCRP should manage its monetary policy cautiously in order to reach its target within a medium-term horizon, rather than operate only in keeping with a periodic calendar year target.

The medium-term horizon is in keeping with the existence of monetary policy lags --the period of time between the BCRP's adoption of a decision and its maximum impact on inflation. The policy lag can be long and uncertain, however. The diagram below illustrates this lag, in which the time between the monetary policy decision and its maximum impact on inflation is estimated at 1 year.



In light of these monetary policy lags, each BCRP decision is taken in such a way that the expected inflation resulting from that action is consistent with the 2.5 percent target.

#### Graph 74 INFLATION FORECAST



- 92. The inflation outlook for the next few months is not substantially different from that foreseen in the August report. Convergence toward levels approaching the inflation target has remained unchanged. No pressures are foreseen in the central scenario that would take inflation beyond the permissible limits of 1.5 to 3.5 percent. Twelve-month inflation is expected to approach the target level (2.5 percent) in the first quarter, up from 1.5 percent in December 2005.
- 93. The inflation behavior foreseen above will depend upon the aggregate macroeconomic conditions prevailing and whether external variables evolve in the way predicted in this report.
- 94. The first factor that determines inflation is the balance between supply and demand for final goods. In this regard, attention should be drawn to the acceleration of economic activity in the final quarter of 2005, which will help inflation approach the target level over 2006. Economic growth and stability are expected to remain in line with the target over the forecast horizon.
- 95. The second factor has to do with production costs of final goods and services and particularly imported inflation. Projected fuel costs are lower than those predicted in the last inflation report (the forecast for

the international price of WTI has dropped from US\$ 65 to US\$ 61) and for that reason the pressures inherent to this inflationary component are expected to dissipate somewhat. However, the 4.1 percent depreciation of the nuevo sol in the second semester of 2005 will tend to fan inflation and has become instrumental to its rise, particularly during the first half of the forecast horizon.

The increase in electricity rates is another of the factors considered in the forecast, due to the increase in the price of natural gas. It should be kept in mind, however, that the adjustment of the gas price was only partial because it was not raised as much as it should have been according to the established polynomial formula.

96. The last important factor in determining inflation is the economic price-setting mechanisms, which are influenced by past inflation and expectations of future inflation. Throughout its use of the Inflation Targeting framework, the Bank was able to anchor inflation expectations to their target level satisfactorily because of its perception as a dynamically believable authority. The monetary policy position described in this report, by remaining in line with the inflation target and maintaining the monetary authority's cautious position, guarantees that inflation expectations will continue to remain anchored to the target over the forecast horizon.

## VII. BALANCE OF RISKS AND CONCLUSION

- 97. The baseline forecast scenario presented is considered the most likely for 2006. Monetary policy analysis is complemented by an evaluation of the risks involved in this forecast exercise. The balance of risks makes it possible to explain how the behavior of the main determinants of inflation could affect the distribution of the inflation forecast. An upward or downward balance of inflation risks produces an asymmetric distribution, while a neutral balance implies a symmetrical distribution.
- 98. The main risks that could affect the baseline scenario inflation forecasts are:
  - An increase in the country risk. Less favorable expectations of fiscal account behavior or financial turbulence brought on by elections in the country or the region could affect perception of the country risk. If these were to make the exchange market more volatile, the Central Bank would once again intervene with a less flexible monetary policy position to avoid an undesired future impact on inflation. If, on the other hand, less favorable expectations were to eat away at consumer and investor confidence, economic growth could be trimmed to below the expected level of 5 percent. In that case, the inflation forecast would turn downward, with the result that monetary policy would hold its expansionary position for a longer period of time.
  - Appreciation of the nuevo sol: recent exchange rate behavior has been characterized by its divorce from existing macroeconomic fundamentals. The baseline scenario takes into consideration the recent depreciation of the nuevo sol. Once the election is over, however, it is quite possible that the nuevo sol will resume the strong growth that was interrupted several months

ago, particularly given the prospects for continued macroeconomic stability with favorable terms of trade and more access to foreign markets. In that situation, the Central Bank could maintain a position of monetary stimulation for a longer period of time and intervene in the exchange market only to stem excessively downward spiraling exchange rates.

Higher international fuel prices: The baseline scenario for this report foresees a gradual turn toward declining fuel prices. Even so, there is a risk that the expected reduction in prices predicted in the baseline forecast would not occur or even that fuel prices would continue to climb as a result, for example, of tensions in the Middle East or some other factor that would upset the oil market's delicate equilibrium.

The Central Bank would not react to a temporary rise in inflation in either event, but would do so to a generalized rise in prices that could threaten to spread within the forecast horizon and affect inflation expectations.

Deterioration of the international environment. The risk factors are associated with the imbalances in external accounts and evolution of the United States real estate market. A smaller demand for dollar-denominated assets could lead to further dollar depreciation and a rise in interest rates above projected levels. The possible reduction of real estate prices is another risk. Although there is no consensus on the existence of a real estate bubble, an increase in interest rates would have an impact on that market, affecting prices. The ensuing wealth effect in the United States economy would result in a reduction of the demand for our exports, depressing economic activity.

As in the previous case, monetary policy would be adjusted in accordance with the effect on inflation.

99. The weighting of both downward and upward risks from the baseline scenario would result in a neutral balance, with no effect on the inflation forecast.

#### CONCLUSION

100. The inflation forecast described in this Report fluctuates around the 2.5 percent target. This evolution is consistent with growth in economic activity of around 5 percent a year in an environment characterized by more uncertainty.





Note: The illustration shows the central inflation bands over the forecast horizon. The darkest band around the central forecast represents a 10 percent probability of occurrence, while all the colored bands represent a 90 percent probability of occurrence.

## Statistical annex INFLATION REPORT FORECASTS

	2004	20	05	20061/	
		IR Aug.05	IR Jan.06	IR Aug.05	IR Jan.06
		Real % change			
1. Gross Domestic Product	4.8	5.5	6.3	5.0	5.0
2. Domestic demand	3.9	5.4	5.4	5.2	5.4
a. Private Consumption	3.4	4.4	4.4	4.4	4.2
b. Public Consumption	4.1	10.0	10.1	2.8	3.5
c. Fixed Private Investment	9.0	12.5	13.9	11.3	10.6
d. Public Investment	5.5	21.3	13.4	6.5	10.3
<ol><li>Exports of goods and services</li></ol>	14.7	10.8	13.9	5.9	5.1
4. Imports of goods and services	10.4	10.7	9.7	7.0	7.5
5. Main trade partners' growth	4.7	3.5	3.9	3.4	3.8
		% change			
6. Consumer price index	3.5	1.8	1.5	2.5	2.5
7. Nominal exchange rate 2/	-5.2	-0.6	4.4	1.2	-0.7
8. Real exchange rate (multilateral) 2/	-1.5	-0.9	3.8	1.8	0.7
9. Ierms of trade	9.0	3.5	7.0	-6.1	0.5
a. Exports price index 3/	20.8	14.1	18.4	-1.3	4.6
b. Imports price index	10.8	10.2	10.6	5.1	4.1
		% of GDP			
10. Balance of Payments' current account	0.0	0.2	1.4	0.1	0.9
11. Trade balance	4.1	4.9	6.6	3.7	6.5
12. Gross external finance of the private sector 4/	3.3	3.7	3.6	2.1	3.4
13. Non-financial public sector primary balance	1.0	1.1	1.5	1.3	1.5
14. Non-financial public sector overall balance	-1.1	-1.0	-0.4	-1.0	-0.7
15. Tax revenues of the central government	13.3	13.7	13.8	13.6	13.7
16. Outstanding public debt	45.1	39.2	38.4	38.1	36.8
17. Outstanding external public debt	35.6	29.5	28.7	27.9	27.5
		Nominal % change			
40. Control concernment non financial owners d'iteres		10.0	10.0		
10. Meneger, base (appuel everge)	0.0	12.0	12.0	4.4	0.0 17 5
13. Woneary base (annual average)	10.0 0.5	20.3	20.J	65	0.11 0
20. Danking system credit to the private sector	-0.5	9.4	10.0	0.0	0.0

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Forecast.
 Exchange Rate Expectations Survey to Economic Analyst.
 August Inflation report includes molybdenun price index as part of exports prices index, before molybdenum was included in minor metals group.
 Includes foreign direct investment and long-run disbursements of private sector.
 IR: Inflation report.

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