

Fischer, Bernhard

Working Paper — Digitized Version

Domestic capital formation, financial intermediation and economic development in Peru

Kiel Working Paper, No. 277

Provided in Cooperation with:

Kiel Institute for the World Economy – Leibniz Center for Research on Global Economic Challenges

Suggested Citation: Fischer, Bernhard (1987) : Domestic capital formation, financial intermediation and economic development in Peru, Kiel Working Paper, No. 277, Kiel Institute of World Economics (IfW), Kiel

This Version is available at:

<https://hdl.handle.net/10419/47160>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Kieler Arbeitspapiere Kiel Working Papers

Kiel Working Paper No. 277

Domestic Capital Formation, Financial
Intermediation and Economic
Development in Peru

by

Bernhard Fischer

wirtschaft

Institut für Weltwirtschaft an der Universität Kiel

ISSN 0342 - 0787

Kiel Institute of World Economics
Department IV
Düsternbrooker Weg 120, D-2300 Kiel
West-Germany

Kiel Working Paper No. 277
Domestic Capital Formation, Financial
Intermediation and Economic
Development in Peru

by

Bernhard Fischer

A 9 338 / 87 *gr*
Weltwirtschaft
Kiel

January 1987

The author himself, not the Kiel Institute of World Economics, is solely responsible for the contents and distribution of each Kiel Working Paper.

Since the series involves manuscripts in a preliminary form, interested readers are requested to direct criticisms and suggestions directly to the author and to clear any quotations with him.

ISSN 0341 - 0787

Domestic Capital Formation, Financial Intermediation and Economic
Development in Peru

Table of Contents

- I. Introduction
 - II. Economic Development and Domestic Savings
 - III. The Financial System in Peru
 - IV. Financial Policies and the Effects of Financial Repression
 - 1. Financial Policies in the Period 1970 - 1984
 - 2. The Effects of Financial Repression
 - 3. Recent Developments and Policy Changes
 - V. Policies to Improve Domestic Resource Mobilization
- References
- Data Sources
- Abbreviations
- Statistical Appendix

Domestic Capital Formation, Financial Intermediation and Economic Development in Peru^{*}

I. Introduction

Raising the rate of domestic savings and using the funds more efficiently for development purposes is one of the policy priorities of the present Peruvian government (INP, 1986). Gross domestic savings as a percentage of gross domestic product have fallen dramatically from a peak of 21,2 per cent in 1979 to 10.1 per cent in 1984 (Table 1). The domestic savings rate has been insufficient for a satisfactory level of real output growth. While in the seventies Peru could draw on foreign savings to finance domestic development the access to international capital markets is rather limited since 1982. The availability of foreign credit will also be restricted in the near future last not least as a consequence of the unilateral declaration of the new government in July 1985 to limit Peru's payments on its US-\$ 14 billion foreign debt to the equivalent of 10 per cent of its export earnings¹. Hence, Peru will have to rely mainly on domestic resources in order to finance economic development.

This paper focusses on the reasons of the poor performance of domestic resource mobilization in Peru. It begins with an analysis of the structure of domestic savings and its changes in the course of economic development (Section II). After the description of the Peruvian financial sector (Section III) financial policies since the early 1970 are reviewed and the effects of financial repression discussed (Section IV). Finally some policy suggestions to improve domestic resource mobilization are presented.

^{*} This study is part of a research project on savings mobilization in developing countries and was carried out with financial support from the Fritz Thyssen Stiftung. The author has benefited from helpful comments provided by Ulrich Hiemenz.

¹ If compared with Latin American's biggest debtor - Brazil - Peru's foreign debt per capita ratio is similar (711 US-\$ and US-\$ 749, respectively). However, Brazil's debt service accounted in 1985 to more than 40 per cent of the country's export earnings.

Table 1 - Basic Economic Indicators, Peru 1970-1985

Year	Per capita income (in real terms)	Real GDP growth	Domestic credit to public sector/GDP	Average inflation rate ^a	Budget deficit ^b /GDP	Domestic savings/GDP	M1/GDP	M2/GDP	Current account/GDP	Real effective exchange rate
	annual percentage change				per cent					(1980=100)
1970	n.a.	7.3	0.3	5.0	-1.2	16.4	17.0	22.9	2.9	71.2
1971	2.2	5.1	2.0	6.8	-2.7	14.5	17.0	23.1	-0.4	70.6
1972	1.9	5.8	2.6	7.2	-3.3	11.7	19.7	25.4	-0.4	71.2
1973	-1.6	6.2	4.1	9.5	-3.6	15.0	20.3	25.6	-2.6	74.2
1974	4.5	6.9	3.5	16.9	-2.9	15.4	23.0	27.7	-5.7	70.0
1975	1.7	2.4	5.2	23.6	-4.9	9.5	21.8	26.2	-10.0	65.4
1976	-0.6	3.3	8.6	33.5	-5.8	10.1	19.8	23.3	-8.3	71.4
1977	-2.6	-0.3	6.7	38.0	-6.9	8.1	17.2	21.0	-6.7	87.1
1978	-3.1	-1.7	8.2	57.8	-4.6	12.1	15.8	21.3	-1.6	116.1
1979	1.4	4.3	-0.7	67.7	0.5	21.2	14.5	22.0	5.2	111.8
1980	1.1	2.9	2.9	59.2	-2.5	17.1	14.3	25.3	0.3	100.5
1981	5.7	3.1	4.0	75.4	-4.4	13.6	12.3	24.9	-7.7	85.8
1982	-6.4	0.8	3.8	64.4	-3.6	14.7	9.9	25.4	-7.3	84.7
1983	-13.2	-12.0	11.6	111.2	-8.9	11.6	10.5	27.8	-5.4	94.6
1984	2.1	4.8	6.5	106.4	-5.6	13.4	10.1	28.9	-1.3	95.1
1985	-1.4	1.6	1.7 ^p	169.3	-3.6 ^p	11.0 ^p	11.0 ^p	n.a.	0.4	n.a.

^aConsumer price indices for metropolitan Lima (1979 = 100). - ^bBudget deficit of the central government; p = preliminary.

Source: IMF, International Financial Statistics, Yearbook 1986, Washington. - INE, Cuentas Nacionales 1950-1982, Lima 1983. - International Currency Review (1986). - Nasser (1985). - Own calculations.

II. Economic Development and Domestic Savings

At the beginning of the seventies the Peruvian economy has experienced relatively high rates of economic growth (Table 1). Gross domestic product grew on the average at 4.5 per cent in real terms (1970-75). However, economic growth slowed down dramatically in the period 1976-1980 to 1.7 per cent and was even negative on average in 1981-1985 (-2.6 per cent). Faced with sustained population growth, the deteriorating economic situation lead to a serious reduction of real per capita income with an average yearly variation (compounded) of -2.0 per cent in the period 1975-1985. At the same time inflation was accelerating from 19 per cent on average in the period 1970-1974 to more than 100 per cent since 1983. Although the Peruvian economy was not hit by the oil price shocks in 1973 and 1979 as severely as many other developing countries - mainly due to own oil reserves - the inward looking development strategy not only lead to heavy distortions in domestic markets but was also accompanied by a rising foreign debt which accrued up to 12 billions US-\$ at the end of 1983. Due to the poor export performance it became more and more difficult to service the accumulated debt.

High inflation rates and sustained economic recession have heavily impeded domestic capital formation. The share of domestic savings in gross domestic product fell dramatically in the last 25 years, namely from 22.3 per cent at the beginning of the sixties (1960-62) to less than 12 per cent in the early eighties (Table 2). While the share of business savings to gross domestic product remained roughly constant between 1960 and 1984 (11-13 per cent) the relative share of (voluntary) private household savings fell dramatically from about 9 per cent at the beginning of the sixties to less than 1 per cent in the period 1971-1974 and has even been negative in the early eighties (1980-1982). The level of total gross savings was increasing to 19 per cent in the early eighties (after a heavy decline in the seventies) only due

Table 2 - Level and Structure of Savings, Peru 1970-1984
(percentage of gross domestic product)

	1960-62	1963-67	1968-70	1971-74	1975-79	1980-82	1983-84
Private Savings ^a	<u>19.7</u>	<u>16.9</u>	<u>13.3</u>	<u>13.6</u>	<u>12.1</u>	<u>10.7</u>	<u>13.7</u>
- households	8.9	3.8	1.3	0.8	-0.4	-1.1	n.a.
- enterprises	10.8	13.1	12.0	12.8	12.5	11.8	n.a.
- private	(n.a.)	(n.a.)	(11.5)	(12.2)	(12.3)	(12.0)	(n.a.)
- public	(n.a.)	(n.a.)	(0.5)	(0.6)	(0.2)	(-0.2)	(3.1)
Government Savings	<u>2.3</u>	<u>-0.2</u>	<u>1.2</u>	<u>0.3</u>	<u>-0.7</u>	<u>1.2</u>	<u>-3.3</u>
Gross Domestic Savings ^a	<u>22.0</u>	<u>16.7</u>	<u>14.5</u>	<u>13.9</u>	<u>11.4</u>	<u>11.9</u>	<u>10.4</u>
Foreign Savings	<u>0.3</u>	<u>2.8</u>	<u>-1.2</u>	<u>2.1</u>	<u>4.6</u>	<u>6.7</u>	<u>3.3</u>
Total Gross Savings ^a	<u>22.3</u>	<u>19.5</u>	<u>13.3</u>	<u>16.0</u>	<u>16.0</u>	<u>18.6</u>	<u>13.7</u>

^aSocial insurance system excluded.

Source: Thorne (1984 and 1986).

to substantial inflow of foreign savings. The bulk of domestic savings is presently being generated by private enterprises (more than 90 per cent) while private households and public enterprises do barely contribute to domestic savings or are even deficit units. In addition, government savings have been negative in the last years (1983-84: -3.3 per cent).

Several reasons can be put forward to explain the decline of private household savings and the high shares of business savings, which all are directly or indirectly related to the escalation of inflation. With increasing inflation rates private households spend a larger share of their disposable income for durable consumer goods which are for most of the families the only available inflation hedges in the absence of attractive real returns on financial assets. Besides, especially the poorer parts of the population have to spend increasing shares of their income for education, house building and family help. These expenditures are captured in the statistics as consumption but are actually more or less substitutes for savings if the provision motive is put into focus. The decline of private household savings under conditions of high inflation is substantiated by the attitude of dividend earners which find it safer and more profitable to accumulate their earnings in the enterprises than to save as individuals.

Enterprises on the other hand tend to rely more and more on self-financing when sustained inflationary processes occur¹. This is especially true for those enterprises with no access to the banking system which can only realise long-term investment after having accumulated financial resources internally. In addition, the need to provide credit to their suppliers can also favour this trend. Other factors like a low rentability of financial assets, a discriminating tax policy, and unstable political conditions may also enhance internal capital accumulation.

¹ This statement is supported empirically by an analysis of the structure of private business savings in the inflationary context of the Argentine economy (Cavallo, Petrei, 1983).

The poor savings performance of the public sector can have its origin in the easy access to international credits which may favour expenditures in current consumption. Furthermore, as far as the public sector receives preferential credit from the domestic financial market at subsidized interest rates this not only discriminates the saver, who earns unattractive yields from its savings deposits but also discourages the private investor who is crowded out in the credit rationing process.

Whether this pattern of arguments is of relevance for the drastic decline of Peru's domestic savings will be examined more detailed in the following chapters. Since the Peruvian financial sector was obviously unable to intermediate efficiently between savers and investors the analysis focusses on the performance of the financial sector under conditions of high inflation.

III. The Financial System in Peru

The Peruvian financial system consists of a complex institutional framework with the Central Reserve Bank as a monopolistic supplier of high powered money, the banks and non-financial institutions acting as intermediaries between savers and lenders, and a stock market.

The Central Reserve Bank's activities are restricted almost exclusively to transactions with the rest of the financial system, the treasury and foreign institutions. In 1983, coins and banknotes in circulation (non-financial sector) represented about 22 per cent of total liabilities of the Peruvian financial system¹ (Table 3). Direct claims in the non-financial sector are principally to the public sector, representing 22 per cent of total

¹ This is a rather high figure if compared with the ratio in Japan (4.1. per cent), the Federal Republic of Germany (8.1 per cent) and Italy (8.1. per cent) for the same year.

Table 3 - Shares of Liabilities and Claims of Different Financial Institutions to the Non-Financial Sector^a, Peru 1965-1983 (per cent)

Institutions	1965		1972		1980		1983	
	Liabi- lities ^b	Claims ^c	Liabi- lities ^b	Claims ^c	Liabi- lities ^b	Claims ^b	Liabi- lities ^b	Claims ^c
Central Bank Banco Central de Reserva del Perú ^d	<u>31</u>	<u>14</u>	<u>20</u>	<u>9</u>	<u>19</u>	<u>12</u>	<u>13</u>	<u>22</u>
Deposit-taking institutions	<u>66</u>	<u>49</u>	<u>54</u>	<u>52</u>	<u>60</u>	<u>47</u>	<u>69</u>	<u>38</u>
Banco de la Nación ^e	<u>11</u>	<u>15</u>	<u>22</u>	<u>16</u>	<u>16</u>	<u>21</u>	<u>15</u>	<u>14</u>
Commercial banks	55	44	32	36	44	26	54	24
Long-term credit institutions	<u>10</u>	<u>22</u>	<u>24</u>	<u>36</u>	<u>16</u>	<u>34</u>	<u>14</u>	<u>35</u>
Development banks	<u>6</u>	<u>18</u>	<u>12</u>	<u>24</u>	<u>10</u>	<u>21</u>	<u>10</u>	<u>22</u>
Agricultural Bank	2	8	1	8	1	9	n.a.	0
Industrial Bank	1	6	1	6	1	6	n.a.	0
Mining Bank	-	1	-	1	-	1	-	0
Central Mortgage Bank	3	3	10	8	8	3	n.a.	0
Housing Bank	0	-	0	1	0	3	n.a.	0
Financial Development Corporation (COFIDE)	-	-	-	1	1	8	1	9
Savings and loan associations	2	2	6	6	3	3	3	2
Credit co-operatives	2	2	6	6	2	3	-	2
Investing institutions	<u>3</u>	<u>5</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>7</u>	<u>4</u>	<u>5</u>
Private financial institutions	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>3</u>
Insurance companies	2	3	1	2	1	3	-	2
Total liabilities/claims	100	100	100	100	100	100	100	100

^aLiabilities to the public and private sector. It includes in national currency, demand deposits, time deposits, saving deposits and bank securities, and deposits in foreign currency. Excluded are capital liabilities, profits and capital reserves. - ^bDeposits and other liabilities. - ^cLoans and other claims. - ^dMainly currency. - ^eLiabilities to the public sector are the most significant.

Source: Banco Central de Reserva del Perú.

claims of the financial system (principally government securities). The Central Reserve Bank is also concerned with foreign currency control operations, the regulation and determination of interest rates and the credit regulation by designing reserve ratios and the amount of rediscount facilities which are available to banks. However, in reality the Central Reserve Bank rather acts as an administrative body while the decision making unit is more or less the monetary council where the ministry of finance has paramount influence.

Among the category of deposit institutions with principally short-term operations the Bank of the Nation (Banco de la Nación) has a special status. It is primarily concerned with the working capital needs of the central government, the public enterprises and other public institutions and is virtually alone in receiving the deposits of the public sector. In 1983, the Bank of the Nation had a 15 per cent share of the deposits and other liabilities of the financial system and a 14 per cent share of claims, principally in the public sector.

Commercial banks have a predominant place in the Peruvian financial system. With a total of 800 offices, the 11 commercial banks¹ have approximately 50 per cent of all branches and offices of financial institutions. Of these, 59 per cent are located at Lima and 41 per cent in the rest of the economy. Commercial banks play an important role in mobilizing financial resources. In 1983 more than 50 per cent of total liabilities in the financial system were within the commercial banks. An important feature of the commercial banks is that in 1983 deposits in foreign currency represented 56 per cent of all their liabilities (Table A1). Their claims are principally on the private sector. The commercial banking sector is highly concentrated. The privately owned

¹ Four of the 11 commercial banks are private, four foreign (allowed to accept checking but not savings deposits) and three "associated" which operate under the same regulations as the other commercial banks but which are prohibited from dealing in maturities of over one year.

Banco de Crédito alone accounts for about 50 per cent of the liabilities and claims of the commercial banks while the three state-owned banks (Banco Asociada) have a share of approximately 30 per cent (Cebrecos Revilla, 1986).

There are five development banks in Peru, with about 160 branches and offices. Credit transactions are conducted mainly with the private sector meeting working capital and investment financing requirements. Although development banks are authorized to provide banking facilities their performance, especially in attracting deposits, has been very poor. The major sources of funds are government transfers, lines of promotional credit and funds from international development institutions. This is also true for another state-owned development institution, the Corporación Financiera de Desarrollo (COFIDE), which has a 25 per cent share of the investments and other claims of this type of institutions.

Peru's credit cooperatives are with about 1.6 million members the most important part of the national cooperative movement. Most of the members belong to the low or middle income earners. 269 of the 421 credit cooperatives which can be found in all parts of the country are members of the Central Credit Cooperative (CCC) which has 33 branches. At the end of 1982 the paid in capital for the base cooperatives was estimated to be 51 millions US-\$, that of the central 0.5 million US-\$ (Marion, 1983).

The most serious problem of the Peruvian credit cooperatives is a dramatic decapitalization of their wealth in the last decade. The growth of cooperatives' shares and savings deposits from the members was more or less eaten up by the increase of the inflation rate. It was estimated that between 1975 and 1982 the real value of total cooperative savings decreased more than 80 per cent. The share of savings mobilized through credit cooperatives to total financial savings in 1980 was about 50 per cent lower (8.9 per cent) than 1975 (17.9 per cent)¹.

¹ For a discussion of the main reasons for this dramatic decline see Burkett (1986) and Fischer (1986, p. 399 f.).

The Peruvian stock market is a relatively unimportant complement to the system of financial intermediaries described above. Activity in the market is limited to common stocks of about 100 large companies, labor shares in about 90 of these, a few bonds (the most important of which are issued by COFIDE), and, mortgage certificates of the Central Mortgage Bank. While market activity grew quite rapidly from 1975 until 1980, since then the slow-down in the export sector and the economy in general has depressed the market. However, even during its peak periods the stock market has not been an important element in raising new capital; since 1975 new issues have accounted for less than 0.1 per cent of total gross investment¹ (Cebrecos Revilla, 1986).

Contractual savings consist principally of the compulsory contributions to the social security system. The functions of the social security institute range from the provision of health services to the administration of a pension fund. A large portion of the institute's resources is government oriented.

The share of the informal sector (or parallel market) to total economic activities in Peru is estimated to be more than 50 per cent (Susano, 1983). Because access to the credits of financial institutions is limited, especially for the one-person independent firm in the commercial, services and transport sector a considerable proportion of the self employed labour force as well as small enterprises resort to the informal markets. There interest rates varied between 250 and 500 per cent against about 140 per cent which was the effective annual rate of the formal sector in 1984 (Susano, 1984).

¹ The stock market's relatively minor role has been explained by the following four factors (World Bank, 1983, p. 61): the availability of cheap credit during the seventies, desires by Peruvian businessmen to retain control of their firms, double taxation of dividends versus a lack of taxation on interest and reinvested profits, and, difficulties in setting up legal conditions for stock registration that are attractive to both firms and potential stockholders.

The normal financing practice in the informal market can be characterized by the extension of credit by suppliers (manufacturer or wholesale distributors) in the formal sector which consign finished products, input and work equipment to small manufacturers or independent businessmen. It was estimated, that about 60 per cent of the enterprises in the informal sector ordered such products from establishments in the formal sector and that the resources supplied amounted to \$ 3,114 million for the mid of 1983 which was almost equivalent to the credit of \$ 3,250 million provided by the institutional financial sector to the private sector (Susano, 1984). However, only an average of 2 per cent of the informal productive units received funds from the institutional financial sector in 1982 (Cebrecos Revilla, 1986, p. 69).

Another widespread type of financing is in the informal market the "junta" or "pandero", which is especially prevalent in the outskirts of cities and in public or private offices. Involving monthly up to 50 persons who contribute periodically (weekly or monthly) an amount and receive their contributions in a single lottery drawing. These funds are generally used to finance consumption, to repay debt or to initiate activities in the informal sector. Other forms of financing consist of loans between funds and family members. Usurers and pawn brokers are also found in these informal circuits.

IV. Financial Policies and the Effects of Financial Repression

1. Financial Policies in the Period 1970 - 1984

Throughout the 1970 to 1977 period the Peruvian government intervened heavily into the financial system¹. Important components of this system were a regime of detailed interest ceilings and selective credit policies realized with an array of publicly owned, specialized institutions. The goal of these interventions

¹ For a detailed description of financial policies in this period see Banco Central de Reserva del Perú (1984).

was to achieve a wide range of policy objectives, controlling both the allocation and cost of credit. A large percentage of the credits thus was channeled to target borrowers, such as agriculture, housing, and public enterprises mainly via extensive rediscounting of loans provided by the specialized financial institutions and to a lesser extent via preferential rediscounting of commercial bank lending to targetted sectors and restrictions on the composition of the bank portfolios.

The dominant role the Peruvian government has played in the country's financial system was partly reduced in the period 1978-1982 when a number of reforms were introduced, aimed at controlling inflation and ending economic stagnation by giving market forces a larger role in the economy. These reforms included steps towards the liberalization of interest rate policies, the easing of reserve requirements, the opening of capital markets and the legalization of dollar denominated financial transactions. Beginning in late 1978, a series of large upward shifts were made in the nominal interest rate ceilings and the permissible compounding periods were also progressively shortened starting in 1981. In early 1982, the government adopted a uniform 55 per cent nominal interest rate ceiling on all soles denominated deposits¹ (Table 4). By varying the length of the compounding period, the banks were able to pay effective rates higher than the nominal ceilings and to provide some differential between different types of deposits². Dollar deposits were not subject to ceilings, but were paid roughly three percentage below LIBOR, in dollar. Thus the expected yield on dollar asset, in soles terms, depended on the expected rate of devaluation.

¹ This ceiling also included demand deposits, although the rate actually paid on these accounts was typically 10 per cent, and ranged up to 20 per cent on large accounts.

² Term deposits and mortgage certificates were compounded quarterly and savings deposits were not compounded.

Despite of the reform measures the inflation rate continued to accelerate. The main reason for this has been the necessity of increased inflationary financing to cover the rising government deficit¹. In addition the rate of inflation was increased by the capital market reforms themselves. Cutting the required reserves and paying interests on them as well as allowing the dollarization of the economy reduced the demand for financial assets dominated in and thus the demand for the base money. This decrease reduced dramatically the base of the inflation tax and thus the receipts from the inflation tax necessary to finance the rising government deficit could only be maintained by increasing inflation rates. The conflict between rising inflation and capital market reform in Peru clearly demonstrates the difficulties that can arise when financial sector liberalization occurs before the fiscal deficit is under control.

The rise of domestic inflation in the seventies and especially the escalation of inflation in the 1980s to levels exceeding 100 per cent led to persisting negative real rates of interest on soles deposits (Table 4). At the same time foreign currency deposits yielded positive real returns thus representing a readily available and highly liquid inflation hedge. Hence, with the escalation of inflation there has occurred an increasing flight away from soles deposits towards foreign currency deposits. The ratio of soles money to income has been steadily falling while the foreign money to income ratio has been rising (Table 5)². By the end of 1984 the real value of dollar denominated deposits was

¹ For the empirical evidence of a statistically significant relationship between the inflation rate, money growth and the budget deficit in Peru see Nasser (1985).

² Corsepius (1986) found a correlation coefficient of -0.8 (0.8) between the inflation rate and soles deposits (foreign currency deposits).

Table 4 - Nominal and Real Interest Rates for Bank Deposits as well as Expected Rates of Inflation and Devaluation, 1970 - 1984

	1970-74	1975-79	1980-82	1983	1984
1. <u>Nominal Interest Rates^a (%)</u>					
Deposits in domestic currency (Soles/Inti)					
- demand deposits	0.0	1.6	4.7	10.0-20.0	n.a.
- time deposits	7.0	19.0	55.2	55.0	60.0
- savings deposits	5.0	17.0	45.3	55.0	60.0
- mortgage bonds	9.0	19.7	55.3	n.a.	n.a.
Deposits in foreign currency (US-\$)	5.0	7.0	10.9	n.a.	n.a.
2. <u>Real Interest Rates^b (%)</u>					
Deposits in domestic currency (Soles/Inti)					
- demand deposits	-14.0	-34.1	-48.8	n.a.	n.a.
- time deposits	-8.0	-23.2	-24.1	-56.2	-49.8
- savings deposits	-6.3	-22.7	-24.1	-56.2	-49.8
Deposits in foreign currency (US-\$)	-9.8	1.6	2.7	n.a.	n.a.
3. <u>Inflation Rate^c (%)</u>	17.1	57.6	111.0	111.2	110.2
4. <u>Devaluation Rate^d (%)</u>	0.0	48.7	95.3	134.8	112.0

^a Effective; december. - ^b Ex post; related to changes of the consumer price index in the last six months. - ^c Ex ante; related to changes of the consumer price index six months later. - ^d Domestic currency via US-\$; ex ante, related to the exchange rate six months later; december.

Source: Hanson, Neal (1984); Banco Central de Reserva del Perú; Own calculations.

Table 5 - Structure of the Liabilities of the Consolidated Banking System to the Private Sector, Peru 1975-1984 (per cent)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Currency	32.8	32.8	30.8	28.4	25.2	22.0	19.9	16.5	14.8	13.6
Demand deposits	28.7	31.4	30.6	26.9	24.1	21.6	16.7	12.1	12.9	11.8
Time deposits	7.5	6.5	8.3	7.6	6.2	4.9	5.2	5.8	7.0	6.4
Savings deposits	11.6	11.3	11.0	9.4	10.5	11.1	16.2	17.9	15.3	12.1
Foreign currency deposits	0.5	1.0	3.7	15.9	23.7	21.1	30.4	38.8	44.0	52.9
Mortgage bonds	14.0	13.1	12.1	9.6	9.2	8.6	11.0	8.4	5.6	2.9
Other bonds	4.9	3.9	3.5	2.2	1.1	0.7	0.6	0.5	0.4	0.3
Total liabilities	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Banco Central de Reserva del Perú; Own calculations.

larger than the real value of the broad definition (M2) of the soles money stock.

As of late 1982, the government set effective interest rate ceilings quite high relative to past inflation rates. However, ex post, the yields on soles denominated assets remained well below the ex post yields on dollar assets and "dollarization" steadily increased (Table 5). In an attempt to capture some of these dollar resources, the government imposed a 90-100 per cent reserve requirement on the banks dollar deposits. The Central Reserve Bank invested these dollars overseas at a yield equal to LIBOR, paying the banks approximately two percentage points below LIBOR which payed depositors about LIBOR minus three percentage points.

2. The Effects of Financial Repression

The main instrument of regulating the financial sector in the period since 1970 has been ceilings on interest rates which yielded in the presence of high inflation in strongly negative real interest rates on soles deposits and credits thus indicating heavy financial repression¹. The continuing erosion of the purchasing power of money represented a massive tax on currency holdings and on demand deposits. Because of the high opportunity costs of holding money, M1 in per cent of GDP the ratio declined from a peak of 23.0 per cent in 1974 to some 12 per cent in 1984 (Table 1). This demonetization implies a loss in overall economic wealth because of the services of money forgone.

At the same time, the ability of the financial sector to mobilize domestic savings to finance soles credits has been reduced by the maintenance of negative real rates of interest. By legalizing dollar transactions and maintaining high reserve requirements, the government established some control over funds that would have leaked out in illegal capital flight. Although these dollar deposits protected savers from purchasing power losses and helped to maintain a relatively stable financial asset (M2) to GDP ratio² this policy did not increase the domestic credit supply and was highly destabilizing through the loss of control for the monetary authority. By maintaining high reserve requirements on foreign currency deposits those funds were invested overseas and thus not available domestically. Hence the process was essentially capital flight through the Central Reserve Bank. With surging inflation and lagging devaluation the "dollarization" was bound to escalate.

¹ For an overview of the theoretical and empirical studies on financial repression in developing countries see Fischer (1982), Fry (1982) and Gupta (1984).

² However, compared to countries like India and Sri Lanka, which in per capita-income terms rank below Peru, the M2 to GDP ratio in Peru reached a very low level in 1984 (Appendix Table A2).

Besides reducing available credit, the shift into dollar assets shranked the size of the domestic monetary base which reduced the quantity of assets that the government could tax through seignorage. This loss probably produced the explosive increase in inflation by the following mechanism: The decrease in the domestic monetary base reduces the government's yield from seignorage and increases the need for financing the increasing deficit¹. A larger need for financing implies more inflationary finance and more rapid inflation. Faster domestic inflation, relative to foreign inflation, raises the rate of devaluation required to maintain the real exchange rate. Both more rapid inflation or an increasingly misaligned currency raises the expected soles return on dollar assets. Higher expected returns on dollar assets promote the dollarization which further shrinks the domestic monetary base, this reinforcing the inflationary process².

Because of the marked decline of the supply of soles deposits (in real terms) and large-scale public sector borrowing the volume of credit available for the private sector shrank over the last decade. Demand for credit, however, exceeded supply by a substantial amount given negative real interest rates. In fact, negative real interest rates imply a heavy subsidization of lenders at the expense of the holders of financial assets. Therefore, credits had to be rationed by the Central Reserve Bank or in an informal way. This means, that the allocation of credit was not governed by efficiency criteria but by factors such as lobbyist activities, the existence of interlocking ownership between companies and banks or the possibility of mobilizing government support. Finally, the expansion of informal credit markets is the logical result of the non-availability of credits due to the heavy regulations of the organized financial sector.

¹ This process can even occur even with a given deficit.

² See Fischer and Trapp (1986) for a related discussion in the context of Argentina's hyperinflation.

Low interest rate ceilings, selective credit policies and high reserve requirements on dollar deposits have also failed to create the conditions for efficiency and competition in the banking sector. Lack of competition and a limitation on the intersectoral mobility of financial resources together with a lack of economies of scale and high labor costs contributed to excessive intermediation costs which are high even by developing country standards (see next section). The financial infrastructure itself seems not to be a basic impediment for increased efforts in mobilizing financial savings or providing credits¹. On the contrary, related to the present low level of financial intermediation the financial sector is institutionally rather oversized if compared to other countries. This may also explain partly the relatively high gross spread charged by banks, which reflects high operating costs.

Inflation and financial repression have largely contributed to relatively high intermediation costs. Operating costs which represent over 70 per cent of total intermediation costs in Peru contributed heavily to the large spread between average loan and deposit rate which was estimated by the World Bank at 13.3 percentage points in 1983 (World Bank, 1983, p. 70). This was far in excess of estimates for the OECD countries (3 to 4 per cent), and substantially above estimates for Turkey and Colombia (10 and 8.6 per cent), developing countries which have fairly high-cost financial markets. Over the last years, the per unit operational costs are likely to have increased even more in Peru, due to a further shrinking of the relative size of the financial system and to the increasingly short-term character of financial assets. Such inefficiencies place a serious obstacle on the Peru's ability to mobilize financial resources and thus lower its growth potential.

In addition, provision of subsidized credit lines by the Central Reserve Bank to agriculture, housing, industry and mining has

¹ The number of bank branches per 10 000 inhabitants is about 1.2, which is relatively high if compared with other developing countries (Fischer, 1986, p. 94).

lead to deficiencies in domestic lending. Since negative real interest rates imply credit rationing these subsidized credit lines have benefited only a few privileged social groups at the expense of those with no access to credit from the formal financial sector. Finally, most probably the subsidized interest rates on credits have favoured the use of capital intensive production and hindered the absorption of abundant labor (Corsepius, 1986, p. 180). Hence, there is little justification for such subsidies on either social or economic grounds.

A very serious consequence of the directed credit schemes and the resultant proliferation of financial institutions is the high degree of market fragmentation. The operations of many of the financial institutions are narrowly restricted while other institutions are inhibited by special sanctions to enter the market. The result was lack of competition in many sub-markets and a limitation on the inter-sectoral mobility of financial resources. Financial market fragmentation is also related to the difficulties of many firms, especially small and medium size enterprises, to have access to credits from the banking system. The existence of a large informal (financial) sector, where funds are made available at higher interest rates, demonstrates not only the difficulty to receive loans without real collaterals in the formal sector but also that higher interest rates are not necessarily a binding constraint for the realization of new investment projects.

3. Recent Developments and Policy Changes

Three policy packages have been implemented since the Garcia government came into office in July 1985. The first one (August 1985) was intended to break inflationary expectations and to stimulate economic growth by intensifying protectionist measures, lowering interest rates and freezing wages, the exchange rate and prices after some initial adjustments. In October 1985 a second policy package was introduced which was designed to reactivate the economy. New expenditure programs were introduced, some taxes

abolished, and additional tax exemptions were granted. The package also included a wage increase to private sector employees, an interest free loan to all public sector employees, and a further interest rate reduction. The expansionary fiscal policy was continued by the government with the announcement of the third policy package in February 1986 which also included measures to stop the dollarization of the financial system. In order to stimulate demand, the government increased the minimum wage, public sector wages, and private sector wages not subject to collection bargaining by between 25 per cent and 30 per cent. In addition, public employment programs were to be expanded, the general sales tax rate and interest rates (particularly those for agriculture) were halved and the prices of diesel fuel were reduced to compensate for the cost pressure in the economy created by salary increases. Moreover, it was announced that the official exchange rate would remain unchanged for "essential" inputs until the end of 1986.

The major changes in financial policies since the Garcia government took office are the following:

- the sol was replaced by a new currency, the inti, which equals 1000 soles.
- the convertibility of dollar denominated certificates of deposits was suspended and interest rates were reduced, making such deposits less attractive. Depositors were only allowed to convert the dollar deposits into local currency at the official exchange rate. The repurchase of dollars was only possible at the free market rate, which was considerably higher, so that a significant loss was implied¹.

¹ Furthermore, the frozen dollar certificates may be used for payment of authorized imports through the Central Reserve Bank. Since the dollar certificates are freely tradeable, this function gives them some degree of liquidity.

- interest charged by banks may not exceed an annual rate of 40 per cent. This ceiling was initially set at 110 per cent, and was subsequently lowered to 75 per cent and 45 per cent, before being set at its current level.

As a consequence of this strategy domestic production recovered noticeably. In the second quarter of 1986 real gross domestic product was 8.5 per cent higher than in the same period of 1985 (Table 6). The expansionary stance of demand management is also reflected by the increase of the monetary base at an annual rate of 95 per cent during the first quarter of 1986. After the initial price increases for publicly marketed goods and services and the subsequent price freeze, the monthly rate of inflation slowed down from 11.8 per cent by mid-1985 to 2.8 per cent by the end of 1985, but it accelerated to 5.3 per cent (77 per cent on an annual basis) during the first quarter of 1986 (Table 6). In July 1986 inflation is reported to have been 4.6 per cent per month.

Table 6 - Basic Economic and Monetary Indicators, Peru 1985 (March) - 1986 (July)

	GDP	Inflation rate ^a	Public deficit ^b / GDP	Credit to private sector	Monetary base	M1	M2
	(1979=100)	(per cent)		(in real terms, base= December 1980)			
1985							
March	103.9	8.1	3.3	958.5	217.1	271.7	1235.4
June	100.0	11.8	3.1	838.4	192.9	224.1	1057.9
September	97.4	3.5	1.9	768.4	401.4	314.0	1006.1
December	99.3	2.8	3.6	774.3	601.8	445.9	1111.8
1986							
March	102.6	5.3	3.1	725.0	711.5	503.5	1092.6
June	108.5	3.6	0.3	749.1	674.9	483.4	1030.3
July	n.a.	4.6	n.a.	744.5	657.2	506.9	1036.3

^a Monthly percentage change of the consumer price index (1979=100). -

^b Central government operations.

Source: Banco Central de Reserva del Perú.

Although growth was initiated again, inflation has been reduced markedly and the process of dollarization had been reversed¹ this was rather achieved through short-run interventions rather than by a fundamental change of the economy policy strategy. This is also reflected by the results of the recent changes in financial policies which could not reverse financial repression fundamentally. The change of the currency unit has not stopped the process of demonetization. The shift from quasi-money to M1 that occurred in the first half of 1986 rather indicates that deposits are mainly held for transaction purposes and that the readiness to accumulate savings into inti-deposits declined. While the basic objective of the imposition of lower interest rate ceilings was to reduce inflation through a reduction in (financial) costs its more significant impact was on financial savings and demand of credit. The lower interest rates yielded again strongly negative returns of deposit holdings (Table A3) and thus could not provide an incentive to save and at the same time stimulated the demand of credit.

V. Policies to Improve Domestic Resource Mobilization

Given Peru's limited access to the international capital markets raising the rate of domestic savings and effectively channeling such savings into high-return investment can be seen as a key strategy by which Peru could escape from its secular economic stagnation.

Peru can improve its average savings rate substantially by raising the savings of the public sector. This could be achieved by eliminating the current account deficit of the central government

¹ Up to mid 1986 the share of foreign currency deposits in the total liabilities of the financial system had decreased to 17 per cent.

and substantially raising the current surplus of the public enterprises. These measures would not only improve the domestic savings rate but also contribute to the overall stabilization of the economy and increase the flow of investment funds to the private sector. Private savings would be encouraged in a climate of greater certainty, lower inflation and the elimination of conditions leading to the flight of capital. Therefore all efforts to stabilize the economy, to revitalize investments and exports would be stimulative to higher private savings.

Whether higher private savings are used to finance additional investments and growth critically depends on whether these funds become available to the financial system and are efficiently allocated to investment projects. Raising real interest rates on inti deposits would certainly tend to stimulate private savings through the banking system¹. The maintenance of negative real interest rates on sol/inti accounts for extended periods has not only discouraged the mobilization of domestic savings through the banking system and accelerated the dollarization process but also adversely influenced resource allocation and growth. In order to achieve non-negative real rates of interest all efforts to reduce the inflation rate would be the superior alternative to increasing nominal rates of interest.

The ongoing process of dedollarization of the economy might be seen as an important step to increase the funds for inti credits. However, this goal can only satisfactorily be achieved without unwarranted side effects if inti deposits are offered to the public with attractive yields rather than by dismantling the attractiveness of dollar deposits. Finally, if exchange rate policies are not monitored to maintain Peru's international com-

¹ This statement is well proven empirically. In reviewing empirical studies in Asian countries strong support could be found that financial savings react positively on a rise in real rates of interest (see Corsepius, Fischer, 1986). For a discussion of problems an interest liberalisation policy may be associated with, see Corsepius (1986b).

petitiveness the probability that dollars are deposited (illegally) abroad will increase and the domestic credit supply will further shrink. The improvement of the functioning of the banking system toward a more market-sensitive and transparent mechanism of financial intermediation would foster the allocation of capital to high-return uses, augmenting Peru's industrial efficiency and growth potential. Easier access to formal credits even at higher interest rates would not only improve the overall efficiency of investment projects but also lead to less activity in the informal markets. Finally, eased access to credits would provide an important incentive for savers to channel their savings through the banking system.

While financial institutions are heavily concentrated in Lima not only the rural population but also poorer parts of the population in urban areas are barely served by the banking system. Thus a big mobilization potential could be tapped if savings instruments tailored to the needs of small savers would be offered by the existing financial institutions. This is especially true for rural areas where - up to now - no serious mobilization efforts have been undertaken, although the Agrarian Bank, for instance, already operates in rural areas through a widespread network of branches.

The creation of a more sophisticated capital market can only be achieved in the long-run. The deepening of capital markets not only requires a well functioning system of financial intermediation but also a more stable economic environment. However, promising steps towards this goal would be the establishment of a more differentiated structure of interest rates in favour of longer-term savings and credit instruments.

References

- Banco Central de Reserva del Perú, Política Monetaria y Crediticia en el Perú 1968-1982, Sub-Gerencia del Sector Monetario, Lima 1984.
- Burkett, Paul George, Savings Mobilization in the Third World: Theory and Evidence From Peru, Syracuse University, 1984.
- Cavallo, Domingo F., A. Humberto Petrei, Financing Private Business in an Inflationary Context: The Experience of Argentina between 1967 and 1980, in: Pedro Aspe Armella, Rüdiger Dornbusch, Maurice Obstfeld (Eds.), Financial Policies and the World Capital Market: The Problem of Latin American Countries. The University of Chicago Press, Chicago 1983, pp. 153-185.
- Cebrecos Revilla, Felipe, "Savings for Development: The Case of Peru", in: UN, Savings for Development. Report to the Third International Symposium on the Mobilization of Personal Savings in Developing Countries. New York 1986.
- Corsepius, Uwe (1986a), "Die Struktur inländischer Ersparnisse und das Finanzierungsverhalten von Investoren in Peru und Thailand", Die Weltwirtschaft, 1986, No. 1, pp. 173-186.
- , (1986b), Erfolgsbedingungen einer Zinsliberalisierung in Entwicklungsländern. Kiel Working Paper No. 251, Kiel 1986.
- , Bernhard Fischer, Interest Rate Policies and Domestic Savings Mobilization: A Survey of the Empirical Evidence in Asian Countries. Kiel Working Paper No. 264, Kiel 1986.
- Fischer, Bernhard, Liberalisierung der Finanzmärkte und wirtschaftliches Wachstum in Entwicklungsländern. Kieler Studien, Vol. 172, Tübingen 1982.
- , Sparkapitalbildung in Entwicklungsländern: Engpässe und Reformansätze. Forschungsberichte des Bundesministeriums für wirtschaftliche Zusammenarbeit, Vol. 78, München 1986.
- , Peter Trapp, Economic Costs of Large Public Sector Deficits and High Inflation. Kiel Working Paper No. 237, Kiel 1985.
- Fry, Maxwell J., "Models of Financially Repressed Developing Economies". World Development, Vol. 10, 1982, No. 9, pp. 731-750.
- Gupta, Kanhaya L., Finance and Economic Growth in Developing Countries, London 1984.
- Hanson, James, Craig Neal, A Review of Interest Rates Policies in Selected Developing Countries, World Bank, Industry Department, Financial Development Unit, Washington 1984 (unpublished manuscript).
- Instituto Nacional de Planificación, Plan Nacional de Desarrollo 1986-1990, Lima 1986.

Marion, Peter, Peru: A Credit Union Strategy for Real Growth. The World Council of Credit Unions, Washington 1983.

Nasser, Saidi, Peru: Policy Issues Relating to Inflation, Deficits and the Current Account, Washington, December 1985 (unpublished manuscript).

Susano L., A. Reynaldo, Flujo de Fondos del Mercado Informal de Capitales. Diagnostico y Debate. Lima 1983 and 1984.

Thorne, Alfredo, "Ahorro e Inversion en el Peru". Banca, Lima, December 1984, pp. 24-42.

--, El Problema del Financiamiento del Desarrollo en el Peru: Apuntes Para una Politica Alternativa, Lima, October 1986 (unpublished manuscript).

World Bank, Peru: The Manufacturing Sector: Performance and Policy Issues, Washington 1983.

Data Sources

Banco Central de Reserva del Perú, Lima, various issues:

- Cuentas Financieras de Perú
- Boletín
- Revista
- Memoria
- Resena Económica
- Perú: Compendio de Estadísticas Monetarias 1959-1984, Lima 1985.

IMF, International Financial Statistics, Yearbook, Washington 1986.

INE, Cuentas Nacionales 1950-1982, Lima 1983.

International Currency Review, Vol. 17, London 1986, No. 6, pp. 109-117.

World Bank, World Development Report 1986, Washington 1986.

Abbreviations

BCRA	Banco Central del Reserva de Perú
COFIDE	Corporación Financiera de Desarrollo
IFS	International Financial Statistics
IMF	International Monetary Fund
INE	Instituto Nacional de Estadística
INP	Instituto Nacional de Planificación
LIBOR	London Interbank Borrowing Rate
n.a.	not available

Table A1 - Structure of Deposits and Other Liabilities of the Commercial Banks to the Non-Financial Sector, Peru 1965-83 (per cent)

Type of liability	1965	1972	1982	1983
In soles				
Liabilities to the public sector	<u>8</u>	<u>1</u>	<u>1</u>	<u>1</u>
Demand deposits	8	1	1	1
Liabilities to the private sector	<u>77</u>	<u>99</u>	<u>47</u>	<u>43</u>
Demand deposits	30	53	15	15
Time deposits	19	15	7	8
Savings deposits	28	27	24	19
Mortgage bonds	-	2	-	1
Other bonds	-	2	-	-
In foreign currency				
Liabilities to the private sector ^a	<u>15</u>	-	<u>52</u>	<u>56</u>
Total Liabilities	100	100	100	100

^aIn soles at the foreign exchange rate of the end of the period.

Source: Banco Central de Reserva del Perú.

Table A2 - Real Per-Capita Income and the Ratio of Money (M2)^a to Gross Domestic Product (GDP) in Peru and Selected Countries, 1960-1984

	Real GNP per capita ^b	M2/GDP					
	1984	1960-74	1975-80	1981	1982	1983	1984
Peru	1000	0.249	0.232	0.249	0.254	0.278	0.289
Argentina	2230	0.274 ^c	0.287	0.319	0.311	0.337	n.a.
Brazil	1720	0.188	0.146	0.112	0.104	0.104	0.116
Chile	1700	0.350 ^c	0.185	0.244	0.317	0.264	0.294
Colombia	1390	0.198	0.196	0.219	0.210	0.216	0.213
India	260	0.267	0.354	0.404	0.424	0.421	0.451
Philippines	660	0.198	0.201	0.215	0.231	0.249	0.200
South-Korea	2110	0.338	0.320	0.335	0.376	0.385	0.368
Sri Lanka	360	0.231	0.256	0.300	0.323	0.318	0.294
Turkey	1160	0.303	0.262	0.266	0.299	0.288	0.455
Fed.Rep.of Germany	11130	0.507	0.550	0.541	0.558	0.564	0.569
France	9760	0.482	0.509	0.481	0.467	0.472	0.468
Great Britain	9760	0.400	0.341	0.377	0.385	0.401	0.425
United States	15390	0.643	0.627	0.548	0.574	0.621	0.608

^aIncludes IFS-items money, quasy-money and savings deposits. - ^bIn US Dollar. -
^c1972-1974.

Source: IMF, International Financial Statistics, Yearbook 1986, Washington; World Bank, World Development Report 1986, Washington; Own calculations.

Table A3 - Nominal, Effective and Real Interest Rates on Credits and Deposits, Peru 1984 (Dec.) - 1986 (Oct.)

Interest Rates on	1984	1985						1986				
	16 Dec. - 31 Dec.	January	1 Febr. - June	July	5 - 25 August	26 Aug. - 3 Sept.	1 Oct. - 31 Dec.	1 Jan. - 15 Febr.	16 Febr. - 4 March	5 March - 15 May	16 May - 31 Aug.	1. Oct.
<u>Credits:</u>												
- nominal	66.0	66.0	72.0	90.0	110.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
- effective	110.7	110.7	126.7	184.5	110.0	75.0	45.0	45.0	40.0	40.0	40.0	40.0
- real	-0.4	-18.4	-12.2	10.1	-18.7	-32.2	-43.9	-12.6	-15.6	-15.6	-15.6	-15.6
<u>Demand deposits:</u>												
- nominal	66.0	60.0	60.0	75.0	33.0	17.0	14.0	7.5	7.5	7.5	7.5	7.5
- effective	93.4	82.1	82.1	111.5	39.1	18.5	15.0	7.8	7.8	7.8	7.8	7.8
- real	-29.5	-29.5	-18.1	-46.2	-54.1	-55.5	-35.0	-35.0	-35.0	-35.0	-35.0	-35.0
<u>Time deposits:</u>												
- nominal	66.0	71.0	72.0	88.0	56.0	41.0	28.0	26.0	26.0	26.0	28.5	28.5
- effective	90.1	103.3	105.3	140.8	75.0	50.6	32.3	29.7	29.7	29.7	33.0	33.0
- real	-21.3	-20.5	-6.8	-32.2	-41.7	-48.8	-48.8	-28.2	-21.8	-21.8	-19.9	-19.9
<u>Savings deposits:</u>												
- nominal	66.0	68.0	68.0	83.0	46.0	30.0	19.0	19.0	19.0	19.0	19.0	19.0
- effective	84.2	93.8	93.8	123.1	57.1	34.5	20.7	20.7	20.7	20.7	20.7	20.7
- real	-12.9	-25.0	-25.0	-13.6	-39.2	-47.9	-53.3	-27.2	-27.2	-27.2	-27.2	-27.2

Source: Banco Central de Reserva del Perú; Own calculations.