

**FINANCIAL LIBERALIZATION
IN A DOLLARIZED ECONOMY: PERU 1990-1995**

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***Abstract:** Since August 1990, the Peruvian economy has been undergoing a structural adjustment that conforms in many respects to the so-called Washington Consensus. As part of this adjustment, the financial sector has been liberalized. Interest rates are set by the market, while the Central Bank pursues a monetary policy geared towards the control of inflation. This paper examines some issues raised by a financial liberalization in a “dollarized” economy such as the Peruvian, particularly the increased foreign exchange exposure of non financial firms. (JEL E52, E65, F43)*

1. Introduction

Since August 1990, Peru has been undergoing a stabilization *cum* structural adjustment program that closely follows most of the guidelines summarized by Williamson (1990) as the “Washington consensus”. However, compared to most recent stabilizations, the Peruvian program is one of a handful in which policy makers chose the money supply as the nominal anchor to stop the hyperinflationary process. Among developing countries, this type of experience is fairly recent¹ and, consequently, its implications have not been explored thoroughly. Also against conventional wisdom, structural reforms were started almost at once in all most sectors of the economy.

Table 1
Basic indicators

	GDP growth	% of GDP		Inflation	Devaluation ^{1/}
		Current account	Public sec. result		
1986	10.0	-5.6	-6.4	62.9	0.4
1987	8.4	-5.5	-8.1	114.5	260.0
1988	-8.8	-7.0	-9.7	1,722.3	2,684.9
1989	-11.7	-0.7	-8.4	2,775.3	622.7
1990	-3.8	-3.4	-6.4	7,649.6	3,988.5
1991	2.9	-3.1	-1.9	139.2	85.7
1992	-1.8	-4.5	-2.6	56.7	69.8
1993	6.4	-5.2	-2.1	39.5	31.9
1994	13.1	-5.1	2.3	15.4	14
1995	7.0	-7.2	-1.1	10.2	6.0

1/ For 1986 and 1987, it considers the rate for foreign currency banking certificates (CBME).

Source: BCRP

This paper deals with the ongoing financial liberalization and it presents a tentative examination of its results. It is part of a broader research agenda that includes continuing work on a theoretical model to analyze the issues raised here on the basis of the Peruvian experience. The narrow objective of this paper is to lay out the stylized facts of the Peruvian experience since the August 1990 adjustment.

Given the wide ranging nature of the structural reforms, it is difficult to disentangle the impact of one particular reform. Nevertheless, the Peruvian experience poses a series of relevant questions that merit detailed examination. In addition to the well studied topics of capital inflows and “Dutch disease”, there are questions regarding the impact of dollarization on the financial stability of business, at the micro level, and the economy as a whole. Is dollarization a source of financial fragility that could compound further any potential balance of payments crisis? If the current monetary policies are reinforcing dollarization, what are the appropriate corrective measures? An attempt is made here to answer these questions.

1 See, for example, Calvo and Végh (1994). The experiences mentioned are Chile in 1975, Argentina in 1989 (BONEX plan), Brazil, Dominican Republic, and Peru, all starting in 1990.

Section 2 provides the basic concepts used in the paper to analyze the Peruvian case. Section 3 briefly reviews the macroeconomic situation that led to the 1990 adjustment and subsequent reforms, as well as a summary of the latter. Section 4 deals in more detail with the financial sector reforms, while section 5 is an examination of preliminary evidence of the impact of financial liberalization. Finally, the paper concludes with some thoughts about the issues that require more detailed examination and theoretical explanation.

2. Theoretical overview

There are at least three areas of theoretical and empirical research that must come together in order to examine the Peruvian case. The first and more obvious strand of economic literature is the one concerning financial liberalization as a policy to counter “financial repression”, a term made popular by the influential contributions of Ronald McKinnon and Edward Shaw in 1973². In a nutshell, the financial repression argument is that distortions in key financial prices (including interest rates and exchange rates) reduces the rate of growth of the financial system relative to the non financial system. The transmission mechanism is different for both authors, but the message is similar: financial liberalization will ultimately contribute to the growth of the economy. Unlike most economic theories, the suggested remedy was quickly put to practice in the late 1970s and early 1980s in several Latin American countries. Among them, the most documented cases are those of the Southern Cone, all of which ended up in deep financial crises, resulting in renewed state intervention and reform reversal.

There is a wide array of articles extending and formalizing the ideas of McKinnon and Shaw, as well as models developed in response to specific case studies. Among the latter, the models of neo-structuralists—starting from experiences in East Asia—add the twist of a focus on curb or unorganized financial markets. In terms of the Peruvian experience, financial liberalization models do not include a central stylized fact: the degree of “dollarization” of the economy. This is even more perplexing considering the well documented importance of the exchange rate and foreign currency speculation by non financial firms in the Southern Cone crisis (Tybout, 1986).

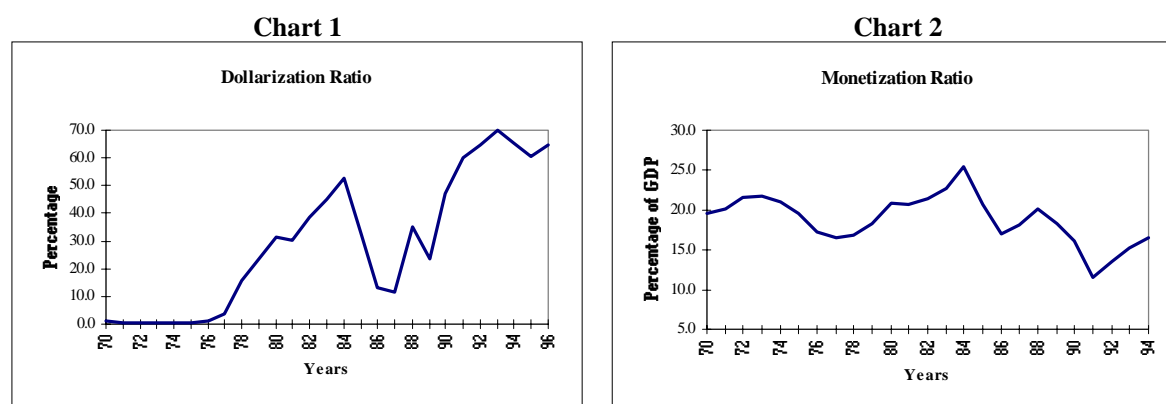
The “dollarization” phenomenon has been defined as the degree to which transactions are performed in dollars *vis a vis* to those performed in domestic currency. Thus, it is a variable that cannot be quantified, and is commonly approximated by the ratio of liquidity in dollars to total liquidity. For Peru, this figure has been consistently around (usually above) 60% over the last 6 years, while for Argentina—another dollarized economy—the figure has been around 44%³. In current Peru, some wages are paid in dollars, people can have checking and savings account

² An extensive review of the financial liberalization literature can be found in Fry (1995) and Gibson and Tsakalotos (1994).

³ Taking total dollar deposits as a percentage of total liquidity (M3* in the publications of the Argentinian Ministry of Economics). It should be pointed that the composition of these deposits, with respect to the Peruvian ones, also shows interesting behavioral differences: in Argentina 80.2% of dollar deposits are time deposits, only 3.7% of deposits are checking accounts (Ministerio de Economía, Obras y Servicios Públicos, 1997, table A.8.3). In Peru, 10.6% of dollar deposits are in checking accounts, 43.2% are in savings accounts and 46.2% are time deposits. Thus, in Peru, there is a higher preference for more “liquid” accounts relative to Argentina.

denominated in dollars, and even pay in dollars (or a mix of dollars and soles) in many businesses.

A concept closely related is that of “currency substitution”. In fact, there is some controversy about the proper definition of “dollarization” and “currency substitution”⁴. Calvo and Végh (1992) relate “currency substitution” to the use of a foreign currency as a medium of exchange, while “dollarization” is related to the use of foreign currency as a unit of account and/or as a store of value. Currency substitution models are customarily based on portfolio choices (based on relative risks and returns among different currencies). In this paper, both terms will be used as equivalent⁵, which can be reasonable given the pervasive use of dollars in the Peruvian economy.



While dollarization has been a result of higher inflation rates, the return to lower rates of inflation has not meant a return to the domestic currency. Coupled to the lower levels of demand for real balances after an episode of high inflation and/or macroeconomic instability, these hysteresis effects pose a series of problems for monetary policy and economic stability during and after the stabilization program. This is all the more relevant given that Peru undertook a money-based stabilization program. The following charts show the evolution of the dollarization ratio (quasi money in foreign currency relative to total liquidity) and the monetization ratio (total liquidity relative to GDP) for Peru, since 1970. Average monetization for the current decade has been the lowest so far: 14.6% compared to 19.3% and 20.5% for the two previous decades.

The evidence indicates that money-based stabilizations are typically associated with a liquidity crunch, which causes an increase in domestic real interest rates (see Calvo and Végh, 1994). However, the impact of dollarization on the magnitude of the liquidity crunch and subsequent recession is controversial, and contradictory arguments have been put forward by different authors (Calvo and Végh, 1992 offer a summary of this discussion). Some argue that dollarization will compound the liquidity crunch the higher the degree of substitutability between both currencies, while others argue that the existence of a second currency in the economy actually can alleviate the crunch.

⁴ See, for example, Ortíz (1983), and Calvo and Végh (1992) for alternative definitions.

⁵ There “broader” definitions of currency substitution, such as McKinnon’s, that include foreign assets and make it almost equivalent to perfect capital mobility (see Giovannini and Turtelboom, 1992).

The particular importance of the financial sector lies in its economy wide linkages, especially in a developing economy in which firms rely heavily in bank credit to finance their operations and investment⁶. Even if the financial system is being adequately (by international standards) monitored, it could be subject to a crisis if most of its clients default their debts, in the event, for example, of a sudden and considerable devaluation of the real exchange rate.

Thus, it is crucial to examine the repercussions of the current liberalization experience on the private sector. A variety of approaches has been used to study different liberalization experiences. There are inherent difficulties in doing this, since reforms are often carried out simultaneously, making difficult to elucidate the effect of one particular reform. Even when reforms are not parallel, the researcher has to decide the cut off points: when did reform start and when was the economy fully adjusted to the change.

3. Developments since 1990: reforms and tight monetary policy

3.1. Stabilization and Structural Reforms⁷

The three single most important policy decisions with impact on the financial system were to rely on the money supply as a nominal anchor to curb inflation, the liberalization of capital flows, and the liberalization of interest rates. The choice of a floating the exchange rate might have been the result of some realism on the part of policy makers. At the start of the stabilization effort, given the fiscal situation and the lack of international reserves (in July 1990, international reserves were at negative \$105 million), it would have been difficult to defend a high real exchange rate. In addition, the floating exchange rate was, at the same time, a sign of compromise of the administration to fiscal austerity, which contributed to the credibility of the stabilization effort.

The initial stabilization effort included liberalizations of the price system (adjusting prices of the state owned forms to reflect costs, while freeing the remaining controlled prices of the private sector), foreign trade (simplification and reduction of tariffs), elimination of tax drawback for exporters and elimination of the fund for non-traditional exports, and a reform of the tax system (reduction in the number of taxes to seven).

Important reforms have been carried out in the labor market, where labor stability (which was granted after three months of working in a firm) was eliminated, as well as the restrictions on contracting labor (essentially, it was impossible to hire someone under contract, unless the job was highly seasonal). Labor reforms also included changes in the severance payment (*compensación por tiempo de servicios*) system. Before, firms used to make provisions (at least in accounting) for such a payment, thereby increasing their liabilities⁸. Under the new system, firms have to deposit the CTS in a special account for every worker. The worker gets to choose the denomination of the account and, to a certain extent, the bank in which it will be deposited. Initially, this new regime caused further troubles to already liquidity strapped firms.

⁶ For example, see the data provided by Stiglitz (1994).

⁷ A thorough review of the stabilization policies and the reforms carried out by the Fujimori administration is beyond the scope of this paper.

⁸ These liabilities were so high in some cases (managerial positions) that firms would ask some employees to quit, pay them the CTS, and re-hire them.

Fujimori's administration launched a privatization program in 1991. As a result of it, until the end of 1995, there had been over 100 transactions. The most resounding success to date was the divestiture of the telecommunication companies (ENTEL and CPT) in 1994.

Other important reforms were the privatization of the pension system in December 1992 (which went into effect in July 1993), as well as several laws to encourage and guarantee foreign investment in the country.

In terms of channeling resources to the financial system, the modification of the CTS regime and the privatization of pension funds have been the most significant. CTS deposits accounted for almost 10% of all deposits at the end of 1995, while the private pension funds have added dynamism (in addition to resources) to the stock exchange and the banking system. The legal reforms of the financial system are examined below, in section 4.

3.2. Monetary Policy

As was mentioned before, monetary policy was fundamentally geared towards the control of inflation. Since the exchange was left to float (despite the conventional wisdom a fixing it at a competitive level at the outset of the stabilization program), monetary policy was tight, driving real interest rates up until mid 1991, when they start to decrease (using the data in tables 1 and 2, the real lending rate in domestic currency was 68.8% in 1992, falling to 26.1% by 1994)⁹.

Taking table 1 and table 2, it can be seen that the spreads between lending rates in domestic currency and foreign currency were considerable but declining: in 1992 the spread was 52.7%, decreasing to 13.8% in 1994. Spreads between the lending rate in the domestic market and the US prime bank rate are also sizeable: 10% in 1992, reduced to 6.2% in 1994, mainly through the increase of the US prime rate.

Table 2
One year interest rates (end of period)

	Domestic Currency			Dollars			US Bank Prime rate
	Lending	Savings	Spread	Lending	Savings	Spread	
1992	135.5	18.2	99.2	16.9	5.8	10.5	6.3
1993	72.3	13.2	52.2	15.2	5.0	9.7	6.0
1994	39.0	7.3	29.5	15.2	4.9	9.8	8.5
1995	33.5	9.9	21.5	17.2	6.2	10.4	8.7
1996	30.6	10.5	18.2	16.8	5.7	10.5	8.3

Source: BCRP, Federal Reserve of St. Louis

⁹ To calculate real interest rates, I have used the following formula: $\left[\frac{(1+i_t)}{(1+\hat{P}_{t+1})} \right] - 1$, where i_t is the nominal interest rate for year t, and \hat{P}_{t+1} is the inflation rate for year t+1. The interest rate on foreign currency loans, in terms of soles, would be given by $\left[(1+i) \cdot (1+\hat{e}_{t+1}) \right]$, where \hat{e} is the devaluation rate. Similarly, I calculate the spreads as $\left[\frac{(1+i^1)}{(1+i^2)} \right] - 1$, where i^1 and i^2 are the two interest rates to be compared. The conventional shortcuts $(i - \hat{P}, i + \hat{e}, i^1 - i^2)$ are better approximations when the rates at hand are rather low.

The main policy instruments have been the purchase and sale of dollars in the Central Bank's over the counter system (*mesa de negociación*), open market operation issuing certificates in domestic currency, and additional reserve requirements (above the legal minimum). Thus, the main channel to induce monetization has been to purchase dollars from the private sector, expanding high powered money.

The concurrent objective of buying dollars was to avoid further appreciation of the exchange rate, but in order to do this, purchases have been considerable (between 1991 and 1995, net purchases of dollars were equivalent to 17% of total exports, at an average of US\$ 695.7 million per year). To sterilize some of the impact of these purchases on high powered money, the Central Bank has resorted to certificates of deposit, paying high interest rates for them, compared to the rates offered by banks for savings deposits in domestic currency..

A consequence of the December 1994 Mexican crisis, during 1995 there was a reduced inflow of capitals. Thus, the Central Bank had to intervene less than in previous year in the foreign exchange market. Net purchases of dollars by the Central Bank fell by 38.2%, from \$1,058 million in 1994 to \$654 million in 1995, but rose again during 1996 to US\$ 1,146 million (at 12/20/97) .

Table 3
Outstanding certificates of deposit from the BCRP
(December of every year)

		1992	1993	1994	1995	1996
Stock	Million S/.	5	12	349	440	81
	Million US\$	3	6	160	190	31
Interest rate	% (nominal)	34.5	26.8	15.0	14.7	16.0
	% (real)	-3.6	9.9	4.4	2.6	5.5

Source: BCRP

Reserve requirements have been reduced slowly. Before the stabilization program, marginal reserve requirements were as high as 80% on domestic currency (the average reserve requirement was 56% shortly before the shock), in an effort to contain inflation despite significant financing to the public sector. By the end of 1990, the marginal reserve requirement on domestic currency had been reduced to 40%. By 1993, the additional reserve requirements on reserves for domestic currency claims had been eliminated, but not so for foreign currency liabilities (see Table 4)

Table 4
Commercial Banks: Actual and Required Reserves

	1990	1991	1992	1993	1994	1995
Against domestic currency liabilities						
Actual reserve ratio ^{1/}	40.7	21.9	19.0	12.1	12.1	10.3
Required reserve ratio	44.9	25.4	9.3	9.0	9.0	9.1
Against foreign currency liabilities						
Actual reserve ratio ^{1/}	34.5	35.5	39.9	43.0	43.3	44.3
Required reserve ratio	32.3	35.4	39.1	42.2	42.9	43.3
Central Bank Remuneration on FC reserves						
Rate	6.9	7.8	5.8	3.3	6.3	n.d.

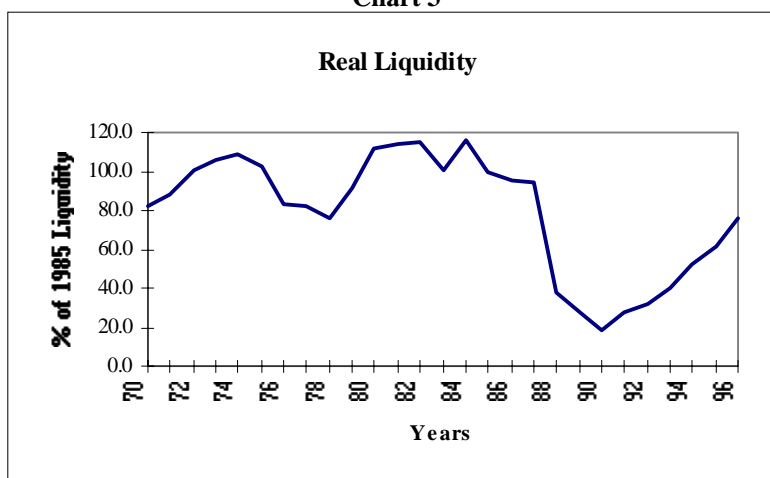
^{1/} Daily average for the last 15 days of the period indicated.

Source: BCR, IMF

Other than the level of reserve requirements, the Central Bank has recently resorted to changing the calculation periods as well: shortening the period for calculation of reserves from 30 to 15 days results in a higher required daily average of reserves held by the commercial banks¹⁰.

The impact of tight monetary policy on real liquidity has been significant. Only in August 1990, real liquidity fell by 30.8%, in addition to a cumulative fall of nearly 80% during the hyperinflationary period 1988-89. Since then, real liquidity has recovered to about 76.3% of its level in 1985. Evidently, the lower level of real liquidity is explained also by the appreciation of the real exchange rate, given that more than two thirds of liquidity is in foreign currency.

Chart 3



Source: BCRP, INEI

The basic problem with the current monetary policy is its use as an anti inflationary instrument. The Central Bank tries to curtail liquidity in domestic currency, which keeps interest rates higher than the international rates, attracting foreign speculative capital. It should be noted that an underlying problem is the difficulty in predicting the remonetization needs of the economy; if

¹⁰ The computation period was lowered to 15 days between May 1996 and March of this year. [Effective in April of 1997, the Central Bank lowered the minimum reserve requirements against domestic currency liabilities from 9% to 7%; the computation period was increased from 15 to 30 days, thereby contributing to a further expansion of liquidity].

monetary policy was lax, inflation is likely. In this case, with a long history of inflation and instability, it is very likely that demonetization and disintermediation processes could happen abruptly. Indicators of monetization have generally improved. For example, the preference for cash ratio has decreased from more than 45% in 1990 to about 30% in 1996, which is a signal of more confidence in the domestic currency.

An important issue is the question of the appropriate measure of competitiveness to judge the level of the exchange rate. On the basis of purchasing power parity theories, the base period should be one in which there was both internal and external equilibrium, something intrinsically difficult on any economy, not to mention one as unstable as the Peruvian over the last two decades. The Central Bank calculated an additional indicator that corrects the real exchange rate for changes in labor productivity and shows a lower appreciation of the exchange rate (BCRP, 1995) relative to August 1990 (5%).

Even though it is not dealt with in this paper, monetary policy is closely linked to the performance of the public sector. The economic result of the public non financial sector (see Table 1, the figures include capital revenues) has improved considerably compared to the situation between 1986 and 1989, to a great extent due to the recovery of tax revenues (current revenues of the central government were at a historical low of about 4% of GDP in 1989). If the administration decides to spend more (as it did during the 1995, when elections were held), monetary policy has to be correspondingly tight.

At the same time, the Central Bank intervenes in the foreign exchange market to keep the real exchange rate from further appreciation. Real exchange appreciation has been considerable. Compared to the real level in 1989, a level low by historical standards, appreciation has been 38%. In terms of the 1985 level (which is about the historical mean), appreciation exceeds 64%, while the comparison to August 1990 (the Central Bank's chosen base period for the real index) renders an 18.8% appreciation.

Given that the capital account has been liberalized, commercial banks can, and have, take loans in the international markets. These capital inflows are not subject to the 45% reserve requirements.

4. Financial liberalization policies

The financial system in Peru has been highly regulated, particularly through reserve requirements and interest rate ceilings. The public sector had direct influence through development banks and directed credit programs. During the early 1980s, there was an attempt to liberalize the financial system by reducing the reserves requirements, raising interest rate ceilings, and opening the market to foreign capital. However, it failed mostly as a result of the 1983 crisis. During the years that followed, the ceilings on interest rates for domestic currency denominated deposits in conjunction with the continuous increases in the exchange rate gave a renewed impetus to the dollarization process of the financial system, reducing the relative importance of domestic currency.

In 1985, Garcia's government froze dollar denominated deposits and allowing only withdrawals at the official exchange rate, causing considerable losses to the holders of such deposits. At the same time, to limit the impact of those withdrawals, the reserve requirements were increased. Other policies adopted by the Garcia administration that affected adversely the financial sector

were the 1987 nationalization attempt, and a tax on all debits in checking accounts (imposed in 1989, initially 1%, later increased to 2%). As a result of these policies and of the liquidity crunch, banks became more selective and reduced its number of borrowers (to avoid potentially insolvent customers). Thus, credit was increasingly concentrated, which raised risk in the system as a whole. The banking system managed to remain relatively solvent thanks to non traditional operations; the main sources of profitability have been speculation, especially due to the spread between the selling and buying price of dollars and “second floor” banking (most financial institutions reported very high utilities under the heading of “other financial income”).

Fujimori’s administration has conducted important reforms in the financial system. These are comprised not only by the new banking law, but also by changes in the labor regulation, such as the law dealing with the severance payment (*compensación por tiempo de servicios, CTS*) and the reform of the pension system. These two changes—forced savings— have injected a significant amount of liquidity and dynamism into the system. In particular, the existence of CTS deposits has made borrowing possible for individuals that previously could not.

In addition, the liberalization of capital inflows has provided an important source of funds to banks. Credit obtained abroad by domestic banks is not subject to reserve requirements. Given the scope for expansion and modernization of the banking business¹¹, it is not surprising that foreign investors have been keen on investing in the Peruvian financial system over the last few years. The main foreign investors are Chilean and Spanish; among the latter, is Banco Bilbao-Vizcaya, which had traditionally shied away from Latin American markets¹².

The first important reform of the financial system was the “Law of Financial and Insurance Institutions” (DL 637) was given in April 1991, replacing the 1931 law. It had as general objectives to increase competition in the sector, as well as to improve public confidence and the solvency of the system. There are several aspects of the law that can be highlighted: (a) It gave more faculties to the Superintendency of Banking and Insurance to eliminate informal banking and to improve the procedures for rehabilitation or liquidation of financial enterprises. (b) It introduced restrictions to the behavior of stock holders and managers of banks and other financial institutions, increasing the minimum capital requirements (for example, for banks it is US\$ 5.3 millions); they are forced to be organized as publicly held corporations (*sociedades anónimas*), and there have to be at least 10 unrelated stock holders; a bank cannot be the owner of a financial enterprise and vice versa. (c) It established procedures for the computing of assets and contingent credits. (d) It established credit limits for people related to the bank. (e) It created a deposit insurance fund with contributions of the Central Bank and the financial institutions. This fund only covers the deposits and investments of individuals and non-for-profit institutions in the case of the liquidation of a financial institution.

In November 1991, the state development banks were intervened. After the April 1992 “*autogolpe*” by Fujimori, with increased legislative powers, these banks were swiftly liquidated

¹¹ Banking “penetration” in Peru is low compared to other Latin American countries: the ratio of loans to GDP stands at 17% in Peru, compared to 23% in Argentina, 30% in Mexico and Brazil., 35% in Colombia, and 52% in Chile (estimates of Salomon Brothers quoted in *Latin American Business*, 04/07/97).

¹² In 1994, the share of foreign investors in the net worth of banks was 23%; in 1995 it increased to 41% (de la Rocha, 1996).

(four of them were dissolved in May 1992, one in August 1992); the regional state banks were merged with Banco Continental, which was privatized in 1995 (Rojas, 1994).

At the end of 1992 (December 29, DL 26123), the new organic law of the Central Reserve Bank was approved. This new law establishes as the main goals of the Central Bank preserving monetary stability and regulating money supply; it prohibits financing the public sector (except through the purchase of treasury bonds), the creation of multiple exchange rates, any intervention in to modify the private banks portfolios or loans to any state bank. It can set floors and ceilings to interest rates only in extraordinary cases.

DL 637 was replaced less than three years later, in October of 1993, by the DL 770, which basically corrected some “glitches” and provided more precision and order in the regulatory framework. It distinguished those regulations that concern the entire financial system from those that apply exclusively to either the financial or the insurance system¹³. DL 770 was more specific regarding the role of the state in the financial system. Where DL 637 established an interest rate ceiling set by the Central Reserve Bank¹⁴, DL 770 totally liberalizes interest rates; the Central Reserve Bank can only set ceilings or floors under exceptional circumstances.

Another important change in terms of monetary policy, was the establishment of a single legal reserve requirement for all types of deposits (whether they are in foreign or domestic currency) of 9%. Shortly after, the Central Reserve Bank changed the reserve requirements to adapt them to the new law: it eliminated all additional and marginal requirements on domestic currency, while the marginal requirement on foreign exchange was lowered from 50 to 45%. The remuneration on this marginal requirement was set by the Board of Directors of the Central Bank (which decided to set the rate equal to the LIBOR 3-month rate). Under the previous law, DL 637, this remuneration was set to the weighted average interest rate offered by the domestic financial institutions for savings (the “TIPMEX”, which was about 5%, whereas the LIBOR was at 3.6%). This had caused an increase in capital inflows and in the additional reserves held by banks¹⁵.

DL 770 also allowed commercial banks to be more active in the capital market, changing their denomination to “multiple” instead of “commercial”.

The latest modification to the laws of the financial system and the SBS was given last December (Law 26702, “General Law of the Financial and Insurance Systems, and Organic Law of the Superintendency of Banking and Insurance”, which went into effect on December 10, 1996). One of its main goals was to set standards compatible with the Basle agreement.

5. Impact of the reforms

The reforms’ impact should be assessed from two complementary points of view: the impact on banks, and the impact on non financial firms.

¹³ See Apoyo (1994) and Martinez (1994).

¹⁴ This ceiling was ineffectual, since the market interest rates were set well below the legally established maximum of 42.5% a month (vs. the prevailing 5.3% at the time of the new law), which had been set during the hyperinflationary period, in July 1990.

¹⁵ The rate was reduced in September 1996 to 3-month LIBOR less 1 percentage point.

By many measures, banks have improved their performance and solvency during the last three years. In part, this has been accomplished through mergers and the inclusion of “strategic partners”. As was mentioned earlier, foreign financial institutions have shown considerable interest in the Peruvian market (see *Latin Finance*, 1995) due to low intermediation coefficients and the scope for new business. Currently the main foreign interests are Spanish (Banco Bilbao-Vizcaya and Banco Santander¹⁶), and Chilean, but there are US, Italian and Hong Kong capitals as well.

The waves of mergers and acquisitions, as well as the bankruptcy and liquidation of a number of commercial banks and other financial institutions have led to increased concentration in the banking business. The four biggest banks concentrate more than 70% of the assets in the banking system. The lack of competition is still an issue in the Peruvian market. The financial margin (financial revenues less financial expenditures relative to total revenues) in the Peruvian banking system was 44.3% in 1995, while in Chile it was 27.3% (Apoyo, 1996).

As a result of the economic slow-down and the December legal changes it would be reasonable to expect another wave of mergers and acquisitions. The share of non performing loans in total loans, which had improved until the beginning of 1996 (see Table 5), started to rise again, especially in Banco Continental and Interbank (*Latin American Business*, 02/24/97). This, in addition to more strict capital requirements, would push the smaller banks to sell out.

Generally speaking, banks have improved their performance significantly. There have been considerable expansions in capital, and improvement in efficiency indicators. However, there is still room for improvement comparing to other countries in the region.

Between 1992 and 1993, there was an increase in the rate of non performing relative to gross loans, which is evidence of the trouble firms were going through. These rates have been consistently higher for loans in foreign currency (except during 1992) than for loans in domestic currency. In the last three years, figures have improved. At the same time, provisions for non performing loans have increased to more than 70% of non performing loans. Other countries in the area show a better performance in this area (Apoyo, 1996): in 1995, the same indicator for Chile and Colombia was 1.1% and 3.6%, respectively, while Mexico’s banks deteriorated from 8.0% at the end of 1994 to 12.0% by mid-1995.

It should be noted that, while high, the share of non performing loans has been higher before. In June 1985, for example, the ratio of non performing loans to gross loans reached 21.1%.

16 The presence of both Spanish banks in the Peruvian market is attributed to both competition between them as well as rivalry (see *Latin American Business*): both paid steep prices for their acquisitions (Bilbao Vizcaya paid 3 times book value for Continental, while Santander paid 2.1 times Mercantil’s book value). During the negotiations for the acquisition of Banco Mercantil, expectations were high due to Santander’s reputation for aggressive interest rate policies in the mortgage market. These expectations were realized when Santander cut a quarter of a percentage point off its mortgage loans in dollars.

Table 5
Indicators of financial performance: Commercial banks

	1990	1991	1992	1993	1994	1995	1996
Recovery of Loans							
Nonperforming Loans* / Gross Loans	12.8	12.3	12.9	18.6	7.3	4.8	5.2
Nonperforming Loans DC / Gross Loans DC	1.6	7.9	31.9	8.2	4.4	3.6	5.3
Nonperforming Loans FC / Gross Loans FC	17.7	14.0	8.8	20.5	8.2	5.3	5.3
Quality of Assets - solvency							
Assets weighted by risk / Net Worth	n.a	n.a	9.2	10.5	10.8	10.6	n.a

* Credits overdue + credits in court collection process

Source: SBS

Credit to the private sector by commercial banks has recovered rapidly since the low level of 1990 (when it was equivalent to 19.4% of its real level in 1985), after a cumulative fall of 79.5% between 1988 and 1990. At the end of 1994, it was already at the pre-hyperinflation level, and by the end of 1995, it had exceeded the 1985 level by more than 20%: credit has grown more than sixfold in real terms in 5 years.

More than 70% of the credit to the private sector is in foreign currency. The peak was reached in 1993, when 79.4% of the loans outstanding was denominated in dollars. These loans have also proven to be troublesome, exhibiting a higher rate of non performing loans *vis a vis* loans in domestic currency, as was shown in Table 5.

Looking at the sectoral distribution of credit¹⁷, the percentage of credit going to (completely) non tradable sectors such as construction, real estate, retail trade, and services has increased since 1990. Thus, even if banking supervision is more strict in the 1990s than in the previous decade, capital requirements are adequate, etc., the banking system is still at risk of facing a crisis if the real exchange depreciates suddenly: firms that produce for the domestic market and, therefore, earn domestic currency, would face solvency problems, translating into an increase of non performing loans.

Leaving the foreign currency exposure problem aside, there are still several unresolved issues for the banking system, such as the maturity of its deposits and loans. At the end of 1995, loans for less than one month account for 45.0%; only 30.7% of loans have a maturity higher than 3 months. Term deposits have increased their share to 18.0% in total deposits; CTS deposits (9.6% of all deposits) could also be counted as term deposits. Other lingering problems are the high financial costs (due mainly to reserve requirements)—partially reflected in higher spreads relative to other Latin American countries—and the lack of credit to certain sector of the economy.

¹⁷ There are no published figures of sectoral allocation of credit split according to the denomination of the loan (foreign or domestic currency).

Table 6
Sectoral allocation of credit by the banking system
 (Percentages)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^{1/}
Agriculture	2.6	3.1	5.5	2.6	2.8	5.7	4.3	4.0	3.1	2.6
Cattle	0.5	1.0	1.3	1.3	0.9	1.0	0.2	0.2	0.9	1.0
Fishing	1.7	1.9	1.9	3.9	2.8	2.7	2.0	2.3	2.9	2.4
Mining	8.6	5.4	5.2	9.1	9.6	9.1	7.5	4.8	3.5	2.9
Industry	39.4	35.7	33.6	42.0	41.9	36.8	31.3	26.9	32.1	29.6
Electricity, gas & water	...	...	...	...	...	0.2	0.7	1.0	0.4	0.6
Construction	2.9	2.4	1.8	0.7	0.7	1.0	1.4	1.6	2.0	3.1
Retail	20.9	25.9	25.3	19.2	18.8	22.1	24.7	23.3	22.0	22.3
Hotels & restaurants	...	...	...	...	...	...	...	...	0.4	0.4
Transport	...	...	...	...	...	1.0	2.4	4.3	5.6	5.2
Financial intermediation	...	...	...	...	...	1.6	3.9	3.6	1.5	1.5
Real estate	...	...	...	...	...	...	...	...	2.8	3.5
Public sector	1.5	1.1	0.6	1.1	1.1	0.8	1.6	4.3	0.3	0.5
Education	...	...	...	...	...	...	...	...	0.2	0.4
Social services, health	...	...	...	...	...	...	...	...	0.3	0.3
Other community services	...	...	...	...	...	...	...	...	3.5	4.4
Miscellaneous	21.9	23.4	24.9	20.2	21.2	18.0	20.0	23.6	18.6	19.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ Preliminary.

Source: INEI

The adjustment process of non financial firms has not been explored in detail, mostly because data is not readily available. Last August, in the midst of the debate surrounding a new law for restructuring firms, a representative of Lima's chamber of commerce claimed that about 60% of firms were "technically bankrupt". This contention was denied by the government, but this legislative effort continued anyway ("to save only firms that are insolvent but viable") despite criticisms from more liberal sectors¹⁸, which could be interpreted as a signal that there are, in fact, serious problems. So far, not many studies offer some insight on this issue. One such study is the one by Urrunaga *et al.* (1994), in which the authors replicate the methodology used to study the financial liberalization experiences of the Southern Cone between the late 1970s, and early 1980s¹⁹, and focus on a short period, from the second quarter in 1990 to the second quarter in 1992. The financial statements for their sample (296 firms) come from the BVL.

¹⁸ For example, economists linked to former minister of economics (February 1991 to January 1993), Carlos Boloña.

¹⁹ Three of these studies were included in a special issue of *World Development* dedicated to the Southern Cone experiences. In the references to this paper, I included only Tybout's introduction to the section on microeconomic adjustment (Tybout, 1985).

Table 7 provides a series of financial ratios based on information published by CONASEV²⁰. Data for 1986 was included as a comparison to a more “normal” year. I did not have access to the figures for 1993, which, judging by Table 5, might have been the roughest year for firms.

Table 7
Financial ratios for firms supervised by CONASEV

	1986	1991	1992	1994
Liquidity measures / short-term solvency				
Current ratio	1.33	1.11	1.08	1.19
Acid-test (quick ratio)	0.73	0.57	0.60	0.69
Asset management / turnover measures				
Inventory turnover	4.12	4.73	4.79	4.46
Days' sales in inventory	87.43	76.08	75.15	80.71
Fixed asset turnover	2.52	2.47	3.35	2.89
Total asset turnover	1.12	1.12	1.32	1.14
Cost of goods sold / sales	0.75	0.78	0.75	0.72
Operational expenditures / sales	0.18	0.30	0.25	0.21
Financial expenditures / total exp.	0.23	0.18	0.18	0.18
Financial expenditures / sales	0.04	0.07	0.06	0.04
Depreciation / fixed assets	0.51	0.74	0.73	0.66
Receivables turnover	7.73	7.60	7.39	7.67
Days' sales in receivables	46.55	47.39	48.71	46.91
Solvency measures				
Debt-equity ratio	1.02	1.11	1.62	1.32
Long-term debt /net worth	0.14	0.09	0.20	0.25
Gearing	0.50	0.52	0.61	0.57
Long-term debt / Net fixed assets	0.16	0.10	0.19	0.27
Profitability measures				
Return on net worth	0.08	-0.20	-0.14	0.11
Profit margin	0.04	-0.08	-0.04	0.04
Profit margin before taxes, deduct. & shares	0.07	-0.06	-0.02	0.07
Gross margin	0.25	0.22	0.25	0.28
Memo:				
Number of firms in sample	3,559	4,350	4,350	4,390

Source: CONASEV

The current ratio (current assets to current liabilities) reveals a significant deterioration: it declines by 15.5% in 1991 compared to 1986, and a further 3.9% in 1992. This change is more significant if compared to the adjustment process between 1982 and 1984 (Webb, 1987), in which firms managed to adjust their liabilities to correspond to the fluctuations in their short term assets. In the worst of that crisis, the current index for firms varied between 1.1 and 1.2.

²⁰

The data for 1986 and 1994 was generated with the financial statements aggregated according to international standard industrial codes, excluding all financial services and banking. Firms must submit audited financial statements to CONASEV only if their revenues or assets exceed certain thresholds established by that agency every year.

There are two standard measures of firm's financial performance: quick ratios (or acid test) and gearing ratios, which do not involve any valuation of physical capital (thus being relatively problem free). The first one (the ratio of current assets less inventories to short-term liabilities) is used as an indicator of a firm's ability to meet obligations coming due in the short-term. This indicator also shows a deterioration in 1991 (a fall of 21.9% compared to 1986), recovering in 1992 and 1994.

The gearing ratio (total debt to total assets) is another important measurement of a firm's financial performance. Urrunaga *et al.* (1994) show the same basic trend as the figures presented here for 1991-92: indebtedness increases; in 1994 the ratio improves. Furthermore, looking at the indicators that involve long term debt, it can be seen that long term debt is increasing throughout the period, while short term debt (included in the gearing ratio as well as in the debt to equity ratio) increases in 1991 and 1992, decreasing in 1994.

The profitability measures confirm the difficulties that firms were going through in 1991 and 1992. The first three rows subtract operational expenses, as net financial expenses, taxes, shares and dividends. Given that the gross margin (sales less cost of goods sold relative to sales) declines only in 1991 and recovers in 1992, remaining positive the entire period, the losses in 1991 and 1992 are explained to a great extent by net financial expenses (which include the results explained by inflation). Compared to the 1982-84 crisis (Webb, 1987), firms were significantly worse off in the most recent experience: between 1980 and 1985 firms exhibited positive results for all profitability measures, even in the worst years (1982 and 1983).

The comparison to the 1982-83 adjustment is interesting, because the difference can be attributed to a great extent by financial liberalization. In the early 80s, firms were able to shift part of the adjustment cost to banks, mainly (as in the current crisis) through defaulted loans; as mentioned above, the ratio of non performing loans to gross loans reached higher levels than in the current adjustment. The government had a significant contribution as well, via controlled interest rates that were negative in real terms, and a significant increase of support loans to banks and enterprises granted by the Central Bank (the average quarterly flow increased from an average of 0.28% of GDP in 1982 to 1.02% in 1983) (Webb 1987). In the current adjustment, the government did not attempt to control interest rates²¹ and was not readily available to provide support loans²². Thus, it seems that in the current adjustment, the situation has changed significantly: financial firms exhibit high margins, while non financial firms are faced with a bigger portion of the economic adjustment.

Finally, although there are no readily available statistics, it is also interesting to note that many of Peru's bigger firms, with access to foreign capital markets, may have been able to avoid the high interest rates, taking loans abroad. In this case, it would be smaller to medium firms, in

²¹ The government tried to push interest rates down via lower discount rates, an increased (but always cautious) expansion in liquidity, and meetings between representatives of the private banks and the Central Bank.

²² The sum of flows of "credit to the private sector" and "credit to commercial banks" has been less than 0.1% of GDP between 1992 and 1996, according to figures of the Central Bank; credit to the private sector has been nil since the second quarter of 1993. It could be argued that the purchases of dollars from the financial system by the Central Bank is providing a form of subsidy.

addition to some bigger one, that have faced the high interest rates in the domestic financial system.

Unfortunately, even ignoring the problems posed by the use of financial statement data, the sources available in Peru (CONASEV and BVL do not disaggregate assets and liabilities according to the currency denomination, which would provide a more straightforward indicator of foreign currency exposure by firms. Also a problem is CONASEV's policy of not allowing access to the financial statements at the firm level, making a consistent comparison (following a subset of firms for an extended period) impossible. The problems with the BVL data are that the statements are a more summarized version than the one used by CONASEV; the raw data also requires significant cleaning if one is to follow the same sample of firms or if the industrial codes are required.

6. Concluding remarks

The key issue in the Peruvian case continues to be, as it has been since the start of the adjustment, the low level of the real exchange rate.

The critical empirical question, of course, is about the sustainability of Peru's situation regarding the balance of payments. What would happen in the event of a balance of payments crisis? This is an ongoing discussion in which there are two major camps. The "optimists" (*e.g.*, Schuldt, 1994), on the one hand, argue that much of the capital inflow during the past years has been long term capital and investment. Thus, when the capital inflows start to taper, the projects in which the capital inflows were invested are going to generate export revenues. In terms of the real exchange rate, this camp seems to argue that the current low real exchange rate is, in fact, an equilibrium outcome. On the other hand, the "pessimists" argue that a balance of payments crisis looms in the near future.

The second empirical question concerns the level of foreign exposure of the non financial sector, as well as its overall financial situation and its potential for growth. If the exchange rate depreciated suddenly in real term for some reason (such as a reversal of capital flows due to, say, a crisis in one of the bigger countries in Latin America), there is the risk of a systemic crisis that cannot be prevented even with perfect supervision of the banking system.

Clearly, how the economic situation is handled will be influenced by more than economic "fundamentals" and laissez faire ideas; the Fujimori administration as a whole is not completely committed to the latter.

Regarding theoretical issues, it is necessary to provide an analytical framework that allows a better understanding of the dollarization process, as well as the feedback effects that stem from corporate financial structures that rely heavily on credit, particularly credit in dollars. A deeper understanding of how money-stabilization works in this context is also necessary.

References

The word “processed” refers to documents informally reproduced, that may not be available through library systems. In the case of documents downloaded from the internet, the universal resource locator is provided.

- Apoyo (1994). *El sistema financiero peruano en 1994: El reto de los 90*. Lima: Apoyo Consultoría (processed).
- (1995). *El sistema financiero peruano: Situación actual y perspectivas*. Lima: Apoyo Consultoría (processed).
- (1996). *El sistema financiero peruano en 1996*. Lima: Apoyo Consultoría (processed)
- Banco Central de Reserva del Perú (1996). *Memoria 1995*. Lima: BCRP.
- (various issues). *Nota Semanal*. Lima: BCRP.
- (various issues). *Boletín*. Lima: BCRP.
- Calvo, G. A. & C. A. Végh (1992). “Currency substitution in developing countries: an introduction” in *Revista de Análisis Económico*, Vol. 7, No. 1, pp. 3-27.
- (1994). “Inflation stabilization and nominal anchors” in *Contemporary Policy*, Vol. XII, No. 2, pp. 35-45.
- CONASEV (1995). *Estados Financieros Empresariales 1994*. Lima: CONASEV.
- (1993). *Indicadores Financieros Empresariales 1992*. Lima: CONASEV.
- (1987). *Estados Financieros Empresariales 1986*. Lima: CONASEV.
- de la Rocha, J. (1996). *Las políticas y procesos de liberalización y las reformas financieras*. Web site of the Banco de Central de Reserva del Perú (<http://www.bcrp.gob.pe/DISCURSO/DISCURS2.HTM>)
- Economist Intelligence Unit (various issues). *Latin American Business*.
- Fry, M. J. (1995). *Money, interest, and banking in economic development*. Baltimore: Johns Hopkins University Press, 2nd. ed.
- Gibson, H. D. & E. Tsakalotos (1994). “The scope and limits of financial liberalisation in developing countries: A critical survey” in *Journal of Development Studies*, Vol. 3, No. 3, pp. 578-628.
- Giovannini A. & B. Turtelboom (1992). *Currency Substitution*. NBER Working Paper No. 4232. Boston: NBER.
- International Monetary Fund (1996). *Peru—Recent economic developments*. IMF Staff Country Report No. 96/3. Washington, D.C.: IMF.
- Latin Finance (1995). *Peru. Land of the rising sol*. IMF/World Bank special edition. Latin Finance government relations supplement, September.
- Martinez A., L. C. (1994). *Las leyes de bancos y su importancia en las reformas financieras en el Perú*. Informe profesional para optar por el título de Licenciado en Economía. Lima: Pontificia Universidad Católica del Perú (processed).
- Ministerio de Economía, Obras y Servicios Públicos (1997). *La economía argentina en el tercer trimestre de 1996*. Web site of the Ministry of Economics and Public Works of Argentina (<http://www.mecon.ar/informe/infor19/default.htm>).
- Ortíz G. (1983). “Dollarization in Mexico: Causes and consequences” in P. Aspe, R. Dornbusch and M. Obstfeld, eds., *Financial policies and the world capital market: The problem of Latin American countries*. Chicago: University of Chicago Press, pp. 71-106.
- Rodríguez, C.A. (1993). “Money and credit under currency substitution” in *IMF Staff Papers*, Vol. 40, No. 2, pp. 414-426.

- Rodrik, D. (1996). "Understanding economic policy reform" in *Journal of Economic Literature*, Vol. XXXIV, pp. 9-41.
- Rojas, J. (1994). "La reforma del sistema financiero peruano, 1990-1995" in *Economía*, Vol. XVII, No. 33-34, pp. 149-198.
- Schuldt, J. (1994). *La enfermedad holandesa y otros virus de la economía peruana*. CIUP, Documento de Trabajo No. 20. Lima: Centro de Investigación de la Universidad del Pacífico.
- Stiglitz, J. E. (1994). "The role of the state in financial markets" in M. Bruno & B. Pleskovic, eds., *Proceedings of the World Bank Annual Conference on Development Economics 1993*. Washington, D.C.: World Bank.
- Superintendencia de Banca y Seguros (various issues). *Información financiera mensual*. Lima: SBS.
- Tulchin, J. S. & G. Bland, eds. (1994). *Peru in crisis. Dictatorship or democracy?* Boulder, CO: Lynne Rienner Publishers.
- Tybout, J. (1986). "A firm-level chronicle of financial crises in the Southern Cone" in *Journal of Development Economics*, Vol. 24, No. 2, pp. 371-400.
- (1985). "Microeconomic adjustment during the reforms. Introduction" in *World Development*, Vol. 13, No. 8, pp. 941-947.
- Urrunaga, R., G. Berastain & L. Bravo (1994). *Desempeño empresarial durante el proceso de estabilización*. Cuadernos de Investigación No. 21. Lima: Centro de Investigación de la Universidad del Pacífico.
- Williamson, J., ed. (1990). *Latin American adjustment. How much has happened?* Washington, D.C.: Institute for International Economics.
- Webb, R. (1987). "Internal debt and financial adjustment in Peru" in *CEPAL Review* No. 32, pp. 55-74.

Appendix: Acronyms and abbreviations used in the text

BCRP	Banco Central de Reserva del Perú (Central Reserve Bank of Peru)
BVL	Bolsa de Valores de Lima (Lima's Stock Exchange)
CONASEV	Comisión Nacional Supervisora de Empresas y Valores (National Supervisory Commission for Companies and Securities)
DC	Domestic currency
DL	Decreto Ley (Legislative decree by the executive)
FC	Foreign Currency
INEI	Instituto Nacional de Estadística e Informática (National Statistics Institute)
SBS	Superintendencia de Banca y Seguros (Superintendency of Banking and Insurance)