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**OECD DEVELOPMENT CENTRE/ECLAC
PROJECT "CAPITAL FLOWS AND INVESTMENT PERFORMANCE"**

**CAPITAL FLOWS AND INVESTMENT PERFORMANCE
IN ARGENTINA***

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I. Introduction

This draft presents very preliminary results of the Argentine case for the research project: "Capital Flows and Investment Performance". Its main purpose is to serve as a guide for the discussion of the future steps of the project and should not be considered a "first draft" of the final paper.

The first stage of the research focused on the collection of data¹ and the identification of the most relevant stylized facts related to macro aspects of capital inflows; the evolution of investment and savings; and the consequent changes in the absorption/generation of financial resources. As part of the following steps of the project, emphasis will be given to integrating a more detailed view of the investment and savings at a more disaggregate level.

Section II presents a brief review of Argentina's performance and policies in the nineties, focusing on those elements which most relate to the aims of the project, underlining the distinction between the 1991-94 period and 1995. The basic purpose of this part is to fix the general context of our discussion. Section III presents the main aspects of the nineties' capital inflows, including quantitative estimations of the reversal of private capital flows in 1995 and the foreign finance obtained by the government. Section IV concentrates on savings, investment and the financial markets. The initial paragraphs present analyses of the investment and savings performances, contrasting the nineties period with the eighties and distinguishing the roles of the private sector, the external sector and the government. The last paragraph focuses on the evolution of the financial system.

¹In particular, priority was given to the presentation of a consistent quantitative picture of 1995 because of the importance of the events that took place after the Mexican crisis. Argentina's 1995 performance is significant in itself and is also highly relevant to the issues and objectives of the project.

II. The Policies Affecting Capital Movements and the Overall Evolution of the Economy.

The 1982 debt crisis and the failure of the stabilization policies launched in the following years produced a progressive worsening in the macroeconomic environment. The highly unstable evolution of the economy during the eighties led to the 1989/90 hyperinflationary episodes. In an effort to overcome this situation, the government launched the so-called Convertibility Plan in March/April 1991, which is still under way and which has proven to be much more successful than the stabilization packages of the eighties.

The Convertibility Plan aimed to drastically reduce the inflation rate and avoid a speculative attack against foreign reserves which could generate a new hyperinflationary episode. The plan, however, was not a typical adjustment program. It combined stabilization with a comprehensive set of measures intended to restructure the economy along the lines of the "Washington Consensus". The most influential elements of the reform were: the new rules governing monetary policy, the deregulation of both the financial system and the stock exchange market, the opening of the capital and trade accounts, and the privatization program.

Stabilization Policy

The stabilization package included a contractive stance on the fiscal and monetary fronts together with some measures orientated to deindexing the economy. A major distinctive element of the plan was the pegging of the peso/dollar exchange rate on a one-to-one basis. The new parity was established by the Convertibility Law, which required the Central Bank to back the total amount of the monetary base with foreign exchange reserves².

In practice, the Convertibility Law turned the Central Bank into a Currency Board. A new charter for this institution which was consistent with the new legal and economic policy framework was put into effect in September 1992. It gave the monetary authorities full autonomy, prohibited the monetary financing of the fiscal deficit and severely restricted rediscount operations.

On the fiscal front the government made major efforts to reform the tax system and reduce tax evasion in order to both increase revenues and gradually eliminate distortive taxes. The single most important measure was the generalization of the value added tax (VAT) to almost all economic activities and the increase in its rate. The marginal rates on the profit and income taxes were also raised while tax exemptions, mostly related to the promotion of industrial production and exports, were significantly curtailed. Additionally, the tax bureau was completely restructured and new

²The fact that a modification in the exchange rate had to be approved by Congress was intended to bolster the credibility of the government's commitment to renouncing devaluation as a policy tool.

tougher laws against tax evasion were put into effect. As a consequence, there has been a considerable increase in tax compliance over the years. Furthermore, the increase in tax collection was boosted by the reduction in inflation (due to the Olivera-Tanzi effect operating in reverse) and the significant rise in the activity level. This last effect, however, was partially reversed after the occurrence of the Mexican crisis because of the fall in GDP.

Liberalization Policies Affecting Capital Movements

From the very beginning, Argentina's approach to liberalization comprised all the segments of capital markets: the banking sector, the capital account of the balance of payments and the stock exchange market. The idea was to eliminate simultaneously and as rapidly as possible not only the market distortions existing within each market but also the barriers which could limit competition between the different segments of the capital market. The most important goal was the rebuilding of the channels for credit creation which had been practically destroyed after hyperinflation. It was believed that economic policy could greatly help in the reconstruction of capital markets by: first, by increasing the role of the private sector in the generation and allocation of loanable funds and in the management of risk; second, by accelerating the financial integration with the rest of the world; and third, by increasing competition within the system.

There were several changes in the institutional environment oriented to facilitating the integration of the Argentine economy into the international capital markets. A law was passed establishing equal treatment for national and foreign capital invested in productive activities. This law eliminated the requisite prior approval for foreign direct investment; it gave foreign firms free access to the domestic credit market; it abolished the tax on the repatriation of foreign capital and instituted a common tax rate on profits of foreign and national companies.

To enhance competition by reducing the difference separation between foreign and domestic capital markets as much as possible, the Convertibility Law instituted the validity of contracts denominated in any currency. Likewise, a series of Central Bank norms completely deregulated the foreign exchange market. There are now no restrictions on buying and selling foreign currencies. There were also institutional changes to increase competition within the banking system and between the latter and the stock exchange market. On the one hand, the Central Bank lifted barriers to new entrants into the financial system at the end of 1993 (a policy which had been in effect for more than ten years). On the other hand, the government implemented a series of measures to reduce transaction costs and to encourage new financial instruments in the stock exchange market. Brokers' fees were freed, taxes on the transfer of equities were suppressed, and, the entry of new enterprises was promoted to increase the size of the market while

new financial instruments were legally instrumented ("Obligaciones Negociables").

A Brief Overview of the Evolution of the Economy

Table 1
Main Macroeconomic Indicators

	1990	1991	1992	1993	1994	1995 (a)
GDP at market prices (bns of US dollars)	141.4	189.6	228.8	257.7	281.6	285.0
Real GDP growth (%)	0.1	8.9	8.7	6.0	7.4	-3.0
Annual Inflation (CPI)	1343.9	84.0	17.5	7.4	3.9	1.6
Gross domestic investment (% of GDP)	14.0	14.6	16.7	18.2	19.9	18.4
National savings (% of GDP)	16.2	13.8	13.5	15.3	16.1	16.4
Real exchange rate (1)	100.0	75.0	64.2	60.2	59.3	58.4
Current account (bns of US dollars)	4.8	-0.7	-6.7	-7.6	-10.2	-3.8
Capital account	-1.3	1.6	10.4	14.8	10.4	-0.5
Trade account (bns of US dollars)	8.2	3.7	-2.6	-3.7	-5.9	1.0
Exports (bns of US dollars)	12.2	12.0	12.2	13.1	15.8	20.8
Imports (bns of US dollars)	4.0	8.3	14.9	16.8	21.6	19.8
Reserves (bns of US dollars)	4.6	8.0	11.0	15.3	16.0	13.0
M1/GDP (%)	2.1	4.3	5.2	6.0	6.1	5.5
M3/GDP (%)	3.8	7.4	9.5	11.8	11.9	10.5
M3*/GDP (%) (2)	5.0	11.1	14.4	19.0	20.0	18.1
Total external debt (bns of US dollars)	62.2	65.4	67.6	70.0	77.0	86.0
Non-financ. public sector deficit (% of GDP)	2.7	1.3	0.7	-1.0	0.1	1.1
Primary deficit (% of GDP)	-1.4	-1.7	-2.2	-2.2	-1.0	0.5
Privatization (cash) (% of GDP)	0.5	1.2	0.8	0.2	0.2	0.4
Primary deficit (excl. privat.) (% of GDP)	-1.0	-0.5	-1.4	-2.0	0.8	0.9
Unemployment rate (3)	6.3	6.0	7.0	9.3	12.2	16.4

(a) Provisional.

(1) WPI US/CPI Arg - (2) Includes dollar deposits - (3) In October each year.

Source: Elaborated on the basis of Central Bank and Ministry of Economy data.

The Convertibility Plan has been very successful at reducing the inflation rate, which fell from 1344% per year in 1990 to under 3% in 1995. The greater degree of macroeconomic stability together with the new exchange-rate regime (which markedly curtailed the exchange-rate risk) improved the "economic climate" perceived by

foreign investors and greatly encouraged capital inflows in the first years of the program. During a significant period, however, the domestic inflation rate was higher than the international one and, consequently, although there was a remarkable fall in the inflation rate, the fall was not fast enough to avoid a considerable appreciation of the real exchange rate. The misalignment of relative prices took the form of a sizeable increase both in the price of nontradable vis-à-vis tradable goods and in average wages and unit costs of production as compared to the rest of the world.

The interaction of these positive and negative factors gave rise to two very different stages in the evolution of the economy. The first comprises the period between the implementation of the program and the Mexican crisis of December 1994. The second stage was opened by the latter crisis and is still developing. The first stage was highly successful in terms of growth and financial deepening; the second one, on the contrary, showed a deterioration of the macroeconomic scenario and a partial reversion of the positive financial developments of the first stage.

The years 1991-1994 were characterized by a significant expansion in GDP which, driven by a consumption boom, grew by nearly 35%, although it started from a level with high idle capacity. This surge in economic activity was led by the service sector and the production of durable consumer goods and automobiles. The fall in inflation and the rapid increase in credit boosted demand, while the greater availability of financing enabled the firms to invest in capital equipment. The investment rate at current prices reached 20% of GDP in 1994. This rate, nonetheless, was still below the levels prevailing before the outbreak of the debt crisis in the early eighties.

As a counterpart of the important increase in absorption, there was a sharp deterioration in the trade and current accounts. In contrast with the important surpluses registered in 1990 and 1991 the trade account showed growing deficits from 1992 to 1994. In that year the deficit reached \$5.8 billion. Fueled by this disequilibrium, the current account deficit grew continuously and was 3.9% of GDP in the same year. Such a disequilibrium could only be sustained thanks to the massive capital inflows experienced in the period. Indeed, capital inflows were so strong that they surpassed the demand of funds stemming from the current account and there was a significant accumulation of foreign exchange reserves.

Under a currency board scheme, the accumulation of reserves generated a surge in monetary aggregates and in domestic credit. This increase in domestic monetary aggregates was accompanied by the deepening in the dollarization of the internal banking system which gathered momentum after the full equivalence of contracts made in any currency was established. However, despite the rapid growth in money and deposits over the 1991-1994 period, the monetization level was still below the historical average in late 1994.

The Mexican devaluation in December 1994 made it clear that it is very dangerous to depend too heavily on external savings to

sustain stability and growth. As a consequence of the fall in the availability of foreign funds after the Mexican crisis, GDP decreased around 3.5% in 1995 while unemployment reached a peak of 18.6% in May 1995. At the same time, there was a sharp drop in aggregate investment.

The fact that the fiscal equilibrium attained after the implementation of the convertibility regime had deteriorated by the time the Mexican shock occurred only contributed to worsening its effects. Despite a 65% increment in nominal tax revenues over the 1991-1994 period, current government savings remained low due to a similar increase in expenditures. Moreover, the reform of the social security system in mid-1994 deviates the contributions which had previously financed the public pay-as-you-go system towards private pension funds. As a consequence, the non-financial public sector recorded an overall deficit (including privatization proceeds) in the second half of 1994 for the first time since 1991. Although negligible by international standards (-0.1% of GDP), it was a severe blow to a government which had set out to keep the borrowing requirements at zero or less, especially given the new (more adverse) context in the international financial markets.

The stability of the financial system was immediately affected by the abrupt change in expectations provoked by the Mexican devaluation as it triggered a run against international reserves and bank deposits which generated a plunge in asset prices and sizeable capital outflows³. Between December 1994 and May 1995, when total deposits (in both pesos and dollars) hit bottom, the funds withdrawn from the banks amounted to 17.5% of total outstanding deposits. Credit and overdraft facilities were sharply curtailed and firms were unable to borrow to maintain their working capital in a context where sales had dropped sharply. The percentage of nonperforming loans increased heavily.

The authorities, nonetheless, have managed to maintain financial instability under control and, in the last months, there have been some signs of greater stability. Interest rates have dropped, the number of banks with liquidity problems have diminished and asset prices and the demand for deposits have recovered. Two factors were crucial in attaining this result. First, the Central Bank implemented a much more active policy than in the recent past. In some cases such policies represented important deviations from the market orthodoxy. In fact, the government actively supported banks and firms. Second, an aid package coordinated with the IMF crucially helped to improve expectations. The agreement with the IMF unlocked a substantial \$8 billion aid package without which the Convertibility Plan might have collapsed.

³The first institutions to become insolvent had invested heavily in public bonds and domestic equities and were highly leveraged.

III. Capital Movements in the Nineties⁴

Magnitude and Composition of Capital Inflows

Table 2 shows the evolution of the capital account over the last fifteen years from the beginning of the debt crisis.

Table 2
Sources and Destination of Capital Inflows.
(In millions of US dollars)

Period	Trade account surplus	Current account deficit	Changes in foreign reserves	Capital Account Surplus	Compens. capital movements	Autonomous capital movements
1981-85	2,779	2,575	-87	2,488	2,832	-344
1986-90	4,025	1,634	1,907	3,542	2,348	-440
1991-95	-1,502	7,205	2,105	9,310	6	9,304
1990	8,275	-1,789	2,751	962	2,072	-1,110
1991	3,703	2,803	1,880	4,683	1,109	3,574
1992	-2,637	8,311	4,337	12,648	1,293	11,355
1993	-3,696	8,300	3,808	12,108	-3,151	15,259
1994	-5,750	11,295	568	11,863	-1,066	12,929
1995	871	5,317	-69	5,248	1,846	3,402

Source: Elaborated on the basis of Central Bank data.

As can be seen, there is a significant contrast between the eighties and the nineties. In the first place, there was a marked increase in the amount of inflows in the present decade as compared to the debt-crisis period. The annual average surplus in the capital account in the nineties is about three times the average in the eighties. Annual inflows grew from 3 billion in 1981-90 to 9.3 billion in 1991-95. In the second place, the characteristics of the flows in terms of their composition contrast sharply. As the last two columns of Table 2 show, the main source of credit in the eighties was compensatory financing while in the nineties, almost all capital inflows are voluntary. One important fact explaining this contrast is the change in the international scenario. Argentina faced a tight credit rationing in the international capital markets in the eighties and, hence, the necessary funds to

⁴ This part is partially based on Fanelli and Machinea (1995)

finance the current account disequilibrium were obtained via either official multilateral agencies or "involuntary" finance (arrears). In the nineties, the greater supply of funds flowing to "emerging" markets and the fall in the international interest rates made Argentine access to market funds much easier. In this context, the last two columns of the table show a systematic tendency for the economy to substitute market-determined for compensatory finance between 1991 and 1994. In fact, between 1993-94, when autonomous capital inflows peaked, the flow of compensatory finance was negative, which means that the country was repaying its outstanding compensatory loans. The most important sources of voluntary funds were trade credit, foreign direct investment and repatriation of capital.

One major fact is that the interaction between financial flows and the real economy were also very different in the eighties and the nineties. During both the debt crisis and the convertibility periods the bulk of capital inflows was used to finance the current account disequilibrium. However, the forces generating the current account disequilibrium were completely different. In the eighties Argentina showed systematic trade surpluses. The main goal of the adjustment in the eighties was to generate an as-high-as-possible trade surplus in order to compensate for the huge deficit in the financial services account which appeared after the debt crisis. In the nineties, in contrast, the main cause explaining the mounting current account deficit is the pronounced recovery in the level of domestic absorption which led to increasing trade account deficits between 1991-94. This was due to the huge increase in imports together with a certain stagnation in exports in the first four years of the convertibility regime (before the Mexican crisis). In particular, the high rate of growth of imports was due to the sharp recovery of the activity level, the liberalization of trade and the appreciation of the real exchange rate.

These characteristics of the dynamic path followed by the economy in the the first four years of convertibility completely changed after the Mexican devaluation in late 1994. As can be seen in Table 2, in 1995, there was a huge reduction in the current account deficit. The main cause of this reduction was the elimination of the trade account deficit. In fact, the features of the post "Tequila" adjustment of the external sector in Argentina are impressive. In just one year, there was a reversal in the net amount of domestic absorption of nearly 6 billion dollars. The main sources of this remarkable reversion in the trade account disequilibrium were both the increase in exports and the fall in imports. The main reasons explaining the recovery in exports were the increase in the terms of trade and the recovery of domestic demand in Brazil which spilled over into Argentina. The fall in imports was basically induced by the recession.

The Mexican crisis also changed the composition of capital inflows. Unlike 1993-4 when Argentina repaid outstanding compensatory loans, in 1995 the government had to resort to multilateral agencies to compensate for the decline in voluntary capital inflows. There was also an increase in the demand for funds

in the international markets by the government. The increase in the flows destined finance the public sector, nonetheless, could not fully compensate for the fall in the flows corresponding to the private sector. As a result, between 1994 and 1995, the amount of voluntary capital inflows fell by 9.5 billion dollars while the surplus of the whole capital account declined by 6.6 billion (Table 2). In fact, it was because the government could not completely compensate for this fall that the need for a significant adjustment of the economy arose.

The offsetting behaviour of the government and the change in the portfolio decisions of the private sector are clearly seen in Table 3 which shows the quarterly evolution of capital movements.

Table 3

Allocation of Capital Inflows 1994-95 (In millions of US dollars)

Quarter	Public Sector	Private Sector	Capital Account Surplus	Compens. capital movements	Autonomous capital movements
1994 I	574	2,428	3,002	144	2,858
II	-506	2,867	2,361	-281	2,642
III	702	1,585	2,287	-100	2,387
IV	2,259	1,954	4,213	-829	5,042
1995 I	132	-3,567	-3,435	-37	-3,398
II	2,532	-309	2,223	1,614	609
III	1,391	-181	1,210	33	1,177
IV	3,119	2,131	5,250	236	5,014

Source: Elaborated on the basis of Central Bank data.

As the table shows the most important consequences of the Mexican crisis are felt in the first three quarters of 1995, particularly in the first quarter when the column corresponding to the private sector shows a net outflow of 3.6 billion dollars. The government column, on the other hand, shows the increase in the demand for foreign finance pari-passu with the fall in private capital inflows. This strategy by the authorities seems to have prevented a major balance of payment crisis. In the last quarter of 1995, not only the government but also the private sector capital account has shown a relevant surplus. It must be taken into account, however, that two factors were crucial in making this strategy viable in the short run: first, the support of the IMF and, second, the favorable evolution of international capital markets after the "Tequila" effect characterized by falling interest rates and the recomposition of flows toward emerging markets.

IV. Investment, Savings and Financial Markets

The Aggregate Investment Rate

In the eighties the investment rate evolved with procyclical trends. From a high in 1980-81, it fell abruptly in the first round of the adjustment to the debt crisis attaining a relative minimum in 1985. This contraction amounted to 7 percentage points of GDP. The rate recovered in the expansionary phase 1986-87 (2.6 percentage points of GDP with respect to 1985) and from 1988 on it continued to fall until 1990. In this last year the rate attained a historical low of 14% of GDP, 10 percentage points of GDP lower than the pre-debt crisis rate.

Regarding the nineties performance, the first stylized fact that deserves to be stressed is that the investment behavior was also procyclical (Table 4). The rate of investment - measured at current prices - grew significantly in the 1991-94 expansionary phase - 6 percentage points of GDP with respect to the 1990 historical low - attaining a maximum of 20% of GDP in 1994. It then fell 1.6 percentage points of GDP with the 1995 recession. The high sensitivity with respect to the activity level and the financial conditions shown by the aggregate investment rate in 1995 calls attention to the factors which fueled the investment recovery in the previous years. There are two basic alternative hypotheses regarding this. One hypothesis stresses the opportunities and incentives created by the structural reforms. The other emphasizes the role of the abrupt expansion of domestic demand and non-tradable activities. The 1991-94 experience was, in principle, consistent with both explanations. The 1995 fall in aggregate investment underlines the relevance of the financial conditions and the domestic demand and activity level trends, particularly because the fall coincided with an important expansion in exports. So, the 1995 experience opened the way for the discussion and testing of the alternative explanations. The research intends to do so by analyzing separately the performances of different components of aggregate investment, e.g.: residential building, investment by public utilities firms, investment in different branches of the manufacturing sector.

The second stylized fact is the weakness of the investment rate level reached by the recovery. The 1994 nineties maximum is similar to the 1987 rate, also similar to the average rate of the first half of the eighties and 3 percentage points of GDP higher than the average rate of the second half of that period. The 1991-95 average rate - 17.8% of GDP - is about 1 percentage point of GDP higher than the average rate of the second half of the eighties (Table 4).

The third stylized fact is the remarkable decline in the relative price of investment observed in the nineties, which makes the real investment performance look much better than the mentioned above (Table 5). The investment price/GDP deflator ratio fell by about 14% between 1990 and 1994 and rose slightly in 1995. The fall, presumably related with the appreciation of the exchange rate

and the reduction in tariffs, was a beneficial element of the important changes in relative prices that took place during the period.

The investment rate measured at 1986 constant prices attained, like the nominal rate, a historical low of 14.2% of GDP in 1990. In 1991-94 it grew by about 9 percentage points of GDP, reaching a high of 23.3% of GDP in 1994 (Table 6). It then fell to 21.1% of GDP in 1995. Two-thirds of the real investment rate recovery correspond to the rise of the nominal investment rate and one third to the fall of the investment relative price. The 1994 real investment rate is 1 percentage point of GDP lower than the 1980-81 average rate and 4 percentage points of GDP higher than the 1987 rate. The nineties' average rate is 3 percentage points of GDP higher than the average rate of the second half of the eighties. So, the fourth stylized fact is that as a result of both the increment in nominal investment and the fall in the relative price of capital goods, in 1993-94 the economy reached real investment rates that were higher than the best post-debt crisis years, although slightly lower than the pre-crisis levels.

The long term growth potential argument implicit in the above-mentioned comparisons involves the issue of the efficiency of investment. The research intends to analyze this by studying the composition and allocation of investment expenses. From the same long-term growth perspective the issue also raises questions about the sustainability of the growth process. The research will discuss this sustainability mainly by focusing on the composition of investment between tradable and non-tradable activities. One important point to be analyzed is the role of current relative prices in investment decisions.

National and External Savings

Between 1990 and 1994 the investment rate at current prices rose by 6 percentage points of GDP. The national savings rate was similar in 1990 and 1994 (Table 4). So, the first stylized fact regarding the financing of investment is that the mentioned increment in the investment rate was fully financed by a similar increment in the external savings, whose rate increased from -2.2% of GDP in 1990 to 3.9% of GDP in 1994 (Table 4). In 1995 the 1.6 percentage points of GDP decline in the investment rate coincided with a 1.9 points of GDP reduction in external savings, leaving the national savings rate practically constant.

The national savings rate declined abruptly in the first half of the eighties - about 7 percentage points of GDP, similar to the investment rate fall - and fluctuated around 15% of GDP in the second half of the eighties. The average national savings rate of the nineties resembles the average rate of the second half of the eighties and is 3 points of GDP lower than the average of the first half of that decade. So, the second stylized fact is that there was no recovery of the national savings rate in the nineties. The third stylized fact is that the national savings rate fell in the first years of the nineties but showed a positive trend from 1993

on. The rate fell in 1991 and 1992 - when it attained a historical low of 13.5% of GDP - and recovered in the following two years reaching a level similar to the late eighties' in 1994-95. The fall in the national savings rate corresponds exclusively to the fall of private savings -which was actually more pronounced than the total- because government savings augmented in the first years of the nineties, as will be shown below. The decline in the national savings rate in the first years of the nineties is consistent with the hypothesis that the expansion of that period was led by a consumption boom. Did the reversal of the national savings rate trend represent the incipient emergence of a new persistent process? In conjunction with the improvement in the trade account that took place in 1995, that process would represent the emergence of a different and more sustainable pattern of growth. Regarding this issue the official policy is confronting a dilemma. From a long term growth perspective, savings should be encouraged, but the authorities are pressed to foster private consumption as the only way to lead the economy out of its present recessionary state.

Table 4

Savings and Investment Rates
(as a percentage of GDP at current prices)

	Investment	National Savings	External Savings
1981-85	20.5	18.3	2.2
1986-90	17.0	15.2	1.8
1991-95	17.8	15.3	2.6
1990	14.0	16.2	-2.2
1991	14.6	13.8	0.8
1992	16.7	13.5	3.2
1993	18.4	15.3	3.1
1994	20.0	16.1	3.9
1995	18.4	16.4	2.0

Source: Elaborated on the basis of Ministry of Economy data.

Table 5

Evolution of Prices Relative to GDP Deflator
(1986 = 100)

Period	Consumption	Investment	Inv./Cons.
1981-85	96.4	105.2	109.1
1986-90	100.3	98.6	98.3
1991-95	103.9	87.1	83.8
1990	101.8	98.8	97.0
1991	102.7	89.9	87.5
1992	101.9	85.1	83.5
1993	110.7	87.7	87.1
1994	101.1	85.7	84.8
1995	103.2	87.2	84.5

Source: Elaborated on the basis of Ministry of Economy Data.

Table 6

Savings and Investment Rates
(as a percentage of GDP at current prices. All variables deflated
with the Implicit Price of Gross Capital Formation)

	Investment	National Savings	External Savings
1981-85	19.6	17.5	2.1
1986-90	17.2	15.3	1.8
1991-95	20.3	17.2	3.0
1990	14.2	16.4	-2.2
1991	16.3	15.3	0.9
1992	19.6	15.9	3.8
1993	21.0	17.4	3.5
1994	23.3	18.8	4.6
1995	21.1	18.8	2.3

Source: Elaborated on the basis of Ministry
of Economy data.

The Changes in the Generation/Absorption of Financial Resources

The behavior of aggregate agents regarding investment and savings greatly changed in the last five years and, consequently, the propensity of each to generate/absorb financial resources in the economy has also shown significant transformations. In particular, under the convertibility regime, there was a much lower pressure by the government's borrowing needs on domestic financial markets because of both the renewed possibility to finance the deficit in the international market and the structural adjustment of the public sector. This fact, not only affected the size of the supply and demand for financial assets but also the characteristics and the mix of the financial instruments issued in the economy.

In general terms, it can be said that the quantitative and qualitative changes in the sector's supply and demand for financial resources have had a positive effect in terms of increasing the economy's level of financial deepening. However, the positive changes which occurred were not enough to eliminate some of the most important weaknesses of the Argentine capital markets. There is still a high degree of market segmentation which acts against innovative and smaller enterprises; the lack of long-term credit for the financing of private investment still exists; the low total capitalization of the stock exchange and the lack of diversity of the firms which are quoted there do not allow the agents to fully diversify non-systematic risk; and there is an important degree of financial fragility in the banking system which means that interest rates are still too high because of the influence of systemic risk (the so-called country risk). These factors were extremely important in explaining why the Argentine economy was one of those most affected by the Mexican crisis.

A simple way to see of how financial resources were created and absorbed in the economy is to examine the evolution of the surplus and deficit generated by each aggregate sector. The following table shows the surplus of the private sector, the government and the rest of the world over the last fifteen years.

Table 7
Sectoral Surpluses
(Annual averages, as a percentage of GDP at current prices)

Period	Private	Fiscal	Rest of the World
1981-85	10.0	-12.2	2.2
1986-90	6.8	- 8.6	1.8
1991-95	-0.8	- 1.8	2.6
1990	8.4	- 6.2	- 2.2
1991	3.2	- 4.0	0.8
1992	- 1.3	- 1.9	3.2
1993	- 2.4	- 0.7	3.1
1994	- 2.4	- 1.5	3.9
1995	- 0.9	- 1.1	2.0

Source: Elaborated on the basis of Ministry of Economy data.

The first important fact is that there was a huge fall in the government's borrowing requirements. As a consequence of the adjustment of the public sector the deficit has been much lower in the nineties than in the eighties. The average annual deficit generated by the government fell from 8.6 percent of GDP in the 1986-90 period to 1.8 percent in the period after the implementation of the Convertibility Plan. This evolution of the government deficit was the result of two main factors: the recomposition of government savings and the pronounced fall in public investment. This is clearly seen in Table 8. Between 1986-90 and 1991-95 there was a fall in the fiscal deficit of 6.8 percentage points of GDP and, of this fall, 4 points are due to the recovery of the savings rate while the remaining 2.8 points are explained by the fall in the investment rate.

Table 8
Savings and Investment Rates
(Annual averages, as a percentage of GDP at current prices)

Period	Private		Government		National Total	
	Sav.	Inv.	Sav.	Inv.	Sav.	Inv.
1981-85	25.2	15.1	-6.7	5.4	18.5	20.5
1986-90	19.0	12.2	-3.8	4.8	15.2	17.0
1991-95	15.1	15.9	0.2	1.9	15.3	17.8
1990	19.0	10.7	-2.8	3.3	16.2	14.0
1991	15.6	12.4	-1.8	2.2	13.8	14.6
1992	13.5	14.8	0.0	1.9	13.5	16.7
1993	15.3	16.4	1.3	2.0	15.3	18.4
1994	16.1	18.3	0.2	1.7	16.1	20.0
1995	16.4	16.7	0.4	1.7	16.4	18.4

Source: Elaborated on the basis of Ministry of Economy data.

The recovery of the government's savings rate between the late eighties and the nineties was primarily a consequence of the increment in revenues resulting from the increase in the tax burden and the elimination of subsidies (especially tax expenditures associated with promotional programs). Consumption expenditures played no role in augmenting savings. In fact, public consumption increased after the implementation of convertibility by more than one percentage point of GDP. In addition to the fact that the authorities have chosen not to induce a huge adjustment in consumption, the upward evolution shown by the relative prices of non-tradable goods helped to maintain the level of expenditures in consumption goods.

The increase in consumption, nonetheless, was lower than the recovery in public sector revenues and, consequently, the deficit fell because of this reason. This fall in the fiscal deficit alone, however, was not strong enough to adapt the economy to the convertibility regime. That is why the government was obliged to resort to the repression of capital expenditures. As seen in the table, the public investment rate is much lower in the nineties than it was in the highly unstable eighties.

Although there was a remarkable decline in the fiscal deficit, the surplus of the rest of the world not only did not fall but indeed rose. This means that the mounting use of foreign savings after the implementation of the Convertibility Plan was due to the widening of the private sector deficit. As the table shows, between 1986-90 and 1991-95 the private sector increased its demand for financial resources from the rest of the system by 7.6 percentage

points of GDP. This increase in the borrowing needs was covered by an increment in the current account deficit of 0.8% of GDP and a fall in the public sector deficit of 6.8 percentage points of GDP. In other words, there was a remarkable process of financial crowding in of the private sector.

Why did the private sector so greatly increase their borrowing needs? As Table 8 shows the increase is explained by both the fall in the savings rate and the recovery in the rate of investment. Between 1986-90 and 1991-95 there is a decline of 3.9 percentage points in the private sector savings rate while its rate of investment shows a recovery of 3.7 points. It is important to note, however, that the comparison of five-year averages hides some relevant facts characterizing the way in which the fall in the rate of savings of the private sector occurred. The fall in the average savings rate throughout the convertibility period is explained by the huge decline in the propensity to save which occurred at the very beginning of the implementation of the program. It seems that the "impact" effect of stabilization was very negative in terms of savings. There is a difference of four percentage points of GDP in the saving rate between 1990 and 1992. After this first impact, nonetheless, the private savings rate has shown a mild upward trend since 1993.

There are many factors which, in principle, are relevant in explaining the fall in the private savings rate and that must be taken into account to be researched during the project. First, at the beginning of the program there was a fall in the disposable income/GDP ratio because of the increase in the tax burden and the reduction in subsidies. This may have negatively affected private savings. Secondly, there was an increase in the rate of consumption after the implementation of the program. Several variables seem to be relevant in relation to this: the recomposition of consumer credit *pari-passu* with the remonetization of the economy; the realization of consumption postponed during the hyperinflationary period together with the effects of the opening of the economy which increased the gamut of consumer products available; and the change in relative prices in favor of non-tradable goods which, *ceteris paribus*, increases the real value of consumption expenditures. One could also hypothesize that there was a kind of "Ricardian equivalence" effect in operation because of the reduction in the fiscal deficit, but given the pervasive market failures existing in the capital markets it might not be plausible to make such a hypothesis.

The widening of the current account disequilibrium was basically generated by the expansion in the level of expenditures of the private sector. Hence, after the Tequila effect, the necessary adjustment of the current account was basically a problem of the private sector. The market mechanisms which induced the adjustment operated through the financial system. As a consequence of the Tequila effect, the private sector faced a sudden credit rationing resulting in a sizeable adjustment in the private sector expenditures most closely related to the availability of credit: consumer durables and capital goods. Between 1994 and 1995, there

was a fall in the rest of the world surplus of 1.9 percentage points of GDP of which 1.5 are explained by the reduction in the private sector borrowing needs.

There are some features of the Argentine adjustment under convertibility which are worth highlighting for further research. An important one is the operation of the market mechanism via principally credit rationing and not only via an increase in the price of financing. This kind of mechanism tends to generate both an overkill in the adjustment on the real side and a banking crisis on the financial side. That is why the intervention of the government was necessary although the adjustment was a problem of the private sector (which was supposed to adjust following the market signals). The government intervened both to avoid the overadjustment of the activity level and to impede the development of a financial crisis. In the case of Argentina the authorities acted in the financial system as lender of last resort and on the real side did not generate a higher surplus but rather maintained the deficit in order to offset the impact on the real side of the economy.

Capital Inflows, Financial Deepening and Systemic Risk

As mentioned before, the evolution of the investment, savings and surplus of each sector induced important changes on the financial side of the economy. One important factor modeling the new shape of financial markets was the need to create the instruments for the reallocation of the financial resources freed by both the fall in the borrowing needs of the public sector and the renewed stream of capital inflows.

The evolution of the domestic banking system should be carefully examined in the project because it was one of the most important channels for the reallocation of resources toward the private sector. During the eighties, there was a constant fall in the demand for financial assets generated by the domestic banking system caused by both the persistently high inflation rate and capital flight. The process of demonetization was dramatically reversed in the nineties because of the sharp fall in the inflation rate induced by the stabilization policy and because of the renewal of capital inflows (a good part of which was repatriation of capital). The following tables show the strong recovery in the economy's degree of monetization.

Table 9

Monetary Aggregates. In percentage points of GDP.

		Cash in circulation	M1	M2	M2*
1990		1.52	2.50	5.50	7.00
1991		2.33	3.88	6.34	9.55
1992		2.78	4.77	8.38	12.79
1993		3.39	5.75	10.80	17.54
1993	December	3.39	5.75	10.80	17.54
1994	January	3.61	6.02	11.39	18.41
	February	3.55	6.00	11.53	18.69
	March	3.47	5.96	11.39	18.71
	April	3.33	5.83	11.01	18.36
	May	3.32	5.80	10.97	18.45
	June	3.34	5.86	11.01	18.57
	July	3.76	6.36	11.73	19.64
	August	3.67	6.17	11.69	19.76
	September	3.58	6.11	11.79	19.92
	October	3.57	6.08	11.74	19.93
	November	3.53	6.06	11.69	19.99
	December	3.75	6.49	11.93	20.32
1995	January	3.81	6.50	11.40	19.84
	February	3.58	6.09	10.63	19.02
	March	3.42	5.81	9.91	17.53
	April	3.36	5.90	9.76	16.76
	May	3.35	5.93	9.76	16.72
	June	3.29	5.89	9.97	17.18
	July	3.54	6.10	10.30	17.71
	August	3.51	6.09	10.42	18.06
	September	3.39	5.94	10.08	17.91
	October	3.36	5.93	10.14	18.15

M2* includes total dollar deposits.

Source: Calculations based on data from Banco Central de la República Argentina (BCRA) and Macroeconómica.

Table 10

Deposits in Domestic and Foreign Currency - Monthly averages.

(In millions of dollars)

		Total deposits in domestic currency	%	Total deposits in foreign currency	%	Total deposits in foreign and domestic currency
1991	March	5,145.0	61.00	3,290.0	39.00	8,435.0
1991	December	8,098.0	55.25	6,560.0	44.75	14,658.0
1992	December	13,789.0	55.77	10,936.0	44.23	24,726.0
1993	December	19,963.6	52.45	18,092.0	47.55	38,055.6
1994	January	20,786.0	52.50	18,806.0	47.50	39,592.0
	February	21,380.0	52.71	19,181.0	47.29	40,561.0
	March	21,409.0	52.17	19,624.0	47.83	41,033.0
	April	21,244.0	51.48	20,017.0	48.52	41,261.0
	May	21,304.2	51.00	20,481.0	49.00	41,785.2
	June	21,417.0	50.64	20,869.0	49.36	42,286.0
	July	21,355.0	50.19	21,195.0	49.81	42,550.0
	August	21,609.0	49.91	21,683.0	50.09	43,292.0
	September	21,996.0	50.06	21,945.0	49.94	43,941.0
	October	21,992.0	49.77	22,193.0	50.23	44,185.0
	November	22,116.0	49.43	22,625.0	50.57	44,741.0
	December	22,044.0	48.96	22,982.0	51.04	45,026.0
1995	January	20,587.0	46.83	23,376.0	53.87	43,963.0
	February	19,293.0	45.36	23,234.0	54.64	42,527.0
	March	17,995.0	45.86	21,244.0	54.14	39,239.0
	April	18,480.0	48.30	19,780.0	51.70	38,260.0
	May	18,798.0	48.66	19,836.0	51.34	38,634.0
	June	19,864.0	49.16	20,540.0	50.84	40,404.0
	July	20,184.0	48.83	21,154.0	51.17	41,338.0
	August	20,650.0	48.62	21,822.0	51.38	42,472.0
	September	20,096.0	47.19	22,487.0	52.81	42,583.0
	October	20,494.0	47.20	22,926.0	52.80	43,420.0

Source: Calculations based on data from BCRA.

As a counterpart of the recovery in the demand for money, there was a marked increase in the supply of credit in the system. Given that the public sector was not demanding funds, the increase in credit availability benefitted the private sector. It was precisely for this reason that the banking system played such a crucial role in reallocating financial resources toward the private sector. Table 11 shows the marked increase in the availability of credit which followed the implementation of convertibility. Notice, nonetheless, that in spite of the increase in the degree of financial deepening of the economy, both the money/GDP and the Credit/GDP ratios are still too low.

Table 11

		Loans in the financial system			Percentage points of GDP		
		In millions of dollars					
		Pesos	Dollars	Total	Pesos	Dollars	Total
1991	March	14,853	8,640	23,493	8.1	4.7	12.9
1991	December	18,573	12,356	30,929	8.8	5.9	14.7
1992	December	22,302	20,366	42,690	9.0	8.2	17.2
1993	December	23,514	27,713	51,226	8.7	10.2	18.9
1994	January	23,677	28,397	52,074	8.7	10.4	19.1
	February	24,458	28,912	53,370	8.9	10.5	19.5
	March	24,664	29,106	53,770	8.9	10.6	19.5
	April	24,508	29,984	54,492	8.8	10.8	19.6
	May	24,724	30,807	55,531	8.9	11.0	19.9
	June	24,617	31,340	55,957	8.8	11.2	19.9
	July	24,674	32,128	56,802	8.7	11.4	20.1
	August	24,726	32,409	57,135	8.7	11.4	20.1
	September	25,113	32,996	58,109	8.8	11.5	20.3
	October	25,659	33,537	59,196	8.9	11.7	20.6
	November	25,685	34,017	59,702	8.9	11.8	20.6
	December	25,367	34,642	60,009	8.7	11.9	20.6
1995	January	24,636	35,065	59,701	8.4	12.0	20.4
	February	24,170	35,380	59,550	8.2	12.0	20.2
	March	23,778	34,399	58,177	8.0	11.6	19.6
	April	24,094	34,386	58,480	8.1	11.5	19.6
	May	23,494	34,036	57,530	7.8	11.3	19.2
	June	23,440	34,197	57,637	7.8	11.3	19.1
	July	23,285	33,863	57,148	7.7	11.2	18.8
	August	23,485	34,113	57,598	7.7	11.2	18.9
	September	23,755	34,363	58,118	7.7	11.2	18.9

Source: Calculations based on data from BCRA and Carta Económica.

Another negative feature of this process is that the increase in the demand for domestic financial assets has shown a bias for financial instruments denominated in dollars. The same bias is observed in the credit generated by the system. It seems that the banks have been trying to match dollar-denominated assets and liabilities in their balance sheets in order to avoid taking an excessive devaluation risk. As a consequence, the financial system is showing a strong tendency to deepen the degree of dollarization, as the tables show.

It is possible that this bias in favor of dollar-denominated assets and liabilities is a significant factor that explains the persistence of a high degree of financial fragility in the system. This is because it is not possible to diversify away the devaluation risk for the system as a whole. Consequently, it is the borrower who must bear the devaluation risk and, particularly those borrower producing non-tradables. However, given that a devaluation could generate a generalized payment crisis, the behavior of banks of matching dollar-denominated assets and liabilities would not be able to insure them against the risk of insolvency if a change in relative prices occurred.

The following table shows the evolution of systemic risk following the implementation of the Convertibility Plan. It is clear that the success of stabilization has had a permanent and favorable impact on the level of systemic risk. However, after the once-and-for-all fall induced by the implementation of the program in 1991, the evolution of this variable has shown two negative features: it has suffered sizeable fluctuations and its average level is still too high. See, for example, the strong increase in the country risk after the Mexican crisis.

We would like to conclude by emphasizing our belief that future research in the project should provide a space for the analysis of the effects of systemic risk on the evolution of both, investment expenditures and the stability of the financial system. The relevance of systemic risk for the latter is obvious, but the importance of this variable in determining the investment level is frequently downplayed because the fact that systemic risk directly affects the discount rate used in project evaluation is not taken into account.

Table 12

Interest, Country Risk, and Expected Devaluation Rates
(In percentages, in annual terms)

		Domestic interest rate (1)	IRR Bonex 89	Libor Rate	Estimated country risk rate	Expected devaluation rate
1990	December	94.49	25.99	7.56	17.14	54.36
1991	March	207.74	19.58	6.50	12.29	157.34
1991	December	19.83	10.17	4.38	5.55	8.77
1992	December	25.31	12.68	3.63	8.74	11.21
1993	December	8.67	6.33	3.50	2.73	2.20
1994	January	8.07	5.89	3.25	2.56	2.06
	February	6.44	7.34	3.88	3.34	-0.84
	March	7.03	9.13	4.25	4.68	-1.92
	April	7.69	9.25	4.63	4.42	-1.43
	May	7.83	8.91	4.94	3.79	-1.00
	June	8.08	9.31	5.25	3.86	-1.12
	July	8.44	9.17	5.19	3.79	-0.67
	August	8.55	8.50	5.31	3.03	0.05
	Setiembre	8.33	8.66	5.75	2.75	-0.30
	October	8.27	9.37	5.94	3.34	-1.01
	November	8.72	10.08	6.56	3.30	-1.24
	December	9.55	9.67	7.00	2.32	-1.09
1995	January	10.65	11.09	6.63	4.19	-0.40
	February	11.64	14.89	6.44	7.94	-2.83
	March	19.38	13.81	6.44	6.93	4.89
	April	19.07	12.50	6.31	5.82	5.84
	May	15.54	9.91	6.06	3.63	5.12
	June	10.83	9.93	5.88	3.83	0.82
	July	10.24	10.12	5.88	4.01	1.09
	August	9.16	9.73	5.88	3.64	-0.52
	September	9.22	10.47	6.25	3.97	-1.13
	October	8.94	10.11	5.69	4.18	-1.06

(1) Interest rate on 30-day term deposits.

Source: Calculations based on data from BCRA and Carta Económica.