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2007/29 CEDES

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¹ This paper was prepared for the International Institute for Labour Studies of the International Labour Organization (ILO).

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CEDES
Buenos Aires
2007

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Executive Summary

This paper presents and analyzes the macroeconomic policies implemented in Argentina in the nineties and in the period that followed the collapse of the Convertibility regime. It also examines the connections between macroeconomic policies and the evolution and performance of labor-market variables and some indicators of income distribution and social conditions.

Since 1991, the Convertibility Law transformed the central bank into a currency board. The legal constraints on the central bank's ability to autonomously manage the monetary base left domestic liquidity and credit almost fully dependent on the evolution of the stock of foreign reserves, that is, on the balance of payments results. The macroeconomic setting of the nineties also combined trade opening with an appreciated exchange rate that resulted in a chronic trade balance deficit and a rising current account deficit. To sustain any positive rate of growth the economy necessitated substantial and increasing external capital inflows.

In a first phase of significant financial inflows, the economy expanded while its vulnerability to foreign shocks increased. The volatility of the international financial conditions confronted by the country was mechanically transmitted to both domestic activity and employment levels.

The unfavorable turn in the external financial situation which took place in 1997-1998, after the Southeast Asian and Russian crises, found Argentina with a high and growing current account deficit, an over-appreciated currency, and an evident shortage of policy instruments for dealing with this set of problems, because of the rigidity of the macroeconomic scheme adopted. The country risk premium increased and the economy stagnated. The 1999 Brazilian crisis was a significant addition to the series of negative shocks. By late 2000 a run against the peso started. It kept going intermittently through 2001 bringing the macroeconomic regime to its final crisis.

It is at first sight striking that the crisis and the massive default took place in a country that for a long time was considered an example of the Washington Consensus success. Almost until the end of the nineties, the IMF and most of the financial market's analysts considered the Argentinean experience as one of the success stories of macroeconomic policy and structural reforms in the financial globalization context. The Argentinean currency board regime was usually mentioned as an example of a feasible "corner solution" for the exchange rate policy in an emerging market country.

An employment cycle was clearly observable in Argentina under convertibility. The aggregate employment rate tended to rise in the early nineties, subsequently going down steadily and standing at the end of 1996 well below the 1990 employment rate. Privatizations and fiscal adjustment in the provinces had a bearing on this behavior, but the heaviest negative impact came from the restructuring and concentration of activities in the production of tradable goods caused by trade openness and exchange-rate appreciation.

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The end of the macroeconomic regime of the nineties involved a series of traumatic events, including a huge depression of economic activity, a financial crisis, the partial default of the public debt, a strong devaluation of the peso and a considerable worsening of social conditions in 2001-2002.

However, since the second quarter of 2002 GDP has been growing at an impressive rate, between 8 and 9% yearly. The paper shows that domestic factors had the main bearing in explaining the 2002 turning point. The recovery was actually bolstered by the shift in the relative prices caused by the devaluation and also by an adequate set of policies that, despite some flaws and ambiguities, nevertheless succeeded in stabilizing the FX market and domestic prices and recuperating the basic macroeconomic equilibria. Among the many factors behind this recovery, the launching in the second semester of 2002 of an unemployment subsidy program (the so-called 'Plan Jefas y Jefes de Hogar Desocupados') should be underlined. It provided income to about 1.8 million of beneficiaries. An improvement in nominal wages was associated with a rapid fall in unemployment, and was also helped by an official policy consisting in several lump-sum rises in private sector wages determined by decree during 2002-2004.

There is significant evidence showing that a depreciated or competitive real exchange rate tends to increase the labor intensity of output, given a certain activity level or growth rate. So, the employment recuperation stimulated private consumption through two effects: on the one hand, by increasing the number of wage earners and, on the other, by contributing to the rise in real wages.

The economic recovery has among its main pillars a strong adjustment in the balance of payments current account results and also in the fiscal accounts. An utmost step to fiscal consolidation after the crisis was the partial restructuring of the public debt. It involved a significant haircut in the nominal amount of the public financial liabilities, as well as an important reduction in interest rates and a considerable extension of average maturity. The government also captured part of the income effect of the peso devaluation through export taxes that made an important contribution to fiscal consolidation.

The paper examines in detail the monetary and exchange rate policies of the post-crisis period, paying also attention to the relationship between the IMF and Argentina after the devaluation and the default. It is argued that the IMF's support was absent precisely when it would have been more necessary: in the period after the devaluation, when efforts to stabilize the economy were at the center of the economic policy. Although the new management's criticisms regarding the support given by the IMF to the convertibility regime were justified, this did not provide any reason for not supporting the post-devaluation stabilization efforts. On the contrary, the self-criticism of the IMF implies an acknowledgement of its own part of the responsibility for the crisis. Therefore, the organization should have been even more committed to the stabilization attempts. Beyond that, the Argentine authorities permanently had to confront the staff in order to defend their diagnosis and preserve their degrees of freedom.

At the beginning of 2002, for instance, the IMF exerted pressure asking for a free floating of the peso. When the measure demanded by the IMF was instrumented, it was followed by an abrupt rise in the price of the dollar, as it was clearly expectable, and a fast acceleration of inflation. The country got nothing in exchange for that "prior action." Soon after, a new stabilization program was implemented that preserved the flotation but instrumented interventions in the exchange market, and reinforced some exchange controls aiming at stabilizing the exchange rate. This policy also faced the opposition of the IMF, though in this situation the demands of the institution were not satisfied. The interventions and the control measures that were instrumented, in spite of the opposition of the Fund's staff, turned out to be crucial for the exchange rate and the inflation stabilization. It is clear that had the economic policy followed the orientation that the IMF wanted, the evolution of the economy would have been more in

line with what the IMF expected. The implementation of the measures promoted by the IMF would have transformed its implicit diagnosis in a self-fulfilling prophecy. Finally, by the end of 2006 the government decided to cancel the whole outstanding debt to the IMF by a payment close to 10 billion dollars.

By mid 2002 the rise in the nominal exchange rate could be stopped and an appreciation period ensued. The nominal and real appreciation process ended around mid-2003. This was mainly the result of a deliberate policy decision. The preservation of a stable and competitive real exchange rate (SCRER) was gaining relevance in the official policy orientation. The government started to make explicit reference to the importance of preserving a SCRER in the official economic strategy. Although the announcements did not identify a specific policy target, the government – meaning both the central bank and the Treasury- operations in the FX market actually controlled the price of the dollar in a range between \$ 2.8 and \$ 3.10. This exchange rate policy has been conducted together with a monetary policy based on quantitative monetary targets, which started in 2003. In 2003 the central bank started to face more openly the situation of dealing with two 'potential' conflicting objectives: the preservation of a competitive exchange rate by intervening in the FX market and at the same time the attainment of the strict monetary expansion targets announced in the monetary program. In order to soften the appreciation pressures in the FX market and thus alleviate the central bank's intervention needs, controls on the capital account were introduced in June 2005.

In the recovery period, employment and wages also recovered significantly. The full-time employment rate recuperated all the fall experienced during the Convertibility regime period reaching similar levels to the early eighties. On the other hand, the current total employment rate (without social plans) reached the highest in the available series.

There has also been a reduction in the wage gap between the extremes of the distribution that has contributed to the reduction in inequality among workers. One of the factors that have contributed to this process has been the significant incomes policy implemented by the National Government since mid-2002 through lump-sum rises and increments in the minimum wage.

In effect, the Gini index of income from main occupation fell 8% between the first semester of 2003 and the first semester of 2006 passing from 0.472 to 0.435. However, despite the reversal in the trend towards greater inequality, the concentration of income is still high due to the high level of income inequality prior to the change of regime.

Introduction

This paper presents and analyzes the macroeconomic policies implemented in Argentina in the nineties and in the period that followed the collapse of the Convertibility regime in 2001-2002; it also examines the connections between macroeconomic policies and the evolution and performance of labor-market variables and some indicators of income distribution and social conditions.

The paper pays particular attention to the role of the IMF, both in its supportive stance regarding the macroeconomic orientation of the country in the nineties and its almost systematic antagonism to the main aspects of the economic policies pursued by the Argentinean governments of the post-crisis period. These policies aimed at stopping the divergent trends characteristic of the crisis, bringing the economy out of a deep depression and overcoming a very difficult social and political situation. The

country had to face these difficulties in isolation, confronting not only the huge difficulties of the internal circumstances but a permanent conflict with the IMF to preserve room for maneuver for its policy decisions. Not even success would warrant a more collaborative attitude from the authorities of the Fund, and the Argentine government finally decided to pay back ahead of schedule the entire debt with the institution at the beginning of 2006.

The paper is divided in four sections. The first one analyzes the Convertibility regime period, from its beginnings to the crisis. The second section is focused on the evolution of the labor market variables in the same period. The third section examines the macroeconomic policies and performance in the post-crisis period, and the fourth one is devoted to the labor market in the same stage as well as to a description of the evolution of some indicators of the evolution of the social situation.

1. The convertibility regime and the Argentine economy in the nineties³

In March 1991 the Convertibility Law entered into force . It established fixed peso-dollar parity and stipulated that the central bank must back 100 percent of the monetary base with foreign reserves. It also validated domestic contracts in foreign currencies. By September 1992 a new Central Bank Charter established its autonomy and also set narrow margins to its possibilities of purchasing public bonds and lending to commercial banks.

This novel monetary arrangement was the pillar of a broader stabilization program intended to take the economy away from the high inflation regime prevailing since mid seventies⁴, which had led to two brief hyperinflationary episodes in 1989 and 1990. The program included an almost complete liberalization of trade flows⁵ and a full deregulation of the capital account of the balance of payments. It was jointly applied with a deep and extensive process of market-friendly reforms, targeting the privatization of most state-owned enterprises⁶.

In practice, the Convertibility Law transformed the central bank into a currency board. This feature was essential in the new macroeconomic regime. In effect, the legal constraints on the central bank's ability to autonomously manage the monetary base

³ For an extensive treatment of the macroeconomic regime, labor market, and income distribution evolution in the nineties see Damill, Frenkel and Maurizio (2002 and 2003) and Damill and Frenkel (2006).

⁴ On the high inflation regime see Frenkel (1990)

⁵ A gradual trade liberalization program had already begun in 1988. However, in the nineties, the opening process was accelerated. Average import tariffs were reduced from 26.5% in October 1989 to 9.7% in April 1991. In addition, specific duties were eliminated, as were quantitative restrictions on imports. Only special tariffs for a reduced group of articles (including motor vehicles and electronics) and restrictions for 25 tariff items were maintained.

⁶ Privatizations started in 1990 with the transfer of the telephone company and the national airlines. By late 1994 the major part of the state-owned firms producing goods and services had been sold, including the most important ones: the oil company (YPF) and the producers and distributors of electric power. In some cases (oil fields, railways, ports, highways, waterworks and sewage, and television channels and radio stations), the government resorted to the privatization of the management.

left domestic liquidity and credit almost fully dependent on the balance of payments results. Central bank's reserve accumulation led to an endogenous expansion of the monetary base and the banking system credits and fostered domestic demand. On the other hand, international reserves contractions automatically resulted in reductions of the monetary base and credit, inducing recession.

Besides the above mentioned legal and policy framework there are two other aspects that should be underlined as crucial characteristics of the economic setting in the nineties. Firstly, the real exchange rate was already appreciated when the nominal exchange rate was pegged to the dollar in March 1991 and this appreciated level lasted throughout the nineties (see Graph 1). There was an important increment in manufacturing sector labor productivity in the decade, but the average unit labor cost in constant dollars did not fall because non-tradable goods and services' prices and nominal wages rose in the first half of the nineties. Fluctuations in the multilateral real exchange rate around the trend were mainly caused by exchange rate fluctuations in trade partner countries, particularly in Brazil. The appreciation accentuated as a consequence of the strengthening of the US dollar, and after the Brazilian devaluation in 1999.

Insert Graph 1

Secondly, despite the high credibility enjoyed for a long time by the exchange rate commitment (as measured, for instance, by the interest rate differentials), private sector savers showed preference for dollar-denominated deposits while banks hedged their balance sheets against exchange rate risk by offering dollar-denominated credits. Consequently, as from the early steps of the Convertibility regime there was a persistent trend towards a growing proportion of dollar-denominated assets and liabilities in the local banking system. This proportion grew to over 60% in the last years of the regime. The dollarization of local savings and credits played an important role in agents' perceptions and behavior. The dollarization of private sector assets was perceived as a hedge against the risk of devaluation and thus contributed to the reduction of the volatility of local portfolios and enabled extension of the maturity of contracts. Through these effects it has also contributed to lengthen the survival of the Convertibility regime. While there had been a dramatic run from local deposits in the crisis that followed the Mexican devaluation, things happened to be different in the period that ensued the Asian and Russian-Brazilian crises: total deposits in the banking system remained strong during 1997-99 and only started to fall by late 2000. On the other hand, the exchange risk burden rested not only on foreign investors and banks and big firms indebted abroad, but also on numerous local bank debtors with dollar-denominated liabilities but incomes in pesos.

The appreciated exchange rate and the partial dollarization of the local banking system were not necessary ingredients of a currency board regime. They arose from specific local circumstances, but both constituted basic characteristics of the

Convertibility regime and significantly influenced its performance and dramatic breakdown. The long-lasting real appreciation of the peso had, in particular, strong negative effects on sectors producing tradable goods and on the labor market, as we will analyze below.

An extremely rigid monetary system

The Convertibility regime succinctly described above was an extremely rigid setting. The rigidity did not follow exclusively from the legal rules but also from the actual behavior of markets. For instance, the flexibility of the real exchange rate vis-à-vis negative external shocks would have required a significant downward flexibility of domestic non-tradable goods prices. Actually, no significant nominal deflation took place either in the 1995 recession or in the post-1998 depression, in spite of the observed significant flexibility of low-skilled wages.

The Convertibility regime setting determined two features of the macroeconomic performance. Firstly, there was a growing external gap. The combination of trade opening with an appreciated exchange rate resulted in a chronic trade balance deficit. The trade balance reached equilibrium or surplus only under conditions of deep recession. The trade deficit together with the growing structural deficit in the factor services account generated a rising current account deficit. To sustain any positive rate of growth the economy necessitated substantial and increasing external capital inflows.

Up to a certain point the currency board regime played its intended role as an automatic stabilizer of the external accounts. However, under the Convertibility regime, even the deepest recessions left the current account with a substantial deficit, also causing a very high unemployment rate. These features weighed on the negative side of international investors' perceptions and tended to undermine its positive side. Hence, the Argentine version of the currency board was far from dissipating the risk of default.

Secondly, the volatility of the international financial conditions confronted by the country was mechanically transmitted to both domestic activity and employment levels. The correlation between national performance and the behavior of international capital markets is a common characteristic of emerging market economies, but in the Argentine case the correlation was accentuated since the macroeconomic regime lacked any significant monetary and nominal flexibility to compensate for external impulses in both directions.

An example of a more general pattern of crises

The Argentine macroeconomic experience in the nineties is an example of a more general pattern of external crises. Many of the crises that took place since the seventies followed a boom and bust cycle path, generated by significant capital inflows to small and badly regulated domestic financial systems, in fixed (or semi-fixed)

exchange rate environments.⁷ The stylized features of this cycle can be described as follows. It begins with an expansionary phase caused by capital inflows typically attracted by high interest rate differentials between local and foreign assets in contexts of credible fixed exchange rates. Domestic credit and aggregate demand expansions follow. Real exchange rate appreciation emerges as a consequence of inflation generated by demand pressures, residual price increments (in cases of exchange rate stabilization programs), or both. The current account worsens as a result of the increasing net imports flow caused by both the exchange rate appreciation and the demand expansion. The external financial needs rise and lead to debt accumulation. Consequently, external vulnerability of the economy progressively increases. As the perceived risk increases, capital inflows tend to slow down and interest rates rise, pushed by rising country risk and exchange risk premiums. Reserves accumulation stops and a contraction begins. Higher interest rates and capital outflows give place to an illiquid financial scenario “à la Minsky” (1975). Moreover, the rise in the real interest rate, an endogenous consequence of increasing external fragility, sharpens the contraction of economic activity creating additional sources of financial distress. Finally, the exchange rate regime collapses simultaneously with a financial crisis.

The path of Argentina’s economy under convertibility and the consequent 2001-2002 crisis is a clear example of this kind of cyclical dynamic.⁸ The main stylized facts of this pattern were observed twice during the decade. The first cycle was between 1990 and 1995 (the year in which the economy was stalled by the spillover effects of the Mexican crisis), while the second one was between 1996 and 2001 (see Graph 2). The first of these cycles did not result in an exchange-rate crisis, but it did cause a recession and a financial crisis in 1995.

Insert Graph 2

International financial context

The various positive changes that took place in the international financial context at the beginning of the nineties had a strong impact at the domestic level. International interest rates fell sharply as from 1989, while access to external finance was restored. In 1991 capital inflows began to reach substantial levels. As well as expulsion factors (especially the fall in interest rates in the developed world), which explained much of the flow of capital to emerging markets in the early nineties; domestic “attraction” factors were also important. In the case of Argentina, special mention may be made of the privatization process begun in 1990, financial

⁷ A formal model, inspired by the Argentine and Chilean experiences in the late seventies-early eighties can be found in Frenkel (1983). English versions are presented in Taylor (1991 and 2004) and Williamson (1983). Asian and Latin American crises in the nineties are discussed and analyzed in this vein by Taylor (1998) and Frenkel (2003a).

⁸ For an extensive treatment of the macroeconomic dynamic and the crisis see Damill and Frenkel (2003).

liberalization, and the application of the stabilization program. Thus, in the early years of the decade, the net inflows of funds exceeded the current account deficit, making possible a rapid and substantial accumulation of international reserves, the initial level of which was very low. The accumulation of reserves fed the increase in the supply of money and credit, and this, together with the decline in both external and domestic interest rates, led to rapid growth of aggregate demand and GDP. The increase in GDP, in its turn, affected the balance of payments, since it stimulated imports and thereby contributed to the current account deficit. Trade openness and the appreciation of the exchange rate acted in the same direction.

The growth led by capital inflows continued up to 1994. In that year, however, there was a rise in international interest rates (following the Federal Reserve's decision to increase its discount rates as from February). This began to affect the inflow of funds negatively and, because of the growing current account deficit, the foreign exchange reserves stopped growing.

A crush on inflation

It may be noted that, in this first stage, the stabilization program was very effective in checking inflation. Following its adoption, there was an immediate slackening in price rises. In the case of internationally tradable goods, for which the wholesale price index is a good approximate indicator, the fixing of the exchange rate had a marked impact. Inflation at the wholesale level went down immediately to levels of the order of 1 percent per month and continued to go down. This index registered a total variation of 12.5% from the beginning of the plan up to December 1994, which is equivalent to a little over 3 percent in annualized terms and is in line with international inflation in the same period as measured, for example, by the United States consumer price index.

The Argentine consumer price index (CPI), in contrast, rose by 58.5% over the same period. Although in this case, too, there was a sharp fall in the rate of inflation, the residual inflation built up in the first three years of the program was very substantial. This is explained by the greater weight of non-tradable goods and services in the calculation of the CPI, and therefore reflects the change in relative prices over the period. The divergence between the variations of these two price indexes disappeared towards the end of 1994, however. From that time, and up to the final crisis of the macroeconomic regime in December 2001, monthly inflation rates always tended to be very close to zero, with a predominance of slight negative figures.

Graph 1 and Table 1 give information on the evolution of the real exchange rate. It is important to note that this variable, which had reached extraordinarily high levels during the exchange-rate stampede which set off the crises of hyperinflation in 1989 and 1990, dropped almost vertically in the course of the latter year, that is to say, before the launching of the convertibility plan.

As may be seen from Table 1, already in the period immediately before the launching of the stabilization plan, real parity was almost 58 percent of its average level in the 1986-1988 period (that is, without considering the peaks of 1989-90). Since then, a long period followed in which the variations in real parity were relatively minor, until the monetary regime broke down in December 2001.

Table 1
Argentina: Average real multilateral exchange rate
in different periods
 (Second half of 1986 = 1)

Period	Real exchange rate
1986-1988	1.24
1986-1990	1.39
1990:4-1991:1 ^a	0.72
1991:2-1994:4 ^a	0.58
1995-2001	0.56
2002	1.18
2003-2005	1.13

^a Quarters.

Source: Authors' elaboration based on
 Ministry of Economy and Central Bank.

Graph 3 shows data on wages in dollars and average real dollars in the manufacturing sector. Once again, in the case of wages in dollars, the drastic change at the beginning of the period should be noted. Here, as it was the case with the real exchange rate, the subsequent variations may be considered as being of second order.

Insert Graph 3

Real wages in manufacturing, in contrast, behaved very differently, which also reflected the process of exchange-rate appreciation. As the prices of non-tradable goods and services measured in dollars rose considerably, and these goods and services weighed heavily in the CPI, wages deflated by this index show some initial decline and then a quite stable level during the decade.

Like in the stylized cycle described above, during the expansionary phase that lasted from 1990 to 1994 the economy became increasingly vulnerable to unfavorable external shocks. As Graph 4 shows, the current account deficit tended to rise. At the same time, external indebtedness was rising. The dependence on inflows of funds was thus further increased. In other words, the macroeconomic framework became more vulnerable to changes that could more or less abruptly affect the availability of external finance. This source of vulnerability became more evident in the case of Argentina because the regime involved complete liberalization of capital flows.

Insert Graph 4

Coping with financial contagion

The rise in international interest rates in 1994, which was already mentioned, and its consequences for the inflow of capital and the inherent mechanics of the convertibility regime could of themselves have led to a contractive phase. At the end of that year, however, Mexico suffered a run on the peso that ended in heavy depreciation. The effects immediately spread to Argentina. Consequently, instead of the country registering an endogenous adjustment in line with the typical workings of a currency board regime, the external shock led to a massive and rapid outflow of funds early in 1995, with a parallel very marked rise in domestic interest rates. The stock of foreign exchange reserves went down abruptly and there was a corresponding contraction in liquidity. Aggregate demand behaved similarly. In this phase, the unemployment rate (which had actually begun to show an upward trend two years earlier, when the economy was still expanding very strongly) rose substantially and from then on always remained at historically very high levels (see Graphs 5 and 6).

Nevertheless, the recession in the middle of the decade was very short. A powerful set of external and domestic financial support measures, arranged with the coordination of the International Monetary Fund (IMF), made it possible to quickly change the negative tone of expectations. In addition, by various means and in spite of the limitations imposed by the convertibility rule, the government carried out intensive monetary activity designed to shore up the banks and thus stop the financial crisis from deepening.⁹

Thanks to the favorable effects of the financial support from the exterior, it was possible to keep the monetary regime into being, and towards the end of 1995 a new spell of expansion was beginning. The monetary mechanism behind this recovery was the same one observed in the early years of the 1990s. Access to external funds was gradually recovered; the inflow of capital began to exceed the current account deficit (which had gone down as a result of the recession), and the foreign exchange reserves recovered once again, as did the supplies of money and credit. The elements of the cyclical dynamic were again in motion.

This new expansionary phase had similar features to the first one, but it was to be shorter.¹⁰ The risk premium went up in mid-1997, after the Thai devaluation, and

⁹ Notwithstanding, the legal restrictions were respected. The expansion in money supply during 1995 came from several sources, including reductions in reserve requirements to banks and the utilization of credit lines from multilateral organizations. The Convertibility Law also gave the Central Bank the possibility of backing a maximum of 20% of the monetary base in bonds of the Argentine government denominated in foreign currency. This margin had not been utilized before the crisis, so that the monetary authorities were able to issue money by employing it without breaking the legal limits. The margin was also widened in 1995 to give more room for the Central Bank to support the illiquid banks.

¹⁰ Beyond the similarities, the second cycle of the nineties differed from the first one in many respects. We mention one of them. During the economic expansion of the early nineties, private inflows were predominant. In contrast, the second expansion was bolstered mainly by capital inflows directed to the national government that issued further foreign debt than its external needs. In this period, the public debt started to increase exponentially. Meanwhile net capital

growth slackened. The Russian crisis in 1998, which also had a very strong impact on Brazil, brought the period of expansion to an end. Private inflows of funds declined from then on, and the accumulation of reserves slowed, and then became negative somewhat later. As a result, a phase contraction of GDP began in mid-1998, culminating in the collapse of 2001-2002, in which, among many other events, there was the steep depreciation of the peso already referred to earlier, and the government began to default on a large part of its external and domestic financial commitments.

Final phase of the regime before its collapse

The story of the final phase of the convertibility regime can be stated in a simple way as follows. To begin with, the unfavorable turn in the external financial situation which took place in 1997-1998, after the Southeast Asian and Russian crises, found Argentina with a high and growing current account deficit, an over-appreciated currency, and an evident shortage of policy instruments for dealing with this set of problems, because of the rigidity of the macroeconomic framework adopted. Not surprisingly, in these conditions the country risk premium rose sharply and remained high, while access to external funds became more and more problematical. The subsequent increase in the debt interest burden had a negative impact on all debtors, including the public sector. Since 1997, in addition to the deterioration of the foreign financial environment, Argentina suffered a series of real shocks, including a strong fall in the average price of exports, a contraction in foreign demand for locally produced goods, and an additional real appreciation caused for the strengthening of the US dollar and the Brazilian devaluation of 1999.

Given the legal inability to pursue a counter-cyclical monetary policy, the government had to rest on fiscal and supply side policies to bear with the depression. First the Menem's Administration and since December 1999 the new one led by De la Rúa tried to revert the contractionary trend through several fiscal tightening programs. In their view, the main cause of the economic depression was not the exchange rate appreciation and the external and financial vulnerability, but fiscal mismanagement.¹¹ Fiscal discipline would entail stronger confidence, and consequently the risk premium would fall bringing interest rates down. Therefore, domestic expenditure would recover pushing the economic out of the recession. Lower interest rates and an increased GDP would, in turn, reestablish a balanced budget, thus closing a virtuous circle.

inflows directed to the private sector recovered slowly and, from mid-1998 on, they stopped flowing in important amounts. Then, an abrupt outflow started in late 2000. Thus, during the second cycle, the public sector played a crucial role in the financing of the reserves accumulation. Instead, the private sector turned to be a net demander of foreign currency. For a detailed explanation see Damill (2000).

¹¹ Convenient as it was for supporters of the monetary setting of the nineties, the view that the macroeconomic unbalances that brought to the crisis had originated in fiscal mismanagement acquired wide acceptance. We analyzed and questioned this view in depth in several previous works. See for instance Damill and Frenkel (2003) and Damill, Frenkel and Rapetti (2005).

However, with the economy locked inside an external debt trap, the ‘confidence shock’ expected to revert the trend did not materialize. Moreover, the rounds of contractionary fiscal policies only reinforced the deflationary dynamics and the pessimistic expectations. As the improvement in the primary balance of the public sector accounts was not enough to compensate for the increasing interest burden, the public deficit tended to grow and public liabilities kept growing very fast.

Besides some initiatives on the financial front¹², critical processes went on (i.e. the withdrawal of bank deposits and the contraction of international reserves). Finally, in December 2001 the government established hard restrictions on capital movements and on withdrawals of cash from banks (the so-called ‘corralito’). The purposes of the measures were to avoid either the generalized bankruptcy of the banks or the violation of the currency board monetary rule. But their main objectives were to hold back the demand for foreign currency, preserve the stock of reserves and avoid the devaluation (i.e. the formal abandonment of the convertibility regime). This was also the last drastic move attempting to prevent the default. Yet, the measures did actually represent the end of the regime.

The December 2001 measures contributed to deepen the already strong social and political tensions. After a few days of social unrest and political commotion the country witnessed the resignation of the government followed by a series of ephemeral presidents. One of them announced to the Congress the decision of defaulting on a portion of the public debt, and resigned a few days later. In the first days of 2002, with a new president, Argentina officially abandoned the currency board regime and the one-to-one parity of the peso to the US dollar.

2. The labor market in the nineties

The features of the macroeconomic evolution in Argentina under the convertibility regime described above were reflected in developments in the labor market. The initial achievements of the stabilization program and reforms had positive effects in terms of higher levels of activity and lower inflation rates. On the one hand, greater economic activity meant greater demand for labor. On the other, the decline in inflation reduced the negative impact of the “inflation tax”, which hit those with the lowest wages hardest.

These consequences are typical of programs of this type, at least in their initial phase. Other effects of such programs are often of a negative nature, however. Privatization processes are often followed or preceded by business rationalization measures that involve substantial staff cuts. Adjustments in the expenditure of national, provincial and municipal levels of government may have similar effects, usually involving the reduction of employment and wages. These negative consequences on employment and wages are a “once only” phenomenon.

¹² Since taking office, the government achieved three financial agreements with the IMF and also launched two important ‘voluntary’ debt swaps in the second half of 2001.

The joint impacts of trade openness and exchange-rate appreciation, for their part, deserve special mention, since they have lasting adverse consequences for employment in the production of tradable goods, especially in the manufacturing sector.

An employment cycle is clearly observable in Argentina under the Convertibility regime. As we shall see in more detail in the following section, the aggregate employment rate tended to rise between the launching of the convertibility program and 1993, subsequently going down steadily and standing at the end of 1996 well below the 1990 employment rate. The contraction mainly affected the jobs of male heads of household working over 35 hours per week, and was concentrated in employment in manufacturing. Although the privatization operations and the fiscal adjustment of the provinces had negative effects on employment, the heaviest negative impact came from the restructuring and concentration of activities in the production of tradable goods caused by trade openness and exchange-rate appreciation.¹³ The negative impact on employment caused, in turn, high rates of unemployment. High unemployment, both by its very nature and by the downward pressure it exerts on wages, caused a persistent trend towards greater inequality of income distribution.

Employment, underemployment and unemployment in Argentina in the 1990s

In this section, we will present empirical evidence on the evolution of labor market conditions in Argentina in the circumstances just described. We will begin by examining the evolution of aggregate employment, underemployment and unemployment in the decade in question.

The series analyzed below refer to the urban population and are taken from the Permanent Household Survey (PHS), which the National Institute of Statistics and Censuses (INDEC) carried out twice-yearly, in May and October.¹⁴ Unless otherwise indicated, the series are defined as percentages of the total urban population. They are:

PART = participation rate;

EMPL = employment rate;

FTEMPL = full-time employment rate;¹⁵

SUB = involuntary underemployment;

U = unemployment rate.

¹³ The important effects of openness with exchange-rate appreciation in the labor market in Argentina in the nineties are examined for instance in Damill, Frenkel and Maurizio (2002) and Damill and Frenkel (2006).

¹⁴ The methodology and frequency of the PHS have recently been changed, as we describe below.

¹⁵ In the survey, an individual is considered to be employed full time if he works at least 35 hours per week. This group also includes those who, although they worked less than 35 hours per week, do not wish to work more hours (i.e., this variable includes "voluntary underemployment").

Graph 5 shows the evolution of these variables since the early 1980s. Firstly, it may be observed that the full-time employment rate shows a marked downward trend, dropping from 35-36% in the early years of that decade to 32% in the first half of 1990 and 27.6% in the second half of 2001.¹⁶

In addition to this negative trend, FTEEMPL also displays clear correlation with the macroeconomic cycle. As in the case of the gross domestic product (GDP), this variable displays two clear cycles in the 1990s. It goes up as from 1990, then registers a pronounced fall reaching its lowest point in 1996, goes on to rise once again with the second period of expansion in the decade, but subsequently goes down again as from 1998.

Insert Graph 5

It is important to note, however, that the highest level reached by FTEEMPL in the period of expansion in the early 1990s was registered in the second half of 1992, well before the turning-point in GDP observed at the end of 1994, after the Mexican crisis. Thus, in 1993 and 1994, when the economy was still expanding at a significant rate, the ratio between full-time jobs and the total population was already going down.

Between the high point of 34.14% and the minimum observed in the second half of 1996, FTEEMPL fell by approximately 5.2%. It then recovered by about 2.4%, reaching a new peak in the first quarter of 1998. It should be noted, however, that the latter value is well below the maximum attained in the previous period of expansion.

The subsequent decline went along with the recessionary trend, both in the period of moderate contraction, up to mid-2001, and in the sharp fall in activity that occurred in the second half of 2001. At that moment, towards the end of the convertibility regime, FTEEMPL was 6% below the level it had reached in the first half of 1991.

The ratio between total employment and the population (EMPL) also showed a downward trend in the early 1990s, but this was considerably less pronounced than in the case of FTEEMPL, indicating that the rate of underemployment (involuntary underemployment), SUB, tended to rise in that same period. The increase in SUB became more marked in 1999-2000.

Furthermore, the evolution of SUB was counter-cyclical: it tended to rise when FTEEMPL fell and to fall when the latter rose. As a consequence of this behavior of underemployment, EMPL is less closely linked with the economic cycle than FTEEMPL.

¹⁶ As in Graph 5, in this section we have used half-year periods. Thus, the first half of the year corresponds to the survey carried out in May, while the second half corresponds to that carried out in October, so that 2000:1, for example, stands for the first half of 2000. Furthermore, in most cases in this section the % sign stands for "percentage points of the population". Henceforth, however, whenever there may be any ambiguity, we will use the expression "percentage points of the population" in full when referring to measurements of this nature.

Finally, the rate of participation of the population in the labor force (PART) shows a markedly positive trend, not correlated with the macroeconomic cycle. Starting from around 38% in 1980, it went up to 39% in 1990 and then rose sharply still further, reaching 42.8% in the first half of 2001. Throughout the convertibility period, the trend of PART corresponded to an increase of approximately one percentage point of the urban population every three years. The main reason for this behavior was the sustained increase in female participation in the labor force. This participation is still low in Argentina by international standards.

As a result of the positive trend of PART and the relative stagnation of the employment rate, the unemployment rate (U) rose sharply in the 1990s, with a marked upward jump in the 1992-1995 period (see Graph 6).

Insert Graph 6

The impact of the 2001-2002 crisis caused a further unfavorable jump in these indicators. The urban open unemployment rate rose to a peak of 21.5% in May 2002 but began to go down thereafter. Underemployment, for its part, reached a peak of 19.9% of the economically active population in October 2002 but also went down afterwards when the economic recovery began to take hold.

3. The post-convertibility macroeconomic regime and performance

The Convertibility regime was abandoned in the midst of a chaotic situation. The massive flight to external assets that precipitated the collapse of the regime continued after the devaluation of the peso and the default. The government decided to replace the currency board for a dual exchange rate regime, meanwhile maintaining the exchange controls and the 'corralito'. The foreign exchange (FX) market was split in two segments: an official market for certain trade and financial operations with a fixed nominal parity 40 percent higher than before (1.40 pesos per dollar), and a floating rate market open to the rest of foreign exchange operations. Soon after, the IMF let the new administration know that there would be no negotiations with the country while the dual exchange rate regime and the controls were maintained. Then, the government decided to unify the FX market and let the peso float. Once the local currency started to float, the parity rose abruptly and after a few months reached levels close to 4 pesos per dollar, in an environment of expectations of further increases.

The overshooting led to a rise in local prices. Although the pass-through was low in comparison to other devaluation experiences, four months after the devaluation the CPI inflation had accumulated a 21% increase.¹⁷ This caused an average fall in real wages of almost 18% and a consequent recessionary impulse on aggregate demand.

¹⁷ Several factors contributed to explain the lower pass-through, including the freezing of prices of public utilities (many of them were dollarized and some of them indexed to US inflation, as established in contracts signed in the nineties; thus, the government had to intervene to prevent

Contrary to what was expected, the contractionary balance sheet effect of the devaluation was small, mainly as a consequence of the official intervention. When the FX market was unified and the exchange rate was freed to float, the government decided to convert to pesos most of domestic debts contracted in dollars (bank credits, rents, etc.) at a one-to-one rate, thus neutralizing most of the effects of relative price change on the debtors' balance sheets. In contrast, banks' deposits originally denominated in dollars were 'pesoified' at 1.40 pesos per dollar (plus indexation to the evolution of CPI inflation).¹⁸ Together with the 'pesoification', the authorities unilaterally decided to extend the maturity and duration of all deposits, including those originally contracted in pesos. In exchange, private depositors received certificates for the reprogrammed deposits. This intervention was later known as the 'corralón'.

The dramatic fall in output and employment continued in the period immediately following the end of the convertibility. However, this trend did not last for too long. Only one quarter after the devaluation and the default, the contraction came to a halt and a recovery was already at work. At this time most of the analysts -including the IMF's staff- were expecting a hyperinflation process led by the exchange rate overshooting and the continuation of the contractionary trend.

Since the second quarter of 2002 to mid 2006, GDP has been growing at an 8.3% average annual rate. By mid-2005 it had already surpassed the historical maximum level reached in 1998 (Graph 2).

Domestic factors were the triggers of the economic recovery

It has been assumed in some circles that the recovery was mainly a result of a favorable change in the foreign context, but this is not supported by facts. Evidently, the increase in export prices and the decline in foreign interest rates, for example, have been positive factors only later, contributing to consolidate a very fast economic expansion, but they cannot explain the sudden stop of the economic contraction and the beginning of the recovery early in 2002.

On the one hand, the default on the public debt had isolated Argentina from the international capital markets. Thus, given this "de facto" segmentation, the decline in foreign interest rates could not have had any significant favorable impact¹⁹. It is also worth remembering that the recovery started when net capital inflows were still negative.

the peso devaluation to have a full impact in these prices). Another important buffer was the significant excess supply in the labor and goods markets. On the one hand, the very high unemployment rate weakened any initial wage resistance to the impact of devaluation and, on the other, producers of non-tradable goods and services to the domestic markets found it impossible to pass the cost increases of intermediate goods caused by the devaluation to prices.

¹⁸ Later on, the government issued new debt to compensate the banks for the balance sheet effect of the asymmetric 'pesoification'.

¹⁹ Later on, the improvement in the foreign financial environment would contribute to the acceptance and success of the Argentine proposal of debt restructuring, but this was only in 2004-2005.

On the other hand, neither the evolution of export prices nor the terms of trade can explain the reversion of GDP trend in 2002. As Table 2 shows, the average price of exports was still falling in that year, and it also was considerably lower than the 1997-98 average level, for instance. Moreover, exports at constant prices of 1993 amounted to only about 13% of GDP by the end of 2001; therefore the impact of export price changes on aggregate domestic income was small in any case.

Table 2
Indexes of average export and import prices, and
the terms of trade (2000=100)

Year	Price of exports	Price of imports	Terms of trade
1996	114.9	110.3	104.2
1997	112.0	109.7	102.1
1998	102.0	104.3	97.8
1999	92.2	99.2	92.9
2000	100.0	100.0	100.0
2001	97.9	98.2	99.7
2002	86.1	95.7	89.9
2003	93.6	96.9	96.6
2004	102.6	104.3	98.4
2005(*)	104.2	108.6	95.9

Source: ECLAC.

(*) Authors' estimations based on INDEC.

True, the average price of imports was falling in 2001-2002, but with the huge recession of 1998-2001 imports had plummeted to figures between 9 and 10% of GDP in late 2001. Again, then, the domestic impact of these price changes was considerably small. Furthermore, the table also shows that the terms of trade were actually falling in 2002. They recovered in 2003-2004 but without reaching the 2000 level.

Thus, when the economic recovery ignited, the changes we have just commented on either had the wrong sign or were insignificant to explain the rebound of GDP.

Therefore, it is straightforward to conclude that domestic factors had the main bearing in explaining the 2002 turning point. The recovery was actually bolstered by the shift in the relative prices caused by the devaluation and also by an adequate set of policies that, despite its flaws and ambiguities, nevertheless succeeded in stabilizing the FX market and domestic prices and recuperating the basic macroeconomic equilibria. As we have already mentioned, favorable external conditions, such as high international commodities prices and low international interest rates also contributed to this process, later. In the following subsections we analyze the principal features of the macroeconomic performance of Argentina in the post-convertibility period.

The main characteristics of the economic recovery

The path of economic recovery can be divided in three periods. In the first one, comprising the second and third quarters of 2002, the GDP expansion was relatively weak and rested on the effect of the real depreciation on international trade variables. Domestic absorption (particularly, private consumption and investment) kept on shrinking, as it happened along the previous depression, though at a low pace. Therefore, it was not the aggregate demand that stopped the decline in the activity level. In effect, the ongoing fall in employment and real wages²⁰, the liquidity constraints generated by the 'corralito' and 'corralón', and the high uncertainty on the future values of the principal financial variables imposed important limitations to the recuperation of private expenditures. In this phase, exports but specially import substitution, were the expansive factors: favored by the change in relative prices, the local production started to provide an increasing proportion of aggregate demand.

It is remarkable that this phase started despite the short-term contractionary effects of the depreciation still in motion, while the country was still immersed in a context of accentuated financial instability and political uncertainty. It is especially notable that the recuperation took place while financial variables were still following a critical path. As we will show below, the nominal and real depreciation, the withdrawal of bank deposits, the capital flight, the erosion of international reserves, and the rise in the domestic interest rates were still taking place when the third quarter of 2002 started.

After this short initial stage a second period of the recovery began. Along this phase it was led by the increase in the domestic demand components. The normalization of the behavior of the financial variables along the third quarter of 2002 certainly helped to create a more stable environment, so that the private sector could take advantage of the opportunities provided by the change in relative prices. Domestic absorption would grow at a 12.7% annual rate and would explain more than the entire rise of GDP in this period, extended between the third quarter of 2002 and the second quarter of 2004. On the other hand, net exports started to work as a contractionary force, mainly because of the rapid recuperation of imports but also due to a still weak performance of exports. Private consumption showed an important dynamism, growing at a 9.4% average annual rate and explaining 67.4% of GDP growth in the period.

Several factors accounted for this performance. Among them the launching in the second semester of 2002 of an unemployment subsidy program (the so-called 'Plan Jefas y Jefes de Hogar Desocupados') should be underlined. It provided income to about 1.8 million of beneficiaries (approximately 11% of the active population). Secondly, after an important downturn of around 25%, real wages started to recover since the fourth quarter of 2002, as a consequence of both the deceleration of inflation and the rise in nominal wages. After reaching a peak in April 2002, inflation started to slow down and since the end of that year the monthly inflation rate tended to be lower than 1% for the subsequent two years (see Graph 7). The improvement in nominal

²⁰ Although at much lower pace, both real wages and employment continued to fall during this period.

wages was associated with a rapid fall in unemployment, and was also helped by an official policy consisting in several lump-sum rises in private sector wages determined by decree during 2002-04 (Frenkel, 2004a).

Insert Graph 7

The fall in the unemployment rate was due to the important recuperation in full-time employment favored not only by the economic expansion but also by the real depreciation. As we discuss below, there is significant evidence showing that a depreciated or competitive real exchange rate tends to increase the labor intensity of output, given a certain activity level or growth rate. So, the employment recuperation stimulated private consumption through two effects: on the one hand, by increasing the number of wage earners and, on the other, by contributing to the rise in real wages.

Lastly, it should also be mentioned that the devaluation had a positive wealth effect on private sector's foreign assets holdings. These assets -that nowadays surpass 120 billion dollars for the non-financial private sector- considerably increased their value in relation to domestic goods and assets such as real estate and land.

Investment showed an amazing dynamism, growing at a 40.9% annual rate along this second phase and contributing in 55% to GDP growth. This behavior is in part a result of the gradual normalization of the financial environment. However, it should be stressed that such a recovery took place in a context of accentuated credit rationing, both external and internal. The investment was apparently financed to a great extent by higher profits retained by firms. The 'wealth effect' resulting from the significant external asset holdings of the private resident sector mentioned above, may have contributed as well. This effect is the principal factor behind the rapid expansion of both residential and corporate construction, given the lack of bank credit during this period. The construction activity explained 56% of the increment in investment along this second phase. The other 44% was due to investment in capital goods, especially those imported, which grew 310 percent between the third quarter of 2002 and the second quarter of 2004.

Finally, the effect of net exports on the economic recovery was contractionary in this second period, as we have already mentioned. This basically resulted from the recuperation of imports, which doubled in only seven quarters. The demand for foreign equipment was one of the major elements in this rapid increase, together with intermediate inputs imports. On the other hand, there was a reduction in the exports rate of growth. Despite this behavior of exports and imports, the trade surplus remained close to the high levels generated by the crisis.

From the third quarter of 2004 on, exports started a faster expansion, at a yearly average rate of 11% between that moment and the second quarter of 2006, giving birth to a third phase in the economic recovery process. During this new phase, economic growth maintained momentum, but it rested not only on domestic demand expansion but also on exports dynamism. GDP expansion has been still explained

basically by domestic demand, but the effect of net exports, that had been negative in the previous phase, was close to nil in the latter period, in spite of the fast growing trend of imports. The strategy consisting in preserving a competitive exchange rate is surely a crucial factor behind the improvement in export performance. The lag in the reaction of exports to the new set of relative prices does not differ from other international experiences, such as Brazil after the 1999 devaluation. It seems reasonable that tradable firms required time to take advantage of the competitive RER, in order to re-orient their production and to establish commercialization channels abroad.

In early 2005 the GDP finally surpassed its pre-crisis maximum level, attained in 1998. At the time we write these lines, in late 2006, the activity level keeps on expanding at an impressive speed, between 8 and 9% yearly. It is important to notice that the current process presents significant differences with other economic growth episodes in Argentina's economic history. Among them, and in contrast to the recurrent fiscal and external imbalances of the past, the current macroeconomic configuration stands out with the existence of external and fiscal surpluses, as we show in the next section.

External and fiscal adjustment

The adjustment experienced by the Argentinean external sector in recent years took place to a great extent before the devaluation, as showed in Graph 4, where the improvement in the current account since 1998 can be seen.

Actually, the abrupt economic contraction that characterized the end of the convertibility generated an important trade surplus. The trade balance exhibited a deficit higher than 3 billion dollars in 1998. It rapidly decreased from then on and turned into surplus, due to the reduction in the volume of imports. In 2002 the balance was higher than 17 billion dollars, and remained over 16 billion in 2003 (and over 12 billion in 2004 and 2005). The trade surplus caused the change of sign in the current account balance. In recent years it has shown positive results even taking into account the interests accrued by the debt in default.²¹ In fact, the macroeconomic policy has been facing the problem of sustaining the real exchange parity in order to preserve the incentives to investment in the tradable goods sector in a context of international currency excess supply.

As can be seen in Table 3, a strong adjustment in the public accounts has also taken place together with the external adjustment process we have just mentioned.

²¹ The trade balance and the current account tended to deteriorate during the recent expansion. However, the Graph 4 shows a current account improvement in the 2005-2006 period. This is in part a reflection of accounting procedures: 2005 was the year of the debt restructuring. In the previous periods, after the default, the current account registered interest payments accrued on the defaulted debt but actually not paid. After the restructuring a significant part of these interest payments ceased to be accounted for, replaced by a considerably smaller amount of payments of interest services on the new public bonds.

Table 3
Fiscal adjustment: Results of the Consolidated Public Sector (CPS)
 (as a percentage of GDP)

	Concept	2001	2005	Variation (2005-2001)
National Public Sector (NPS)	Total receipts	18,8	23,8	5,0
	Tax receipts	13,8	19,2	5,3
	Taxes on exports	0,0	2,3	2,3
	Financial tax (*)	1,1	1,5	0,4
	VAT	3,1	3,5	0,4
	Income tax	2,5	3,6	1,1
	Other taxes (**)	5,3	6,7	1,4
	Other receipts	5,0	4,5	-0,5
	Total expenditures	22,0	22,0	0,0
	Primary expenditures	12,1	14,9	2,9
Interest services	3,8	2,4	-1,4	
Primary result	0,5	4,2	3,6	
Total result of the NPS	-3,2	1,8	5,0	
Provinces (***)	-2,4	0,2	2,5	
Total result of the CPS	-5,6	1,9	7,6	

(*) Tax on bank debits and credits.

(**) Includes taxes shared with provinces, which are included as expenditures in the Primary expenditures item as transfers to provinces.

(***) Including the City of Buenos Aires.

Source: Authors' calculations based on Ministry of Economy.

The improvement in the Consolidated Public Sector global result that took place between 2001 and 2005 was equivalent to 7.6 points of GDP. This result passed from a global deficit of 5.6% of GDP in 2001 to a 1.9% surplus in 2005.

Which are the factors explaining the adjustment in the fiscal cash flow results? About a third of it derives from an improvement in the provinces' balances. This improvement comes from the increase in tax collection facilitated by the recovery and the rise in nominal prices, together with the restraint in expenditure. Meanwhile, more than 70% of the five percentage points adjustment in the national public sector's budget is explained by the improvement in the primary result (+3.6% of GDP). The contraction of interest payments, basically resulting from the default of the sovereign debt and the debt restructuring of 2005, accounts for the rest (-1.4% of GDP).

The rise in the national primary surplus is mainly explained by an improvement in tax revenues (+5.3% of GDP). It is interesting to observe that although the receipts from traditional taxes such as the VAT and income tax rose significantly, they did not increase substantially when measured as a proportion of GDP. Between 2001 and 2005 they increased by 1.5% of GDP as a whole. The tax on exports is the item that mostly explains the rise in tax revenues (+2.3% of GDP). The exports of soybean and its derived products generated almost one half of the taxes on exports.

Hence, the public sector absorbed part of the effect of the devaluation on the profitability of the tradable goods sector, and was also benefited by the high prices reached by some of the exportable goods, such as soybean and oil. The tax on

financial operations established in 2001 also contributed to the increase of tax collection (+0.4% of GDP).

The interest payments on the public debt deserve a separate paragraph. As it can be seen in Table 3, this flow passed from representing almost 4% of GDP in 2001 to 2.4% in 2005. However, the fiscal effects of the suspension of part of the debt services payments in the 2001-2004 and the debt restructuring of 2005 are significantly higher than what is shown in the mentioned estimation. It cannot be calculated with precision because a significant amount of new debt was issued after the suspension of debt payments. We have estimated that the amount of interests on the public debt in 2004, the year before the restructuring, valued at the 2004 exchange rate, would have represented in that year between 9 and 11 points of GDP. This is approximately equivalent to one half of the total tax collection of the year. These payments would have been certainly incompatible with the economic recovery and with macroeconomic stability. In effect, a crucial aspect of the fiscal financial vulnerability derived from the extremely high proportion of debt in foreign currency, with the consequent exposure to the impacts of the exchange rate variations. The 2002 substantial exchange rate depreciation would have had a harsh impact on the public sector's financial equilibrium. Taking this aspect into account, it can be said that the payments suspension and the following debt restructuring enabled a considerable amount of fiscal savings -either measured in domestic currency or as a proportion of GDP.

However, the most important effect of the default and the end of the convertibility regime was the effectiveness of the instruments of macroeconomic policy which were of crucial importance to take the economy out of the abyss generated by the final collapse of the convertibility regime.

Debt restructuring and fiscal consolidation

A pivotal step to fiscal consolidation after the crisis was the partial restructuring of the public debt. It involved a significant haircut in the nominal amount of the public financial liabilities, as well as an important reduction in interest rates and a considerable extension of average maturity.²²

A first proposal was made to creditors by the Argentinean government in 2003. The authorities recognized a defaulted debt stock of about 87 billion dollars, to be reduced later to 81.8 billion. This amount left aside an important volume of past due interests.²³ In the restructuring proposal, a 75% reduction was proposed on the amount of eligible debt. The issuing of three bonds called Par, quasi-Par and Discount was announced. It was established that the issuing date would be December 31, 2003 and

²² These issues are extensively discussed in Damill, Frenkel and Rapetti (2005).

²³ This set of obligations was denominated the 'eligible debt'. It consisted of 158 instruments, issued in 7 different currencies (Argentinean peso, inflation-adjusted Argentinean peso, US dollar, euro, yen, sterling pound and Swiss franc) and 8 jurisdictions (Argentina, United States, Great Britain, Japan, Germany, Italy, Spain and Switzerland).

that the bonds would accrue interests since then.²⁴ The offer included a coupon tied to GDP growth. It was announced that the Par and Discount bonds could be issued in inflation-adjusted pesos, US dollars, euros and yens. The quasi-Par bond -tailored to the needs of some domestic bondholders, pension funds in particular- was exclusively issued in inflation-adjusted pesos. The government announced that in order to guarantee the offer's financial consistency it would commit to maintain a 2.7 points of GDP primary surplus target during the first 5 years –when the service of the post default issued debt is concentrated- and stabilize the primary surplus at around 2.3% of GDP from 2014 on. The bondholder's organizations rejected the proposal, claiming that the country should pay more than what was offered. By mid-2004 the financial analyses showed that the new offered debt value, including the coupons tied to the GDP-growth, was between 20 and 27 cents. This signified a present value reduction of about 73% to 80%, which was considered unacceptable by the market's participants. The discount rate used in these calculations was crucial. Most of the analysts considered reasonable to use the yield of assets of similar-risk emerging market countries, which at that moment was around 12 to 14%.²⁵

By late 2004 the international capital markets evolution unexpectedly started to play in favor of the Argentinean offer. The world liquidity stimulated the appetite for risk, which turned into an increasing demand for emerging markets debt and into a reduction of the developing countries' risk premium.²⁶ In this new context, the swap looked more attractive. The present value of the offered bonds calculated with the discount rate settled by the new financial conditions (for instance 10%, the Brazilian debt yield) was between 30 and 35 cents. This present value represented a 65-70% cut and was similar to the market price of the defaulted bonds.²⁷

The swap finally started on January 14, 2005. As minister Lavagna said, 'the moment has come for the markets to talk'. Six weeks later the restructuring operation was closed. On May 3, 2005, the government announced that the acceptance rate had reached 76.15% of the debt in default. This meant that 62.3 billion dollars of the old bonds would be exchanged for about 35.3 billion dollars of new instruments plus the corresponding GDP growth-linked coupons. The maximum amount of the issuing would be 15 billion dollars in the case of the Par bonds, 8.33 billion dollars in the case of the quasi-Par bonds and about 11.9 billion dollars in the case of the Discount bonds. The

²⁴ This issuing date enabled interest payments immediately after the closing of the swap. This aimed at including a sweetener in the proposal to incentive the bondholders' participation.

²⁵ Brazil's debt was commonly used as a benchmark. Its yield then oscillated around 12%. The debt of Ecuador, a country that had recently restructured its external liabilities, yielded a rate close to 14%. High yields were consequence of the unfavorable funding conditions that the developing countries faced at that time. The JP Morgan EMBI+ index, which measures the emergent market risk weighted average, showed an average value of 502 basic points in May-June. In the same period Brazil's country risk-premium averaged 691 basic points.

²⁶ The EMBI+ index decreased to an average of 375 basic points in the last quarter of the year, whereas the Brazilian country risk-premium fell down to 417 basic points. The yield of Brazilian debt was about 9-10% and the yield of Ecuador bonds was about 11-12%.

²⁷ Some financial analysts opined that lower discount rates should be used, since after the restructuring, the Argentinean debt would turn out to be less risky than many of the countries' debts used as a benchmark for the calculation.

government expressed satisfaction for the swap outcome. The operation signified the reduction in the public debt stock by about 67.3 billion dollars and attenuated the exposure of the public finances to the exchange risk, since around 44% of the new bonds are denominated in local currency.

By the end of the same year the government decided to pay back ahead of schedule the whole outstanding debt to the IMF by a payment close to 10 billion dollars. We have made above several references to the role of the IMF at different moments, before and after the crisis. A closer look at the problematic relationships between the Argentinean government and the Fund is taken below, after examining the monetary and exchange rate policies.

The evolution of monetary and exchange rate policies

The weakening in the demand for local assets that would lead to the 2001-2002 crisis began in mid-1998. This process took place simultaneously with a persistent rise of the country risk premium. However, the divergent trends in the domestic financial market that triggered the collapse of the convertibility regime only started in October 2000, associated with the political turmoil caused by the Vice-President's resignation. The process followed simple dynamics. Devaluation expectations and the perception of a higher risk of default led the public to withdraw deposits and ran against the international reserves. There were no bankruptcy reports of failing banks because the central bank supported the liquidity of the banking system. As we mentioned in the first section, despite several signals issued by the government aiming at changing the expectations, the intensification of this process could not be stopped. Thus, in the beginning of December 2001 restrictions on capital outflows together with the 'corralito' were established.

After the abandonment of the Convertibility regime, the government aimed to restrain the capital flight and stabilize the markets by introducing a dual exchange rate regime.

As we have explained above, the original idea was to use this scheme only temporarily, in order to stabilize the nominal exchange rate while the domestic prices absorbed the impact of the devaluation, and then pass to a floating rate regime. After the decision to unify the FX market and to let the peso to float, the price of the dollar skyrocketed, fed by self-fulfilling expectations. It should be noticed that this process developed in an illiquid environment because of the 'corralito' and the 'corralón'. However, the restriction on the withdrawal of cash from banks was not complete; some relaxations were introduced during January and February 2002. Besides, some additional liquidity was generated as a result of judicial decisions. In effect, a relevant portion of private savers, affected by the 'pesoification' and maturity extension of bank deposits, initiated judicial injunctions ('amparos'), asking for the reimbursement of their original bank deposits in dollars. Several judges ruled the 'pesoification' unconstitutional and demanded the banks to release the funds. Reimbursements of the

funds originally deposited in dollars were made in pesos at the current exchange rate. With the pesos in their hands, people went to the FX market to demand dollars.

It should also be mentioned that an erratic monetary policy implemented in the first quarter of 2002 did not help to revert the above-mentioned critical trends in the financial system. It was especially questionable that the government delayed the launching of a domestic asset that could perform as a potential substitute for dollars. Given the distrust in banks and in the Treasury, the economic depression and the growing inflation, the international currency appeared as the only asset available to allocate financial assets. It was only two and half months after the devaluation that the central bank started to issue papers (the Lebac –“Letras del Banco Central”) in order to supply a financial instrument that could compete with the dollar.

All the mentioned elements contributed to deepen the perverse dynamic of the financial variables during the first semester of 2002. The capital flight from domestic assets between March 2001 and mid-2002 is described in Graph 8. It can be seen that there is a significant fall in private bank deposits²⁸ and the nominal demand for cash is stagnant, while the international reserves are substantially dropping. These developments provide evidence for the substitution of local assets (cash and deposits) in exchange for external assets (international reserves).

Insert Graph 8

The result of the asset substitution affected the FX market. The nominal (NER) and real exchange rate (RER) rose continuously along the first semester of 2002 (around 260% and 180%, respectively). Their paths are shown in Graph 9. The real exchange rate overshooting was so pronounced that in June 2002 its value was almost 50% weaker than the 1980/2001-period average value, and 68% weaker than the convertibility decade average.

Insert Graph 9

The critical trends began to revert in July 2002. The turning point was the FX market stabilization (see Graph 9). This was the result of several factors. Controls on foreign exchange transactions had been introduced in November 2001, before the convertibility collapse (including the obligation to surrender the proceeds from exports in the local FX market), and then tightened in March 2002. But it was only since early June 2002, after Roberto Lavagna took office as Minister of Economy, that the implementation of controls was strengthened and the interventions in the exchange market were reinforced, in order to conduct a systematic policy intended to stabilize the

²⁸ Graph 8 shows a ‘jump’ in the private bank deposit series in January 2002. It reflects the accounting effect of the ‘pesoification’ at 1.40 pesos per dollar of deposits issued in foreign currencies, previously valued at a \$/U\$S 1 rate. If we put this mere accounting effect aside, it is easy to see the drop in deposits.

foreign exchange market. The decision that dollar export revenues surpassing US\$ 1 million had to be sold directly to the central bank was especially important in this regard²⁹. This became the main source of dollars for the monetary authority, which permitted to increase the volume of its interventions in the foreign exchange market.

Limiting the peso outflow from the banks also helped to restrict the demand for foreign currency. In April 2002, the Congress approved the so-called “Ley Tapón” to ease the pressure resulting from the ‘amparos’. The law modified court procedures and stated that depositors would be allowed to access the funds only after the judicial process was concluded; in the meantime the funds had to be deposited in an escrow account (thus preserving the liquidity of the banking system). However, the law did not completely succeed in stopping the outflow from banks. It continued until July 2002, when the government issued a decree preventing reimbursement of deposits stipulated by the ‘amparos’ for 120 days.

Finally, the local financial market behavior itself contributed to stop the bubble in the exchange rate. On the one hand, local interest rates skyrocketed (see Graph 10). In July 2002, the average time deposits interest rate reached a 76% peak, and the interest rate of the 14-day Lebac reached almost 115%. Thus local financial assets began to appear more attractive as substitutes for the dollar. On the other hand, as we mentioned above, the real price of the dollar reached very high and ‘abnormal’ levels in historical terms (i.e. the prices in dollars of domestic assets, non-tradable goods and salaries were perceived as abnormally low). In this context, once the authorities managed to stop the exchange rate bubble in July, the public rapidly changed expectations and the market started to show an appreciation trend.

Insert Graph 10

In the second half of 2002 a phase of monetary and financial variables normalization started. After reaching a peak of almost four pesos per dollar during the last days of June, the exchange rate began to experience a smooth nominal appreciation trend. Although the inflation rate was already low and decelerating, the rise in domestic prices contributed to the real appreciation. In that context, local assets became increasingly attractive. Bank deposits began to grow, as also did the demand for Lebac, local shares and the demand for cash (Graph 8). This portfolio substitution in favor of local assets resulted in a persistent drop in the interest rates (Graph 10).

The financial activity normalization dissipated disrupting expectations and thus allowed the above commented second-phase economic recovery, based on the domestic expenditure expansion. Interestingly, the recuperation of private expenditure during this phase took place without significant contribution from banks’ credits. Even

²⁹ The limit for exports surrender then underwent several additional modifications, reducing the minimum to U\$S 200,000 in September 2002. With the normalization of the FX market, the authorities gradually started to raise the limit.

though, the recovery in private deposits allowed the recuperation of banks' liquidity, bank credit to private sector continued shrinking until late 2003 (see Graph 11).

Insert Graph 11

In this context, domestic expenditure was mainly financed by private sector savings primarily held in cash. Graph 12 shows the increase in cash holdings since the fourth quarter of 2001. Both the monetary base/GDP ratio and the monetary base/total bank deposit ratio showed very high rates of growth and also relatively high levels in comparison to the convertibility period. Although the low interest rates on banks' deposits (and the tax on financial transactions) have contributed to that performance, this behavior seems to be mainly a persistent consequence of the financial crisis.

Insert Graph 12

The nominal and real appreciation process stopped around mid-2003. This was mainly the result of a deliberate policy decision. The preservation of a stable and competitive real exchange rate (SCRER) was gaining relevance in the official policy orientation. Nestor Kirchner assumed as President in May 2003 and decided to maintain Lavagna as Minister of Economy. After a few months, both Kirchner and Lavagna started to make explicit reference to the importance of preserving a SCRER in the official economic strategy. Although the announcements did not identify a specific policy target, the government – meaning both the central bank and the Treasury-operations in the FX market actually controlled the price of the dollar in a range between \$ 2.8 and \$ 3.10. This exchange rate policy has been conducted together with a monetary policy based on quantitative monetary targets, which started in 2003. From then on, targets have been announced at the beginning of every year throughout the central bank monetary programs, in which the authorities commit themselves to maintain monetary aggregates within a certain range.

In 2003 the Central Bank started to face more openly the situation of dealing with two 'potential' conflicting objectives: the preservation of a competitive exchange rate by intervening in the FX market and at the same time the attainment of the strict monetary expansion targets announced in the monetary program.

Table 4 shows the sources of variation of the monetary base. It can be seen that after a rapid growth in the monetary base during the second semester 2002, it follows a gradual deceleration in the following three years, particularly accentuated in 2005. The table also shows the increasing intervention in the FX market to preserve the exchange rate target.

Table 4
Sources of variation of the monetary base

(Monthly average variation, in millions of pesos and dollars)

	Operations with the Treasury	Assistance to Banks	Central Bank FX Intervention	Lebac	Others	Monetary Base Variation	Treasury FX intervention (1)
2002: 01 (2)	124	1.426	-1.450	-216	522	406	n/a
2002: 02 (3)	250	86	1.281	-270	327	1.674	n/a
2003	-52	-125	1.374	-420	32	809	28
2004	-543	-601	1.931	-323	19	483	112
2005	-353	-939	2.352	-836	-39	186	343

(1) In Millions of dollars.

(2) Calculated for the period February-June 2002.

(3) It is omitted a cancellation of a Banco Nación rediscount by the Treasury with assistance of the central bank in September 2002 for about \$ 3,500 millions.

Source: Authors' calculation based on Central Bank.

The conjunction of an increasing money creation caused by the interventions in the FX market and a decelerating monetary base growth was made possible throughout several mechanisms. Along 2003, the sterilization operations implemented by the issuing of central bank letters (Lebac) and notes (Nobac) were especially relevant.

The need for sterilization increased during 2004 and 2005. The central bank could limit the issuing of Lebac and Nobac because other compensatory mechanisms began to operate. In the first place, as liquidity grew the banks started to service the debt incurred with central bank during the financial crisis. Hence, banks capital payments and especially the payment of interests operated as a source of contraction of the monetary base. In 2005, the central bank launched a program allowing the acceleration of banks' debts amortizations, reinforcing this contractionary mechanism.

The Treasury also helped to absorb the 'excess' of monetary expansion caused by central bank's interventions in the FX market. While in 2002 a net flow of financing to the Treasury was observed, from the beginning of 2003 and especially in 2004, the transactions between the Treasury and the central bank operated as a source of contraction of the monetary base. Purchases of international reserves from the Central Bank with the proceeds of the fiscal surplus gave place to a monthly average monetary contraction of \$ 543 millions in 2005. The main purpose of these operations was to continue servicing of the debt with the multilateral financial institutions. However, the Treasury also intervened in the exchange market with the explicit purpose of preserving the real exchange rate level and to help management of the monetary base. The government, through the Banco Nación, intervened actively in the FX market. These operations started in 2002 and gradually expanded afterwards, thus becoming an important policy instrument. In effect, during 2005 the Treasury bought an average of 343 millions dollars per month.

In order to soften the appreciation pressures in the FX market and thus alleviate the central bank's intervention needs, controls on the capital account were introduced in June 2005. Basically, the new measures established that all capital inflows –

excluding the issuing of new private and public debt, international trade financing and foreign direct investment- would be subject to a 30% unremunerated reserve requirement for at least 365 days³⁰. This strategy is inspired by that applied in Chile in the 90's and attempts to reduce short-term capital inflows. However, the controls left open ways to avoid the reserve requirements. There has been no evidence of a reduction in the supply of dollars in the FX market after the measures were implemented. For instance, capital inflows can easily circumvent the reserve requirement by operating through the stock exchange market (by buying domestic assets abroad and selling them in the local market). Local analysts believe that controls are ineffective and even the authorities do not reject the idea that they were introduced more as a signal of the official willingness to maintaining the SCRER strategy rather than as an effective control mechanism.

Argentina, the IMF and degrees of policy freedom

It is at first sight striking that the crisis and the massive default took place in a country that for a long time was considered an example of the Washington Consensus success. Almost until the end of the nineties, the IMF and most of the financial market's analysts considered the Argentinean experience as one of the success stories of macroeconomic policy and structural reforms in the financial globalization context.

The default in Argentina took place one year after the IMF gave considerable support to sustain the convertibility program in crisis. In August 2001, four months before the default, the IMF expanded by 8 billion dollars the current standby program and made a further disbursement. At that moment the crisis was at its peak. The devaluation and default were openly discussed (particularly in financial and academic settings in the United States) and there was a widespread opinion that the debt and the convertibility regime were not sustainable.

Assistance to Argentina was the last rescue package approved by the IMF during the period of the Democrat's administration in the United States. All of the circumstances converged to make it an exemplary case for the critics of the IMF administration.

The program openly showed weak flanks susceptible to criticism from its very conception. It did not involve any substantial change in the current macroeconomic policy. In particular, the exchange rate regime was preserved. Besides the undeniable complexity and the difficulties that a regime change would have implicated, there was a complete lack of willingness to modify it among the authorities. Furthermore, from the IMF's perspective, the preservation of the regime was consistent with the systematic support of the exchange rate regime that the organization had provided throughout the nineties. The Argentinean currency board regime was usually mentioned as an

³⁰ See Borzel (2005) for details.

example of a feasible “corner solution” for the exchange rate policy in an emerging market country (Fischer, 2001).

The program aimed at recovering confidence through a commitment to fiscal austerity measures. The accomplishment of these measures was unlikely and its effects were doubtful. In the middle of the crisis, the recession and the liquidity crunch made, to a great extent, endogenous the fiscal account deterioration. It was implausible that the issuing of fiscal signals would be sufficient to stop the critical trends. In brief, from the moment the program was approved, and even more so in August 2001—when the program was extended—there was good reasons to think that the multilateral resources would end up funding payments to the private creditors and capital flights, without being able to stop the crisis and prevent the default. And that is exactly what happened. Certainly, some of the characteristics of the rescue packages that were at the center of its criticisms were clearly observable in the support given to Argentina.

After the changes in the head of the organization that followed the Republican take over of the US administration, the relationship of the IMF to Argentina was used as a significant example of the problems with the previous management. The issue was important enough to carry out a special investigation by the Independent Evaluation Office (IEO, 2004).

The relationship between the IMF and Argentina after the devaluation and the default is marked by that story in a curious way. Actually, the IMF's support was absent precisely when it would have been more necessary: in the period after the devaluation, when efforts to stabilize the economy were at the center of the economic policy.

Although the new management's criticisms regarding the support given by the IMF to the convertibility regime were justified, this did not provide any reason for not supporting the post-devaluation stabilization efforts. On the contrary, the self-criticism of the IMF implies an acknowledgement of its own part of the responsibility for the crisis. Therefore, the organization should have been even more committed to the stabilization attempts.

With new authorities in both the institution and the country, at least a cooperative attitude by the organization might have been expected. Yet, the institution's orientation was precisely the opposite. There was an extremely reticent attitude. The negotiations were centered on only one substantial matter: the Argentinean payments to the IMF.

The role the IMF played in the stabilization and the recovery of the economy in crisis was actually very negative. Mention should be made, for example, of its positions regarding the exchange rate policy. In February 2002, in a context of high political fragility, the IMF staff exerted pressures for the modification of the exchange rate policy adopted by the country after the exit of the convertibility regime (it was a fixed exchange rate system with controls on the purchases of international currency). This system was explicitly set up as a transitory one, intended to stabilize the nominal exchange rate while the domestic prices absorbed the impact of the devaluation. A flexible exchange rate would be established later. The IMF demanded the immediate

pure flotation of the exchange rate, threatening to forgo negotiations with Argentina while the exchange controls were in place. The measure demanded by the IMF was put into effect. It was followed by an abrupt rise in the price of the dollar, as it was clearly predictable, and a fast acceleration of inflation. The country got nothing in exchange for that “prior action.”

Soon after, the recently designated Minister Lavagna implemented a new stabilization program that preserved the flotation but introduced interventions in the exchange market, and reinforced some exchange controls aiming at stabilizing the exchange rate. This policy also faced the opposition of the IMF, though in this situation the demands of the institution were not satisfied. The interventions and the control measures that were implemented, in spite of the opposition of the Fund's staff, turned out to be crucial for exchange rate and inflation stabilization.

Another example of the negative role of the IMF is the orientation that it tried to impose on bank crisis management. Since the Minister Lavagna took over, the government looked for a gradual exit from the crisis, favoring the generation of voluntary options for the savers and avoiding new shocks to the system. Confronting this orientation, IMF staff promoted heroic “solutions” with uncertain outcomes (banks liquidations, the restructuring of the public banks, etc.). This issue derived into an open conflict between the government and the Fund's staff that resulted in the creation of an arbitrating commission mainly composed of former presidents of European countries central bank's former presidents.

The government did not satisfy the main demands of the IMF regarding the management of the banking crisis. It persisted in its orientation, which ended up showing success when the exchange market stabilized and an incipient recovery of the economic activity helped to induce greater confidence among savers. The crisis could be managed without ulterior disruptions in a context of gradual growth in bank deposits.

The two mentioned examples indicate that the Fund's staff operated in that phase with the diagnosis that the exchange market could not be stabilized, that a hyperinflationary process was unavoidable and that it would be impossible to reestablish some degree of financial intermediation in domestic currency in the near future. The staff publicly acknowledged their diagnostic mistake later on (see below). It is clear that had the economic policy followed the orientation that the IMF wanted, the evolution of the economy would have been more in line with what the IMF expected. The implementation of the measures promoted by the IMF would have transformed its implicit diagnosis in a self-fulfilling prophecy.

The IMF sustained a negative attitude towards Argentina for a long time. In the second semester of 2002 the exchange market and the prices stabilized, and the data of the activity level and the external sector performance started to show positive outcomes. IMF staff did not waste any occasion to make public its disbelief regarding the sustainability of the stabilization and the recovery of the activity and employment levels. It wasn't until May 2003 that the Deputy Managing Director publicly confessed to

having failed in her diagnosis and manifested having been surprised by the quick economic recovery and by the fact that there was no hyperinflation³¹.

The IMF continuously maintained its opposition to the Central Bank interventions in the exchange market, also after mid-2002, when the market started to show excess supply of international currency and the interventions attempted to avoid the fall in the price of the dollar. Although the agreement signed in 2002 did not preclude the Central Bank interventions in the exchange market, it included an extremely restrictive monetary target. The monetary base had to be maintained constant in nominal terms from the beginning to the end of 2003. Coming from a highly demonetized situation, with the economy showing a rapid recovery in the activity level, the accomplishment of the hard monetary target would have imposed serious difficulties to the normalization process. In early 2003 the Central Bank had not yet started to implement substantial sterilization operations and its interventions in the exchange market were still timid and hesitant. The Central Bank authorities felt themselves trapped in a conflict between the preservation of the exchange rate and the accomplishment of the monetary target. Finally, the monetary target was renegotiated in mid-2003 allowing a higher expansion of the monetary base. The example shows that the IMF orientation has always had practical consequences in the formulation of the economic policy and that the authorities permanently had to confront the staff in order to defend their diagnosis and preserve their degrees of freedom.

The 2002 and 2003 agreements were signed in that high conflictive context in the relationship between the Argentinean government and the IMF. Given the attitude of the latter, political influences were crucial, especially the favorable position of the United States. In September 2003 a three-year agreement was signed, intended to refinance the amortizations of the debt with the institution. The refunding mechanism consisted in crediting new funds for the equivalent amount of the capital amortizations. This “fresh funding” was subjected to the usual terms of conditionality.

The terms of conditionality were established for the first year. The terms corresponding to the following two years were left to be defined in future negotiations. The most important of the committed targets was the magnitude of the consolidated fiscal primary surplus. A 3% of GDP was determined only for the first year of the agreement because the government resisted the pressure to commit increasing targets for the following years. Other important targets included in the agreement were the redefinition of concessionary contracts of public services and the establishment of new regulations on public utilities (privatized in the nineties), the establishment of new measures tending to reinforce the financial system and the approval of a law on fiscal revenue distribution between the Nation and the provincial governments. Conditionality also included a clause under which the country committed to good faith in the treatment of private external creditors. The ambiguity of the term left the IMF a great margin of discretion in the evaluation of the accomplishment of this clause.

³¹ Public comments by Anne Krueger, Deputy Managing Director of the IMF on May 2003. *Diario Clarín* May 7, 2003.

One year later Argentina had comfortably fulfilled its quantitative fiscal and monetary targets, but not the qualitative conditions. Probably, the most significant target not fulfilled was the finalization of the renegotiation of the contracts and the establishment of a new regulatory frame for the privatized public utilities.

By the time the IMF had to evaluate the fulfillment of the conditionality clauses the country was presenting the debt restructuring proposal and organizing the swap. The relationship between Argentina and the Fund then reached an impasse, the foundations of which we comment next.

The IMF could have terminated the agreement, justifying the decision by the non-fulfillment of the qualitative targets or by resolving that Argentina did not negotiate in good faith with the creditors. That would have signified a serious negative shock for a country in the middle of the debt restructuring process. Nevertheless, in those circumstances, the IMF would have also placed itself in a difficult position. Argentina still was one of the big debtors of the institution and there was a chance that the country would stop giving seniority to the multilateral debt and suspend payments. This would have generated a complex international problem. Furthermore, the interpretation that the IMF was interfering in the country's negotiation with the bondholders could have not been avoided, in contradiction with the doctrine saying that these matters should be solved by the parties involved without the IMF's intervention—this argument was particularly emphasized by the United States.

The impasse was overcome through the suspension of the program. Following a request from Argentina, the program was suspended until the beginning of 2005. Since the suspension Argentina paid to the Fund all the interests and the amortizations that could not technically be postponed. They also asked for and obtained the postponement of the payments that did have this possibility. Moreover, some minor capital payments were made which postponement could have been required. The Argentinean government did so to avoid the board's discussion of the Argentinean case before the swap was finished. In the period 2002-2004 the country made net capital payments to the IMF for more than 2.1 billion dollars, together with another 1.9 billion dollars in interests.

After the debt swap, Argentina restarted the negotiations with the IMF with the advantage of a high proportion of acceptance of the swap (76.15%). The figure was not only relevant because it legitimized the operation. New actors and elements emerged after the episode such as the new bonds' quotations and the voices of the financial markets. After the swap Argentina brought to its side an important number of bondholders interested in a cooperative attitude of the IMF contributing to improve the new bonds' market valuation.

However, the IMF faced the Argentinean requirement from the point of view of its institutional logic. In this logic, the refinancing of the country's debt involved the approval of new loans. Actually, the purpose of these loans would have been to provide support to a fiscal financial program based on an autonomous strategic decision of the Argentinean government in which the IMF had not had any participation. Consequently,

the acceptance of the Argentinean demand would have meant that the IMF was forced to accept an important innovation.

The conflicts involved in the treatment of the Argentinean case were exacerbated by the special circumstances that the institution was going through.

The role that the IMF played in the Argentinean sovereign debt restructuring was at the antipodes of the crucial role delineated in the initiative proposed by Anne Krueger at the beginning of her mandate.

From the beginning of the eighties, the IMF actively participated in the restructurings of sovereign debts with the private sector. Regarding this tradition, Ms. Krueger's Sovereign Debt Restructuring Mechanism (SDRM) initiative seems to have been an attempt to delineate more precisely, formalize and strengthen this function of the IMF. After Wall Street and the United States government rejected the SDRM initiative, the role of the institution in cases of sovereign debt default remained undefined. The US government rejection not only frustrated the IMF initiative but also ended up questioning the very participation of the IMF and the commitment of multilateral funds in the restructuring of debts with the private sector.

Nowadays, the functions of the IMF in the international financial system are probably more undefined than ever before and the institution lacks precise orientation. No new function replaced the role of "financial globalization central bank" to which its performance got close in the nineties. On the other hand, the burial of the SDRM initiative was a hard negative shock to the aspiration of a new role for the institution, and nothing came in replacement.

From the point of view of its objectives as a multilateral financial institution, there is no doubt that the IMF should have given positive answers to the country's demands and contribute to its normalization. However, from the point of view of the institution as a bureaucratic organization with its own interests, the agreement with Argentina implied the formal acknowledgement of a much less important role than the one played in the past.

Thus, the difficult negotiations that the country and the IMF maintained throughout the rest of 2005, after the debt swap, did not arrive to a new agreement. The government resolved to keep paying all the interests and the amortizations that could not technically be postponed during that year, to finally adopt the decision to pay back ahead of schedule all obligations to the institution, which was done at the beginning of 2006.

The preservation of a competitive real exchange rate

As we have just explained, since mid-2002 – with a clearer definition from mid-2003 - Argentina has been implementing a managed floating exchange rate regime. We will focus now on this aspect of the current policy setting.

It has been pointed out above that the regime includes a de facto target of preserving a competitive real exchange rate. Although the managed floating is

implemented by the majority of developing countries adopting floating exchange regimes, it has not been well documented and analyzed (Bofinger and Wollmerhäuser, 2003; Canales-Kriljenko, 2003). In spite of that lack of analysis and debate, the managed floating regime is frequently criticized and objected from orthodox theoretical perspectives.

Before considering the most important orthodox objections it is worth mentioning in the first place that a relatively stable real exchange rate target does not attract too much criticism by itself. Few people in both the mainstream and heterodox thinking deny the beneficial aspects of stable and predictable relative prices and the positive development role of competitive exchange rates (Frenkel, 2004b; Frenkel and Taylor, 2005). In some cases, welfare arguments against public intervention in the FX market are raised. But the optimality of the free market determination of the exchange rate and the argument that the public sector has no informational advantage over the private sector are not very appealing ideas in the specialized discussion about exchange rate regimes and policies. The apparent volatility of capital flows and the instability and unpredictability of free-floating exchange rates greatly lessen the relevance of those ideas (Frankel and Rose, 1995). Moreover, the free-floating exchange rate indeterminacy and unpredictability is precisely the deeper foundation of both the need for managing the exchange rate and the government ability to do it (Blecker, 2005; Taylor, 2004, chapter 10). This is particularly true in countries in which the real exchange rate plays a crucial role in the economic performance.

Most of the orthodox objections are based on the so-called trilemma of the economy open to capital flows. It says that it is impossible for a country to simultaneously maintain free capital flows, active monetary policy and the ability to control the exchange rate. One of these features must necessarily be given up. In other words, the trilemma says that in an economy open to capital flows it is impossible for the authorities to simultaneously control the exchange rate and the interest rate (or the monetary base).

As was presented in the Argentine debate, one way to express the orthodox argument is the following. Targeting the exchange rate implies a central bank intervention in the foreign exchange market. In doing so, it is argued, the central bank loses its ability to control the money supply. So, targeting the exchange rate and controlling the money supply can be simultaneously pursued only if capital flows are regulated (the trilemma). However, the regulation of capital flows is undesirable and probably ineffective, because the private sector innovative capacity is greater than the public sector regulatory ability. The orthodox conclusion is that central banks have to avoid intervening in the exchange market.

Another way to reach the same conclusion is by focusing the argument on controlling inflation (as was also presented in the Argentine debate). If the interventions in the exchange market target the real exchange rate (instead of the nominal exchange rate), no nominal anchor remains for the public to configure inflationary expectations.

Since the central bank cannot control the money supply, the inflation rate is completely out of control.

The most important point that has to be made about the trilemma is that it is invalid in some contexts and, consequently, it is false as a general theorem characterizing the performance of economies open to capital flows. For instance, in a balance of payments surplus setting, the Central Bank can control the exchange rate by purchasing all the excess supply of international currency in the exchange market and sterilize the monetary effect of that intervention through the issuing of Central Bank bonds in the monetary market, without changing the local interest rate. The Central Bank has two available instruments to perform its two targets: the intervention in the exchange market to control the exchange rate and the intervention in the money market to control the interest rate.

The excess supply of international currency, at the exchange rate targeted by the Central Bank, implies an excess demand for domestic assets at the prevailing domestic interest rate. The fully sterilized intervention in the exchange market can be imagined as a policy implemented in two steps. In the first step, before sterilization, the Central Bank intervention generates a monetary base expansion. The resulting situation would show a higher amount of monetary base, the same amount of domestic bonds and an interest rate lower than the initial one. In the second step, the full sterilization fully compensates for the change in the private portfolio that took place in the first step. The Central Bank absorbs the increment in the monetary base and issues an amount of domestic assets equal to the initial excess demand for domestic assets (the excess supply of international currency) turning the domestic interest rate to its previous level (Bofinger and Wollmerhäuser, 2003)

The crucial element in the above mentioned Central Bank ability to simultaneously control the exchange rate and the interest rate is the existence of an excess supply of international currency at the targeted exchange rate. This is the setting that makes the trilemma invalid. It seems that this simple idea is not generally acknowledged because the literature discussing monetary autonomy and exchange regimes rarely considers situations of excess supply of international currency because it is mostly focused on balance of payments deficit situations (see, for instance, Canales-Kriljenko, 2003).

Certainly, in balance of payments deficit contexts, the trilemma is generally valid. In conditions of excess demand for international currency even powerful central banks have a limited capacity of intervention in the exchange market. This limit is determined by the availability of international reserves. Consequently, even powerful central banks cannot simultaneously control the exchange rate and the interest rate in contexts of excess demand for international currency. But there is no symmetry between balance of payments deficit and surplus situations. In the first case the trilemma is valid while it is invalid in the second case.

Can the fully sterilized exchange market interventions policy be sustained in the long run? To be sustainable, the mentioned policy has to fulfill a consistency condition:

the net liabilities of the Central Bank should not follow an explosive trend. The time-consistency of the policy depends on the magnitudes of the international and the domestic interest rates and on the rate of variation of the nominal exchange rate. Taken as given the international interest rate and the trend of the nominal exchange rate, the time-consistency condition depends on the domestic interest rate. The Central Bank enjoys autonomy to determine the domestic interest rate, but in order to be sustainable the policy must determine domestic interest rates lower than a certain upper limit.

The sterilization cost is a flow proportional to the difference between the domestic interest rate, on the one hand, and the international interest rate plus the rate of growth of the nominal exchange rate, on the other hand. The fulfillment of the time-consistency condition does not require the sterilization cost to be nil. The condition stipulates that the cumulative sterilization cost should be bounded and manageable. The crucial point is that the policy is sustainable only if the domestic interest rates set by the Central Bank are “moderate” (in the mentioned sense)

The Argentine Central Bank implements a “*de facto*” exchange and monetary regime that is different from its “*de jure*” regime. With regard to the interventions in the exchange market, the Central Bank “*de jure*” target is the accumulation of international reserves. Although the preservation of a competitive real exchange rate is a central element of the government economic policy, the Central Bank does not make any reference to the existence of a real exchange rate target, neither in the short run or in the long run. However, in the recent years the interventions in the exchange market have maintained a more or less stable multilateral exchange rate. The Central Bank implements a “*de facto*” managed floating policy intended to maintain a competitive real exchange rate. Simultaneously, the Central Bank has preserved its control of the monetary variables by implementing different forms of sterilization. The evolution and prospects of the Central Bank balance sheet does not show sustainability problems regarding the sterilization policy. On the other hand, the current account surplus and the robustness of the fiscal accounts do not question the sustainability of the exchange and monetary policies. Consequently, the financial investors, who normally give more importance to the implemented policies than to the formal announcements, have “disconnected” their exchange rate expectations from the monetary policy. The financial investors believe that the Central Bank can control the exchange rate without losing control on the monetary variables.

As from 2005 the “*de jure*” monetary policy consists in targeting an annual rate of expansion of a monetary aggregate (M2). More precisely, before the beginning of the year a relatively broad interval of M2 rates of growth, with a maximum and a minimum, is announced as the target for the next year. The short run interest rate is not a policy instrument in the “*de jure*” regime. However, the Central Bank actually controls the interest rate throughout a number of intervention instruments in the monetary market.

The duality of “*de jure*” and “*de facto*” regimes has different consequences for the exchange and monetary policies. The reserves accumulation “*de jure*” target does not conflict with the “*de facto*” exchange rate target. So, the duality does not generate problems in this policy area. (Although for development fostering objectives it would be better that the government and the Central Bank had an explicit and unique orientation about the long run targeting of a competitive exchange rate). But in the monetary policy area the duality of regimes could be problematic. As was mentioned above, the sustainability of the sterilization policy depends on the domestic interest rate. The policy is sustainable if the interest rate is lower than a certain upper limit. With the “*de jure*” commitment of a M2 intermediate target the monetary policy is over determined and a conflict could emerge between the accomplishment of the monetary target and the sterilization policy. This is so because the badly predictable behavior of the public’s demand for money could push the short run interest rate to a level higher than the upper limit that makes sterilization policy sustainable. This conflict has not emerged so far and will not necessarily emerge in the future if broad M2 expansion targets do not constrain the management of the domestic interest rate, as it has been the case up to now.

4. The evolution of employment and unemployment in the recovery phase

In 2002, with economic reactivation, employment began to recover. In this section³² we will first of all analyze the evolution of full-time employment since the second half of 2002. We are interested in obtaining a long-term view which will allow us to examine changes over time and make comparisons with the period we analyzed in section 3, when the convertibility regime was in force. A difficulty in this respect, however, is that the twice-yearly permanent household survey (PHS) was discontinued in the first half of 2003 and replaced with an ongoing PHS which gives quarterly figures. The results of the ongoing PHS, by quarters, are available as from the first quarter of 2003, but the employment rates of the two surveys are not directly comparable because of changes in the methodology used.

In order to solve this problem, we proceeded as follows. We calculated half-yearly averages of the employment rates of the ongoing PHS, so as to have half-yearly data with a frequency similar to that of the PHS in the past. Moreover, instead of working with the levels of the employment rate, we calculated a long series of half-yearly differences (i.e., the difference between one half-year and the preceding one). The coupling together of the series of differences between half-year periods from the half-yearly surveys and the data from the ongoing surveys was effected by taking advantage of the fact that in the case of the first half of 2003 we have observations made in both surveys. This makes it possible to calculate all the differences with half-

³² Both the analysis of the recent evolution of employment and unemployment, in the present section, and that of wages (further below) are based on Damill and Frenkel (2003) and Frenkel (2005).

yearly data from a single PHS: the twice-yearly one up to the first half of 2003 and the ongoing one as from the second half of that year. Although the half-yearly differences thus calculated are not strictly homogeneous, the error arising from this procedure may be assumed to be very slight.

Let us call the variable that interests us $D(FEMPL)$. This is the difference in the full-time employment rate, without social plans, between one half-year and the preceding one. The exclusion of social plans when measuring $FEMPL$ is important, because the introduction of the Plan for Heads of Households led to a considerable increase in the voluntary underemployment rate.³³ If the full-time employment rate did not exclude the social plans, it would register an increase which had nothing to do with the economic processes. The full-time employment rate considered by us therefore excludes those working under social plans. The variable $D(FEMPL)$ is measured in percentage points of the total urban population. The tables below show the evolution of this variable from the second half of 2002 up to the first half of 2006, together with the de-seasonalized half-yearly growth rates of GDP which we have called $DL(GDP)$. $DL(EMPL)$ stands for the rate of growth of the estimated number of full-time occupations, and $ELAST$ refers to the output elasticity of full-time employment in every period.

Table 5
Argentina: Variation in full-time employment rate, growth rate of full-time employment, GDP growth rate and output elasticity of full-time employment between one half-year and the similar preceding period, without social plans

Half-year	$D(FEMPL)$	$DL(GDP)*100$	$DL(EMPL)*100$	$ELAST$
2002:2	0.68	1.18	3.14	2.68
2003:1	1.06	5.19	4.51	0.85
2003:2	1.86	5.11	8.23	1.61
2004:1	0.96	3.84	3.74	0.97
2004:2	1.38	4.51	4.20	0.93
2005:1	0.50	4.15	2.08	0.50
2005:2	1.51	4.75	4.80	1.01
2006:1	0.54	3.53	1.96	0.56

Note 1: Variations and growth rates are calculated between one half-year and the similar preceding period.

Note 2: Employment generated by social plans is not included

Source: Authors' elaboration based on INDEC.

Table 6
Argentina: Half-yearly variations in unemployment and full-time employment rates

³³ We refer to the Plan for Heads of Households set up in 2002 to relieve the serious social situation generated by the worsening of the crisis. Under this Plan, allowances of 150 pesos are given to heads of households with children, in return for a certain amount of work.

(percentages of the population)

Half-year	D(U)	D(FEMPL)
2003:1	-0.94	1.06
2003:2	-1.67	1.86
2004:1	-0.35	0.96
2004:2	-0.88	1.38
2005:1	-0.13	0.50
2005:2	-0.79	1.51
2006:1	0.16	0.54

Source: Authors' elaboration based on INDEC.

Table 5 shows that in the eight half-years considered, the GDP registered a cumulative increase of 37.3 %, while the full-time employment rate went up by 8.5 percentage points of the urban population. The increase in the number of full-time occupations in the same period amounted to 37,6%, very close to GDP growth, making the average output elasticity of full time-employment equal to one for the period as a whole. However, as can be seen in the right column in the table, that elasticity was considerably higher at the beginning of the period, and shows a moderate declining trend, as could be expected as a result of the gradual convergence of the economy to a new intensity of labor utilization.

The increases in full-time employment (without social plans) accounted for the whole of the reductions observed in unemployment rates since 2003. This may be seen in Table 6, which shows the half-yearly variations in unemployment and full-time employment. In order to facilitate comparison, the variations in unemployment D(U) are expressed as percentages of the total urban population.

In all the half-year periods, the increases in the full-time employment rate without social plans exceeded the falls in unemployment in absolute values. For the period as a whole, the decline in unemployment reached 4.6 percentage points of the population, while the rise in full-time employment amounted to 7.8 percentage points. The difference corresponds to a fall in underemployment and to the incorporation to employment of people that were not active in previous periods.

In short, since 2003 the contractions observed in unemployment are explained by the increases in the full-time employment rate without social plans; these plans were present, as a relatively stable background to the situation, throughout the period in question. Consequently, the changes in labor market conditions as from that year can be represented by the variations in unemployment rates and also in the full-time employment rates.

The evolution of the labor market variables in the long run, from the eighties to the present, can be seen in Graph 5. Although the figures are not strictly comparable, the graph shows that the full-time employment rate has recuperated all the fall experienced during the Convertibility regime period and is similar the early eighties. On the other hand, the current total employment rate (without social plans) is the highest in the series.

Labor incomes and their distribution

In parallel to the evolution of employment, three phases can be identified in the evolution of real wages. There was a first phase after the devaluation in which real wages fell; a second phase of stabilization and a third phase of recovery and growth that started at the beginning of 2003. In effect, the increase in domestic prices after the devaluation had a direct negative effect on the purchasing power of wages. Between October 2001 and October 2002 real wages (from the Permanent Household Survey - EPH) fell around 30%, although more than two thirds of the fall was verified in the first semester after the exit from the Convertibility. After this strong reduction, since October 2002 nominal labor incomes started to grow at a similar pace than prices, hence the figure of May 2003 was similar to the figure of October 2002 (Graph 13).³⁴

Insert Graph 13

As from 2003, both the greater dynamism of the demand for labor and the price stability allowed an increase in the real incomes of employed population after the long period of continuous fall. In the first year of recovery –between the first semester of 2003 and the same period of 2004–, real wages grew 14%, excluding from the calculation the beneficiaries of employment plans. Later on, the purchasing power of wages kept on growing: it rose 11% between the first half of 2005 and the same period of 2006. Throughout the whole period the average real incomes of employed population increased 31% (Table 7). However, given the strong previous reduction, at the beginning of 2006 real wages were, on average, approximately 10% lower than those at the end of the Convertibility (Graph 13).

Real incomes increased for all the groups of workers defined according to their occupational category,³⁵ although with different intensities (Table 7). In particular, between 2003 and 2006 there was a 33% increase in real wages of non-registered wage earners in the private sector, whereas the increase for registered wage earners in the same sector was significantly lower (23%). On the other hand, the real income of non-wage earners (self-employed plus employers) rose approximately 43%. The fact that the largest increase was observed in those jobs not covered by social security constitutes a novel phenomenon since in the previous periods of wage recovery the latter had taken place fundamentally among registered wage earners.

Table 7

³⁴ In 2003, as was already mentioned, there was a methodological change in the Permanent Household Survey (EPH): since then, the semi-annual EPH (whose last wave was sampled in May 2003) was replaced by a continuous EPH (see www.indec.mecon.gov.ar). This causes a discontinuity in the series that the change in methodology does not allow to match. In all cases, the figures strictly belong to the scope of the survey comprised by 28 urban centres.

³⁵ Wage earners registered in the Social Security System, non-registered wage earners and non-wage earners.

**Evolution of the real income from the main occupation,
according to occupational category
28 urban centers. Excludes employment plans**

	I SEM 2003	II SEM 2003	I SEM 2004	II SEM 2004	I SEM 2005	II SEM 2005	I SEM 2006	ISem06-I Sem03 Variation
TOTAL EMPLOYMENT	722	783	825	819	856	900	947	31%
Total wage earners	730	783	819	809	840	887	929	27%
Registered	961	1014	1059	1032	1077	1142	1193	24%
Non-registered	413	460	476	497	507	519	529	28%
Private Sector wage earners	666	736	769	758	793	817	865	30%
Registered	962	1037	1081	1037	1091	1125	1188	23%
Non-registered	386	448	452	484	490	495	512	33%
Non-wage earners	699	790	840	847	901	937	1000	43%
Employer	1685	1938	1800	1719	2051	2014	2085	24%
Self-employed	572	613	654	670	684	714	777	36%

Source: Authors' elaboration based on data from EPH (INDEC).

Moreover, another important characteristic of the trajectory of wages has been the different evolution according to the educational level of workers. In particular, there has been a relative improvement in incomes of the less educated throughout this period: the real income of workers with incomplete secondary school or less increased 37% as opposed to a 24% rise for those with complete university (Table 8).

As a result, when both dimensions are considered –occupational category and educational level- it can be observed that there has been a reduction in the wage gap between the extremes of the distribution that has contributed to the reduction in inequality among workers.

Table 8
**Evolution of real income from the main occupation,
according to educational level**
28 urban centers. Excludes employment plans

	I SEM 2003	II SEM 2003	I SEM 2004	II SEM 2004	I SEM 2005	II SEM 2005	I SEM 2006	ISem06- ISem03 Variation
TOTAL EMPLOYED	722	783	825	819	856	900	947	31%
Incomplete secondary school or less	485	521	562	558	592	602	663	37%
Compl. second. school - Incompl. university	775	812	850	854	877	934	977	26%
Complete university	1290	1382	1471	1414	1501	1636	1601	24%

Source: Authors' elaboration based on data from EPH (INDEC).

One of the factors that have contributed to this process has been the significant incomes policy implemented by the National Government since mid-2002 through lump-sum rises and increments in the minimum wage. These measures have a greater impact on lower income groups. In effect, the National Government established by decree an increase of \$100 for the private sector in the second semester of 2002 (without contribution to the social security), and gradually rose it up to \$200 at the end of 2003. As from July of that year, those amounts started to contribute to the social security system. In 2004, there were further increases but of smaller magnitude. At the same time, the minimum wage was increased successively from \$200 –current until June 2003- to \$450 in September 2004. In 2005, it was raised up to \$630, and in 2006 a further increase allowed to raise the minimum wage to \$800. For workers in the

National Public Sector an increase of \$100 (without contribution to the social security) was established since June 2004 for those who earned wages lower than \$1,000; and since January 2005, an increase of \$100 was established for workers with wages lower than \$1,250. Further increases were established in 2005: 10% since June and 9% since August.

Even though the non-registered wage earners are not covered by labor legislation, it is often argued (Frenkel 2004a) that the wages earned by those workers that are covered by social security –or, at least their variations- have a certain impact on the wages paid to the former group of workers. If this is so, and given the lower average value of wages of non-registered workers, the non-proportional increases must have had a greater impact on them.

Due to the generalized fall of real wages along the semester that followed the exit from the Convertibility, the Gini index remained practically unchanged. After a small increase in inequality between May and October 2002, the trend towards higher concentration of incomes started to reverse (Graph 14)³⁶. The new trend towards less concentration continues up to present and contrasts with the process experienced throughout the nineties. In effect, the Gini index of income from main occupation fell 8% between the first semester of 2003 and the first semester of 2006 passing from 0.472 to 0.435.³⁷

Insert Graph 14

The change of trend in the distribution of labor incomes can be seen in greater detail in Graph 15. It compares the variations in real incomes according to percentiles of income from main occupation in three different periods: the last phase of Convertibility (May 1998-Oct. 2001), the first year after the change of regime (Oct. 2001-Oct. 2002) and the period of recovery (I Sem. 2003-II Sem. 2006).

Insert Graph 15

As can be seen in the graph, the deterioration of labor market conditions in the final phase of the convertibility regime led to a fall in real incomes that affected lower incomes with greater intensity. On the other hand, the variation in the period 2001-2002 was relatively homogeneous all along the distribution line due to the already mentioned impact of the increase in prices. Lastly, since 2003 the improvement in real wages was greater among the first percentiles, a fact that is consistent with the reduction in the wage gap previously mentioned.

³⁶ The Continuous EPH has improved the data collection regarding precarious activities, most of which generate incomes that are lower than average incomes of employed workers. This is one of the factors that explain why the inequality indicators of the continuous EPH in the first semester of 2003 are higher than the corresponding indicators in May 2003 of the semi-annual EPH.

³⁷ The reduction verified throughout this whole period is statistically significant with a 95% level of confidence.

Despite the reversal in the trend towards greater inequality, the concentration of income is still high due to the high level of income inequality prior to the change of regime (Table 9). In the first semester of 2006, whereas the first quintile of employed workers received 4% of total wages, the fifth quintile received approximately 48%. Moreover, average income of the latter group was 12 times the average income of the first quintile (such ratio was of 15 times at the beginning of 2003).

Table 9
Quintile distribution of incomes from main occupation
28 urban centers. Excludes employment plans

QUINTILE	I SEM 2003	II SEM 2003	I SEM 2004	II SEM 2004	I SEM 2005	II SEM 2005	I SEM 2006
1	3.3%	3.7%	3.9%	3.9%	4.2%	4.0%	4.1%
2	9.0%	9.4%	9.6%	9.7%	9.8%	9.7%	10.1%
3	14.7%	14.3%	14.7%	15.1%	15.3%	15.5%	15.4%
4	21.8%	21.5%	21.3%	22.1%	21.6%	22.3%	22.2%
5	51.1%	51.0%	50.5%	49.3%	49.2%	50.2%	48.1%
TOTAL	100%	100%	100%	100%	100%	102%	100%

Source: Authors' elaboration based on data from EPH (INDEC).

As can be deduced from Table 7, the occupational category is one of the dimensions through which the strong heterogeneity among workers is clearly seen, and in particular, the condition of being registered or not among the wage earners. In effect, in the first semester of 2006, those wage earners in the private sector not covered by social security received, on average, incomes that represented 43% of the incomes of registered wage earners in the private sector.

Hence, even though the wage improvement has been greater among the non-registered wage earners compared to the rest of wage earners there is still a significant gap between the two groups. This fact is reflecting the effects of a labor market that has been showing a tendency towards segmentation as a result of the low global dynamism of the labor market throughout the nineties. On the one hand, there is a group of workers that receives higher incomes and is covered by social security and, on the other hand, there is a group of workers with low wages, in precarious jobs and without social security protection.

However, income differentials between both groups could be affected by a dissimilar composition of employment (in terms of personal and occupational characteristics) within each of these groups. In particular, this could be reflecting the fact that low-skilled wage earners and part-time workers represent a high proportion of non-registered workers. If this is so, the observed wage gap could not be exclusively attributable to the occupational category and to the condition of being registered or not.

In order to quantify the effect of the above mentioned dimension, as well as the influence of other attributes, different wage and worked-hours equations were

estimated for the first semester of 2006 (Table 10).³⁸ The first three regressions were estimated for the totality of employed workers, whereas the fourth only considered those that work more than 35 hours per week. In addition, the dependant variable in regression I is the monthly income from the main occupation (in logarithms), in regression II is the hourly wage, and in III is the logarithm of worked hours. Regression IV is the same as regression I but estimated for wage earners that work more than 35 hours per week.

In all the estimations of wages it is verified that the occupational category is a very relevant dimension to explain the gaps between employed workers. Given other characteristics of workers, non-registered wage earners that work full time received at the beginning of 2006 an income approximately 50% lower than the income of registered full-time wage earners (regression IV), a phenomenon that is consistent with what was previously mentioned. On the other hand, the gap between registered wage earners and non-wage earners is smaller but significant, of approximately 37%.

When considering the total of employed workers, the monthly income differentials according to this dimension are even wider. In effect, the non-registered workers receive a wage 68% lower than the registered ones. The gaps are narrower when calculated in terms of hourly incomes. These results would be reflecting that, other attributes being equal, registered wage earners receive higher monthly labor incomes than the rest of the employed workers both because they get higher hourly wages and because they work more hours. This last fact is confirmed by regression III, which shows that non-registered workers work 25% less hours per week than registered wage earners. A similar gap is observed between the latter and the group of non-wage earners.

Returns from education also significantly contribute to the wage differentials observed within the labor force. Monthly wages of those that have completed primary school are between 14% and 22% –depending on the specification of the model– higher than wages of those that have not completed this level of education. In the other extreme, complete university studies allows incomes 90% higher than those of incomplete primary school. Like what happens with occupational category, the gaps widen because the most qualified workers receive higher hourly incomes and also work more hours.

Furthermore, as it is usual in this type of equations, men and heads of household receive higher wages (monthly and hourly) than women and other household members, respectively. On the other hand, the age has a positive although non-linear effect on labor incomes; and manufacturing activities are among those that pay the highest wages (except, in general terms, transport and financial services).

³⁸ In all the estimations the control group is comprised by women wage-earners, registered in the social security system, non-household heads, with incomplete primary education and that work in the manufacturing industry. The estimations take into account the correction for selectivity bias by using Heckman's methodology.

Table 10
Income equations

	Total employed			Reg. IV Employed more than 35hs
	Regression I Monthly Wage	Regression II Hourly Wage	Regression III Hours	
Category				
Non-registered	-0.677 (65.74)**	-0.427 (42.95)**	-0.248 (28.18)**	-0.497 (46.23)**
Non-wage earner	-0.579 (53.69)**	-0.352 (33.76)**	-0.227 (24.67)**	-0.37 (33.57)**
Education				
Complete primary school	0.218 (13.17)**	0.138 (8.61)**	0.08 (5.63)**	0.183 (10.00)**
Incomplete secondary school	0.35 (20.27)**	0.258 (15.45)**	0.091 (6.14)**	0.33 (17.45)**
Complete secondary school	0.568 (33.44)**	0.415 (25.33)**	0.15 (10.30)**	0.484 (26.12)**
Incomplete university	0.654 (35.43)**	0.614 (34.38)**	0.043 (2.73)**	0.616 (30.30)**
Complete university	0.952 (51.58)**	0.903 (50.29)**	0.066 (4.16)**	0.934 (45.71)**
Branch of activity				
Construction	-0.066 (4.21)**	-0.042 (2.80)**	-0.018 -1.34	-0.083 (5.41)**
Commerce	-0.064 (5.54)**	-0.194 (17.44)**	0.133 (13.48)**	-0.105 (9.14)**
Transport and financial services	0.102 (5.96)**	-0.053 (3.16)**	0.161 (10.95)**	0.051 (3.14)**
Health and education	-0.112 (8.90)**	0.138 (11.21)**	-0.239 (21.90)**	-0.05 (3.72)**
Other industries	-0.235 (17.31)**	0.006 -0.47	-0.241 (20.84)**	-0.107 (7.16)**
Age	0.058 (33.07)**	0.036 (21.29)**	0.021 (14.18)**	0.046 (22.99)**
Age2	-0.001 (29.74)**	-0.0003 (16.54)**	-0.0003 (15.76)**	-0.0005 (19.66)**
Man	0.393 (42.49)**	0.133 (14.84)**	0.263 (33.09)**	0.249 (24.68)**
Household head	0.15 (16.37)**	0.077 (8.64)**	0.077 (9.85)**	0.137 (14.01)**
Constant	4.91 (122.77)**	0.454 (11.79)**	3.086 (90.42)**	5.364 (120.71)**
Observations	30049	28306	28306	18856
R-squared	0.48	0.42	0.2	0.46

Absolute value of t statistics in parentheses

* significant at 5%; ** significant at 1%

Source: Authors' elaboration based on data from EPH (INDEC).

Family incomes and their distribution

Given the importance of the labor market in the generation of family incomes, the dynamics of labor has been having a strong impact in the performance of family incomes. In effect, as a result of the favorable evolution of employment and the recovery of wages, family incomes started a process of sustained growth since 2003 that continues at present times. They grew about 42% in real terms in the period (Graph 16). This process has allowed the full recovery of purchasing power and even the achievement of higher levels than the late-2001 average levels. This process has been accompanied with an improvement in the concentration of family incomes.

Insert Graph 16

Contrary to what happened among workers, in the semester that followed the exit from the Convertibility family incomes inequality rose, mainly as a consequence of the increase in unemployment. This is reflected in the deterioration of the Gini index of per capita family incomes that passed from 0.520 to 0.541 between October 2001 and May 2002. After the maximum concentration level reached in May 2002, the concentration trend reversed. One of the factors that initially explained this turning point was the implementation of the “Plan Jefas y Jefes de Hogar Desocupados” (PJJHD)³⁹, since it gave employment and/or incomes to the poorest families. Its impact is reflected in the fall of the Gini index of total family income between May and October 2002, which in absence of this plan would have recorded 0.505 instead of 0.489. As from 2003 the inequality among households has shown a sustained decreasing trend that allowed a 5 p.p reduction in the Gini index, from 0.532 to 0.486, between that year and the first semester of 2006 (Graph 17).

Insert Graph 17

This greater equality among households is also revealed in the ratio between the first and the fifth quintiles of total family incomes. Whereas in the first semester of 2003 the average per capita income of the fifth quintile represented 25 times the corresponding to the first quintile, in the first semester of 2006 the gap has reduced to 15 times (Table 11). This responds to the fact that, although real incomes rose for every quintile, the increases were larger among the poorest households. In effect, throughout this period the households in the first quintile doubled the purchasing power

³⁹ The PJJHD was implemented in 2002 by the National Government in response to the critical social situation of the country at that time. The plan established a fixed-amount of \$150 household heads that were unemployed with children up to 18 years. In 2003 it reached around 2 million households and since then it has been systematically reducing its coverage.

of their incomes whereas the real incomes of the richest households increased 30%. Furthermore, this was mainly due to the significant reduction in open unemployment (which affects to a greater extent those households in the lower extreme of the distribution) and, to a less extent to the recovery of wages.

In spite of these dynamics, the concentration of family income is still high. In the first semester of 2006, the 20% poorest households received only 4% of total income, whereas the fifth quintile captured 50%. On the other hand, the ratio of average per capita incomes between both groups was 15 times –and it was 25 times in 2003. (Table 11).

Table 11
Average per capita family income by quintiles
28 urban centers. Includes employment plans
and annual complementary salary

QUINTILE	I SEM 2003	II SEM 2003	I SEM 2004	II SEM 2004	I SEM 2005	II SEM 2005	I SEM 2006
1	50.0	65.3	78.5	84.6	90.8	101.4	105.2
2	148.6	176.3	193.3	212.3	217.9	247.0	256.7
3	265.2	302.3	320.2	349.3	358.6	399.5	417.5
4	450.1	514.2	522.6	569.2	576.1	642.7	660.2
5	1236.5	1390.4	1425.8	1479.1	1475.7	1612.7	1609.5
AVERAGE	429.6	489.6	507.9	538.5	543.4	599.9	609.5
5 quintile/ 1quintile	25	21	18	17	16	16	15

Source: Authors' elaboration based on data from EPH (INDEC).

Poverty and indigence⁴⁰

Even before the end of the Convertibility, 38% of population lived in households with incomes below the poverty line . Ten months after the devaluation of the peso this proportion rose to 57.5% of the urban population, and in the period between October 2001 and May 2002 the percentage of poor households increased 13.4 p.p (Graph 18). This deterioration of the living conditions can be also seen in the poverty gap⁴¹. In May 2002 poor households needed, on average, to more than double their incomes in order to surpass the poverty line.

Hence, the extremely high level of poverty incidence reached after the exit from the Convertibility is explained, on the one hand, by the magnitude of the shock, especially in terms of the fall of real wages and, on the other hand, by the serious situation prior to the collapse.

Insert Graph 18

⁴⁰ The incidence of poverty is the proportion of households (or population) that cannot afford a basic basket of goods and services. Poverty due to lack of incomes differs from the standard international measures (of one dollar per day per person, for example) because the value of the reference basket is calculated based on domestic prices and patterns of consumption.

⁴¹ The poverty gap measures the percentage difference between average incomes of poor households and the line of poverty.

This unfavorable dynamic of the social situation was due to the joint effect of the decrease in average real wages and their more unequal distribution. Therefore, it seems important to quantify the relevance of each of these factors. In particular, the variations in the level of poverty can be decomposed in two effects⁴²: on the one hand, the change experienced as a consequence of the variations in the household total average real income, maintaining the distribution constant –growth effect- and, on the other hand, as a consequence of distributive effects, with a constant average income – distribution effect. The growth effect can in turn be decomposed in the “inflation effect” and in the “nominal income effect”. The former effect indicates how large the variation in the poverty level would have been with constant nominal incomes and distribution. The latter quantifies the impact of the changes in incomes under the assumption that prices and distribution remain constant. The results are shown in table 12.⁴³

During the last year of Convertibility, the fall in household total incomes explained 70% of the increase in poverty (income effect), even though deflation slightly attenuated the fall in real incomes since it made the basic basket cheaper. On the other hand, the deterioration in income distribution explained the other 30% of the increase in poverty. As from that moment, the distribution effect loses its relevance and the increases in poverty levels become mainly explained by the deterioration of real incomes due to inflation in the first semester of 2002. In particular, between May and October 2002, the increases in family incomes (the negative sign of the nominal income effect) were not sufficient to compensate for the price increases. Therefore poverty continued to rise, although at a lower pace than in the previous semester. The increase in family incomes in this period is explained, to a great extent, by the rapid expansion of the PJJHD, from which poor and indigent households benefited (Table 12).⁴⁴

The negative trend in the social situation reversed since 2003. As it was already mentioned, the joint result of the increase in employment and wages led to a process of growth in family incomes and a simultaneous gradual improvement in their distribution. This is shown in table 12, since both the “growth effect” and the “distribution effect” have been important in the reduction of poverty (although the effect of the former was greater, of 70% against 30% of the latter). In addition, it can be seen that real incomes were able to rise despite the increase in the value of the basic basket (which is reflected in the negative sign of the inflation effect), especially in the more recent periods.

⁴² This decomposition is based on Datt and Ravallion (1990). The decomposition is not exact due to the existence of crossed effects between the two components.

⁴³ The negative sign means that the effect in consideration worked in the opposite direction than the variation of poverty.

⁴⁴ Even though the plan was correctly focused on the poorest population, the impact on the poverty incidence was small because the amount of the transfer was low in relation to the value of the basket. There has been a larger effect in the case of indigence. In addition, currently the impact of the plan on both indicators is small given the reduction in the number of beneficiaries since 2003.

Table 12
Decomposition of poverty variation (households)

Period	Variation (p.p)	Growth effect	Inflation effect	Nominal income effect	Distribution effect	Residual
O00-O01	4.7	70%	-6%	74%	30%	2%
O01-M02	12.3	98%	63%	28%	10%	-1%
M02-O02	4.8	72%	150%	-63%	9%	4%
O02-M03	-3.1	85%	-2%	89%	18%	-5%
II S03- IIS04	-6.7	72%	-36%	97%	29%	9%
IIS04-IIS05	-5.1	72%	-66%	133%	22%	10%
IIS03-IS06	-13.4	72%	-61%	116%	27%	18%

Source: Authors' elaboration based on data from EPH (INDEC).

This allowed the percentage of individuals in poor households to decrease 23 p.p. –from 54% to 31.4%– between the first semester of 2003 and the first semester of 2006, while in the case of indigent individuals the proportion fell 16.5 p.p. in the same period –from 27.7% to 11.2%.

Poor households not only receive lower incomes per household than non-poor households but they are also larger in size (4.5 vs. 2.9). Therefore, the incomes gap per person between these two groups of households is even wider. In the second semester of 2005, whereas non-poor households receive approximately 3 times the average family income of poor households, this differential reached 5 times in the case of per capita income (Table 13).

In addition, poor households present a higher average dependency rate (lower employment rate), because they have more individuals younger than 14 years old and also because the adults have a deficient insertion in the labor market. In the second semester of 2005, the activity rate of poor households was 14 p.p. lower than the rate of non-poor households, while the unemployment rate was 3 times higher (20% and 7%, respectively; see Table 13).

Table 13
Household indicators, according to poverty condition
28 urban centers, II semester of 2005

Average indicators per household	Total households	Non-poor households	Poor households
Total family income	1,506	1,810	531
Per capita income	453	622	114
Individuals	3.31	2.91	4.54
Younger than 14 years old	0.8	0.5	1.6
Unemployment rate (%)	10.6	7.0	20.3
Activity rate (%)	46.1	50.8	36.7
Employment rate (%)	41.2	47.3	29.3

Source: EPH (INDEC).

Another way of characterizing poverty consists of describing the family household head profile according to the type of household he/she belongs to. In the first semester of 2006 the percentage of employed household heads belonging to poor households was 15 p.p. lower than the percentage of employed household heads in non-poor households, while the incidence of unemployment for household heads in poor households was four times the corresponding incidence in non-poor households - 11% vs. 3% (Table 14).

This situation is in part related to the different educational levels among household heads. In effect, when considering this dimension it can be seen that 20% of household heads in poor households had completed secondary school while the percentage rose to 60% for the average of the rest of households. Moreover, only approximately 3% of the former group's household heads had completed university, while this percentage was 22% for the rest of households.

Regarding employed household heads, there is a wide discrepancy in terms of occupational category. Precarious employment has a significant incidence among the poor households: approximately one half of employed household heads works in jobs not covered by social security, while the figure decreases to 19% for the rest of the families. On the contrary, in the latter group 57% of household heads work in jobs covered by social security against 20% in poor households. This fact indicates that poverty is not only associated to events of unemployment but also to the quality of the jobs they achieve to insert in the members of each group, what generates the case of "working poor" .

Lastly, the branch of activity to which the household head belongs is also distributed in a different way between these two groups of households, with the only exception of industrial activities. In particular, construction and personal services present a larger concentration among poor households whereas the contrary is verified regarding financial services, transport and services to companies, as well as health and education services.

Table 14
Characteristics of household heads between 25 and 65 years old
28 urban centers, includes employment plans. I semester of 2006

	Poor households	Non-poor households
<i>Condition</i>		
Employed	73.8%	88.5%
Unemployed	11.0%	2.9%
Inactive	15.2%	8.6%
<i>Educational level</i>		
Incomplete secondary school or less	80.3%	42.6%
Complete secondary school and incomplete university	16.8%	35.4%
Complete university	2.9%	22.0%
<i>Occupational category</i>		
Registered	20.2%	56.5%
Non-registered	48.5%	19.0%
Non-wage earners	31.4%	24.5%
<i>Branch of activity</i>		
Industry	13%	15.6%
Construction	20.9%	7.3%
Commerce, restaurants and hotels	22.4%	20.2%
Transport and services to companies	5.6%	9.0%
Financial services	5.0%	11.4%
Health and education services	15.2%	23.8%
Personal services	17.5%	12.7%

Source: Authors' elaboration based on data from EPH (INDEC).

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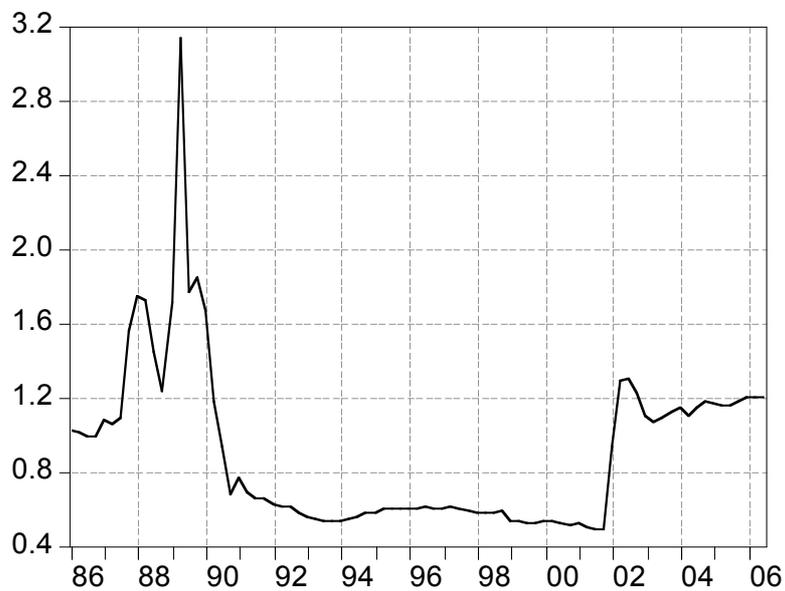
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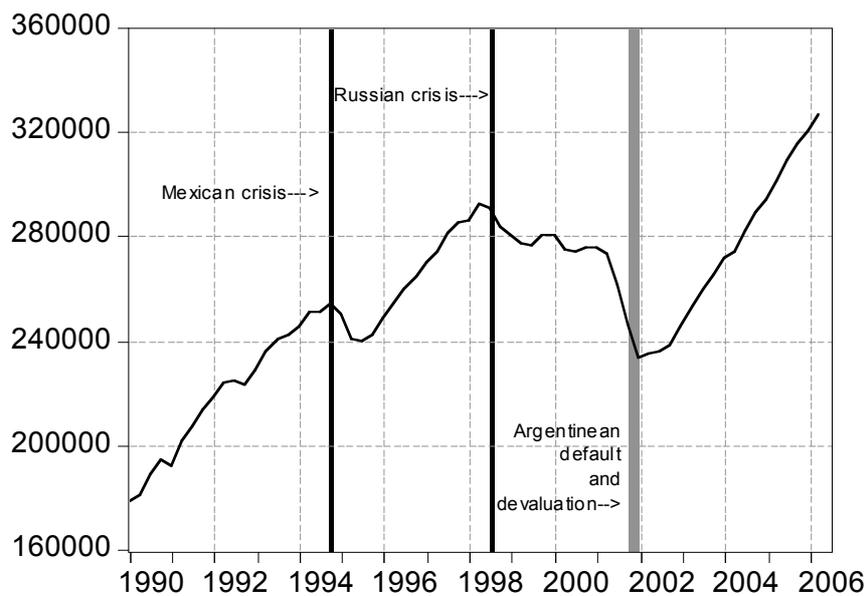
Graphs

Graph 1
Multilateral real exchange rate
(Second semester 1986 = 1)



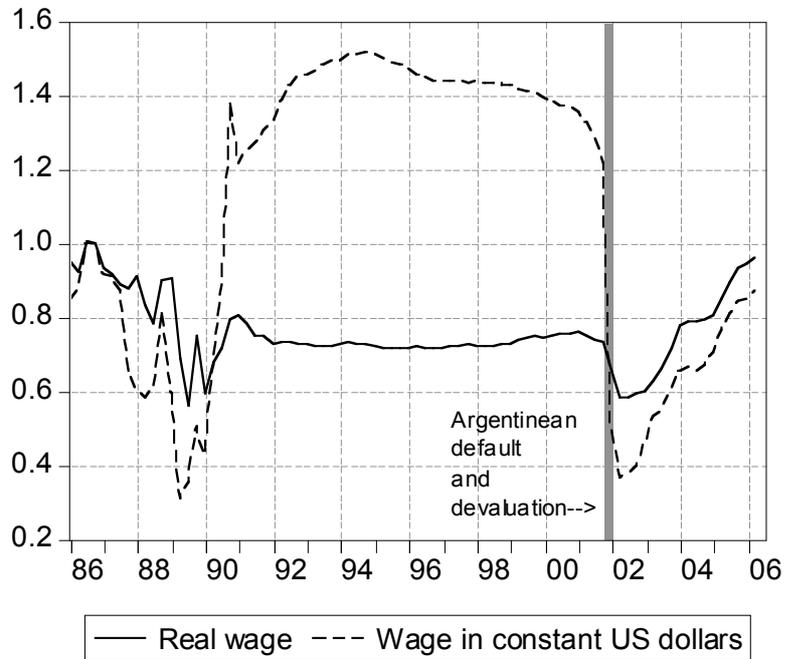
Source: Authors' elaboration based on Central Bank and ECLAC.

Graph 2
Seasonally-adjusted real GDP
(Quarterly data in millions of pesos of 1993)



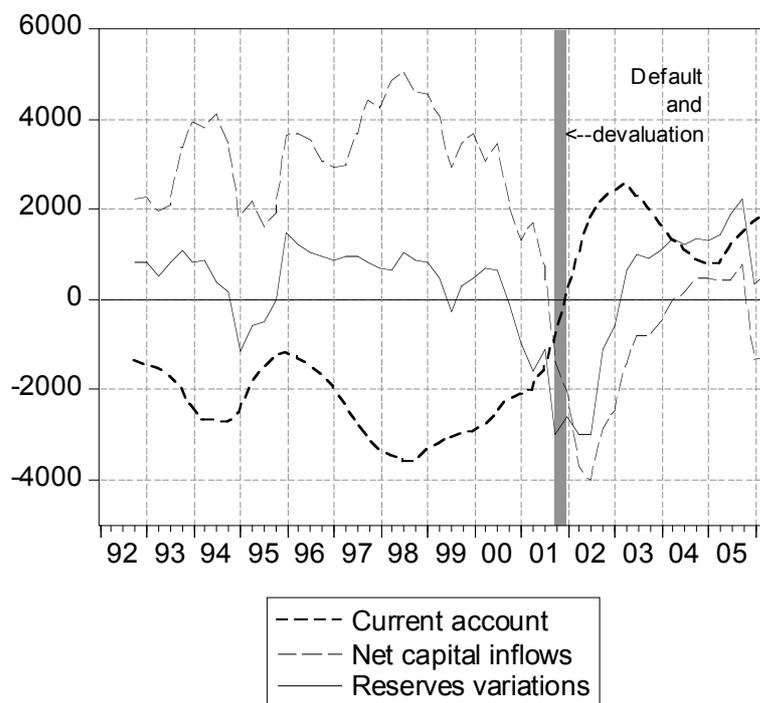
Source: Authors' elaboration based on Ministry of Economy.

Graph 3
 Average real wage in the manufactures (deflated
 by CPI) and average wage in constant US
 dollars (second semester 1986=1)



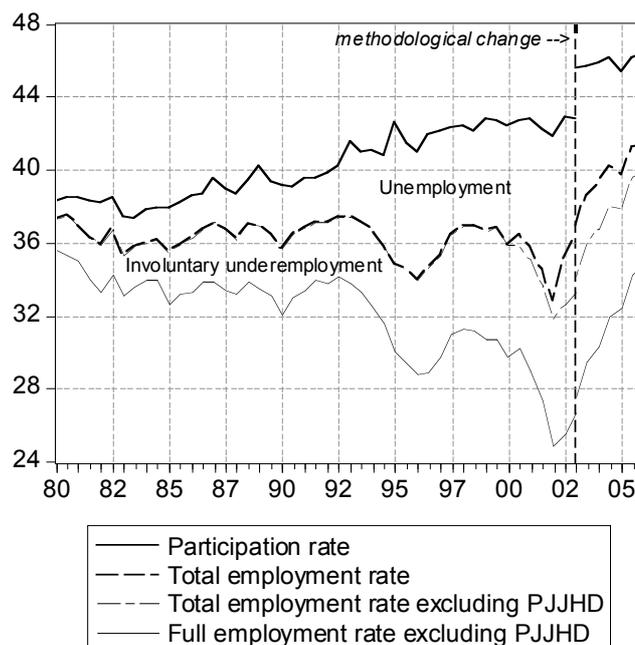
Source: Authors' elaboration based on INDEC and Central Bank.

Graph 4
Balance of Payments
(Four quarters m.a. in millions of dollars)



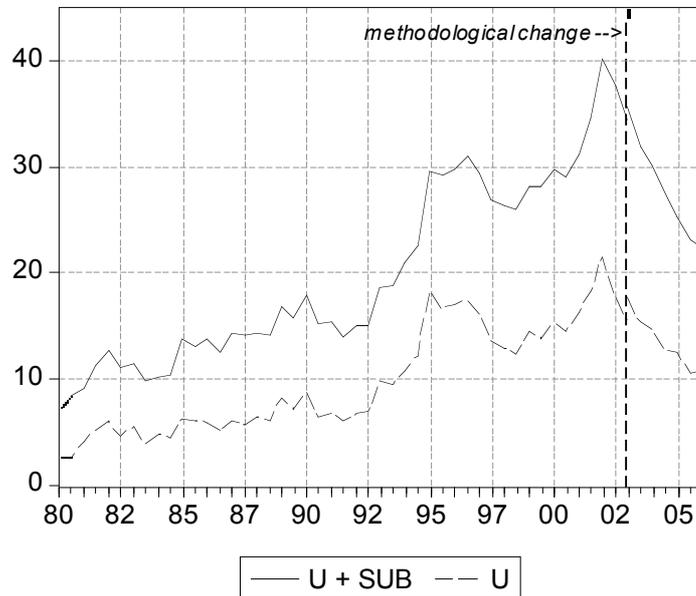
Source: Authors' elaboration based on Ministry of Economy.

Graph 5
Labor market indicators: Participation rate,
Employment rate, Employment rate excluding PJJHD
Full employment rate excluding PJJHD
(as % of total urban population)



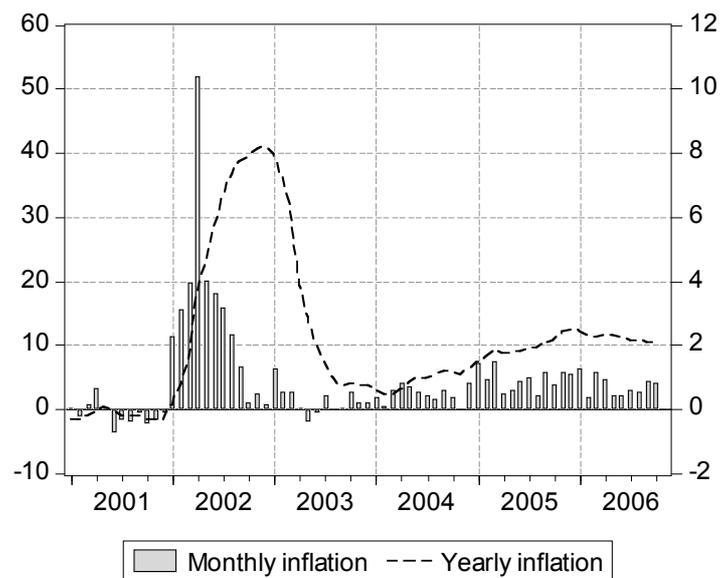
Source: Authors' elaboration based on INDEC.

Graph 6
Unemployment (U) and Involuntary Underemployment (SUB)
(% of urban active population)



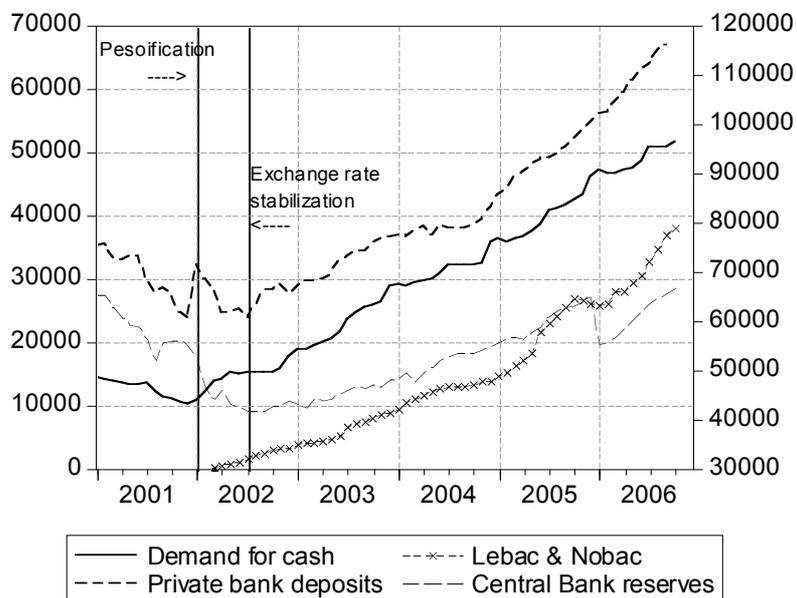
Source: Authors' elaboration based on INDEC.

Graph 7
Yearly CPI inflation rate and monthly CPI
inflation rate (right axis)
(In %)



Source: Authors' elaboration based on INDEC.

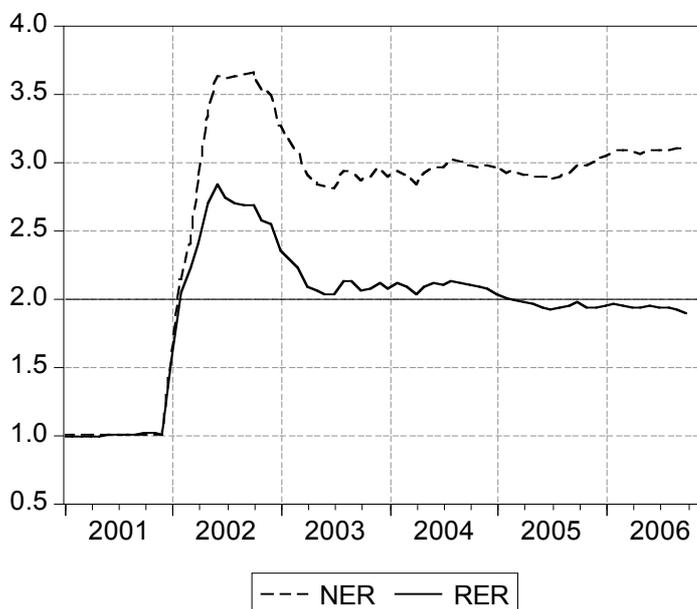
Graph 8
 Demand for cash, central bank international reserves*,
 Lebac, and Private bank deposits (right axis)
 (In millions of pesos and dollars)



* In millions of dollars.

Source: Authors' elaboration based on Central Bank.

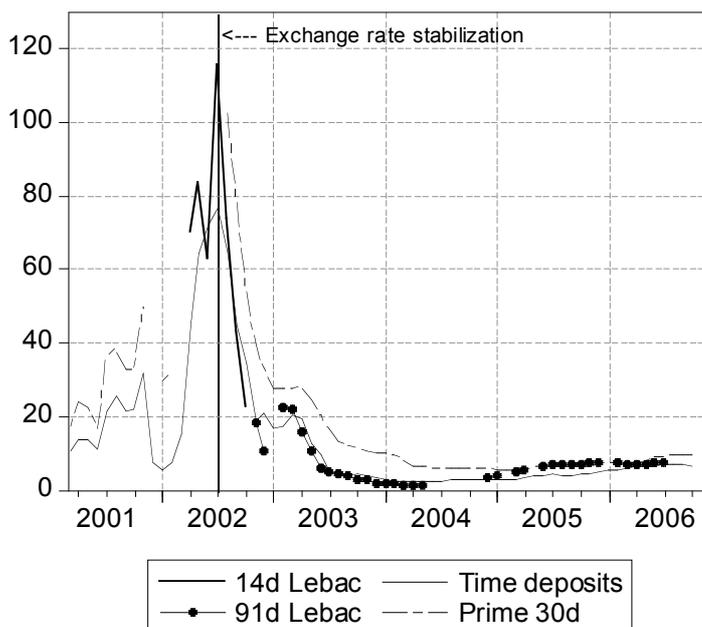
Graph 9
Bilateral nominal (NER) and real exchange rate (RER)*
with the United States
(In \$/US\$ and index 1 = December 2001)



*Real exchange rate was calculated using US and Argentina Consumer Price Indexes.

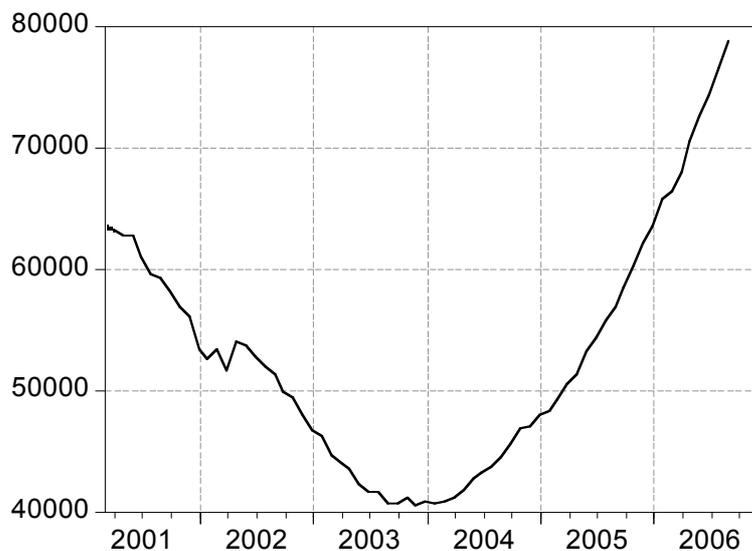
Source: Authors' elaboration based on Central Bank, INDEC and US Bureau of Labor Statistics.

Graph 10
Interest rates in pesos: Lebac (14 and 91 days),
Time deposits (30 to 59 days) and Prime (30 days)
(Monthly average, in %)



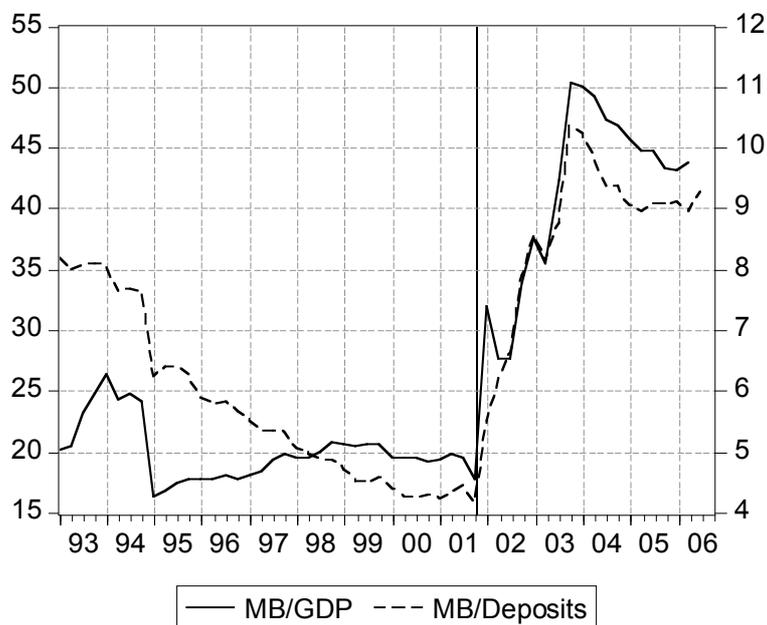
Source: Authors' elaboration based on Central Bank.

Graph 11
Bank credit to private sector
(In millions of pesos)



Source: Authors' elaboration based on Central Bank.

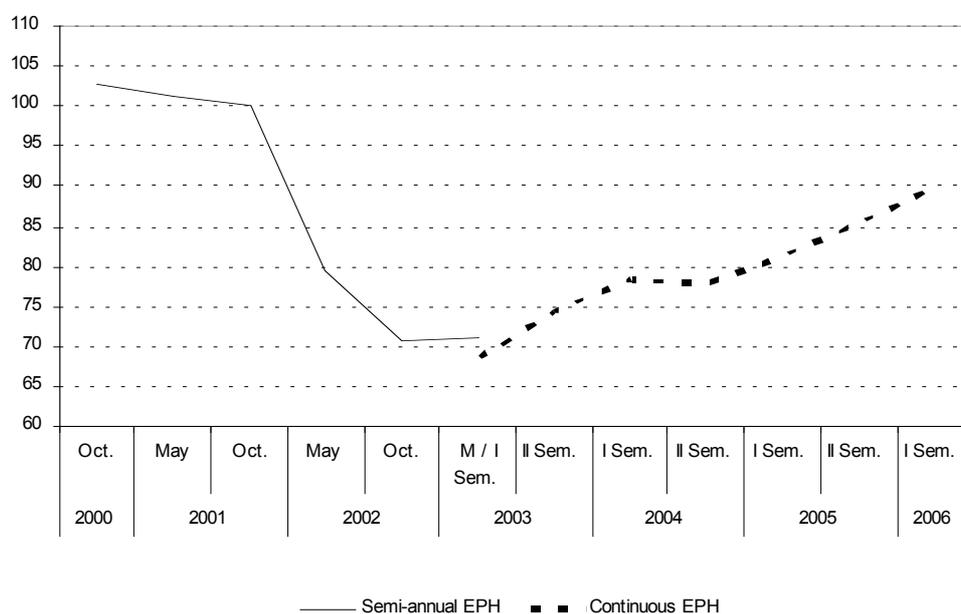
Graph 12
Monetary Base in relation to Total Bank Deposits
and with GDP* (In %)



* Seasonally adjusted.

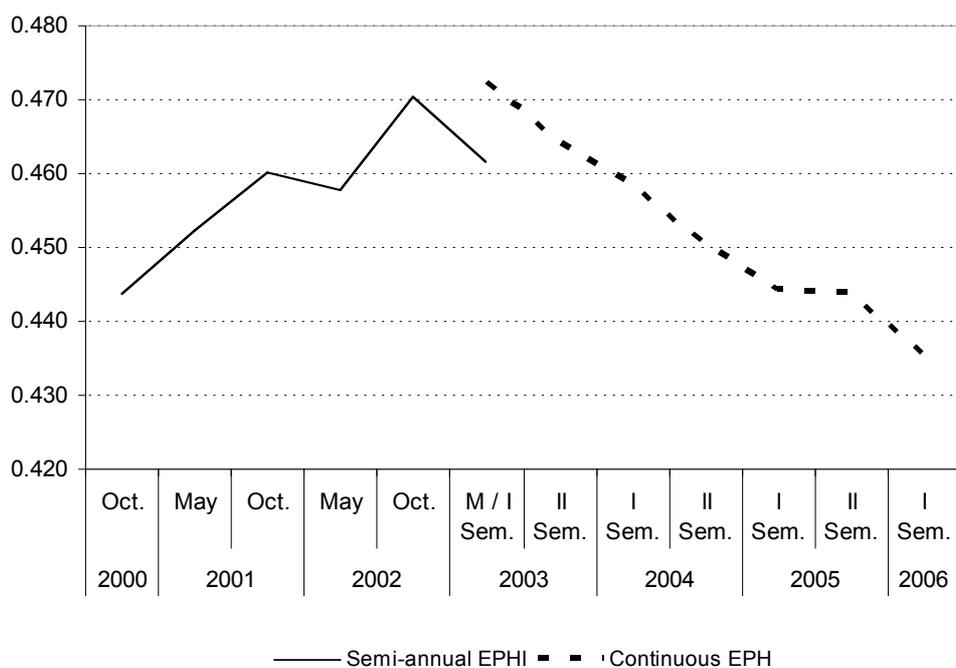
Source: Authors' elaboration based on Central Bank and Ministry of Economy.

Graph 13
Real Income from main occupation
28 urban centers. Excludes employment plans
(Index Oct 01=100)



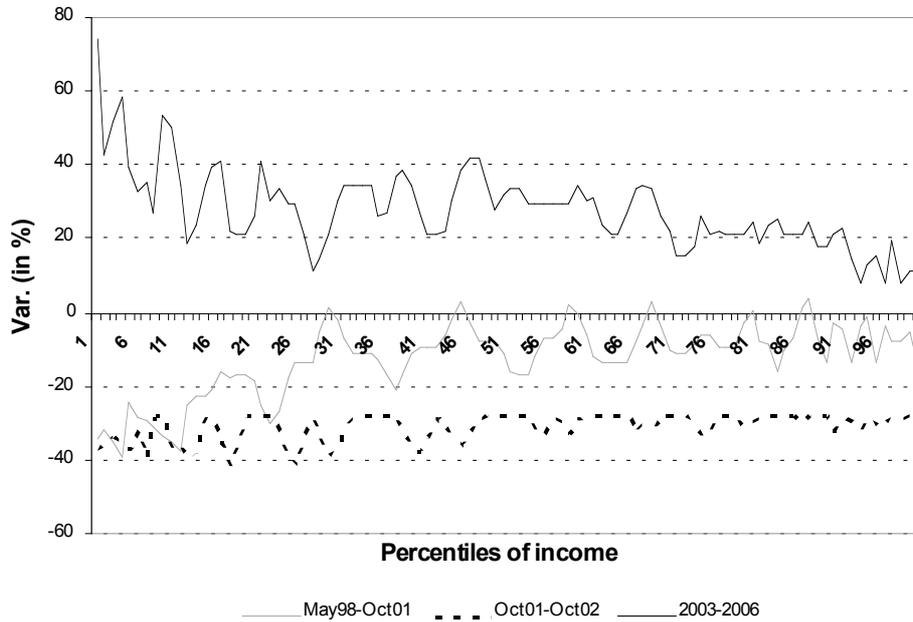
Source: Authors' elaboration based on data from EPH (INDEC)

Graph 14
Gini index of income from main occupation
28 urban centers. Excludes employment plans



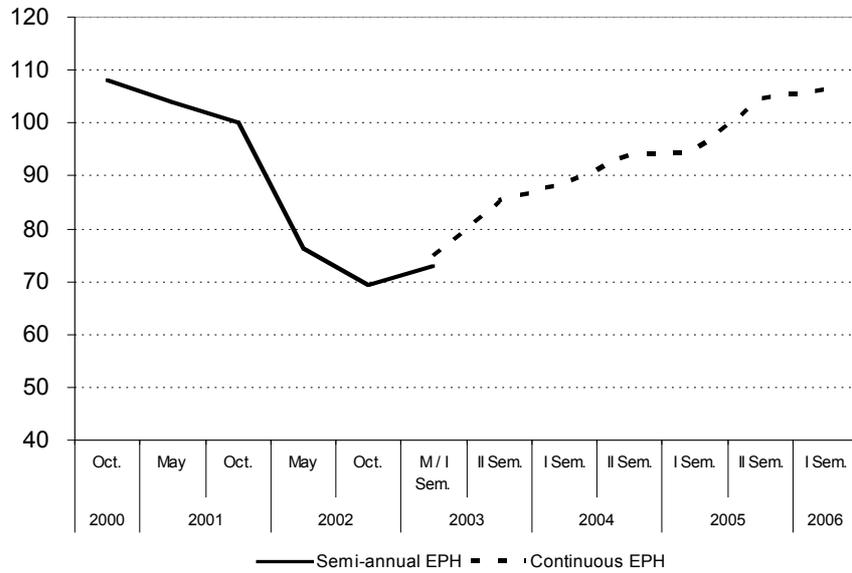
Source: Authors' elaboration based on data from EPH (INDEC)

Graph 15
Variation in real income from main occupation,
according to percentiles of income



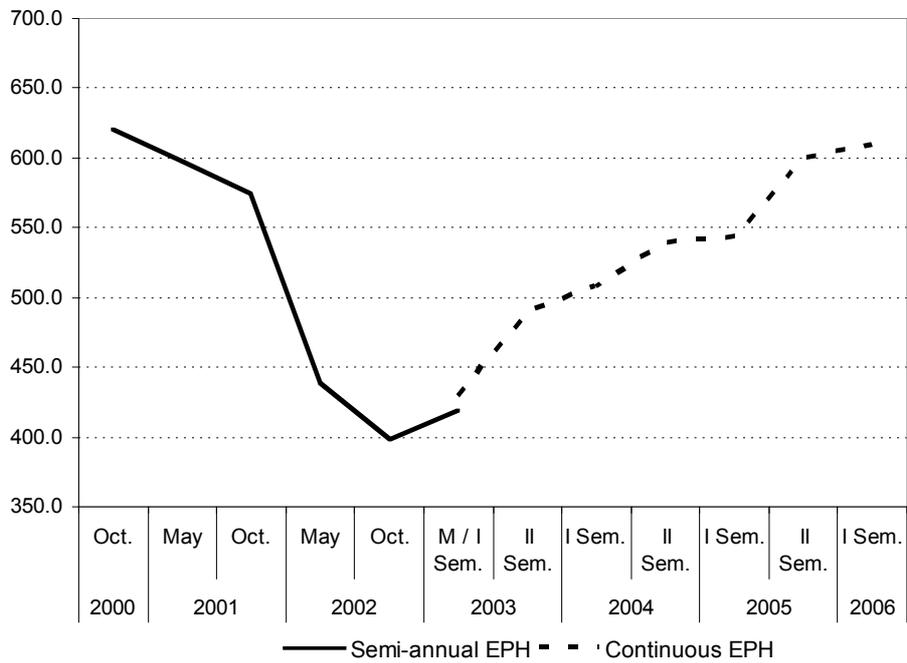
Source: Authors' elaboration based on data from EPH (INDEC)

Graph 16
Real per-capita family income
28 urban centers. Includes employment plans and annual
complementary salary. (Index Oct.01=100)



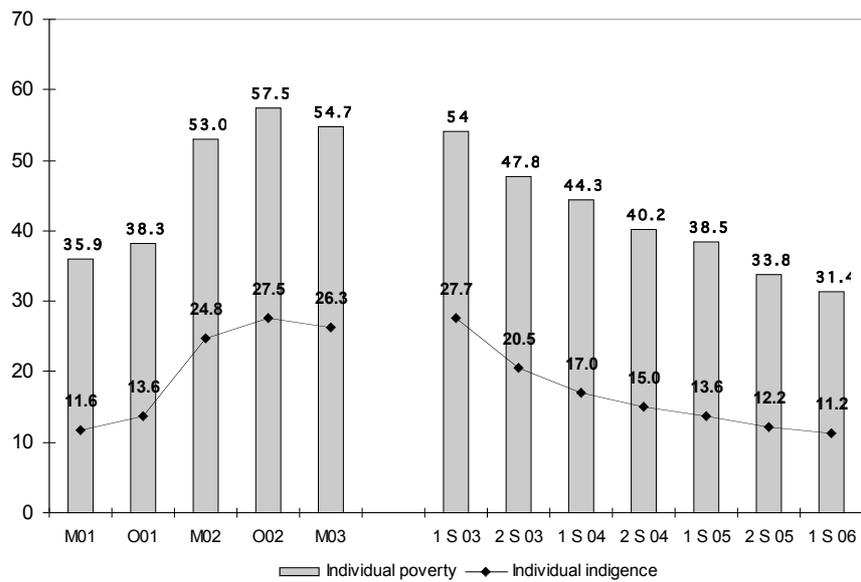
Source: Authors' elaboration based on data from EPH (INDEC)

Graph 17
 Real per-capita family income
 28 urban centers. Includes employment plans and annual
 complementary salary



Source: Authors' elaboration based on data from EPH (INDEC)

Graph 18
 Poverty and indigence
 28 urban centers



Source: Authors' elaboration based on data from EPH (INDEC)