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p. ruben mercado

University of Texas at Austin

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Dr. P. Ruben Mercado*

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* Senior Advisor, Undersecretary of Economic Coordination, Ministry of Economy,
Hipolito Irigoyen 250, Office 824, Buenos Aires, Argentina.

E-mail: rubenmerc@yahoo.com

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1. Argentina in the 1990s

Argentina experienced moderate growth rates during the import substitution industrialization strategy, an “inward looking” development strategy roughly lasting from the 1930s to the 1980s and characterized by the promotion of local industries oriented toward the domestic market. However, that growth came along with increasing volatility in GDP growth and growing and increasingly volatile levels of inflation. The source of this volatility has been attributed either to exogenous shocks or to endogenous causes, particularly to macroeconomic mismanagement (see Mercado 2001).

At the end of the 1980s, two hyperinflationary episodes created the social and political conditions for an ambitious experiment in economic policy. Then, at the beginning of the 1990s, the Argentine government implemented massive and dramatic changes in terms of economic openness, privatization and deregulation of the economy. At the same time, as an anti-inflationary tool, it put into place a “currency board system” or “convertibility system”, institutionalizing by means of law a fixed and unchangeable exchange rate equalizing one peso to one dollar, thus “forever” eliminating monetary and exchange rate policy from the policy tool box of the government. It was argued that such an extreme and stringent rule was necessary to provide a definite “cure” for a country where governments’ lack of monetary and fiscal discipline were common.

As it happens when governments decide to fight very high inflation or hyperinflation episodes by fixing the exchange rate as a nominal anchor (even without using the extreme recourse of implementing a currency board system) the new fixed exchange rate, usually accompanied by a new domestic currency name to create a sort of “psychological” effect marking the beginning of a “new era”, has strong effects on inflationary expectations and, in a relatively short period of time, inflation rates drop dramatically (see Agenor and Montiel 1996, Ch. 8).

Argentina was no exception to this. Moreover, the currency board system and the new currency name (peso instead of the previously named austral) came together with an

“emergency law” which gave to the executive branch of government almost absolute power to privatize state enterprises and to deregulate all markets. Thus, people quickly adjusted expectations, and the inflation rate dropped.

At the same time this experiment, in line with what was known as the “Washington consensus”, enjoyed significant capital inflows attracted in the 1990s by the “emerging markets”. The combination of capital inflows and a currency board system caused a strong monetary and credit expansion and contributed to an economic boom which lasted for several years.

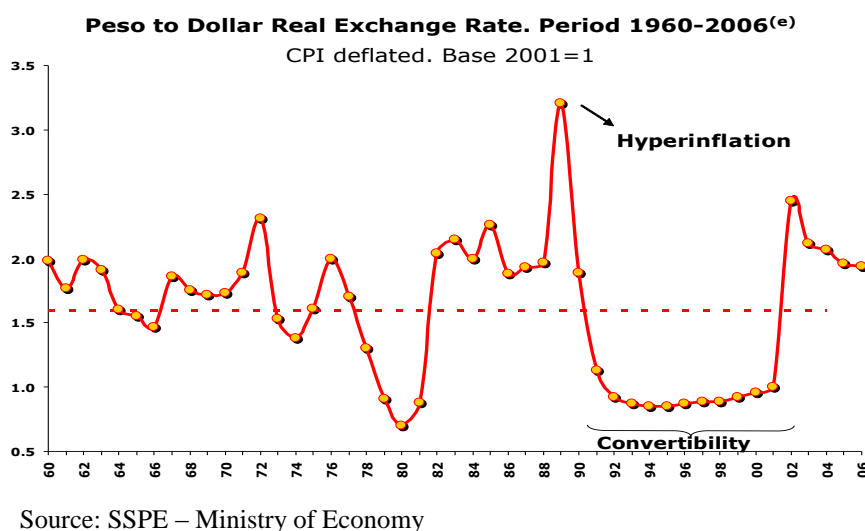
A typical characteristic of a currency board system is that what one gains in terms of stringent domestic monetary discipline, one loses in terms of buffering of external shocks. Indeed, the economy is left completely exposed to shocks stemming, for example, from capital inflows reversal or changes in the term of trade, thus experiencing dramatic changes in its level of activity. A first serious shock was experienced by Argentina in 1995 due to capital outflows induced by contagion of the Mexican crisis. After seeing its GDP drop by about five percent, Argentina quickly recovered in 1996, as also did Mexico. However, when international shocks became more serious and persistent after the Asian crisis and the Russian crisis, Argentina entered in 1998 the longest recession in its history.

Thus, by 2001 it was apparent that the currency board system had delivered one good thing (the end of inflation) and two bad ones (a never ending recession and, something that was increasingly recognized even by its early defenders, a significant currency overvaluation).² However, almost nobody was willing to pay the high exit costs associated with that system, taking into account that along the ten years of its life most contracts (with the exception of labor contracts), bank deposits and government debt were dollar denominated. This situation led to a sort of impasse in which successive economic administrations tried to save the system by means of orthodox fiscal policies

² For an extensive description and analysis of the “convertibility” era see Heymann and Kosakoff (2000).

(increasing taxes and cutting expenditures) in last minute attempts to buy “credibility” to stop capital outflows, something that in fact exacerbated the recession.

Thus, not surprisingly, the end of such a hard rule as the currency board system happened in the middle of a huge social, economic and political crisis, when a new administration³ was forced to abolish the law backing the currency board then devalue the currency. The graph below shows the evolution of the real exchange rate for the period from 1960 to 2006. The persistent overvaluation during the nineties and the sharp depreciation at the end of the convertibility era can be seeing clearly.⁴



2. Some theoretical explanations

Some alternative explanations have been put forward to account for the initial success then extreme failure of the Argentine experiment during the nineties.

³ Actually, there was a succession of several Presidents and Ministers of Economy within a few weeks.

⁴ Notice that between 1976 and 1982 the real exchange rate displayed a similar behavior to the one shown during the convertibility era. To deal with very high inflation levels, in 1976 the government adopted an exchange rate stabilization policy based on a crawling peg system, which allowed a sharp overvaluation of the currency and ended in a major currency depreciation together with a financial and economic crisis at the beginning of the eighties. The convertibility experiment adopted a stricter rule, lasted longer, and ended in an even worse crisis.

Orthodox views point towards “*fiscal mismanagement*” as the main cause of the failure, emphasizing the strict fiscal behavior required by a currency board system to be consistent and sustainable along time. A relatively simple story (e.g. Mussa (2002)) points out that, lacking recourse to monetary policy and its associated seigniorage revenues, governments are forced to finance their deficits with debt. Thus, excessive deficits may lead to increased debt and, in a worse case scenario, to insolvency. And they mention what they see as a relaxation of fiscal discipline at national and provincial levels during the second half of the nineties as the main cause leading to the crisis.

A more sophisticated picture emphasizes as the main problem the role of “*sudden stops*” in capital inflows after the Asian and Russian crisis (e.g. Izquierdo, Calvo and Talvi, 2003). The stop in capital inflows required, as the main adjustment mechanism to restore equilibrium, a significant depreciation in the real exchange rate. Since Argentina was a relatively closed economy, the required depreciation was very large. But a large real depreciation in the context of widespread dollarization of the economy creates serious financial problems. And moreover, when the country has a relatively large government debt denominated in dollars, it also requires a serious fiscal adjustment to avoid insolvency. And this view points out that the Argentina political system was not willing to make this adjustment, opening doubts on the sustainability of the whole system and creating credibility problems that, in the end, led to the crisis.

In contrast with the previous explanations, more heterodox views point out that fiscal problems became serious after the mid nineties, not so much as a cause but more as an effect of the progressive failure of the currency board system since government revenue fell because of the recession and government expenditure was mainly driven by debt interest payments (e.g. Damill, Frenkel and Juvenal, 2003). Heterodox views change the focus of attention and emphasize the role of “*nominal rigidities*” in the failure of the convertibility experiment. Indeed, the virtue of quick price stabilization by fixing the exchange rate usually comes at a cost. After fixing the exchange rate, inflation keeps going on for a while, particularly in the non-tradable sector thus inducing the overvaluation of the domestic currency. To avoid this, governments tend to relax or

readjust the nominal exchange rate after a certain period of time when inflation is no longer a serious danger. But the nature of the currency board system adopted by Argentina closed this door completely. Thus, the only hope for the government was to bet on deflation to happen more or less automatically.

However, it is well known that in modern economies nominal prices hardly ever go down significantly. And Argentina needed a large drop of about forty percent. This did not happen, in spite of the huge unemployment rates prevailing in the job market.⁵ Another possible cause for deflation, such as significant productivity increases, did not operate either, or at least it did not do so at the speed and with the intensity required (see Coremberg (2004)).

From a more general point of view, another explanation points towards problems of “*wealth misperceptions*” (Galvani, Heymann and Tomassi, 2002). They stress the point that the dynamics of the real exchange rate and the fiscal accounts have to be analyzed in the context of the expectations entertained about the future path of the economy by both domestic and foreign agents. The starting point is to notice that the government, asset holders and economic agents in general acted during the nineties as if the general economic situation need not cause big concerns, including the overvaluation of the currency and the fiscal situation.

To form long-run expectations, agents had to establish if the economic expansion of the early nineties marked a permanent growth trend change or if it was just a reversible cycle. They seemed to have decided for the first case as one could infer from the qualitative characteristics of the Argentine economy during the nineties, where agents acted as if their “permanent income” had increased. In such a case, many observed features of the Argentine dynamics (consumption boom, increase in investment in the non-tradable sector, appreciation of the real exchange rate and current account deficit) can be rationalized as arising from expectations of future productivity increases in the tradable sector together with expectations of fluid access to foreign capital during a

⁵ There was a very mild deflation of less than 2% a year during the last years of the convertibility regime.

transitional phase. However, the question posed by the Argentine experience is why the large changes in the values of real assets after the crisis of the currency board invalidated widely held beliefs and found so many people unprepared and “uninsured”. We will come back to this later.

3. A Surprising Macroeconomic Recovery

As was pointed out earlier, at the beginning of 2002 Argentina was forced to abolish the law backing the currency board and to devalue the currency. The immediate effects couldn't have been worse: GDP dropped by eleven percent, unemployment went up to more than 23 percent, the financial system was in bankruptcy and there was a significant degree of social unrest. This led many analysts to forecast uncontrollable dynamics for prices and the nominal exchange rate, a long depression and an almost impossible task of reconstructing a domestic financial system. Some of them even proposed a sort of “international intervention” on the Argentine administration to avoid a likely country collapse.

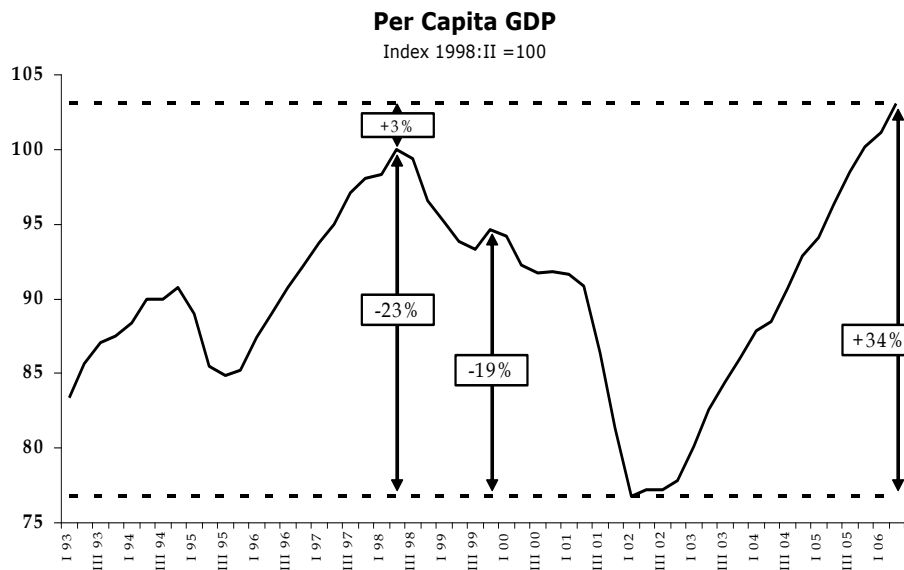
However, the new “post convertibility” macro policy consisted of a few and relatively “simple” steps:⁶ first devaluation then dirty float of the exchange rate allowing for a substantial real depreciation, thus switching relative prices toward the production of tradable goods; government debt renegotiation pointing towards a substantial debt reduction; some controls on financial capital inflows to avoid pressure toward the appreciation of the real exchange rate; “pesification” of all dollar denominated contracts, thus hurting creditors (e.g. bank deposits and bonds holders) and benefiting debtors (e.g. firms and mortgage holders); freezing of price increases in public utilities (now in private hands) and imposition of export taxes on the main exports of the country (mainly agricultural products) as a way of increasing government revenues at the same time as keeping domestic prices down for products for popular consumption

⁶ “Simple” in terms of policy design. Quite difficult in political terms since they implied a considerable degree of conflict with foreign and domestic creditors and bond holders, privatized utilities companies and the IMF. And quite controversial in term of the implicit “political economy”, that is in connection to the distribution of gains and loses among diverse economic and social actors.

such as bread, meat, etc.; and fiscal surpluses of about 3 percent of GDP as a way of having genuine funds to accumulate foreign reserves and to repay the government debt selectively (mainly the obligations to international organizations).

Surprisingly, in less than a year Argentina began to recover and it started the longest expansion period on record, with GDP growth rates of around eight percent a year, at the same time that inflation rates were very low. Let's take a look at some graphs depicting the main features of this recovery.

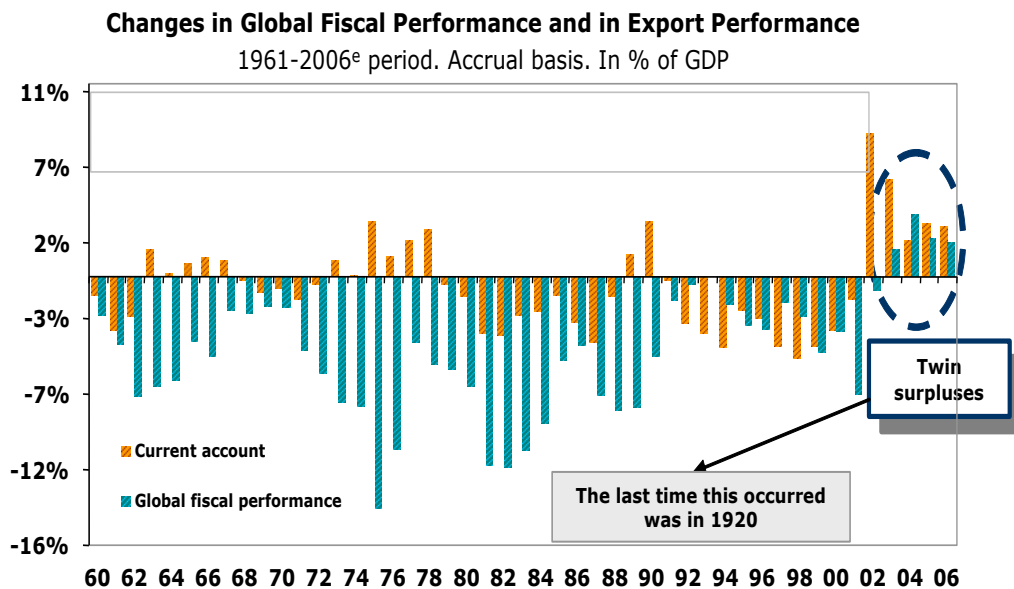
The graph below shows the evolution of Argentina's per capita GDP. It clearly displays the economic boom of the nineties, then the long recession starting in 1998 after the Asian and Russian crisis, then the collapse in 2001 with the crisis of the currency board. The rapid and strong rebound begins in 2002, accumulating a total increase of 34%.



Source: SSPE – Ministry of Economy

A quick and superficial look at the picture could make one think that we are facing “another” boom such as the one in the nineties. However, there are some particular features that seem to make this episode, so far, quite different from the previous one, and even from most of Argentina's historical experiences. Specifically, we mean the

behavior of the foreign sector and the government sector. The following graph shows the evolution of Argentina's current account and fiscal surplus.



Source: SSPE – Ministry of Economy

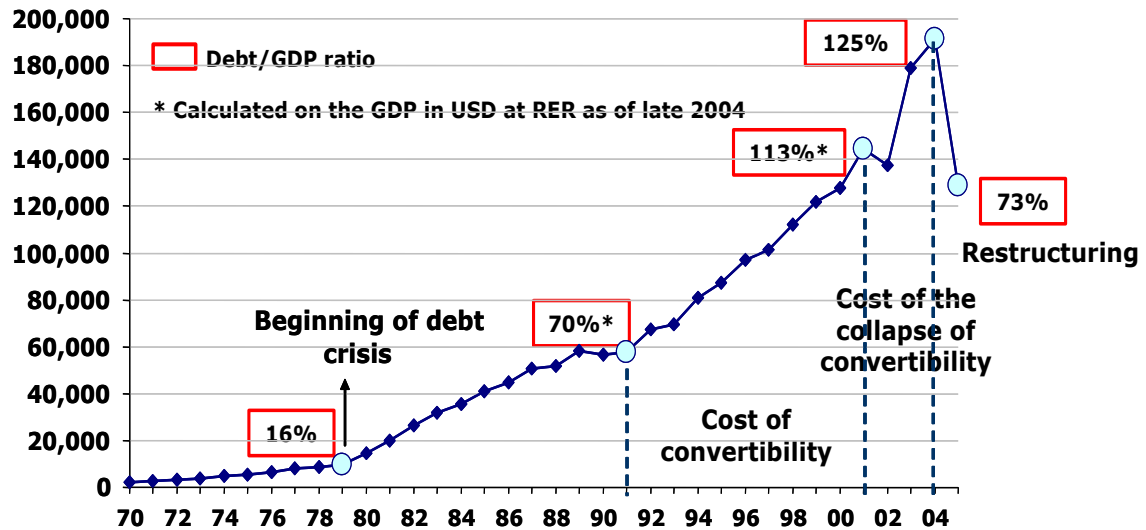
We can see a clear display of “twin surpluses” during the last five years, something hard to find in Argentine economic history. Moreover, we have to remember that these surpluses occurred at the same time that the country was experiencing a growth boom, a combination even more unusual by Argentine standards. In the meantime, as can be seen in the graphs below, other fundamental financial and real variables displayed a positive performance.⁷

The Argentine debt dynamics shows an exponential growth, reaching a peak of above 180 billion dollars in 2004 and amounting to 125% of GDP, and then down to 73% of GDP after the debt restructuring.

⁷ More extensive graphical information on the Argentine performance can be found in MECON (2006a and 2006b).

Changes in total public debt

1970-2005 period. In millions of US dollars, as of the end of the period

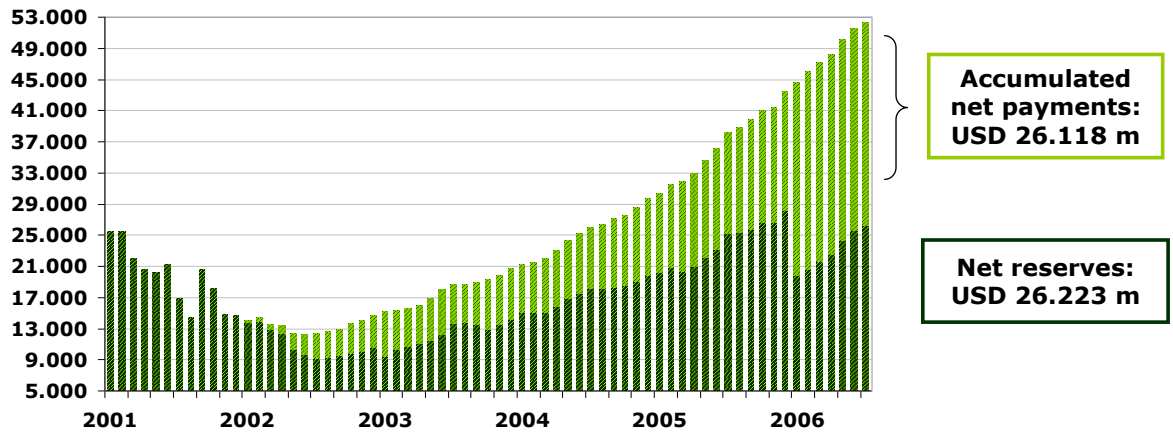


Source: Secretary of Finance – Ministry of Economy

In connection with the evolution of international reserves, we can see in the graph below that, after the crisis at the beginning of 2002, they display growing performance at the same time that payments were made to international organizations. Particularly noticeable is the one-time ten billion dollar payment made to the IMF in January 2006 to cancel the debt with that international organization completely, thus ending its conditionality on the Argentine economic policy.

Evolution of international reserves and net payments to international financial institutions (IFIs)

January 2001 – June 2006. USD million



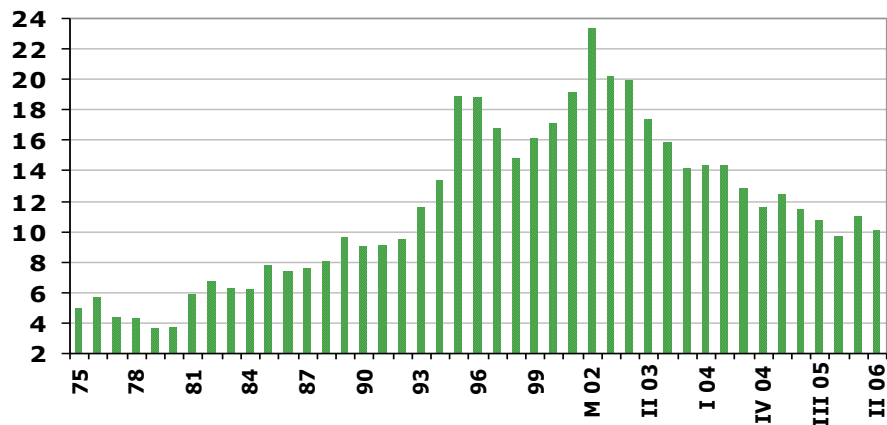
Source: Secretary of Finance – Ministry of Economy

Last but not least, after reaching a peak of more than 23%, the unemployment rate began to steadily decline to be about 10% by the end of 2006.

Unemployment rate. Urban total

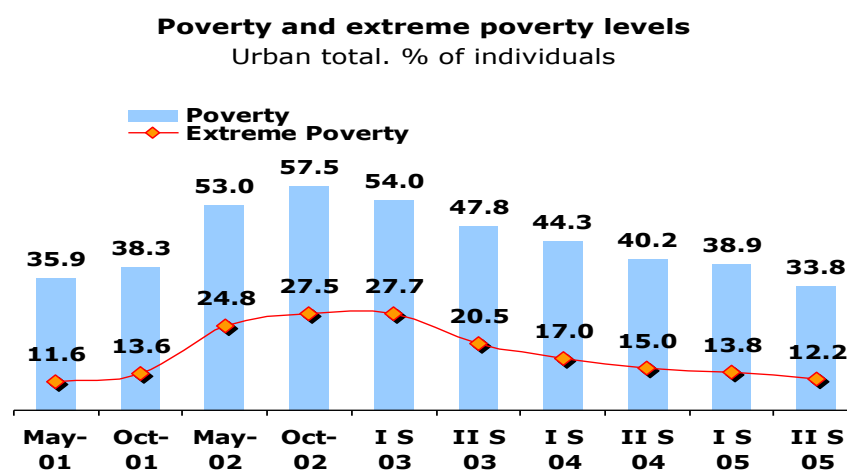
Evolution 1975–2006

Annual average rates 1975-01. % of PEA



Source: SSPE Based on INDEC – Ministry of Economy

Poverty and extreme poverty rates went up to 57.5% and 27.5% respectively at the peak of the crisis, to begin a steady decline. By 2005, poverty had gone down to 33.8% while extreme poverty reached 12.2%.



Source: INDEC – Ministry of Economy

4. Macro, Meso and Micro Challenges

Today's main "*macro challenge*" seems to be how to sustain the government's macro goals of high growth, a depreciated real exchange rate⁸ and low inflation when actual output gets closer to potential. The main macro tools in the hands of the government are fiscal policy, monetary policy and controls on capital inflows.

As long as the government maintains some capital inflows controls and uses its fiscal surplus to buy the foreign exchange generated by the trade surplus (be that to accumulate reserves or to pay foreign debt) a real appreciation of the exchange rate can be avoided.

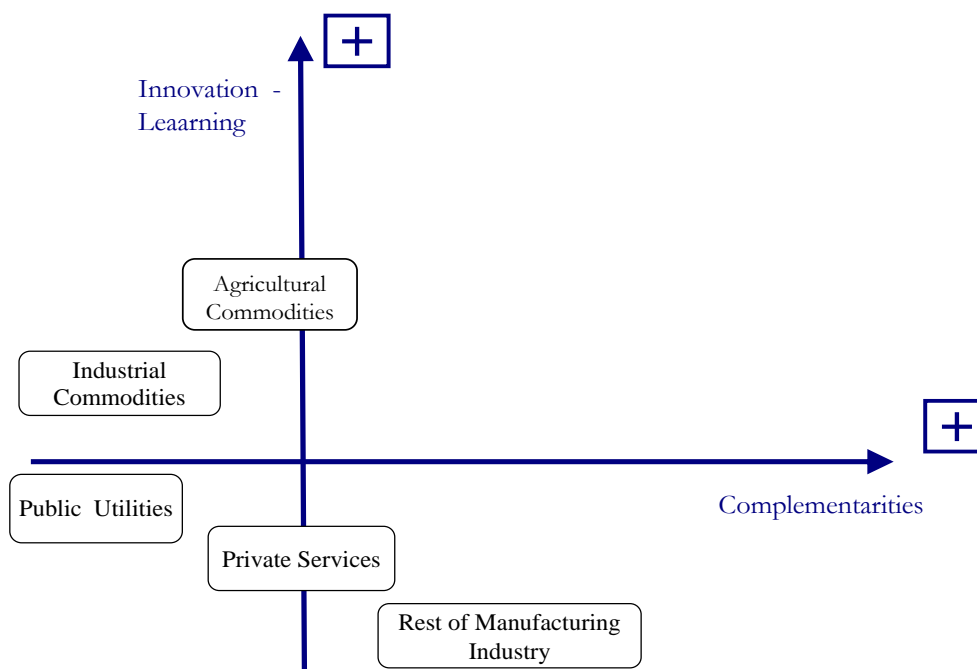
⁸ The goal of having a relatively depreciated real exchange rate is in a way a "reaction" to the disastrous experience of the nineties, when persistent currency overvaluation badly hurt domestic industries with high employment elasticity such as textiles, shoes and metal-mechanic. A depreciated real exchange rate, besides promoting a better export performance, provides an implicit protection to some of those industries.

A more difficult task is to keep inflation low while maintaining high GDP growth when actual output seems to be close to potential after several years of very high economic expansion. From the “cost side”, from 2005 onwards the price level has been pushed up by relative price changes expressing the transition from the price set corresponding to the currency board era (biased toward non-tradable production) to the new relative price set; by wage increases; and by increases in prices of imported inputs. From the demand side, the trade surplus and increasing levels of consumption and investment generate a strong aggregate demand that faces bottlenecks in factor markets and inputs supply putting short-run upward pressure on prices also. So far, monetary policy has been prudent, trying to cope with conflicting demands. On the one side, in trying to help to maintain a depreciated real exchange rate, it sometimes has to intervene strongly in the foreign exchange market to buy the excess supply of foreign currency. On the other side, to avoid an excessive expansion in the money supply, it tends to use some measures of sterilization. During 2006, when inflation expectations seemed to be building up, the government implemented price agreements with a number of sectors and firms. Surprisingly, they seemed to work relatively well and kept inflation below 10% for the whole year, but it is obviously a short-run policy that points towards inflation expectations as “transmission” or “amplification” mechanisms.

While in aggregate terms the recent performance of the Argentine economy has been very good, questions arise at the “*mesoeconomic level*”. There is not yet a clear and consensual vision of a path to follow in terms of international insertion and domestic production structure.⁹ The Argentine productive system relies mainly on the production of commodities and products of medium level of complexity, and on production processes with a relatively low technological content. Given its factor supply, mainly in terms of a qualified labor force, Argentina could aspire to begin to bias its production structure toward activities combining a high degree of innovation/learning and complementarities (that is, strong backward and forward linkages and positive externalities).

⁹ For some works oriented in that direction, see CEPAL-BID-Ministerio de Economía (2003) and CEPES (2004).

A schematic characterization shown below in terms of those two main dimensions depicts Argentina's current situation (Porta (2005)).¹⁰ The vertical axis shows, from bottom to top, an increasing level of innovation and learning, while the horizontal axis shows an increasing level of complementarities.



Source: Porta (2005)

The agricultural commodities sector, mainly comprised by the “Pampas” agricultural sector (and to a lesser degree the production of olives, lemons and honey) and their derived agro industries shows an important introduction of innovations but a low level of complementarities. The industrial commodities sector (steel, aluminum, paper, cars, and “differentiated products”) contains mostly “modernity islands” with weak systemic effects. Multinational corporations, with a heavy presence in this sector, face low exit costs and lack internalization of strategic functions, suppliers’ development and specialized branches. The sector of privatized utilities is low in innovations (with the exception of the telecommunications industry) and also in complementarities. Finally,

¹⁰ The graph presents aggregate sectors in a very schematic way. Therefore, there are some sub-sectors or firms that display characteristics that do not fit the sectoral classifications completely.

private services and the rest of the manufacturing industry developed a “defensive adjustment” during the nineties characterized by a high degree of informal activities, predatory competition, subsistence strategies and low average productivity. However, these sectors generate a considerable part of total employment.

The graph clearly shows the “missing or empty quadrant” in Argentina’s economic structure, that is the space toward industrial policy should try to “bias” this structure. In this regard, it is not the lack of instruments (there are dozens of instruments and promotion programs providing tax breaks, subsidies, subsidized credit and technical assistance) but their lack of strategic orientation, their superpositions, and the lack of monitoring and evaluation (Baruj and Porta (2005)) that are the main shortcomings and thus challenges for Argentina’s industrial policy. Also, an approach to instrument design characterized by the direct “dump” of resources on the beneficiaries, instead of one of designing incentives and mechanisms to allow a better use of agents’ resources by changing their environment of constraints, is a heavy load in the country’s industrial policy practice.

An important interplay between the macro and meso levels, typical of the Argentine economy, has to do with the fact that the main exports of the country originate in the agricultural sector which, at the same time, produces the main foodstuffs for the Argentine labor force. Thus, a real depreciation of the exchange rate or a substantial increase in export prices tends to deteriorate the real wage and puts a substantial upward pressure on the domestic price level and on nominal wages. This particular relationship has been at the core of the stop-and-go cycles experienced by the Argentina economy for decades during the import substitution industrialization strategy (see Mercado 2001) and even today seems to be a problem. Some authors (e.g. Gerchunoff (2006)) see this historical problem of the Argentine economic structure and macro dynamics as going away as Argentina has shown changes in its export composition and labor market over the last two decades. However, this “dual” (macro-meso) policymaking challenge still seems to be relevant, at least in part, as shown by the widespread system of export taxes instituted by the government in order to keep domestic prices and wages under control,

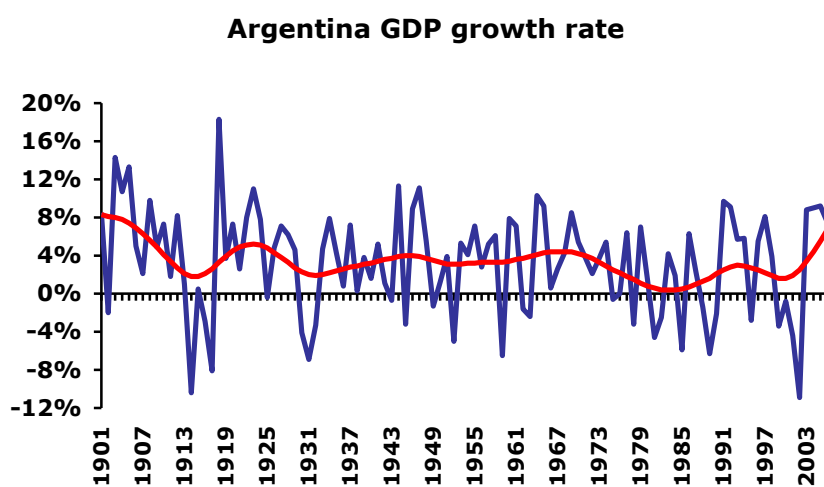
and it calls for changes in export composition as well as in the consumption pattern. This also points toward the fact that, in terms of factor endowments, Argentina is relatively abundant in natural resources thus its production structure, left to itself, tends to gravitate toward specialization upon its static comparative advantages in those resources. Therefore, the challenge of moving the production structure to the “missing quadrant” has to take into account this “gravitational force” then imagine an appropriate transition path (Navajas (2006)).

Finally, and somewhat in connection with the necessary changes in the approach to industrial policy instruments design mentioned earlier, at the “*micro level*” the main challenges have to do with the improvement of the general conditions for competitiveness of the country. While competitiveness indexes are controversial (e.g. the ones developed by the World Economic Forum and by the IMD), Argentina has not ranked well in a number of dimensions. Significant improvements should be made in terms of human capital accumulation (quality of the educational system); financial, technological and physical infrastructure; and institutional framework (workings of the legal system; quality, transparency and celerity of public administration; efficiency and equity of the tax system and government spending; and application of competition defense laws and regulatory frameworks of public utilities).

5. Uncertainty and Policymaking

In spite of the impressive macroeconomic recovery of the Argentine economy, there are still a number of challenges at the macro, meso and microeconomic levels. Certainly, they are not minor challenges for policymaking. A serious approach to them should take into account that the government, in order to act effectively, has to gain knowledge of the economy on which it will operate, while economic agents have to form expectations on the likely course of the economy and on government policies.

We mentioned earlier the point made by Galiani, Heymann and Tomassi (2002) in terms of the problem of expectations formation and wealth misperceptions, particularly in what they call “economies in transition” such as the Argentine economy. Their point is not why wealth perceptions can change, since they can and should change due to shocks of different nature thus bringing about changes, sometimes very significant, in the economic dynamics. Their issue is more general and has to do with wealth misperceptions, arising in an economy prone to relatively frequent structural changes. In this type of economy, agents have a serious problem to detect and project growth trends thus to make the correct long-run decisions, since they face what is known as “model uncertainty”. The graph below, showing the high variability of the GDP growth rate of the Argentine economy from 1901 to 2006 and the Hodrick-Prescott trend, gives us a rough idea of this problem.



Source: SSPE – Ministry of Economy

Of course, not only private agents but also policymakers face that kind of problem in an economy such as the Argentine economy. Frequent structural changes, large and volatile shocks, and lack of sufficient and reliable statistical information make crucial behavioral functions, their systemic relationships, and their corresponding parameters

very difficult to model and to estimate (e.g. the shape and parameter values of Argentina's money demand function are difficult to figure out, as it is the level of potential GDP).

Model uncertainty (Blinder (1998)) and even parameter uncertainty (Mercado and Kendrick (2006)) pose very difficult problems for policymaking. In general, their existence should induce policymakers to abandon the illusion of having a rigid set of policy recommendations to stick to no matter what, to adopt a more humble (perhaps cautious) attitude, and to pay particular attention to learning and buffering devices, stochastic elements (Kendrick (2005)) and robustness (Hansen and Sargent (2003)) when designing policy and institutions.¹¹

Since the beginning of the nineties, Argentina has been an economy full of surprises. It displayed a remarkable boom after the adoption of an extremely orthodox and rigid policy to later end in a deep crisis, and it now displays a surprising high growth after the adoption of more heterodox measures. But surprises are, in a way, a strong indication of our degree of ignorance. Thus, it would be a mistake to believe that we know the "true" model thus stick to the current path in an uncritical manner. It would be better to not to disregard the macro, meso and micro challenges still ahead. And, moreover, to recognize the high degree of uncertainty stemming not only from the international context, but also the one embedded in the Argentine economic structure dynamics and the difficulties to gain accurate knowledge of its likely and feasible growth trends, then make the effort of thinking and designing policy and institutions taking this facts seriously into account.

¹¹ The issue of policymaking under uncertainty and the associated issue of learning mechanisms has been a matter of concern in Macroeconomics for a long time. Interestingly, the so called "new industrial policy" emphasizes the need of viewing policymaking and policy implementation as a process of experimentation and learning, that is a process of identification and mitigation of key constraints to growth in successive periods (see for example World Bank (2007)).

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