

REFORM AFTER THE STORM: IMPLEMENTING INFLATION TARGETING IN ARGENTINA

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I. INTRODUCTION*

One of the most broadly accepted explanations of the 2001 Argentine debacle points to the inconsistencies between the key economic policies implemented during the 1990's. To be sure, the monetary and exchange rate policy anchored on the Convertibility Plan was not sustainable in an environment of growing fiscal deficit and external debt. Even though the Argentine ratio of fiscal deficit to GDP was not elevated, if we compare it that of industrial countries, its characteristics reveal that it was unsustainable for an emerging economy. As M. Mussa highlights, Argentina has structurally experienced problems in raising its tax revenue above 20% of GDP, its debt to GDP ratio increased during times of satisfactory economic performance, and the country is prone to external shocks and to changes in financial markets sentiments (Mussa 2002).

Moreover, the "sudden stop" of foreign capital introduced a hefty restriction on the ability of the Central Bank to sustain the hard peg. While the "sudden stop" could be considered as an "external shock", and therefore not created by any economic policy inconsistency, the impact that the lack of external financing had on the ensuing of the currency crisis was primarily determined by the existence of the currency board. It is worth

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noting that the constraint imposed on Argentina's external borrowing practices by what Eichengreen, Hausmann and Panizza define as "original sin" – the inability of many countries to borrow in their own currency – is not only related to the macroeconomic policy inconsistencies of the 1990s, but also to structural economic and institutional characteristics of the Argentine economy that are not the object of this article.¹

The purpose of this article is to analyze whether the new monetary policy path that Argentina has considered adopting – i.e., the introduction of an inflation target mechanism (IT) – is sustainable in the long-term. Our study will begin by reviewing the rationale and the design mechanisms of IT. Then we will explore the characteristics pointed by the literature as the principal requirements for a successful implementation of the IT mechanism. Thirdly, these requirements will be applied to the current Argentine economic and institutional framework in order to determine whether the system could be maintained in the long-term. We will draw conclusions in the final section with references to MERCOSUR.

II. INFLATION TARGET: AN EXPLANATORY VIEW

"Contagion" does not exclusively apply to currency crisis in emerging markets. It also seems to pertain to the macroeconomic policies established. In this sense, it looks as if IT is in fashion in emerging economies, especially in those that experienced a dramatic devaluation after abandoning a peg or a hard peg. In the specific Latin American context, Brazil, Chile, Colombia Mexico and Peru have selected IT as their stabilization tool with relative success.²

This time, Argentina is no exception to the trend. After a period of relative uncertainty in the monetary and exchange rate strategy fronts,³ in 2003 the former governor of the Central Bank, Alfonso Prat-Gay, announced that the country would adopt an IT strategy in late 2004.

IT is generally defined as an institutional pledge by a Central Bank to accomplish price stability as the primary goal of monetary policy. The direct control of inflation by the Central Bank is executed by its fully and explicit commitment to an inflation target that is precisely quantified. To attain the target, the monetary authority steers the instrument selected. Changes in such instrument would affect future inflation through the effect on inflation expectations. While the Central Bank has room to maneuver in selecting the monetary tools, the institution should be accountable for achieving the inflation goal.

The correct implementation of this strategy requires that the monetary authority enjoy a high degree of isolation from the executive and legislative powers. Moreover, given the critical role that expectations play in the success of this stabilization strategy, it is essential that the Central Bank establish transparent mechanisms to announce the selected target and the rationale for the decisions adopted by the institution (Bernanke *et al* 1999; Bernanke & Mishkin 1997; Croce & Kahn 2000). It is also crucial that the monetary authority justifies to the public the reasons for any deviation from the target as well as the grounds for changes in the policy tools.

Diverse adaptations of IT were initially adopted by industrialized countries such as Canada, New Zealand, Sweden, Spain, and the United Kingdom, to name only a few. It is generally accepted that countries adopting this strategy have experienced low inflation rates and steady economic growth. However, as Bernanke and Woodford (2003) point out, these outcomes could have very well been promoted by causes not related to the monetary policy strategy. Also, Ball and Sheridan (2003) find no evidence that IT, on an average, improves performance in terms of inflation and/or output.⁴

Given the institutional differences between the industrialized countries and emerging markets such as Argentina, the experience of the former is only relevant to the latter for the “learning process” – i.e., the body of knowledge conformed by years of industrial country experience with IT. For the specific case of emerging economies, it should be noted that the implementation of IT strategies is relatively recent which complicates the analysis of definitive results in terms of the inflation levels achieved vis-à-vis other monetary strategies and in terms of the short-run trade off between output and inflation.

As a reaction to the recent embracing of inflation target strategies by emerging economies, the mainstream academic literature has brought back to the table the analysis of its advantages and disadvantages. Most of the disadvantages of an inflation target mechanism are related to the requirements needed to put it in place. Thus, we will focus now on the generally agreed advantages restricting our analysis to those that are relevant for emerging markets. We will survey the shortcomings as a central part of the study on the inflation target requirements.

Advantages

- a) *High degree of transparency and improved credibility*: Mishkin (1997, 2002) and Calvo & Mishkin (2003) forcefully argue that the inflation target strategy is, if implemented correctly, a very transparent device to

achieve low inflation levels. This advantage is particularly crucial in emerging markets with low institutional credibility that need “constraint discretion” to avoid the temptation of using expansive monetary policies.⁵ Transparency directly affects inflation expectations by making information about the target, the instruments, and potential deviations readily available to the public. Transparency also has an indirect effect on inflation expectations through the credibility channel. To be sure, improved transparency increases the credibility of the Central Bank’s role in keeping the price level under control. In so doing, the credibility of the monetary authority will encourage the convergence of inflation expectations toward the selected target. Credibility is also positively affected by the effect that the IT has on policy makers’ incentives to remain faithful to the target and to reach a consensus between the government, the trade unions and the Central Bank about the commitment to the target (Sterne in Loayza & Soto 2002).

The benefit is twofold for the Argentine economy. On one hand, monetary authorities need to restore confidence among the public and adopt an alternative nominal anchor after abandoning the hard peg.⁶ On the other hand, the threat of inflation is still vibrant among the Argentine economic agents and, therefore, a credible and transparent commitment to a low inflation target could positively influence inflationary expectations.

- b) *Monetary Policy Flexibility*: The monetary discipline imposed by the target itself and by the commitment to the target does not enter into conflict with the selection of the monetary instruments. In this sense, an inflation target strategy allows monetary authorities to conduct a relatively independent monetary policy.⁷ This advantage is especially important for countries like Argentina where the lack of effective stabilization tools is very costly in the context of an external shock.

When compared to the previous nominal anchor, the quasi-currency board, an IT enables the monetary authorities to adopt stabilization measures. Mishkin and Schmidt-Hebbel (2001) argue that the inflation target strategy has, in fact, been tested in the context of adverse shocks. The result in countries where exchange rate devaluations took place was far from the expected pass through from exchange rates to inflation levels. However, in a context of a high pass-through coefficient, the volatility of the exchange rate could have a destabilizing impact in both real and nominal variables.⁸

- c) *Alleviation of Time-Inconsistency Problems*: The theory of time inconsistency highlights that, if a central bank cannot compellingly commit to respect inflation announcements, expected and actual inflation will be larger than if such a commitment could be made. The time-inconsistency problem is particularly acute in emerging markets with low degree of policy credibility and reputation. The inflation bias problem associated with time inconsistency may be resolved if monetary authorities achieve a good reputation with the public (Chang 1998). In this sense, the pre-announced commitment to an inflation target by the Central Bank could increase its credibility and reputation given that the strategy has been adopted in such a fashion that allows the monetary authority to gain trustworthiness among the public.
- d) *Increased Independence of the Central Bank*: Independence of the Central Bank is not only a key requirement for the successful implementation of an inflation target, but it also enhances Central Bank independence and accountability (Mishkin & Savastano 2000). An IT mechanism would only achieve its goals by making monetary policy transparent and by implementing a certain pattern of communication with the public. In so doing, the Central Bank can improve its “image” allowing therefore a healthy survival of the IT regime and weakening, at the same time, the aforementioned time-inconsistency problems.

Calvo and Mishkin (2003) argue that, over time, the type of Central Bank behavior associated with an IT might increase support for the survival of such independence. It is noteworthy that the successful implementation in Brazil of an inflation target in January 1999 has improved the Brazilian Central Bank reputation and credibility even though it is not formally independent.⁹

In summary, an IT strategy is a monetary policy framework that is centered on the establishment and public announcement of an inflation target. Reaching and maintaining such target is the primary goal of the Central Bank. An IT could offer a relatively flexible framework for monetary policy in the specific case of emerging markets prone to large fluctuations in terms of output, exchange rate and current account levels. Moreover, the IT increases the transparency of monetary policy and the credibility of the Central Bank. In so doing, it could collaborate in achieving a sound macroeconomic policy framework that positively affects expectations both at home and internationally. As we have already mentioned, the IT disadvantages are related to the fundamentals necessary for its correct implementation.

III. REQUIREMENTS FOR IMPLEMENTING INFLATION TARGETING IN AN EMERGING ECONOMY

Most of the scholarly and policy literature on IT highlights a set of conditions that need to be in place for a successful implementation and development of an IT system. In this section, we will review these requirements paying special attention to those relevant to the emerging economies. We draw from (Bernanke *et al* 1999; Blejer *et al* 1999; Eichengreen 2002; Fraga *et al* 2003, Masson, Savastano & Sharma 1998; Mishkin 2002; Mishkin & Posen 1998; Mohanty & Klau 2004).

Central Bank Independence

Independence of the Central Bank has long been considered as a force limiting the government from using the monetary system to achieve political goals that could challenge the goal of price stability (Cukierman 1992). The Central Bank *de facto* independence is crucial for the correct implementation and development of an IT strategy. Moreover, the Central Bank should enjoy a mandate to attain price stability that will further isolate it from executive power pressures. This is especially important for emerging economies, which usually suffer from institutional weaknesses.

There are several reasons that justify the independence requirement. First, *de facto* instrumental independence will encourage a credibility effect that will in turn favor the convergence of the public's inflation expectations to those of the monetary authority. Second, as we have already mentioned, the isolation of the Central Bank from political pressures will contribute to solve time-inconsistency problems. Third, monetary authorities need to freely select and steer the monetary policy instruments toward the nominal goal previously announced. Any political intrusion that affects the inflation target framework could not only deviate the inflation level from the target path, but also send a non-credibility signal to both the domestic public and the financial international markets. To be sure, while the government could participate in the selection and public announcement of the target, it is absolutely necessary that it is the Central Bank that chooses the instruments.

Finally, and related to the next requirement, it is vital that the Central Bank does not suffer from any pressures from the executive power to finance the budget deficit. Thus, legal independence of the Central Bank is not sufficient for achieving and maintaining price stability if fiscal policy lacks discipline.

Absence of Fiscal Dominance

The first authors to point out the inability of conducting an independent monetary policy in the presence of a fiscal dominant regime (lack of fiscal discipline) were Sargent and Wallace (1981). These authors argued that if the fiscal authority sets its deficits independently, and the deficits cannot be financed solely by new bond sales, the Central Bank would have to accommodate the use of its instruments to a higher rate of inflation.

In certain emerging economies, the public budget is generally a source of instability for the design of monetary policy. There are several reasons that could explain the existence of a fiscal dominant regime:

- a) A weak tax collection system aggravated by a large degree of tax evasion. This feature is normally related to deficient fiscal institutions and lack of credibility on policy-makers
- b) Overspending at the central and/or regional government level which is explained by the socio-political polarization that exerts pressure on the public budget and by the inheritance of decades of State intervention in the economy.
- c) Interaction between the public budget and a weak financial system that is not deep enough to absorb government debt encouraging, therefore, its monetization. In the event of a banking crisis, there is yet another channel of interaction through the government's absorption of the banking system liabilities.

The impact of fiscal dominance on an IT regime can be summarized as follows: When the public sector resorts to deficit monetization it can encourage inflationary pressures that affect the IT system. The impact is both direct, through the increase in inflation, and indirect through the effect on inflationary expectations. Budget deficits financed by the Central Bank jeopardize the credibility of the IT strategy and credibility is, as we have already mentioned, the IT's Achilles heel. Moreover, speedy money growth exerts downward pressure on the exchange rate therefore increasing the probabilities of missing the inflation target.

Secondly, in the presence of fiscal dominance, IT countries are more prone to external shocks that emanate from international commodity and financial markets. This is especially relevant for emerging economies where the perception by financial markets that the fiscal unbalance is unsustainable can easily lead to a "sudden stop" of capital inflows and a currency crisis (Kumhof in Loayza & Soto 2002). The impact of such crisis

affects the inflation target especially in countries where the pass-through coefficient is high.

Thirdly, IT regimes are normally accompanied by flexible or semi-flexible exchange rate systems. Such systems have been traditionally considered as an incentive for fiscal overspending vis-à-vis hard-pegs. However, authors like Tornell and Velasco (1995) highlight that a flexible exchange rate system allows for fiscal policy inconsistencies to manifest themselves in the present time through movements in the exchange rate encouraging, therefore, the adoption of fiscal adjustment measures. The experience of Argentina, where fiscal weakness remained largely hidden by the currency board, seems to corroborate the idea that a hard-peg is not the holy grail of sound fiscal policies and therefore, the adoption of an IT under a flexible exchange rate system should not encourage *per se* irresponsible fiscal policies.

Finally, a regime of fiscal dominance is prone to government default, especially in emerging markets. Increases in the interest rate level engineered by the monetary authority in the context of high public debt and weak domestic financial markets where liabilities are largely denominated in foreign currency are a source of instability for the IT regime.

Characteristics of The Monetary Policy Framework

Taylor (2002) suggests that the selection and adoption of a target for the inflation rate is not enough to stabilize inflation and to anchor inflationary expectations. The instruments used to reach the target and sustain it over the long-term determine the success of the IT strategy in terms of the short-term impact on output, the exchange rate and the credibility of the target itself. Moreover, the features of the explicit inflation target and the time horizon selected also affect the success of the IT through its impact on credibility and through the compatibility with the monetary policy lags respectively. The inflation target is, in most cases, the Consumer Price Index or a variation that excludes certain items especially prone to supply shocks.¹⁰ This target is either specified as an interval or as a point target. Table 1 specifies both the target and the time horizon for selected emerging markets.¹¹

The IT monetary policy framework also requires a procedure for achieving the inflation target. Svensson (1999) and Masson, Savastano and Sharma (1998) recommend the adoption of an internal inflation forecast used by the monetary authority as an intermediate target that facilitates a transition path for deviations from the goal. Given that monetary policy influences inflation with a lag, the existence of a forward-looking operating procedure is essential for the correct functioning of the IT. Such an

operating procedure requires the Central Bank to achieve the technical capabilities that will enable its analysts to design models for forecasting inflation. According to Schaechter *et al* (2000), the forecasting tools should include: indicator variables, quantitative economic variables, dialogue with market participants and, for the specific case of emerging economies, qualitative judgment. The reliability of the forecast model will also depend on the monetary authorities' knowledge of how the economic system works, especially of how the monetary transmission mechanism operates.

Table 1 – IT Framework in Selected Emerging Markets

Country	Inflation Target	Target Specification	Target Horizon
Brazil	Headline CPI	Point with a deviation band	1 year
Chile	Headline CPI	Interval (1991-1995) Point (1995 --)	1 year (1991-2000) Indefinite (2001--)
Mexico	Headline CPI	Point (1993-2003) Similar to trade partner's inflation (2003--)	1 year (1998-2002) Indefinite (2002--)

Source: Author's elaboration based on Mishkin and Schmidt-Hebbel (2001).

One of the main components of the transmission mechanism is the role played by expectations. In this sense, the public announcement of the target by either the Central Bank or the Central Bank jointly with the government is a crucial tool of the monetary policy framework. To be sure, if the Central Bank enjoys a relative degree of credibility, public announcements of the target and transparent information about potential deviations from the target, will collaborate in closing the gap between inflation expectations and the inflation target.

Regarding the policy implementation, while inflation targeters have adopted very different implementation strategies, most IT countries use indirect market-based instruments to target a short-term interest rate. The instrument is used to balance deviations from the target.

Absence of Exchange Rate Dominance

For IT to deliver the expected results, price stability should always be assigned higher priority vis-à-vis other goals. In the specific context of emerging markets, tensions could easily arise between the exchange rate and the inflation target. Exchange rate shocks tend to be large and relentless in these types of economies and therefore, the stability of the exchange rate is a legitimate concern for policy-makers, especially in those economies where the pass-through of the exchange rate into prices is high.¹²

The currency crises that swept around emerging economies during the second half of the 1990s have encouraged a growing stream of scholarly research that focuses on the effects of the exchange rate system on both nominal and real variables. Within this literature, we could distinguish two general approaches with regard to the requirement of absence of exchange rate dominance.

J.B. Taylor (2001) argues that emerging economies should base their monetary-exchange rate policy in what he has labeled as the “trinity” of a flexible exchange rate, an inflation target, and a monetary policy rule. While Taylor acknowledges the effects of the exchange rate on prices through the pass-through coefficient and interest rates through capital markets, he argues that it is not necessary to include the exchange rate in the reaction function.¹³ To be sure, a variation on the exchange rate will increase the probability that the Central Bank will modify the interest rate in the future to compensate for the effects on real GDP and on inflation.

By the same token, Mishkin and Savastano (2001) sustain that the pass-through coefficient is regime dependent and, therefore, the incorporation of exchange rate evolution information into inflationary expectations diminishes as the public understands and gets used to inflation target functioning.¹⁴ Thus, according to these authors “exchange-rate dominance” is compatible with an IT system.

There are authors, however, that sustain that emerging markets’ Central Banks would sacrifice the inflation target in the event of an exchange rate depreciation. Ho and McCauley (2003) show that emerging economies that do not comply with their inflation targets are generally the ones experiencing acute exchange rate volatility. Their Central Banks could raise interest rates when confronted with sharp currency depreciations even though this increase would imply missing the inflation target.

Eichengreen (2002) highlights that an adaptation of the Central Bank’s reaction function to include the exchange rate, as proposed by Ball (1999) is not enough to guarantee the feasibility of IT in a financial crisis-prone environment. While this is especially true in emerging economies where there is a high degree of liability dollarization, it is the nature and effects of liability dollarization together with the monetary authority’s credibility what will ultimately determine the viability of an inflation target strategy.

All of the literature surveyed points to exchange rate variability and attempts to control such variability in countries prone to currency crisis as either an impediment or a restriction for a successful adoption of an inflation target regime. It is clear that exchange rate variability is determined by both domestic and international factors that are out of the

reach of monetary authorities. However, acquiring knowledge about the monetary policy transmission mechanism, particularly about the role played by short-term interest rates, the exchange rate, and financial markets should help monetary authorities to design an appropriate policy framework.

In summary, all of the aforementioned requisites would determine the degree of success of an IT strategy in the specific context of an emerging economy. While the mid-1990s theoretical approaches to the analysis seem to conclude that IT was not suitable for emerging economies, the more recent literature appear to preach the benefits of IT for emerging markets with sound macroeconomic policies. A review of the necessary requisites for a sustainable IT strategy reveals a strong interaction among most of the variables analyzed.

IV. IS ARGENTINA READY FOR AN IT?

In the Memorandum of Economic and Financial Policies for 2003–2006 presented by the government of Argentina to the International Monetary Fund (IMF), one of the points raised is the call for “greater independence and accountability in the implementation of monetary policy-leading to an inflation targeting regime” (IMF 2003).

While this Memorandum did not specify the features of the IT to be adopted, the President of the Central Bank, in his presentation of the Monetary Program for 2004 before the National Senate, stated the two main objectives of the institution distinguishing between:

- a) Primary and Essential Objective: To contain and to stabilize inflation expectations
- b) Broader Objectives: To avoid stifling the economic recovery, and not to rely on the easy but costly solution of an overvalued currency.

If we take into consideration that the Argentinean Central Bank suffers from credibility problems, we can assert that Argentina would follow what Carare and Stone (2003) define as an “Inflation Targeting Lite,” – i.e., the adoption of a broad inflation goal combined with other economic policy objectives such as output and/or the exchange rate.

This section will apply the requisites described in earlier section to the specific Argentine context. In so doing, we seek to shed some light on the suitability of an IT regime for the Argentinean economy.

Central Bank Independence

From the point of view of its anti-inflationary stance, we could assert that the Argentinean Central Bank has been fairly independent during the 1990's. However, the evidence from the Central Bank's behavior and its

interaction with the Argentine government from 1991 to 2002 is not that relevant for the future implementation of an IT since a currency board system leaves no room for government interference in the activities of the Central Bank. While the Argentine currency board was not orthodox and left some room for active monetary policy, the Central Bank operated with a fair degree of independence until the crisis began to ensue.

The collapse of the currency board system, the financial crisis and the uncertainty about the future path of monetary policy, has affected both Central Bank's credibility and its independence from the government. Since 2002, there have been five different presidents of the Central Bank and two of them, Aldo Pignanelli and Mario Blejer, have blamed government interference as reasons for their resignations. Moreover, a rapid turnover of central bank governors indicates a lower level of independence given that it could reflect that the government exerts pressure on those governors who challenge its interference in monetary affairs.¹⁵ A review of the main Argentine newspapers also reveals tension between Central Bank governors and the Economic Ministry since April 2001.

The arrangements for the adoption of an IT regime were designed and implemented under the Central Bank presidency of Alfonso Prat-Gay who has recently resigned. During his time serving at the institution, there were clear signs of government interference in the monetary activities. We highlight contradictory declarations between the Economic Ministry and the Central Bank about the role of exchange rate interventions and the creation of the "Unidad de Reestructuración del Sistema Financiero" (Financial System Restructuration Unit).

While the President of the Central Bank forcefully stated that "the concept of backing the monetary base is an archaic concept related to the fixed exchange rate era" (translated from Prat-Gay discourse before Senate) discarding strong intervention in the foreign exchange market, the Ministry of the Economy sustained that "it is necessary to establish a floor for the US dollar" referring to the continuing appreciation of the peso vis-à-vis the US dollar. The creation of the URSF could also be interpreted as an interference of the Economic Ministry in the Central Bank's operations. To be sure, the goal of the Central Bank Supervision and Follow-Up unit is "To control the creditworthiness and liquidity of financial entities and monitor the due fulfillment of prudential regulations issued by the BCRA" (BCRA web page). This mission could be replaced with the activities of the URSF managed, its first year, by a president designed by the Economic Ministry.

Within the preparatory work to implement the IT regime, the Central Bank appointed a working group to analyze the prospects for changes to

the Central Bank charter that would enhance both independence and accountability to the congress and to the public.

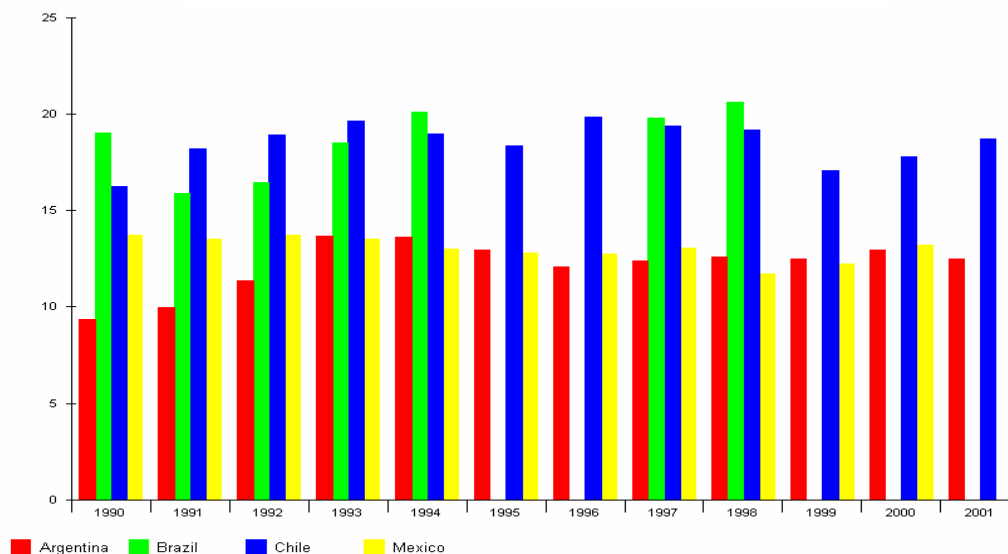
It is worth noting that neither the Chilean Central Bank, nor its Brazilian counterpart was independent before adopting the IT system. In both cases, the strict commitment of the monetary authorities to price stability as defined by the targets adopted increased Central Bank's credibility. The Brazilian example has also shown the importance of the government commitment to the IT strategy.

Executive power's public support for IT is crucial to acquire and increase the credibility of monetary policy and of the Central Bank itself. A joint selection of the target and a joint public announcement of the target values for 2005 and 2006 were included in the aforementioned Memorandum. These examples of fine-tuning could have positive effects in reducing public's distrust in Central Bank management. However, as Heymann and Ramos (2003) note, in the current context, the potential positive effect of the target announcements will only increase policy credibility with the continuing achievement of the announced target. Moreover, there is a risk that an inflation-targeting strategy could be perceived as too inflexible. Without a *de facto* Central Bank independence, pressures could mount to adopt expansionary monetary policies at the risk of missing the target.

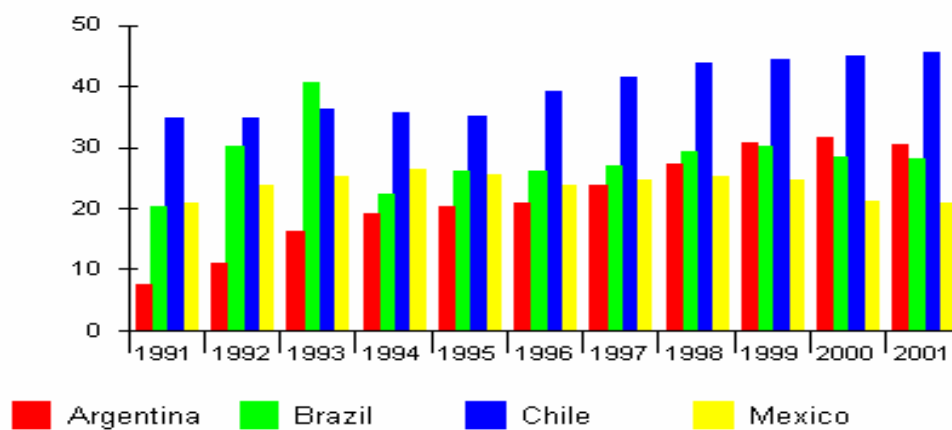
Absence of Fiscal Dominance

The absence of fiscal dominance was cited in Section II as one of the most important pre-requisites for a successful implementation and development of the IT. In Argentina, where fiscal imbalances have been at the center of several crises episodes, a sound fiscal policy framework is crucial especially in the current default context. To be sure, a sound fiscal policy that facilitates reaching an agreement with creditors would probably reduce spreads, which would in turn increase credibility. Fiscal sustainability would also facilitate building Central Bank independence. As the 2001 financial crisis demonstrated, fiscal insolvency introduced high uncertainty over the government's ability to stick to the currency board policy when external sources of financing were scarce.

We argued in Section II that low tax revenue was one of the causes of a fiscally dominant regime in the context of an emerging market economy. As we can see in Figure 1, tax revenue (as a percentage of GDP) is low in Argentina when we compare it with the targeters that we selected in the previous section. The most recent figures indicate a sustained increasing tendency reaching in April 2004 almost 22% (BCRA web page, figure at the national level). This tendency could reflect, however, the existence

Figure 1 – Tax Revenue (% of GDP): Argentina, Brazil, Chile and Mexico (1990-2001)

Source: Data from World Development Indicators CD-ROM (World Bank, 2003). Data reflects transfers to the Central Government

Figure 2 – M2 as a % of GDP: Argentina, Brazil, Chile and Mexico (1991-2000)

Source: Data from World Development Indicators CD-ROM (World Bank, 2003)

since 2002 of a tax retention on exports.¹⁶ The government has decreased the tax rate on exports but has also manifested its intention of maintaining this tax for ten years. Apart from the high rates of economic growth experienced by Argentina since 2003, the relatively high figure for tax revenue could also be explained by the existence of several taxes introduced as an emergency fiscal measure and that accounted for 20% of total tax revenue in 2003. In summary, while the tax revenue figure is similar to the selected emerging targeters, we should take into account that the fiscal system is still dependent on tools that create important distortions.

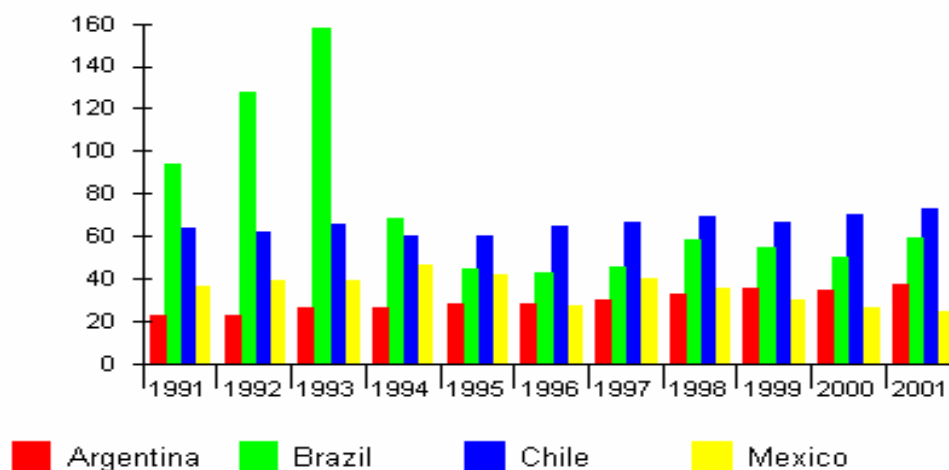
On the expenditure side, the largest problem continues to be the fiscal relationship with the provinces. Sub-national and local governments have wide constitutional independence in fiscal spending. This feature is even more poignant when we consider the large degree of federal fiscal imbalance, which makes provinces very dependent on “common-pool” funds (Saiegh & Tomassi 1998).¹⁷

Even though Argentina’s August 2001 program with the IMF was conditioned on the agreement to revise fiscal relations to allow transfers to the provinces to fluctuate with the level of central government tax revenues, the reform proposal that is currently being negotiated with the provinces does not introduce substantial changes to the previous scheme.

We also highlighted the importance of financial depth to overcome the fiscal dominance problem. Among the measures proposed in the financial development literature, the most widely known and used is liquid liabilities (M2) to GDP (McKinnon 1973). A comparison with the figures for Brazil, Chile and Mexico show that the Argentine ratio is lower than Brazil and Chile’s but larger than the one displayed by Mexico at the time of adopting the IT, in 1999.¹⁸ (See Figure 2).

A measure that includes both efficiency and depth of the financial sector is the domestic credit provided by the banking sector as a percentage of the GDP. Figure 3 indicates that despite its increasing tendency during the 1990s, this variable displays lower values than its targeters counterparts. Moreover, the 2001-2002 banking crisis has further reduced the credit activity of the banking sector. Both financial market restructuring and the increase in financial market depth is a prerequisite for the correct functioning of an IT in Argentina.

**Figure 3 – Domestic Credit Provided by Banking Sector (% of GDP):
Argentina, Brazil,, Chile and Mexico (1991-2000)**



Source: Data from World Development Indicators CD-ROM (World Bank, 2003)

Financial restructuring largely depends on the legislation enacted by the government. Financial deepening is, to a large extent, a reaction to increasing private sector investment opportunities. One of the main weaknesses in Argentina's financial system is public's resilience to participate in the financial market in a context of high uncertainty about contract compliance. While the convertibility system had a positive effect on financial markets by sanctioning the use of the US dollar as contract's unit of account, its disappearance has encouraged a great deal of uncertainty (Heymann & Ramos 2003). A credible and transparent IT system could reduce this uncertainty and collaborate, in a sort of virtuous circle, in increasing financial depth.

The adoption of fiscal rules by both Brazil and Chile has contributed to strengthen fiscal sustainability, which in turn leaves more room for an independent monetary policy. Depending on the design of the fiscal rule, it could also be used as a tool of short-term output stabilization. For Argentina, where the ratio total public debt to GDP has increased from 45% in 2000 to 133% in 2003, the adoption of a fiscal rule could create a path for fiscal sustainability. However, given that Argentina suffers from a structural high level of liability dollarization, the market could perceive the level of consolidated debt to GDP as unsustainable even if a fiscal rule was in place. It is crucial to point out that countries that have had higher or

more variable inflation levels tend to issue a higher share of foreign-currency-denominated debt (Burger and Warnock, 2003). In this sense, a successful IT could encourage, in the medium term, an improvement in the “original sin” problem that afflicts the Argentine economy.

In summary, solving the problem of fiscal dominance is essential for the adoption of an IT strategy in Argentina. There are two key aspects of fiscal sustainability that become relevant in the country: (a) an structured and internationally backed exit from the default, and (b) a reform of the fiscal relationship between the central and the provincial governments.

Characteristics of the Monetary Policy Framework

After ten years of Convertibility, the Central Bank has little experience in active monetary policy.

However, since the public announcement of the future adoption of an IT strategy, the Central Bank has not only designed and implemented several tools conducive to a transparent IT, but it has also significantly improved its communication with the public. What follows is a summary of the most relevant measures adopted:

- a) The Central Bank charter was reformed in 2003. Article 1 makes reference to the characteristic of independence of the institution from the government. Such independence is reinforced by Article 3 that highlights instrumental independence. Article 3 also defines the defense of the value of the currency as the primary goal of the Central Bank. These are all necessary conditions for the adoption of an IT (Carta Orgánica del Banco Central).
- b) The Central Bank charter has also defined the framework for transparent communication with the public. Article 3 states that the institution has to make both the inflation target and the changes in money supply public. Any deviation from the target and its consequences should also be communicated to the public. The monetary base figures and explanatory factors can currently be consulted at the Central Bank’s web page (www.bcra.gov.ar).
- c) The Central Bank has designed a Market Expectations Report, which is a systematic analysis of the main macroeconomic variable forecasts for the medium and long term. The goal is to comprehend how expectations are formed. The report periodically follows the evolution of 20 macroeconomic variables that reflect the situation of prices, level of economic activity, public finances, employment, external sector and monetary aggregates. This information is completed with the publication of the Macroeconomic Radar that offers information on the evolution of the aforementioned variables since the year 2000. The

Central Bank analysts also elaborate and make public since October 2003 an inflation report that uses aggregate demand and supply analysis to anticipate inflation trends.

- d) The creation of the “Comité de Metas de Inflacion” (Inflation Targeting Committee) in 2003. Its role is to set up a prediction economic model that will enable the Central Bank to forecast the inflation target. While this committee is formed by Central Bank personnel, it also consults with external economists and consulting firms resembling the model used in Brazil since 1999.
- e) Given the difficulties inherent to the adoption of an IT system in an inflationary environment, the monetary authorities are paying special attention to the transition period. In this sense, the Central Bank has presented monetary program reports both in 2003 and 2004. The reports are followed up with a monitoring device that is also available to the public.

During the design and adoption process of the aforementioned monetary tools, there has been a large degree of collaboration with foreign Central Banks that have adopted ITs such as Brazil, Chile and Mexico.

In summary, the Argentine Central Bank seems to have adopted the necessary tools to establish a transparent and credible IT framework. However, those tools could not operate in an environment of fiscal dominance and/or government interference. Repeatedly reaching the target and communicating with the public could exert pressure in the medium-term to reduce government intervention in the monetary field.

Absence of Exchange Rate Dominance

An emerging economy like Argentina needs to carefully follow the evolution of the exchange rate as this variable has a large impact on inflation, on the external debt, on the relative price of export commodities and on net capital outflows. Moreover, under certain exchange rate systems and certain macroeconomic and/or socio-political conditions, emerging market currencies are prone to “attacks.”

Ten years of Convertibility made the exchange rate of the peso vis-à-vis the dollar the main protagonist of Argentine economic policy-making. Currently, under a dirty float, the exchange rate continues to play an important role in the Central Bank daily tasks and, as we have already mentioned, it has been the object of tension between this institution and the Economic Ministry.

Drawing from Eichengreen’s *Calvo and Prebisch shocks* (2002) we consider two probable short-term scenarios exchange-rate related that could jeopardize the sustainability of the IT in Argentina:

- a) *Calvo shock*:¹⁹ In the presence of higher U.S. interest rates, a “sudden stop” of capital flows could ensue therefore weakening the peso vis-à-vis the U.S. dollar. The exchange rate depreciation could translate into higher import prices. The response of an IT monetary authority is to increase interest rates. Higher interest rates would in turn reduce aggregate demand that could only be offset by a potential increase in exports encouraged by a weaker exchange rate. This pattern of behavior signals the convenience of adopting and targeting Monetary Conditions Index, *i.e.*, a weighted average of the interest rate and the exchange rate. Problems could appear if the “sudden stop” is short-term but the monetary authority responds with a large increase in the interest rate thereby increasing price and output volatility. This chain of events reinforces the crucial role played by the monetary policy framework described under Section II.
- b) *Prebisch shock*:²⁰ A decline in exports -related, for example, to a decrease in the international price of commodities- would weaken the exchange rate and reduce aggregate demand. While a weaker exchange rate could pass-through prices due to higher prices of imports, aggregate demand is creating deflationary pressures. This situation could jeopardize the IT since it would create tension between the Central Bank, concerned about reaching the inflation target, and the Economic Ministry, concerned about output variability. This is even more relevant when we take into account the high rates of unemployment that have strained the Argentine economy since 1998. According to Eichengreen, it is in this context when the Monetary Conditions Index could send the wrong signal by suggesting an increase in interest rates that could further depress economic activity in the short-term.

In summary, the evolution of the exchange rate, and the weight attributed to this variable by the policy-makers, would partially determine the success of the IT. The existence of fine-tuning regarding the role of the exchange rate between the Economic Ministry and the Central Bank is crucial for a successful implementation of the IT. Questions such as the volatility of the exchange rate and the pass-through coefficient should be regularly monitored by the monetary policy authorities.

V. CONCLUSIONS

The difficulties that Argentine policy makers have experienced in controlling inflation in the past could lead us to apply Sims' argument that “inflation targeting may be least useful in exactly those countries that have had the greatest difficulties controlling inflation in the past” (Sims in Bernanke & Woodford 2003). However, the experience of ten years of

price stability could somehow increase the confidence on Argentine monetary authorities' ability to control inflation. As we have mentioned throughout this article, increased transparency, ability to communicate with the public so as to reach a high degree of convergence between inflationary expectations and the target, repeated achievement of the target, and government commitment to adopt IT as a long-term strategy are crucial features for the success of the IT in Argentina. If the public does not have trust in the target selected and/or the government's pledge to achieve the target, it will not incur the costs of adjusting prices exerting therefore pressure on monetary authorities to use the exchange rate as a tool.

It is also vital to improve and sustain the independence of the Central Bank. Any government interference in monetary policy affair could negatively impact not only domestic inflation expectations, but also affect the perception of international markets on the commitment to the IT. Within the more general policy-making framework, it is extremely important to make the private sector a partner in the policy making process. The relationship between Argentina's public and its politicians has traditionally been one of mistrust and polarization highly intertwined with the institutional weakness prevalent in the country.

With regards to fiscal dominance, Argentina would need to: (a) restructure the fiscal relationship between the central government and the provinces so as to curtail their spending power; (b) improve the tax collection system; (c) adopt measures to normalize the financial system and to increase its depth with the goal of creating domestic room for the absorption of public debt and, at the same time, reduce the level of liability dollarization; (d) consider the adoption of a fiscal rule in line with the common fiscal targets adopted within the MERCOSUR context; and (e) design a credible and transparent structure for exiting the default so as to regain access to international financial markets.

It is worth to highlight that the industrialized targeters, with the exception of Spain, did not have to include in their previsions the short-term trade off between inflation and unemployment as a restriction since unemployment levels were relatively low. In Argentina, unemployment level are is still high, around 15% in 2003, and therefore adopting an strict target point could have a negative impact on real variables.

While it is obvious that Argentina does not fulfill all of the requirements identified by the literature as necessary for the correct implementation of an IT, we should note that most of the aforementioned requirements have to also be in place for other monetary policy alternatives, such as an exchange-rate anchor or a monetary target. The features specific to an IT are those related to Central Bank independence,

transparency and credibility. As we have repeatedly mentioned, it is the initial commitment to the target and its success that will determine, in a sort of virtuous circle, the adjustment of inflationary expectations to the selected target.

Finally, the implications of Argentina's adoption of an IT transcend the domestic level. To be sure, Brazil adopted an IT in 1999 and analysts from the Uruguayan Central Bank have been recently discussing the possibility of adopting an IT in the country.²¹ The adoption by the three countries of an IT in the context of flexible exchange rates, or dirty floats, could encourage in the medium to long-term the coordination of macroeconomic policies at the MERCOSUR level.²²

Notes

- 1 For a detailed description of the institutional and economic elements that limit the emerging market's ability to borrow in its own currency, see Eichengreen, Hausmann & Panizza (2002).
- 2 For an evaluation of the experiences of Brazil, Mexico and Chile with inflation targeting, see Schmidt-Hebbel & Alejandro Werner (2002).
- 3 It is well known that the abandonment of the currency board left Argentine monetary authorities without a nominal anchor.
- 4 Ball and Sheridan's analysis examines twenty OECD countries, seven that implemented IT and thirteen that chose another type of monetary policy.
- 5 "Constrained discretion" is a term coined by Bernanke and Mishkin (1997). It refers to the discipline that IT regimes are able to enjoy without sacrificing a relative degree of flexibility.
- 6 There are other examples of countries that adopt an inflation target mechanism in the aftermath of the collapse of an exchange rate peg, the United Kingdom, Sweden, Brazil, and Mexico, among others.
- 7 We should point out that several authors have criticized the feasibility of IT on the grounds of too much monetary policy discretion (Calvo & Mendoza, 2000).
- 8 We will analyze the key role that the exchange rate plays in an emerging economy that is implementing an inflation target strategy in Section III.
- 9 For a description of the adoption by Brazilian monetary authorities of an inflation target mechanism, see Goldfajn *et al* (2002).
- 10 Mishkin & Savastano (2001) argue that the selection of the CPI as the inflation target is less visible but better understood by the public than a monetary target.
- 11 Brazil, Chile and Mexico have been selected because they are among the emerging markets whose experience with an IT strategy has been better documented.
- 12 The concern about the evolution of the exchange rate and its potential effect on output and inflation rates has led to what Calvo and Reinhart (2002) have coined as "fear of

- floating.” These authors maintain that monetary authorities in emerging economies are reluctant to allow the real exchange rate to fluctuate freely.
- 13 Ball (1999) proposed a Taylor rule that included the exchange rate as a rule designed for small open economies.
 - 14 If the economic authorities intervene frequently in the foreign exchange market the public could replace the inflation target with the exchange rate when forming their expectations.
 - 15 The number of Central Bank governors per year is one of the variables selected by Cukierman (1992) to build the index of Central Bank independence.
 - 16 Exports have increased encouraged by the currency depreciation and the high international price of commodities.
 - 17 The interaction of the aforementioned patterns creates incentives for exchanging votes in national congress for money to the provinces.
 - 18 It is worth noting that the ratio M2 to GDP has increased during 2004 reaching 17% of GDP in April.
 - 19 Barry Eichengreen (2002) uses the term Calvo shock in reference to Guillermo Calvo’s analysis of capital flows related crises in emerging markets.
 - 20 Barry Eichengreen (2002) uses the term Prebisch shock in reference to Raul Prebisch’s analysis of terms of trade pessimism.
 - 21 Recent volumes of the Uruguayan Central Bank’s publication *Revista de Economía* offer analyses of the feasibility and advantages of adopting an IT.
 - 22 The coordination of macroeconomic policies was included in the Treaty of Asunción that gave birth to the MERCOSUR.

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