

Jonas, Jiri

Working Paper

Argentina: The anatomy of a crisis

ZEI Working Paper, No. B 12-2002

Provided in Cooperation with:

ZEI - Center for European Integration Studies, University of Bonn

Suggested Citation: Jonas, Jiri (2002) : Argentina: The anatomy of a crisis, ZEI Working Paper, No. B 12-2002, Rheinische Friedrich-Wilhelms-Universität Bonn, Zentrum für Europäische Integrationsforschung (ZEI), Bonn

This Version is available at:

<http://hdl.handle.net/10419/39552>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn



Jiri Jonas

**Argentina: The Anatomy of
A Crisis**

Working Paper

**B 12
2002**

Argentina: the Anatomy of a Crisis

Jiri Jonas¹

1. Introduction

Argentina has a long history of political instability, financial crises and decline in relative economic level. At the beginning of the 20th century, Argentina's economic level, measured by GDP per capita, was not far behind Europe, Australia or Canada. However, after a long period of economic mismanagement, Argentina's relative position in the world economy has fallen significantly.

The beginning of the last decade of the 20th century brought a hope that Argentina has finally turned the corner, and that a period of economic prosperity lies ahead. Successful stabilization program based on the currency board arrangement (CBA) brought inflation quickly down, economic growth recovered sharply, and Argentina became a favorite destination for foreign capital. Yet problems lurked ahead.

First came the Mexican crisis of late 1994. Argentina was hit hard by this so-called "tequila" crisis, but with the help of the central bank, its relatively strong banking sector survived the withdrawal of deposits and after one year of sharp decline, the economy grew again in 1996. But another shock followed in 1997, when a violent financial crisis erupted in Asia, followed in 1998 by the Russian crisis and in 1999 by crisis in Brazil, which floated its currency. Argentina has already suffered from turmoil caused by Asian and Russian crises and devaluation of the Brazilian currency added to its problems. While the authorities repeatedly assured the investors that currency peg was here to stay (a promise made more credible by the overwhelming support that the CBA received from the population), persistent economic recession and deteriorating access to external financing made look Argentina's economic and financial situation suddenly more worrisome. Large official financial assistance in 2000 and 2001 was supposed to reassure investors about Argentina's solvency while taking care of the immediate liquidity problem and thus safeguarding its currency peg. But this effort was not successful and after desperate attempts to avoid the unavoidable, the crisis reached a climax by the end of 2001.

Violent social unrest brought down the government of president de la Rúa and the new government was forced to scrap the CBA. The new government has announced that Argentina is unable to service its \$142 billion external debt and has declared a moratorium

¹ Advisor to the Executive Director, International Monetary Fund. The views expressed here are authors' own and do not represent the official position of the IMF. Author would like to thank Isabelle Mateos y Lago for valuable comments on an earlier draft of the paper.

on its external debt payment. A country that few years ago was a darling of financial markets has in a very short period of time become something akin to international pariah, mired in a deep political, social and economic crisis.

In the latter half of the 1990s, financial crises in emerging market countries have become a relatively frequent occurrence: first Mexico, then one of the most promising emerging market country, followed by several countries in Asia, Russia, Brazil, Turkey and now Argentina. Yet Argentina was supposed to be different. Its banking sector - a frequent source or contributing factor to crises in other countries - was relatively robust, as evidenced by its ability to withstand large deposit outflow during the Mexico crisis. And its currency peg - in the form of the CBA - was supposed to be more resistant to the sort of speculative attacks that undid softer fixed exchange rate regimes. So what explains the dramatic implosion of the Argentinean economy, four years of recession ending in a financial collapse, large increase in unemployment and massive increase in poverty that practically wiped out all the gains made during the more prosperous years of the 1990s?

This study will try to provide some preliminary answers to these questions. However, while we will focus mainly on the economic aspects of the crisis and the developments that preceded it, we need to keep in mind that economics alone will not provide us with a complete understanding of this crisis. This is not only a financial and economic crisis, but more profoundly, a crisis of institutions, politics and trust. As we will see, the events of 2001 are not something completely new to Argentina. This country has a quite rich history of financial crises and debt moratoria. The progress under the CBA in the 1990s may have been quite spectacular: inflation fell rapidly, and economic growth accelerated sharply. This contrasted sharply with the poor performance during the 1980s. But the more fundamental problems of Argentina's economy remained and so too remained the vulnerability to adverse external shocks. We will analyze how this domestic vulnerability interacted with external shocks, and how constraint on policy implementation implied by the CBA, together with the limited efficacy of other policy tools combined to produce a crisis that has devastating and far-reaching consequences.

We will start with a brief review of Argentina's history, which provides some important clues to the recent events.

2. Argentina's history: up and down

During the last decade of the 20th century, Argentina has enjoyed a brief period of prosperity, followed by serious economic decline and crisis. For Argentina, this is not a new pattern. The 1990s has provided a snapshot of nearly two hundred years of history of independent Argentina.

When it gained independence in 1816, Argentina was one of the poorest colonies of Spain. However, early years of its independence did not provide much reason to celebrate. This was a time of political and economic instability, which culminated with a civil war in late 1850s and early 1860s. During that period, Argentina remained a relatively poor and

underdeveloped country. Unlike some other countries in Latin America, it did not have rich deposits of precious metals (not that having one would have automatically ensured a more prosperous economy, though!), its more moderate climate did not allow it to grow tropical products like coffee, which was an important export commodity of other countries in the region. And the geography did not cooperate either: being so distant from main markets in Europe did not provide much impetus to trade anyway.

Argentina's economic fortune began to change only in the last quarter of the 19th century. Two important technological innovations have helped Argentina: improvement in storage and conservation of agriculture products, mainly meat, and progress in transport technology. Cheaper transport and better conservation made remote markets in Europe and North America suddenly accessible to Argentinean exporters.² Thanks to a very fertile soil of pampas, Argentina's export of agriculture products, mainly to European markets, began to grow fast. A poor and underdeveloped Spanish colony began to turn quickly into a relatively prosperous country. Success breeds success, and Argentina became an attractive destination for labor and capital from Europe. Together with Canada, Australia and United States, Argentina attracted large amount of capital particularly from the United Kingdom, major capital-exporting country of that time.³

However, large inflow of foreign capital brought a problem well known to emerging market countries one hundred years later: financial crisis. Two powerful forces combined to accelerate capital flow to Argentina and other – at that time “emerging” – countries, Australia, United States and Canada: investors’ expectations about high returns, and loose liquidity conditions and low interest rates in countries exporting capital, mainly United Kingdom. Unfortunately for Argentina, large inflow of foreign capital in the 1880s has stimulated not only investment, but also consumption. While Argentina’s exports rose as well, country’s capacity to improve its export earnings on a sustainable basis in order to be able to service future debt repayment did not improve sufficiently. At the same time, poor governance of domestic banks resulted in such unhealthy practices as connected bank lending and bank financing of government deficits and development projects. When monetary conditions were tightened as Bank of England increased interest rates in second half of 1889, capital flow to Argentina suddenly stopped and the country had to sharply adjust its current account balance from a deficit to a surplus, by tightening macroeconomic policy. Excesses of

² Progress in transport technology has significantly reduced the cost of transporting bulk items from South America to Europe, while new cooling technology allowed to transport perishable commodities across the tropics.

³ While Argentina’s trade integration was spurred by improved storage and transport, its integration in international capital market has received a boost in 1878 when transatlantic cable connected it via telegraph with London, facilitating and accelerating dramatically transmission of information. Joining gold standard has also boosted Argentina’s integration into world capital market.

previous decade and bad lending practices came home to roost. The result was a very serious economic and financial crisis, known as Baring crisis, named after the well-known English institution which was nearly brought down because of Argentina's default on its debt underwritten by Baring.⁴ But while Baring was saved thanks to a joint effort of Bank of England and some private financial houses, Argentina did not receive much help and fell into a deep recession.⁵ In 1890, Argentina suspended servicing its external debt, and lost access to world capital market. Only the reinstatement of gold standard in 1899 and resumption of gold payment in 1901 restored Argentina's access to external borrowing.

In the period from the beginning of the 20th century to the beginning of the Great Depression in 1929, Argentina pursued economic strategy characterized by promotion of free trade and integration with world capital market. In connection with the outbreak of the First World War in 1914, Argentina suffered its worst recession.⁶ Despite this traumatic experience, it returned in the 1920s to the pre-war economic policy of openness.

Like in many other countries around the world, situation in Argentina began to deteriorate again at the end of the 1920s, as a result of the Great Depression. The global economic crisis has affected adversely Argentina for two reasons. Weak global economic activity resulted in less demand for Argentina's exports, and has further weakened already low world prices of corn and meat, Argentina's two important export items. In response to these shocks, the government began to change its strategy. It began to introduce administrative controls, including control on capital outflow, import restrictions to protect domestic producers, and it quickly abandoned the gold standard and devalued its currency.⁷

⁴ It should be noted that Baring crisis was not the first default of Argentina. Ironically, it was Baring Brothers who floated the first public loan, issued by Buenos Aires, in 1824. The borrower soon defaulted on that loan and only in 1857 was a settlement reached. The 1820s was one of the first episodes of irrational exuberance of investors. Newly independent sovereigns in Latin America were raising larger amount of funds which European investors were eager to provide. It was for the first time, but not the last time when investment in Latin America went wrong.

⁵ The analysis of Baring crisis see Ford, A.G. (1956), "Argentina and the Baring Crisis of 1890," *Oxford Economic Papers* 8, pp. 127-150.

⁶ Measured (as a fraction of annual output) by the cumulative deviation of output from previous peak until the previous peak is surpassed, the recession of 1914-1919 saw a 63 percent decline; Baring crisis in 1890-93 a 31 percent decline; and Great Depression in 1930-34 a 43 percent decline. See Gerardo della Paolera and Alan M. Taylor (1998), "Economic Recovery From the Argentine Great Depression: Institutions, Expectations and the Change of Macroeconomic Regime." NBER Working Paper 6767.

⁷ Paul Krugman argues that being fast in abandoning gold standard was a wise decision that allowed Argentina to recover from a crisis faster than other countries, which defended

(continued)

But while a timely exit from the gold standard may have been a positive step and while protective measures could have brought a temporary relief, they were not helpful in the long-run. The Great Depression marked the beginning of a different economic strategy – strategy based on import substitution and closing of the economy.

Initially, this policy strategy has brought encouraging results. The economy has recovered rapidly from the crisis and began to grow strongly after 1932, at the time when many other countries were still deep in recession. But this recovery was not to last and instead, Argentina began its long descend on the ladder of relative economic performance (see table 1).

Table 1. Product per capita in selected countries (in 1985 PPE dollars 1/)

	USA	Argentina	Australia	Canada
1870	2244	1039	3143	1330
1890	3101	1515	3949	1846
1913	4846	2370	4553	3515
1950	8605	3112	5970	6112
1973	14093	4972	10369	11835
1989	18282	4080	13538	17236

1/ in purchasing power equivalent

Source: Maddison, A., "Explaining Economic Performance of Nations 1820-1989," in Baumol, Nelson and Wolff, Eds. (1994), *Convergence of Productivity: Cross-National Studies and Historical Evidence*. New York, Oxford University Press.

Administrative measures and restriction on capital outflows became gradually more complicated, as the authorities attempted to avoid the inevitable erosion of their effectiveness. At the same time, expanding administrative controls was producing more corruption. Scarce economic resources were used mainly to circumvent these controls, and the price was lower economic efficiency and growth. Furthermore, initially temporary protection of domestic producers was becoming permanent. One can understand, even if not fully approve, the introduction of administrative controls and increased protectionism in difficult times of the Great Depression. But these measures were not removed during the more prosperous times, like during the Second World War, when Argentina benefited from a surge in demand for its agriculture exports. On the contrary, the war period resulted in further tightening of administrative controls.

currency peg to gold longer. See Paul Krugman (1999), *The Return of Depression Economics*. W.W. Norton, p. 46. It is an irony that nearly seventy years later, delayed exit from pegged exchange rate was considered as having contributed to the seriousness of Argentina's crisis.

In 1946, former minister of labor in military government Juan Peron won presidential elections. His populist policies have contributed to a further decline of Argentina. Peron nationalized many enterprises, which were in foreign ownership, further increased the protection of domestic producers against foreign competition, and expanded the already high role of state intervention in the economy. Peron also pursued a policy of income redistribution in favor of workers. The main instrument to achieve this objective was rapid wage growth. The consequences of this policy were ruinous. Losses of nationalized enterprises began to mount and fiscal deficits grew rapidly. Having lost access to foreign financing after the default in the 1930s and being unable to rely much on limited private domestic savings, the government had no other choice but to resort increasingly to financing its deficits by printing money. This policy has produced accelerating inflation, without achieving the purpose of increasing workers' purchasing power.

During a military putsch in 1955, Juan Peron was removed from the presidential office. What followed was a period of political instability and several more military putsches.⁸ The legacy of Peronist populist policies was not very helpful to those it was supposed to help: high inflation was eroding savings and standard of living and unemployment was high. Once again, Juan Peron became president in 1973, but he died soon after he returned to the office and his (third) wife took over. She continued in the same populist and protectionist policy, but this brought only deteriorating economic situation, further political instability and even rising terrorist attacks. In 1976, military junta has again seized power. At the end of the 1970s, Argentina was in the middle of economic and financial crisis: inflation was growing and currency was quickly losing value. The military came with a time-honored idea how to mask its inability to address domestic problems: deflect attention to problems abroad. Therefore, on March 2, 1982, Argentina has invaded Falkland Islands, which belonged to the United Kingdom. But this diversion strategy did not work well. After a short war, the army suffered a devastating defeat, which brought an end (hopefully for ever) to military governments in Argentina.

President Alfonsin took over in December 1983, and he launched an austerity program, so-called Plan Austral, named after the new currency that was introduced to replace the old currency. The Plan Austral, supported by the International Monetary Fund (IMF) included orthodox tight fiscal and monetary policy and also less orthodox price and wage controls, to break inflation inertia. Initially, the plan seem to have worked, and inflation came down. But it failed to bring under the control large government spending and budget deficits, which remained at around 5 percent of GDP and which were financed mainly by printing

⁸ In the period 1955-82, Argentina had 15 different presidents, 9 of them military. See Guillermo Escude and Andrew Powell (2001), "The Argentine Fixed Exchange Rate System: the First 10 Years." Paper presented on the IMF conference "Exchange Rate Regimes: Hard Peg or Free Floating? March 19-20, 2001.

money.⁹ Soon, inflation began to rise again, approaching 400 percent in 1988, and the austral was losing its value even faster than its predecessor. Several other stabilization plans followed, but they were not very credible. Central bank's foreign reserves were nearly exhausted in 1989 and the currency was allowed to float.

Argentina was quickly approaching the situation of total collapse of the economy. A long history of high inflation resulting from monetary financing of public debt brought the economy closer and closer to hyperinflation. As a result of high inflation, demand for money was declining. No one wanted to hold the currency, which was rapidly losing value. Argentinean economy was becoming demonetized. But demonetization was undermining the ability of the government to finance budget deficits by printing money. Inflation is a tax on holding money and as the base for inflation tax (i.e., public holding of money) was declining, tax rate (i.e., inflation rate) had to increase to ensure the same tax revenues. But higher inflation further reduced demand for money, which further increases the need of higher tax rate (inflation) and so on. In this vicious circle, the economy was rapidly slipping into hyperinflation. In the period from March 1989 to March 1990, price level has risen by 20 000 percent. Hyperinflation hit the economy hard: in 1989, real GDP declined by more than six percent. Table 2 illustrates the history of accelerating inflation in Argentina after the Second World War.¹⁰

Table 2. Inflation in Argentina (in percent, 12 months basis)

Period	Average	Maximum
1920-1929	-1.7	17.1
1930-1939	-0.3	13.0
1940-1949	10.6	31.1
1950-1959	30.3	111.6
1960-1969	23.3	31.9
1970-1979	132.9	444.4
1980-1989	750.4	4923.3

Source: Domingo Cavallo (1996), *Lessons From the Stabilization Process in Argentina*, in: *Achieving Price Stability*, Symposium of the Federal Reserve Bank of Kansas City.

⁹ During the period 1960-1988, 82.6 percent of consolidated government deficits was financed by central bank advances. This shows the absolute dominance of monetary policy by fiscal policy.

¹⁰ The value of savings was not eroded only by inflation. In December 1989, the government converted significant part of austral-denominated deposits into 10 year coupon bonds, Bonex, which quickly lost about 85 percent of their nominal value.

3. Convertibility Plan

The disastrous failure of the Plan Austral affected the outcome of presidential elections in 1989. The Radical party of incumbent president Alfonsín suffered a defeat, and the Peronist candidate Carlos Menem became the new president. In his election campaign, Menem was promising to pursue traditional Peronist policies: he promised higher wages, support for the poor, and even reopening of some factories that were previously closed because of large losses. But once in the office, Menem made a complete turnaround. Instead of the promised populist policies, he decided – with the IMF support - to pursue a program of radical macroeconomic stabilization, backed by comprehensive structural reforms, privatization, and opening of the economy. A new austerity program was born, which represented a complete departure from the policies of the founding father of the Peronist party, Juan Perón.

The main pillar of the new austerity program was the Convertibility Plan, approved in April 1991, and the introduction of the CBA. By law, Parliament has introduced a free convertibility of domestic currency, the peso, into the U.S. dollar at a fixed parity, one to one. In order to maintain the possibility to convert peso to dollar at the fixed exchange rate and to maintain confidence in this system, the amount of peso in circulation had to be tightly controlled. The central bank would be allowed to issue peso only in the amount of its foreign reserves, so that circulating pesos would be fully backed by dollars or other freely convertible currencies. As a result of the introduction of the CBA, the central bank lost its freedom to print money and conduct independent monetary policy.¹¹ This meant that the central bank was no more able to finance government deficits by printing money and that the CBA has removed the single most important source of inflation in Argentina. In order to support rapid disinflation after the introduction of the CBA, the authorities have also abolished indexation of wages and other nominal contracts and in wage negotiations with trade unions, they have emphasized that wage growth should be based not on past inflation but on productivity growth.¹²

The new stabilization program brought soon very encouraging results. Public spending fell from 36 percent of GDP in 1989 to 30 percent in 1990 and budget deficit fell from 7.6 percent to 2.3 percent. Even though the authorities undertook a rather extensive liberalization of previously regulated prices, inflation began to fall rapidly: from 1344 percent in 1990, to 84 percent in 1991 and to 3.9 percent in 1994. Rapid disinflation proved to be very beneficial for economic activity. After falling by 6 percent in 1989 and stagnating

¹¹ And more importantly, Argentinean politicians lost the ability to use monetary policy to pursue political goals.

¹² In the period of rapid disinflation, it is particularly important to avoid a backward-looking indexation of wages, as this could result in significant increase in real wages and loss of competitiveness.

in 1990, real GDP grew by 9 percent in 1991, and in the period 1992-94 continued to grow by about 7 percent. Return to price stability was also accompanied by a gradual remonetization of the economy. As we have noted, under the CBA, money supply is exogenously determined by the balance of payments developments and by the level of foreign reserves held by a central bank, which have increased from \$4 billion in 1989 to more than \$18 billion at the end of 1994.

The authorities have also reversed the previous strategy of import-substitution, and rapidly opened the economy to external trade. Average import tariff was cut from 30 percent to 14 percent and many quantitative restrictions were removed. Many industries that were able to survive only thanks to these protective barriers had to restructure.

Rapid restoration of price stability and high economic growth made Argentina an attractive destination for foreign investors. Past periods of financial crises and defaults were quickly forgotten and foreign capital began to flow into the country, both in the form of foreign direct investment in connection with extensive privatization of state-owned companies and in the form of portfolio investment. In the period 1992-1994, net inflow of foreign capital to Argentina reached \$32.2 billion, about 10 percent of 1994 GDP. Unlike in the previous periods, important part of this inflow was nonbank private capital. At the same time, improved credibility of the CBA was reflected in the falling spread of Argentina's external debt.

But even in the best of times, not everything was well in Argentina: rapid growth and price stability did not produce a decline in unemployment. On the contrary, in the first half of the 1990s, the rate of unemployment increased from 7 percent to more than 15 percent. It seemed as if Argentina was moving alongside the classical negatively-sloped Phillips curve of the 1950s and 1960s: reduction of inflation was bought at the cost of higher unemployment.

4. Mexican crisis and rapid recovery

The period of stabilization-induced boom was interrupted by the eruption of crisis in Mexico. Like Argentina, Mexico too was in the first half of the 1990s a favorite destination of foreign investors and the country was a recipient of a large inflow of foreign capital. However, because of its large dependence on external financing, Mexico remained vulnerable to adverse shocks. One Murphy's law says that "if something can go wrong; it will go wrong", and this is what happened in Mexico in 1994. The country was hit by a series of political assassination and social unrest in poor south provinces. Moreover, the U.S. Fed began to increase interest rates in a preemptive strike against inflation. Suddenly, foreign investors began to have increasing doubts about the health of the Mexican economy. Mexico began to experience difficulties in maintaining access to foreign financing to cover its large current account deficit. Mexican peso got under pressure, and in December 1994, the government was forced to devalue the currency. However, managed devaluation was not enough and soon the peso was allowed to float freely, losing rapidly its value. Only large

financial assistance from the IMF, United States and other official creditors has allowed Mexico to avoid the default on its external debt.

But even rapid official financial rescue that helped to avoid the default did not prevent the Mexican crisis from affecting adversely other countries in Latin America, including Argentina. After the bad experience with Mexico, investors were looking more guardedly at other emerging market economies in the region as well. They were particularly suspicious of countries with similar problems like Mexico, large dependence on external financing and fixed exchange rate. Based on these criteria, Argentina was an obvious suspect. In this period, the CBA, which has served the country so well by bringing price stability, became suddenly a source of vulnerability. After the Mexican crisis broke out and after one small Argentinean bank with a high exposure to Mexican assets failed, Argentina's banks have suddenly found it more difficult to renew credit lines with foreign banks. As a result, they were forced to call some loans in order to restore their liquidity. Companies that were asked to repay bank loans earlier did not always have at hand the necessary liquidity either and this brought them often into difficult situation.¹³ The result was a rapid decline in investment activity and weaker economic growth. In turn, these problems have affected adversely the confidence of Argentinean households in banks' soundness. The depositors began to worry about the safety of their deposits in banks, large part of which was dollar-denominated, and many began to withdraw their savings, putting further pressure on already hard-pressed banks. In the first quarter of 1995, bank deposits declined from \$47 billion \$41 billion. At the same time, large part of the deposits withdrawn from banks left the country and Argentina's foreign exchange reserves declined.

Usually, when sound banks face a temporary liquidity need, they receive liquidity assistance from a central bank. But in Argentina, the central bank was limited in its ability to provide temporary liquidity support to commercial banks by the rules of the CBA, which did not allow it to print money not covered by foreign reserves. And unlike in the period before the Mexican crisis, foreign reserves were not growing in 1995, and therefore the capacity of the central bank to assist commercial banks was curtailed exactly at the time when it was most needed. Still, the central bank found some room to help domestic banks. It has reduced the unremunerated reserve requirement, from 43 percent to 30 percent on demand and savings deposits, and from 3 percent to 1 percent on time deposits, thus freeing some liquidity. The central bank has also expanded its rediscount facility. But in the absence of depositors' confidence, the result of this support was the decline in the foreign reserve backing of reserve money. By March 1995, the central bank has lost \$5 billion of its foreign exchange reserves, more than one third of the total, and the backing of reserve money approached the minimum required limit of 80 percent. The room for further liquidity support to domestic banking system was exhausted and Argentina turned to the IMF and other international financial organization for assistance.

¹³ For example, when a bank calls the loan earlier than previously agreed, the companies may have to shut down unfinished investment projects, which could be very costly.

The IMF extended by one year a SDR4 billion extended arrangement and the World Bank has approved loans in excess of \$1 billion in support of banking system and social safety net. The authorities implemented restrictive fiscal measures, equal nearly 3 percent of GDP on an annualized basis, and set up a deposit insurance scheme. The situation began then stabilize. In May 1995, Carlos Menem again won presidential election and his victory brought to an end speculations about the eventual abandonment of the CBA and the fixed exchange rate parity. Deposit withdrawal stopped, prices of Argentinean stocks and bonds recovered and confidence in the banking sector was restored. Nevertheless, this temporary decline in bank deposits and drying up of liquidity contributed to a sharp economic recession. While in 1994, real GDP grew by 7.4 percent, in 1995, it declined by 4.4 percent. Unemployment continued to grow, and after several years of decline, the percentage of households below the poverty line has again increased in 1995, from 13 percent to 17 percent.¹⁴

Banking sector problems that appeared in Argentina as a result of the Mexican crisis stimulated a discussion about the desirability of continuation of the CBA. But these doubts did not last long. It was too soon to forget that the CBA has brought price stability to Argentina and it continued to enjoy a strong popular support. Explicit doubts of some academicians and implicit market doubts about the future of this currency regime did not change politicians' calculation of costs and benefits of maintaining CBA.

After the period of short and steep economic decline in 1995, economic activity picked up again in 1996, accompanied by renewed inflow of foreign capital.¹⁵ Real GDP in 1996 grew by 5.5 percent and in 1997 even by 8.1 percent. Mexican crisis became soon a history and the emerging market economies became again an attractive target for foreign investors. In this period, Argentina was a recipient of large direct foreign investment, but also of bank credits. In 1996-1998, cumulative surplus on the capital account has reached \$44 billion. Under the CBA, rising foreign currency reserves resulted automatically in a more relaxed monetary conditions, supporting decline in interest rates, credit expansion, higher investment and economic growth.

In times of ample availability of external financing and rapid accumulation of foreign reserves, the CBA rules ensured easy monetary conditions that supported economic activity.

¹⁴ Some analysts noted the failure of unemployment to decline in the first half of the 1990s, and cautioned that the insufficiently developed social security system, combined with the high and growing unemployment, was likely to lead in the future to social unrest and pressures to change the course of economic policy of Menem's government. Later on, these concerns turned out to be fully justified.

¹⁵ The weakening of the U.S. dollar in 1995 helped Argentina's recovery as well.

But in times of dearth of external financing, liquidity conditions could tighten significantly. Unfortunately for Argentina, such times were drawing near.

5. New Crises and the End of the Game

In mid-1997, financial crisis erupted in Thailand and it soon spread to other countries in South East Asia. Countries affected by this virulent crisis had to abandon fixed currency regimes, their newly floated currencies rapidly depreciated, and economic activity fell sharply. Emerging market economies were quickly losing their appeal to foreign investors, and the crisis began to spread beyond the South East Asian region. Situation in the world economy took a turn to worse in summer 1998, when Russia defaulted on part of its external debt. Later in 1998, situation began to deteriorate in Brazil, and it was becoming clear that Argentina cannot escape the global turmoil unscathed.

It looks as if at the end of the 1990s, outside forces conspired against Argentina. First, at the beginning of 1999, under the pressure of financial markets, Brazil had to abandon its fixed exchange rate regime. The value of the real has plummeted rapidly, from 1.2 reals per dollar to 2.0 reals per dollar. This represented a significant deterioration of competitiveness of Argentinean exporters. Second, the loss of competitiveness was further exacerbated as a result of pegging the Argentinean currency to the dollar that was appreciating strongly in the second half of the 1990s. Being pegged to the dollar, the peso was appreciating vis-à-vis other currencies like the euro or the yen. Third, Argentina had to import U.S. monetary conditions. Clearly, fast-growing U.S. economy in the late 1990s needed a quite different monetary policy than Argentina struggling with recession. Fourth, Argentina's terms of trade were deteriorating, as world commodity prices were falling in line with the weakening global economic activity.

The erosion of competitiveness, together with the gradual slowdown of capital inflow, led to a dramatic fall of investment activity and to a recession. In the period 1999-2000, investment fell by cumulative 20 percent. Real GDP declined in 1999 by 3.5 percent and by further 0.5 percent in 2000. Unlike in the 1995, this time the recession was not temporary.

Under the existing policy framework, adjustment to the adverse external shocks was difficult. Economic recession and decline in private domestic demand did not produce a significant improvement of external current account balance. And the CBA did not allow Argentina to adjust to worsening external conditions and availability of external financing by nominal devaluation.¹⁶ The inability to achieve a real depreciation of peso by means of

¹⁶ Admittedly, the question remains whether in late 1990s, given the highly dollarized economy, nominal exchange rate flexibility would serve as an effective tool of adjustment to external shocks, or whether it would become a source of balance sheet's distress and financial instability.

nominal devaluation necessitated a more gradual and more painful adjustment to external shocks by means of decline in domestic prices. In 1999, retail prices fell by 1.8 percent and wholesale prices even more, by 3.8 percent. This decline in domestic prices has contributed to a limited real depreciation of peso against the dollar, but not necessarily against the other currencies which were nominally depreciating against the dollar. In real effective terms, the peso was appreciating: by 12 percent in 1999 alone and by about 20 percent in 1996-1999. Moreover, falling domestic prices began to increase the real value of domestic debt, which adversely affected financial situation of debtors.

Worsening external situation and weakening economic activity at the end of the 1990s have affected adversely the financial situation of public budgets. Their financial situation was further weakened as a result of the half-finished structural fiscal reforms that failed to fully address some chronic problems vexing Argentina for years, particularly low tax collection (mainly as a result of high incidence of tax evasion) and failure to improve financial discipline of provinces. Moreover, Argentina was now starting to pay the price for high borrowing in the past. Interest payments from public debt began to absorb an increasing share of government spending: in 2000, interest payments from public debt reached 15 percent of total public spending.

In 1999, presidential election took place and brought the opposition candidate de la Rúa to office. The main economic priority of the new government was to halt the recession and reduce poverty and unemployment and at the same time to stabilize deteriorating public finance. The new government has prepared a restrictive 2000 budget, which was supported financially by a new three-year stand-by arrangement with the IMF in the amount of SDR 5.4 billion (about \$7 billion), approved in March 2000.

The IMF program assumed that the government budget deficit would decline from 3.8 percent of GDP in 1999 to 2.3 percent of GDP in 2000. The program also assumed that the decline in budget deficit would lead to improved confidence of foreign investors, lower costs and better access to external private financing.¹⁷ In turn, lower costs and better availability of external financing were to support investment activity and economic growth, possibly more than fully neutralizing the negative growth effect of fiscal restriction. Real GDP was projected to grow by 3.4 percent in 2000.

Unfortunately, the assumption that tighter fiscal policy would result in improved investors' confidence did not materialize. In 2000, the situation continued to be difficult for emerging market economies. Many investors were still licking wounds from the Asian and Russian crises and in the meantime, hi-tech share bubble began to burst. Risk aversion of investors remained high and emerging markets' access to international capital markets continued to be difficult. This unfavorable external situation was further worsened by

¹⁷ The authorities initially did not intend to actually draw the IMF money and treated the arrangement as precautionary.

Argentina's domestic problems. As a result, expected resumption of growth in 2000 failed to materialize. On the occasion of the first review of the stand-by arrangement in September 2000, the IMF has reduced growth projection for 2000 to from 3.4 percent to 2.2 percent, but it still expected that growth would accelerate to 4.2 percent in 2001.¹⁸ The authorities therefore continued to treat the arrangement as precautionary.

Argentina was in a Catch 22 situation. To restore economic growth, Argentina needed to renew its access to private foreign financing. But in turn, to be willing to invest in Argentina, foreign investors required evidence that the economy is recovering. They were hesitant to put their money to a country in the middle of economic recession. But Argentina did not have any economic policy tool at its disposal that would allow it to jump-start economic growth. Given the fixed exchange rate parity within the CBA, Argentina could not resort to devaluation of its currency. Neither did the CBA allow the authorities to pursue a more expansionary monetary policy, as the amount of liquidity in the economy was closely tied to the volume of foreign currency reserves, which were falling in the course of 2000. Little help could come from fiscal policy as well. Room for expansionary fiscal policy was very limited. The only hope for Argentina was that the IMF financial assistance would help to get it out of this impasse, by providing the initial growth and confidence impulse, that it would play the standard catalytical role. And so everyone – Argentina, IMF and foreign investors - was waiting for signs of growth.

But external situation did not improve, and despite the generous IMF financial assistance, growth did not resume. In contrast to expectations, international investors became increasingly nervous about Argentina. Argentina's borrowing costs were rising and access of both public and private borrowers to international markets was gradually deteriorating. Domestic political tensions within the governing coalition did not help either. From September to November 2000, spread on Argentina's debt widened by over 300 basis points, to about 850 points over the U.S. Treasuries' yield. In December 2000, as Argentina's access to international market did not improve, the authorities decided that they will stop treating the IMF loan as precautionary and draw SDR 1.59 billion. In early 2001, the stand-by arrangement was augmented by SDR 5.2 billion, to SDR 10.6 billion.¹⁹

The main objective of the augmented arrangement for 2001 was again to reduce the budget deficit. The new program also contained a number of structural reforms that were

¹⁸ In the end, instead of growing by 3.4 percent as initially expected, the economy declined by 0.5 percent in 2000.

¹⁹ After the approval of the augmentation, Argentina was able to draw immediately additional SDR 2.25 billion. One fifth of the augmentation was provided under the Supplemental Reserve Facility (SRF), which carries higher interest rates (surcharge up to 300 basis point above the basic rate) and shorter maturities. Out of the total drawing of SDR 2.25 billion in January 2001, SDR 1.48 billion was under the SRF.

supposed to increase the competitiveness of the Argentinean economy. Even though the economy was still in the recession early in 2001 when the new program was formulated, it again contained measures to improve fiscal balance. However, the objective was now more modest: to reduce the government budget deficit to 3.1 percent of GDP in 2001 from 3.6 percent of GDP in 2000 (which was well in excess of the originally programmed 2.3 percent deficit). But even this reduced adjustment implied a restrictive fiscal policy stance, as the primary balance of the public sector (overall balance excluding interest payments to service public debt) was supposed to improve from a deficit 0.8 percent of GDP to a surplus 0.4 percent of GDP (original program assumed a primary fiscal surplus 1.5 percent of GDP in 2000).²⁰

Following the approval of the augmented loan, market confidence began initially to improve and spreads on Argentina's bonds narrowed to about 700 basis points. It was still expected that Argentina will regain access to international markets later in 2001, as growth resumes and international investors' confidence in emerging markets and in Argentina improves. At the beginning of 2001, the IMF was projecting that real GDP growth in 2001 will reach 2.5 percent. But the IMF also recognized that the recovery of investors' confidence depends on many factors, including improvement of external conditions, full and rapid implementation of the agreed policies, and perhaps most importantly, full broad political and social support of these policies in Argentina. The authorities remained firmly committed to the maintenance of the convertibility regime and given the expectation that growth will resume, this commitment appeared credible. But the respite was very brief and the situation worsened seriously in March 2001. Evidence of continued deterioration in the fiscal performance fueled political disagreements and domestic political turmoil ended only after the appointment of Domingo Cavallo as Minister of Economy. International investors' confidence fell rapidly and by the end of April, spreads on Argentine bonds exceeded 1000 points. Minister Cavallo put together a new policy package and in May, the IMF completed a third review under the arrangement, allowing Argentina to draw another SDR 976 million.

In the last ditch effort to help Argentinean exporters and stimulate growth, the authorities launched in June 2001 the so-called competitiveness plan, a package of somewhat unorthodox policy measures. The competitiveness plan represented a de facto introduction of multiple exchange rate system: exports except oil were supposed to take place with a devalued peso (exporters received a subsidy), while imports were supposed to take place at a revalued peso (additional tariffs were imposed on imports). The purpose was to simulate the devaluation of the currency, stimulate exports, reduce imports, and thus improve trade balance and reduce the dependence on external financing. One week later, the authorities put

²⁰ The policy of fiscal restriction was subsequently criticized as a mistake. See Joseph Stiglitz (2002), "Argentina Shortchanged". *The Washington Post*, May 12, p. B1. However, such criticism overlooks that in the crisis situation, the question is not how large fiscal deficit should be allowed, but how large fiscal deficit could be financed without resorting to printing money and triggering hyperinflation.

into effect a law which changed the peso's anchor from the dollar to a basket of currencies, 50 percent dollars and 50 percent euros - to be introduced after the euro would reach the parity with the dollar, so as to avoid an outright devaluation of the peso. But these measures brought little if any improvement in trade balance. Instead, they made tax system more complicated and further eroded the already weak confidence in the convertibility and the CBA. Even exceptional emergency powers granted by Congress to the government to change tax policy and reform public sector by decrees did not stop the deterioration of public finance. Falling confidence in the sustainability of the CBA resulted in accelerated bank deposit outflow and falling foreign exchange reserves of the central bank.²¹

To further improve short-term fiscal situation and reduce the need to borrow, Argentina has undertaken in early June a market-based debt exchange operation. Debt instruments maturing in the period 2001-2005 were replaced with debt instruments with longer maturity, maturing after year 2006. While this operation has reduced debt service obligations in the period 2001-2005, by about US\$ 12 billion, this was achieved at a cost of much higher debt payments after the 2006, by some US\$ 66 billion, because Argentina had to offer high yields to entice investors to accept debt with longer repayments.

Obviously, the longer the economic recession lasted, the longer were the costs, both economical and political, of maintaining the fixed parity and the CBA. The authorities were resorting to ever more creative measures to avoid the constraints of the CBA and stimulate economic activity. However, the result was increasing doubts about the ability of the government to maintain this regime. Neither large official financial assistance, nor measures to stimulate exports and reduce imports helped to restore investors' confidence and economic growth. Investors' doubts about the maintenance of the CBA were rising, and so were rising the doubts about the ability of Argentina to continue servicing its external debt. Price of Argentina's external debt on secondary market was falling, and the risk premium was rising.

In mid-2001, Argentina has definitely lost access to international capital market. The loss of access to external financing posed a difficult challenge for Argentina. After all, this was a country that used to borrow heavily. Therefore, the authorities had to resort to drastic measures: to reduce their borrowing needs to available supply of lending – to zero. The Government has approved a “zero deficit” law which stipulated that for the rest of 2001, the budget should be balanced. In the second half of 2001, budget spending was to be limited to the amount of available revenues. The main instrument to achieve the zero deficit was a drastic across-the-board cut in government spending. For example, public sector employees' wages and pensions were to be cut by 13 percent.²²

²¹ Investors' confidence was also weakened by the forced resignation of Pedro Pou, well-respected governor of the central bank, who opposed the competitiveness plan because it was weakening the CBA.

²² This was a long overdue catch up with the conditions of falling nominal wages in the private sector.

The government still hoped that the zero deficit law and drastic budget cuts would finally persuade foreign investors that Argentina was ready to make whatever measures were needed to maintain the solvency of its public sector. In recognition of this effort, the IMF had approved by the end of August yet another augmentation of financial assistance to Argentina, in a last-ditch effort to convince investors that the country was facing a liquidity crisis and not a solvency crisis. The original SDR 5.4 billion program was now augmented to nearly SDR17 billion, in part to support the voluntary debt restructuring scheme with foreign creditors. But even this generous financial assistance did not help. In September 2001, price of Argentina's debt on secondary market was again falling rapidly, signaling rising market expectations of default and/or the expectation that the exchange rate parity would be abandoned. Nevertheless, Argentinean government still refused even to contemplate such possibility, and it was resorting to more and more desperate measures with the objective to meet its zero deficit target. To further reduce its debt servicing costs, it used the moral pressure to persuade domestic holders of public debt, mainly banks and public pension funds, to accept lower yields. But as economic activity continued to weaken, budget revenues were falling even faster than budget spending.

Early in December 2001, the IMF has finally concluded that Argentina will not be able to reach its zero deficit target and that the current economic strategy does not ensure the restoration of economic growth and stability in the future. As a result, the IMF did not complete a scheduled review under the arrangement and did not release the scheduled SDR 1.3 billion disbursement. The crisis in Argentina was approaching its climax. Soon after the decision not to complete the review, the withdrawal of bank deposits accelerated. The authorities attempted to stop this drain of bank deposits and foreign reserves, but this effort was not successful.²³ Depositors were less concerned about the financial health of banks, and more concerned about the possible freezing or confiscation of their savings by government.²⁴ Of course, run on banks has forced the government to introduce exactly these measures. Banks were temporary closed, deposits were frozen and administrative measures put in place to prevent capital leaving the country. The population that has already endured nearly four years of economic crisis and significant wage cuts was not ready to take more. Freezing of deposits triggered violent social unrest which brought down the government of president de la Rúa. A period of social and political instability followed, which saw four new president in the office in two weeks. At the end of 2001, the government has announced a debt moratorium and in early 2002, it has abolished the Convertibility Law. After more than ten years, the CBA that has guaranteed the convertibility of dollar and peso at a fixed ratio one to one was gone.

²³ It is estimated that in 2001, total deposit outflow has reached \$20 billion, about one fourth of bank deposits. On one single day before the introduction of deposits freeze, this outflow reached \$1 billion. Gross foreign reserves declined from \$34 billion to \$15 billion and the share of dollar bank deposits in total deposits rose from 67.5 to 71.5 percent.

²⁴ The memory of a similar confiscation in 1989 was still fresh.

6. The causes of the crisis in Argentina

The Argentinean crisis is a complicated economic, political and social phenomenon. To fully understand and explain the causes of the crisis in 2001, it would be necessary to analyze in depth not only economic development, but also social and political developments which have affected the implementation of economic policy and policy choices that were made at different moments. Political and social developments, institutions and constraints have influenced the response of economic policy to both external and domestic shocks. They have shaped the distribution of benefits from a rapid growth, as well as the distribution of costs of adjustment in times of crises and low growth. Having in mind that this is just part of the whole picture, we will focus our discussion on economic aspects of the crisis and its causes. We will discuss four issues: low domestic savings, fiscal policy, currency regime and structural reforms.

6.a. Low domestic savings

Perhaps the most important underlying cause of Argentinean crisis is the chronic low domestic savings – a phenomenon typical for most countries in Latin America.²⁵ Low level of domestic savings meant that Argentina needed to rely on external savings to finance part of domestic investment. Argentina's dependence on external savings during the 1990s is illustrated in table 3.

In comparison with other countries at similar stage of economic development, domestic savings in Argentina are relatively low. For example, in countries of South East Asia, domestic savings are exceeding 30 percent of GDP. Similarly, in emerging market countries in Central and Eastern Europe, domestic savings are around one fourth of the GDP. Arguably, the history of high inflation and repeated banking crises, confiscation of deposits and erosion of their value are among the factors that have contributed to low domestic savings in Argentina.²⁶ Perhaps more puzzling is why the period of low inflation and relatively high growth in the 1990s coincided with further decline in domestic savings. One possible reason could be improved households' expectation about the future economic prospects and consumption smoothing. As people expected better economic future and increased future income, they “borrowed” part of higher future income to finance higher consumption today.

²⁵ See International Monetary Fund (2002), World Economic Outlook, May 2002, chapter 2.

²⁶ Argentina's domestic savings were not always that low. At the end of the 1970s, domestic savings exceeded 30 percent of GDP, but continued to fall since then. See Alan M. Taylor (1997), “Argentina and the World Capital Market: Saving, Investment and International Capital Mobility in the Twentieth Century.” NBER Working Paper 6302.

Table 3. Savings, investment (in percent of GDP) and growth

	1993	1994	1995	1996	1997	1998	1999	2000
Domestic savings	17.1	18.6	19.7	16.2	15.9	15.5	13.9	13.5
External savings	4.1	4.8	0.9	2.7	4.7	5.6	5.1	4.1
Domestic investment	21.2	23.4	20.6	18.9	20.6	21.1	19.0	17.6
Real GDP	6.0	7.1	-4.4	5.5	8.1	3.9	-3.4	-0.5

Source: The Economist Intelligence Unit Argentina Country Reports, 1996 and 2001.

Long-term large reliance on external savings could pose serious risks to the economy. First, the willingness of foreign investors to invest their savings in Argentina depends on relative attractiveness of Argentina as an investment destination. And the relative attractiveness depends not only on what happens in Argentina, but also on developments in other countries. In countries that are very dependent on external savings, economic growth could be subject to sudden large swings that are difficult to predict and that may be difficult to deal with. This is obvious from table 3. The ability of Argentina to attract external savings was an important determinant both of domestic investment and economic growth. In times of adverse external situation when investors were less forthcoming and capital flows to Argentina fell, economic activity weakened rapidly. On the contrary, acceleration of capital inflow resulted quickly in a resumption of economic growth.

Second, long-term reliance on external savings also results in rising external debt. If a country uses external savings in the form of debt-creating capital inflows, its external debt increases directly. Inflow of direct foreign investment does not result directly in an increase of the stock of external debt, but it has implication for balance of payments and external vulnerability as well, because it could increase future profit transfers abroad. As we see in table 4, Argentina's external debt was rising rapidly in the 1990s.

Table 4. Balance of payments and external debt (in \$ bil)

	1993	1994	1995	1996	1997	1998	1999	2000
Current account	-7.0	-9.3	-2.4	-6.5	-12.0	-14.6	-12.3	-8.9
Capital account	11.5	9.9	2.3	12.0	16.6	17.2	13.9	9.0
External debt	70.6	77.4	99.0	112.0	130.8	141.5	147.9	150.4
In which: public	52.0	5.7	55.8	63.0	67.6	77.2	84.6	91.4

Source: The Economist Intelligence Unit Argentina Country Reports, 1996 and 2001

In theory, emerging market countries should be net users of external savings, and should thus have current account deficits for a sustained period of time. Relatively low capital to labor ratio compared to developed economies should provide opportunities for profitable investment and higher returns. But for two specific reasons, such reliance was problematic to Argentina. First, as a result of the CBA, Argentina was unable to adjust

relative prices in response to a temporary shortfall of foreign financing by changing nominal exchange rate. And second, relatively closed character of the economy implied that adjustment to a shortfall of external financing through changed quantities of exports and imports was relatively ineffective as well. Adjusting to a shortfall of external savings produced economic recession, which only further worsened the access to international capital market.

Moreover, the long-term reliance on external financing and rapid growth of external debt were not accompanied by similarly rapid increase in competitiveness and exports growth that would allow to service the growing external debt. The economy did not become more open.

Table 5. External debt and debt service, 1998 1/

	Debt/GDP	Debt/exports 2/	Debt service/exports 2/
Argentina	52	406	58.2
Brazil	29	340	74.1
Mexico	41	111	20.8
Indonesia	169	252	33.0
Thailand	76	123	19.2
Korea	43	84	12.9
Czech Republic	45	71	15.2
Hungary	63	107	27.3
Russia	62	186	12.1

Source: The World Bank (2000), World Development Indicators

1/ Present value of debt 2/ exports of goods and services

Argentina's small openness to trade became a major weakness. As a share of GDP, Argentina's external debt at the end of the 1990s did not reach excessively high level (see table 5). In 1999, it exceeded 50 percent of GDP, which is high, but not excessively high. Such level of debt would not automatically trigger worries that debtor country would be unable to service its debt and that it would impose a debt moratorium.²⁷ But the debt to GDP ratio is not very informative about the country's capacity to service its external debt, which depends on the country's ability to earn foreign currencies. While Argentina's external debt continued to increase, its ability to increase foreign currency revenues from exports of goods and services was lagging behind. The result was that the ratio of external debt to export revenues, and the ratio of external debt service (payments of interest and maturing principal) to export revenues were increasing rapidly, as shown in table 6.

²⁷ Of course, external debt to GDP ratio is sensitive to exchange rate changes. After the peso depreciated significantly against the dollar, Argentina's external debt to GDP ratio shot up and is now well over 100 percent.

Table 6. External debt and debt service in Argentina (in percent of exports) 1/

	1993	1994	1995	1996	1997	1998	1999	2000
Debt/GDP	27.7	27.8	39.2	42.0	45.7	48.6	53.7	52.7
Debt/exports	395.4	368	336.2	338.6	358.7	379	435.7	487.9
Debt service/exports	36.8	31.8	30.4	39.5	50.2	57.5	75.8	93.5

Source: The Economist Intelligence Unit Argentina Country Reports, 1996 and 2001; for 2000 IMF data

1/ Data in table 6 for Argentina are not directly comparable with data on Argentina in table 5, because table 5 uses a present value of external debt, while table 6 uses a nominal value.

When looking at these data, it is not surprising that at the end of the 1990s, foreign investors were becoming jittery, began to have doubts about Argentina's solvency and were becoming more hesitant to provide new credits. A country whose external debt service consumes practically all revenues from exports of goods and services needs to borrow to be able to pay for imports, including imports of consumption goods. But using external borrowing to finance imports of consumption goods is not sustainable.

In sum, during the 1990s, low domestic savings pushed Argentina to become more dependent on external savings. The economy became very open to capital flows, but at the same time remained relatively closed in terms of trade flows. Argentina's exports remained below 10 percent of GDP. The interaction of Argentina's large openness to capital flows, combined with the relatively small openness in terms of trade flows, has created a dangerous and unstable situation that has resulted in a rapid increase in Argentina's external vulnerability, loss of market confidence and loss of access to external financing.

6.b. The Role of Fiscal policy

While low domestic savings seem to be the most important structural weakness of Argentina that has contributed to the crisis, insufficiently disciplined fiscal policy has been identified as one of the most important policy failures that ultimately undid the CBA.²⁸ There is no doubt that maintaining fiscal discipline is an important condition for a successful operation of the CBA. We have observed that the introduction of the CBA in March 1991 brought a significant improvement in financial position of the public sector. Budget deficit was reduced sharply and public spending as a share of GDP fell rapidly. In a sense, this adjustment was inevitable because the CBA has imposed a harder budget constraint on the government, by preventing a monetary financing of government deficits. But this constraint

²⁸ See M. Mussa (2002), "Argentina and the Fund: From Triumph to Tragedy." Institute for International Economics, Washington, D.C., which could be found at <http://www.iie.com/papers/mussa0302-1.htm> . However, there are also dissenting views. For example, see Joseph Stiglitz (2002).

was not waterproof and more importantly, it began to loosen over time. As Argentina's stabilization program produced a rapid improvement in macroeconomic fundamentals, country's credibility in international capital market improved and so did its access to international borrowing. There was no dramatic weakening of fiscal discipline in the course of the 1990s, but from table 7 which shows the budget balances at different levels of government, we can see a gradual drift of fiscal policy, as budget deficits returned and began to creep up.

Table 7. Public sector balance (in percent of GDP) 1/

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Consolidated	-3.2	-0.5	-0.8	-2.3	-2.3	-3.2	-2.1	-2.1	-4.2	-3.6
Federal gov.	-2.5	-0.2	0.9	-0.5	-0.9	-2.5	-1.6	-1.3	-2.5	-2.4
Provincial gov.	-0.7	-0.2	-0.8	-0.9	-1.4	-0.7	-0.5	-0.8	-1.6	-1.1

Source: IMF

1/ Federal and provincial balance does not always add up to the consolidated balance, for example, because of the capitalized interest that is included in the consolidated balance.

There were several reasons for this deterioration, and not all were necessary reflecting fully a weakening fiscal discipline. First, pension reform launched in early 1990s that was supposed to resolve the structural social security deficit had negative effect on fiscal balance: significant loss of fiscal revenues as contributors switched to the private system was not replaced by expected reduction in tax evasion. Escude and Powell (2001) estimate that this reform has worsened fiscal balance annually by about 1 percent of GDP. Second, as lower interest payments on the formerly restructured debt and on Brady debt were gradually replaced by higher market-based interest rates, interest rate service began to increase (see table 8) . Third, on spending side, mandatory spending continued to represent a significant portion of total expenditures, providing the authorities little room for maneuver without legislative action.

Table 8. Federal government finance (in percent of GDP)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Revenue	15.4	17.0	17.9	17.3	17.1	15.9	18.5	19.0	19.7	19.6
Noninterest expenditure	15.3	15.8	15.9	16.6	16.6	16.5	18.1	18.0	19.0	18.6
Interest expenditure	2.6	1.5	1.1	1.2	1.5	1.6	2.0	2.2	2.9	3.4

Source: IMF

Financial discipline imposed initially by the CBA was weakened by the improved access to private external financing, which became easy available in times of ample global liquidity. As a result of increased borrowing, total debt of the public sector has doubled between 1993 and 2000, from \$77.6 billion to \$145 billion (which represents an increase by 20 percentage points in terms of GDP, from 30 to 50 percent). Domestic banks were an important holder of public debt, but as Argentina became a darling of international investors, large and growing part of public debt was sold to nonresidents. Public external debt has increased from \$47 billion in 1991 to \$56 billion in 1995 and to \$91.4 billion in 2000. The share of external public debt in total public debt has increased from 56 percent in 1995 to 63 percent in 2000.

Fiscal discipline on provincial level has remained weak as well, though for a different reason. As table 9 shows, important source of provincial government revenues were transfers from federal government. These transfers took place under a predetermined formula that provided little incentive to local governments to economize on spending or to increase their own revenues. A minimum amount of transfers to provinces was guaranteed regardless of the state of the economy, and regardless the volume of revenues collected by the central government. As a result, in times of recession and low revenues, this system resulted in a significant financial squeeze of central government, which had to continue transferring the prescribed amount of resources to provinces even as its own revenue situation deteriorated. The whole system provided insufficient incentive for fiscal discipline of provincial governments, discipline that was required to ensure a smooth operation of the CBA.

Table 9. Provincial government finance (in percent of GDP)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Revenue	8.2	9.7	9.7	9.7	10.1	10.3	10.7	10.9	11.2	11.3
of which federal transfers	5.1	5.6	5.4	5.2	5.6	5.8	6.0	6.1	6.3	6.3
Noninterest expenditure	8.8	9.7	10.3	10.3	11.2	10.7	10.8	11.3	12.3	11.8

Source: IMF

In sum, while the CBA has cut off the government from monetary financing of budget deficits, it also helped to establish price stability and improved investors' confidence, thereby gradually opening access to alternative source of financing – borrowing on international capital market. As a result, public debt was growing rapidly.²⁹ The CBA did not produce a lasting and sufficiently strong pressure to improve public sector finance to such extent that the country would become less dependent on external financing and thus less

²⁹ It should be noted that increase in public debt during the 1990s did not reflect only cumulative effect of fiscal deficits, but also recognition of previous government liabilities.

vulnerable to adverse external shocks. The lack of fiscal discipline has gradually undermined the credibility of the CBA in Argentina. There is certain paradox in what has happened. While the CBA, by helping to establish rapidly price stability and growth, allowed Argentina to borrow abroad, it did not improve Argentina's credibility to such an extent that Argentina would be able to borrow long-term in domestic currency. As the former central bank governor Pedro Pou complained in 1999, before the crisis escalated, despite playing by the rules of the currency board for nine years, Argentina was unable to borrow from international investors in domestic currency except in short-term.³⁰

The combination of limited ability to borrow long-term in its own currency, and the large access to borrowing in foreign currencies, has contributed to the development of two potentially serious vulnerabilities in the economy. First, Argentina became vulnerable to a liquidity shock, as borrowing in domestic currency and partly in foreign currency was short-term and needed to be frequently rolled over. Reliance on short-term borrowing could create a liquidity squeeze if international investors are not willing to provide new loans as the old loans became due. Second, Argentina's economy became vulnerable to exchange rate changes as a result of currency mismatches. Domestic borrowers have tried to avoid the liquidity vulnerability by contracting longer-term loans in foreign currency, but in the process, they have become exposed to currency risks should the domestic currency depreciate. This currency mismatch has become a very serious problem in Argentina and has complicated the solution of the crisis.

Table 10. Public debt (in \$ bil and % of GDP)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
\$ bil	64.7	68.8	77.6	90.3	101.5	114.4	111.6	123.5	133.9	144.8
% GDP	35.8	30.3	30.1	32.1	36.3	38.5	38.1	41.3	47.3	50.8

Source: IMF

6.c. Crisis and the CBA

Given the prominent role that the CBA has played in Argentina in the 1990s, it is not surprising that this policy regime has been often mentioned as one of the factors that have contributed to the crisis. All major financial crises of the 1990s were connected with fixed exchange rate regimes and countries that suffered these crises had to abandon exchange rate pegs and introduce more flexible exchange rate regimes.³¹ At the end of the 1990s, it became

³⁰ See Pedro Pou (1999), "Is Globalization Really To Blame?", in Jane Sneddon Little and Giovanni P. Olivei, eds., *Rethinking the International Monetary System*. Federal Reserve Bank of Boston, Conference Series No. 43.

³¹ See Stanley Fischer, (2001), "Exchange Rate Regimes: Is the Bipolar View Correct?" *Journal of Economic Perspectives*, Spring.

a received wisdom that the so-called soft pegs are no longer workable for emerging market countries integrated into international capital market. If such country wants to keep its own currency, it has to allow it float, or to maintain the so-called hard, peg, that is, a CBA. A CBA was assumed to be less vulnerable to speculative attacks that have wreaked havoc with the standard exchange rate pegs. Argentina's experience has now challenged that wisdom.

Initially, the introduction of CBA in 1991 has brought significant benefits to Argentina. Before its introduction, the country was in the midst of a financial chaos and hyperinflation, economic activity was falling rapidly and poverty was on the rise. With the help of the CBA and the discipline it brought, the authorities were able to bring inflation down rapidly. Rapid decline in inflation, in connection with the credibility of the law backed CBA, resulted in a similarly rapid decline of interest rates close to international level.³² Finally, restoration of financial stability after the introduction of the CBA was followed by a rapid remonetization of the economy. Stabilization and remonetization have had an immediate beneficial effect on Argentina's economy. While average per capita real GDP growth in the 1980s was -2.9 percent, in the 1990s, it was +3.2 percent.

However, from the long-term perspective, the verdict about the appropriateness of the CBA in Argentina is more difficult. Two questions need to be answered. First, were the conditions in place to ensure that even in the long-term, benefits of the CBA would continue to exceed costs? And second, did the authorities have a strategy of exit from the CBA in case that the costs of the CBA begin to exceed its benefits, or did they see it as a permanent arrangement, regardless of how it operates?

In order for a CBA to bring sustainable benefits, certain conditions need to be met.³³ We can understand best this by looking at the implications of a CBA for the economy and economic policy.

First, a CBA implies an introduction of nominal exchange rate rigidity. In this connection, there are three risks. One is that the parity is initially set at the wrong exchange

³² The evidence suggest that CBA are more effective in bringing interest rates down than different exchange rate arrangements, even if the rate of inflation falls similarly. See IMF Staff Team (1997), Currency Board Arrangements: Issues and Experience. IMF Occasional Paper 151.

³³ Not everyone agrees that a country that wants to introduce a CBA needs to meet certain preconditions. Steve Hanke, an enthusiastic promoter of CBAs, disagrees with such idea. He thinks that currency board could be introduced by any country. See S. Hanke (2000), "The Disregard for Currency Board Realities." *Cato Journal*, Vol. 20, No. 1, pp. 49-59. In a sense, he may be right. Indeed, a CBA could be introduced in any country, provided they have enough reserves in the first place. But this does not mean that it would work well in any country.

rate, that the country locks itself into a too appreciated exchange rate. Second and related risk is that inflation will not come down sufficiently quickly after the currency has been pegged and that the currency would appreciate in real terms, undermining the competitiveness. Third risk is that the domestic currency is pegged to a foreign currency that fluctuates significantly against other currencies, thus exposing domestic currency to large fluctuation against these currencies as well.

It is difficult to assess whether the Argentinean currency was pegged at the wrong parity when the currency board was introduced.³⁴ After a period of hyperinflation and financial instability, foreign exchange market did not operate properly and determining the “correct” exchange rate was a difficult exercise.

As for the second risk, there has been a significant initial real appreciation of the peso in 1990-1993, as inflation in Argentina remained above inflation of its trading partners.³⁵ Measured by the consumer price index, real effective exchange rate in 1993 has appreciated by nearly 30 percent relative to 1991. But it declined quite sharply in the period to 1997. Even more rapid was the decline in real effective exchange rate based on unit labor cost (ULC), which obviously is a better measure of competitiveness than CPI-based real effective exchange rate. Between 1993 and 1997, ULC-based real effective exchange rate depreciated by nearly 40 percent. During that same period, the share of Argentina’s exports in world exports has increased from about 0.35 percent to 0.5 percent. So there is little evidence of competitiveness problem in that period.

Then in the period 1997-2000, both CPI-based and ULC-based real effective exchange rates have appreciated, by about 20 percent and 10 percent respectively, while Argentina’s terms of trade have deteriorated by about 15 percent in 1997-99. The share of Argentina’s exports in world exports fell back to 0.35 percent in 2000. This already signals a problem of competitiveness. But this real appreciation was not caused by high domestic inflation, but by the dollar’s appreciation against the currencies of Argentina’s trading partners. The third risk of the currency peg was the most serious: Argentina’s peso was pegged to a wrong currency. Argentina's exports to the United States are only a relatively small share of total exports, about 10 percent, while large share of exports goes traditionally to Europe. However, as the U.S. dollar appreciated against the euro at the end of the 1990s, so did the Argentinean peso. But while strong dollar was justified by rapid U.S. growth and

³⁴ Argentina established a fixed exchange rate of 10 000 australes (later 1 peso) for one US dollar. It should be noted that at this exchange rate, international reserves were still not sufficient to cover the notes and coins plus banks’ deposits at the central bank.

³⁵ But the relatively high inflation in the first years of the CBA may have reflected a catch-up of some domestic prices, which in dollar terms were too low when the fixed parity and peso convertibility to dollars was established. This would be the case if the initial parity would be somewhat depreciated relative to the purchasing power parity.

large inflow of foreign capital attracted by high productivity growth, real appreciation was less appropriate for Argentina which at that time suffered from negative terms of trade shock. In the end, the government tried to loosen this unfortunate peg to a very strong currency, by announcing the plan to move to a basket peg, but at that time, it was too late to save the CBA.³⁶

Table 11 shows the growth of export and import volumes. Import volume picked up strongly in early 1990s, but this was probably more a result of pent-up demand after the liberalization of external trade) than a sign of overvalued currency. In the period 1994 to 1998, export volume growth was quite robust too, though it grew less than import volume. In 1999 and 2000, export growth practically stopped, while import volume began to fall. But overall, the difference over cumulative growth of export and import volumes during the 1990s was very large and suggests a problem.

Table 11. Trade balance (\$ bil), export volume and import volume (1990 = 100)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Export	97	99	104	122	153	163	188	206	204	208
Import	215	395	445	564	500	598	783	851	734	727

Source: The Economist Intelligence Unit Argentina Country Reports, 1996; IMF data.

Second consequence of the CBA is the loss of monetary control. Domestic interest rates were determined to a large extent by monetary conditions and interest rates in the country of reserve currency. But monetary conditions appropriate for the United States need not suit well the needs of Argentina. Of course, the history of serious monetary mismanagement when monetary policy was under the control of Argentina suggest that such a loss of monetary control should not be necessary seen as a bad thing. But the loss of monetary control did create its own problems, by limiting the authorities' ability to respond to asymmetric shocks. This problem became particularly acute in late 1990s. While the U.S. economy was growing fast and tighter monetary policy was needed to prevent inflation from getting out of control, Argentina's economy was adversely affected by a sequence of external shocks, economic growth fell, and more stimulative monetary policy stance would have been normally appropriate.

Third, the introduction of the CBA implies partial or full loss of ability to provide lender of last resort assistance to banking sector. As we have seen, during the Mexican crisis

³⁶ In a more formal analysis, Hristov (2002) arrives at the conclusion that in the period till 1999, Argentinean real exchange rate was not fundamentally misaligned relative to the fundamental equilibrium exchange rate. See Kalin Hristov, (2002), "Fundamental Equilibrium Exchange Rates and Currency Boards: Evidence from Argentina and Estonia in the 90s." Bulgarian National Bank Discussion Paper 22.

in early 1995, there was large outflow of deposits from the banking system in Argentina and the rules of the CBA have limited the ability of the central bank to provide liquidity assistance to otherwise sound banks that were under liquidity pressure. By increasing the coverage of reserve money by foreign exchange reserves and by demanding a large build-up of reserves, Argentina's central bank has created some limited room for liquidity injection to banking sector when the need arose. But this room for liquidity support was limited and had to be enhanced by official financial assistance. Still, one can argue that Argentina's banking sector was in a reasonably strong position and that it did not represent the main weakness of the CBA.

To conclude on the role of the CBA, it could be argued that initially, it has played a crucial role in establishing price stability and economic growth. However, it has also restrained the policymakers' ability to respond to external shocks. The economy did not strengthen enough to be able to withstand the sequence of serious shocks in the second half of the 1990s without a serious damage to economic growth. Clearly, the balance of costs and benefits of the CBA has been shifting over time: while the benefits of the CBA were front-loaded and materialized mainly in early 1990s, the costs increased over time, as the economy was hit by a sequence of serious external shocks to which it was unable to adjust sufficiently. Escude and Powell (2001) were asking whether under some circumstances, for example, under sufficiently severe and persistent shocks, the fixed exchange rate can actually prevent the economy from getting out of recession and hence leaving it stuck in a state of depression. For Argentina, the answer is obviously 'yes'.

6.d. Structural reforms

When the crisis erupted at the end of 2001, many politicians and some analysts argued that this is the result of implementation of the free market model to Argentina, which was imposed by the United States and the IMF. It was alleged that the country was pursuing a policy of rapid opening, liberalization and privatization that has produced increasing dependence on foreign capital and increasing vulnerability to adverse external developments.³⁷ According to the arguments, such model was unfit for an emerging market country such as Argentina and Argentina's crisis has shown that a new development model need to be put in place.

³⁷ For example, one of the most vociferous IMF critics Joseph Stiglitz, former chief economist of the World Bank, has criticized the IMF for its support to the privatization of Argentina's banks to foreign owners (see *Ekonom*, No. 3, 2002 (published in Czech)). He blamed foreign owned banks for their failure to lend to small and medium-sized domestic firms, which contributed to Argentina's economic problems. But Argentina's banks before their privatization in the early 1990s were anything but a symbol of financial strength and a guarantor of economic prosperity, as frequent and costly banking crises testify. Restructuring Argentina's banking system after the crisis in early 1980s cost 13 percent of annual GDP.

But as some other analysts have reminded, Argentina in the 1990s was far from a perfect model of flexible free market economy.³⁸ In countries that adopt a CBA, it is important to ensure a sufficient degree of flexibility in the economy, particularly in labor markets, to compensate for the loss of monetary and exchange rate flexibility and to be able to adjust to external shocks. Indeed, after the introduction of the CBA, Argentina has made a significant progress in structural reforms. First, the government undertook a complete overhaul of the public sector system. Most public enterprises were privatized and the role of the government in the economy was significantly curtailed. This was accompanied by extensive deregulation and simplification of the tax system. The result was a rapid decline in government expenditures as a share of GDP and reduction of budget deficit. Second, extensive deregulation took place on the external front, including the elimination of capital account restrictions and reduction in import tariffs. This has contributed to Argentina's increasing integration with the world economy and international capital market. Third, progress was made in the banking sector reforms. Capital adequacy requirements were tightened, undercapitalized institutions were closed, and public transparency increased. Privatization of banks to foreigners has increased the confidence in the banking system.

But while impressive and possibly sufficient in a more quiet times, in the turbulent second half of the 1990s, these reforms were not sufficient to provide the Argentinean economy the needed flexibility to operate successfully under the CBA. From that perspective, there was still not enough reform.

The biggest failure was the insufficient progress in improving the flexibility of the labor market.³⁹ Argentina's labor market was traditionally very inflexible and centralized bargaining process continued to play an important role even in the 1990s. Labor market flexibility was also hampered by high dismissal costs and high payroll taxes have kept labor cost very high. These taxes added a mark-up of 60 percent to net wages. Another problem was a downward wage rigidity which exacerbated the recession in the late 1990s. According to Escude and Powell (2001), between 3Q1998 and 3Q1999, nominal GDP declined by 6.6 percent, but average real CPI deflated remuneration in the economy increased 3.8 percent.

Because flexible labor market is an important condition for a smooth operation of a CBA, these features of Argentina's labor market had costly consequences. They have contributed to a large increase in unemployment in early 1990s. Unemployment remained high despite rapid economic growth, because high labor cost encouraged firms to substitute

³⁸ For an interesting account of Argentina's structural and institutional shortcomings see Brink Lindsey, "How Argentina Got Into This Mess", *The Wall Street Journal*, January 9, 2002.

³⁹ See Corrola Pessino, *Argentina: The Labor Market During the Economic Transition*. In S. Edwards and N.C. Lustig, eds., (1997) *Labor Markets in Latin America: Combining Social Protection With Market Flexibility*. Brookings Institution, Washington, D.C.

capital for labor. And while unemployment was rising, a large part of unemployed did not receive a sufficient social support.

High wage cost and low downward flexibility of wages were undermining the competitiveness of Argentina's exporters. It has been shown that a substantial part of Argentina's exports is highly sensitive to unit labor costs, and that high labor taxes and labor market rigidities have adversely affected export performance and contributed to the widening trade deficit in the 1990s.⁴⁰

We can conclude that the constraints on labor market flexibility, together with the insufficiently progress in strengthening public finance, limited Argentina's scope to respond to negative external shocks and mitigate their effect on economic activity. Ultimately, this led to the undermining of confidence in the sustainability of the CBA.

7. Argentina crisis and the IMF

After the heavy criticism that the IMF has received for its handling of financial crises in Asia and elsewhere, it came as no surprise that many commentators and analysts put quickly blame for what has happened in Argentina at the IMF's door. The IMF was criticized for several reasons. Some have blamed the IMF that together with the United States, it has supported the introduction of neoliberal economic model to Argentina that has led to the crisis later on. It is difficult to argue with this more ideological than economic argument and we will leave them aside. Another group of critics has accused the IMF that it has triggered the crisis by stopping to provide financial assistance in December 2001. And as has become lately typical, others have criticized the IMF for exactly the opposite mistake, namely that it has continued to lend to Argentina for too long, thereby making the crisis more serious because it allowed the authorities to postpone the necessary change in the policy regime. This is the most serious criticism that deserves attention. We will not attempt to prove the innocence of the IMF regarding this accusation. What we will attempt to do is to lay out the consideration which the IMF had to take into account when making decisions whether to continue providing financial assistance or whether to pronounce the program off track.

In the course of the 1990s, the IMF was intensively involved in Argentina and during most of that period, IMF program was in place.⁴¹ Table 12 provides the overview of IMF lending to Argentina. As we can see, for most of the decade, Argentina was under the care of the IMF programs, and it has drawn about SDR 15 billion from the IMF during that period. To put it in perspective, Argentina's current quota in the IMF is SDR 2117.1 million.

⁴⁰ See Luis Catão and Elisabetta Falcetti (1999), "Determinants of Argentina's External Trade." IMF Working Paper 99/121.

⁴¹ As Mussa (2002) notes, the fact that the IMF was intensively involved in Argentina, more than in Asian countries affected by a crisis, raises the question why this more intense form of involvement did not prevent the economy's collapse.

Table 12. IMF lending to Argentina (in SDR mil)

Date of Approval	Amount approved	Amount drawn
Stand-by 7/29/91	780.00	438.75
Extended arrangement 3/31/92	4020.25	4020.25
Stand-by 4/12/96	720.00	613.00
Extended arrangement 02/04/98	2080.00	0.0
Stand-by 03/10/00	16936.80	9756.31
Of which SRF 1/	6086.66	5874.95

Source: IMF data

1/ Resources provided under the supplementary reserve facility (SRF) have a shorter repayment period and escalating charges (interest rate) depending on the size and length of the use. The amount shown here includes two augmentations of the original arrangement approved in January and August 2001.

The first and second arrangements in 1991 and 1992 were approved mainly to support the program of economic stabilization and structural reforms in connection with the introduction of the Convertibility Law and the CBA. The third arrangement in 1996 was approved to help Argentina to overcome the problems related to the Mexican crisis. The extended arrangement approved in 1998 was to serve as a policy framework for a further fiscal consolidation and completion of structural reforms. At that time, Argentina enjoyed good access to international capital markets and it decided to treat the arrangement as precautionary. However, good times sometimes do not encourage good policy management. In 1999, this program went off track, as the authorities missed several targets agreed under the arrangement, particularly regarding fiscal policy. Deficits of federal and provincial governments were higher than agreed under the program.

In December 1999, new government took office and agreed with the IMF a new adjustment program that was supported by the stand-by arrangement approved in March 2000. Again, the authorities indicated that they want to treat the arrangement as precautionary, because they wanted to continue relying on market financing. The main purpose of the arrangement was to protect Argentina against the volatile market conditions and potential loss of market access. But it was assumed that the very existence of this safety cushion in the form of the IMF financing would ensure that Argentina's access to international capital market would remain good and that the IMF money will not be needed. As we have already discussed, Argentina's access to international capital market did not improve, even after it borrowed more than SDR 10 billion from the IMF and the program was not completed.

In the course of the 2001, many analysts and economists were pointing to the increasingly unsustainable situation in Argentina. They did not see how a shrinking economy and shrinking budget revenues could allow the government to continue servicing its debt, and how the convertibility could be maintained in the face of this apparently inevitable

government default. Well-respected economists have criticized the IMF decision to provide more money and support the insupportable and called for the abandonment of the CBA.

For example, in June, Michael Bordo and Roberto Chang from Rutgers University argued that on its tenth anniversary, the time has come to abandon the CBA and to replace it with a floating exchange rate and credible inflation targeting.⁴² Barry Eichengreen, economist with a very good knowledge of the IMF, noted immediately after the announcement of the new agreement with the IMF in early September that social unrest in Argentina is on the rise and that zero-deficit rule will make things only worse, because it would put even more deflationary pressures on the already weak economy, cause further fall in tax revenues and thus require even more tax cuts to keep the deficit target.⁴³ Eichengreen mentioned that an alternative solution would be the so-called “Quadruple-D” strategy, namely devaluation, dollarization, deposit write-down and debt restructuring.

At the end of October, former chief economist of the Inter-American Development Bank Ricardo Hausmann suggested that Argentina should abandon the existing policy strategy, de-dollarize the economy, move to a floating exchange rate regime and introduce strict inflation targets as new nominal anchor to the economy.⁴⁴ And soon thereafter, the former chief economist of the IMF Michael Mussa argued that the IMF decision to extend financial assistance in September was a big mistake and that the international effort to help Argentina has failed. He argued that even with substantial international financial assistance, Argentina cannot service fully its debt obligations to private creditors, which need to be rescheduled. And he too agreed with Hausmann that the CBA is no longer sustainable and that it has to be abandoned, while at the same time dollar assets and liabilities will need to be redenominated into domestic currency.⁴⁵

Why, despite all this opposition of well-respected international economists did Argentina continue to support the CBA and peso convertibility, and why its political representatives continued to insist till the very last moment that Argentina would honor all external debt obligations? And why did the IMF continue to provide financing as late as in early September 2001, when few outside Argentina’s government believed that the program could work and that Argentina could maintain its policy framework? Answers to these two questions are closely related.

⁴² Financial Times, June 6, 2001.

⁴³ See Barry Eichengreen (2001), “Argentina After the IMF,” mimeo, which could be found on <http://elsa.berkeley.edu/users/eichengr>.

⁴⁴ See Financial Times, October 29, 2001.

⁴⁵ See Financial Times, November 9, 2001. Mussa subsequently elaborated on this criticism in his later paper, see Mussa (2002).

There are two basic reasons why Argentina has stuck so desperately to the CBA, and why it tried to avoid defaulting on its debt at any cost. First part of the answer is to be sought in Argentina's history of hyperinflation, financial crises and debt defaults. Convertibility Plan and the introduction of the CBA in 1991 were supposed to be a decisive and definitive break with the past. Argentina was supposed to become a stable and prosperous modern economy, which enjoys respectability in international markets, which honors its commitments (both vis-à-vis its citizens, by maintaining the convertibility of peso to dollar at the fixed parity, and vis-à-vis the international investors, by honoring its debt). The authorities understood well that breaking these promises yet again would be very costly, that Argentina would lose access to international markets, possibly for a long time and that it would hardly be able to enjoy a stable domestic currency and well-developed domestic financial market.

Second, ten years of the CBA and convertibility have made Argentina very vulnerable to exchange rate devaluation. During the Asian crisis, it became clear how governments' commitment to maintain stable nominal exchange rates could encourage banks and firms to borrow in foreign currencies. The result was large open foreign exchange position, or currency mismatch in banks' and firms' balance sheets. If a bank or a firm has more dollar liabilities than assets, devaluation of domestic currency could impose a serious damage to its balance sheet and could even lead to a negative net worth and bankruptcy. Of course, if this happens on an economy-wide scale, financial distress could become very widespread and even banks and firms whose balance sheets are not vulnerable to currency depreciation could be hurt because of financial problems of their debtors, customers or suppliers. Asian crisis has demonstrated how a fixed exchange rate regime encourages banks and firms to build-up such open foreign exchange positions and how devastating could subsequent devaluation of domestic currency be. However, CBAs were supposed to be immune against this risk, because unlike soft pegs, they were not supposed to succumb to speculative attacks or be abandoned in the midst of a crisis. They were supposed to last. In Argentina, this strong institutional and legal underpinning of the CBA has encouraged even more dollarization of the economy, it contributed to a build-up of open position and currency mismatches. Banks' currency mismatch did not appear to be significant (see table 13), but situation could be more difficult in nonfinancial sector, as would be suggested by the low degree of openness of the economy and thus limited scope for natural hedge of dollar liabilities by export revenues. Government was not too much concerned about contracting dollar-denominated debt either, even though it knew that it would have to finance future dollar debt service from its peso revenues. Companies were not worried about taking dollar loans, even though they knew that their revenues are mainly in pesos (except some utilities whose tariffs were dollar-indexed).⁴⁶ This is the paradox. The very credibility of the CBA

⁴⁶ As Morris Goldstein observes, "the same constraints that make currency boards more 'permanent' than soft pegs also make it more costly for a country to exit a currency board if and when it decides to do so. The higher the costs of renegeing on the exchange rate commitment, the longer the country may delay needed correction action to bring the real

(continued)

made its abandonment more costly and thus less attractive option that was postponed as long as possible.

Table 13. Banking system: currency composition of loans and deposits (bil peso)

	Credit to public sector	Credit to private sector	Private sector deposits
Peso	3.2	19.3	22.9
Dollar	26.5	37.7	46.7

Source: Credit data are for November 2001, Banco Central de la República Argentina, <http://www.bcra.gov.ar/estadistica/estad000100.asp> . For private sector deposit, IMF estimates for 2001.

But there was more than just the concern about the adverse effect of exit from the CBA and devaluation on banks' and firms' balance sheets. The government knew that peso devaluation would also lead to its own default on public debt, because the peso value of dollar public debt would increase commensurately to the extent of devaluation. Argentina was among the largest emerging market borrowers (Argentina's share in the Emerging Market Bond Index was about 25 percent) and default would result in loss of access to international markets, possibly for a long time. It was very difficult, if not impossible, to separate the exit from the CBA and the default on external debt. These two problems were intimately connected. The authorities (and for that matter, the IMF) were concerned that debt default of such a large borrower would be a very messy event, costly to Argentina, but also to other emerging market countries (this latter worried perhaps more the IMF than the Argentines).⁴⁷

Finally, there was the political dimension of the whole problem. The CBA was not just one of the possible exchange rate regimes. To Argentines, it was an important symbol of political and financial stability. And its founding father, Domingo Cavallo, staked its

exchange rate into line, and the larger could be the size of devaluation when it occurs." See M. Goldstein (2002), "Managed Floating Plus and the Great Currency Regime Debate". IMF Institute Economics Training Program.

⁴⁷ The experience of Argentina has demonstrated the potentially high costs of absence of an orderly framework for sovereign debt restructuring that would provide creditors and debtors an incentive to start discussing debt restructuring before the situation reaches a crisis stage. This costly experience may have provided the needed impetus to develop and introduce such framework. See Anne Krueger, "A New Approach to Sovereign Debt Restructuring," Address at the National Economists' Club Annual Members' Dinner, American Enterprise Institute, <http://www.imf.org/external/np/speeches/2001/112601.htm>) for an outline of how such framework should look like and what it should accomplish.

political carrier on its success. Abandoning the CBA would not be just an economic decision, but also a decision with important political aspect. While economically, it would make sense to exit the currency board sooner rather than later, before the crisis gathers strength, political costs of such exit were likely be very high in any case. At the end of 2001, Argentina was already undergoing a third year of economic recession, the population was paying a heavy economic costs for the sake of maintaining the CBA and confidence of international investors, for the sake of avoiding default. It would take a great political courage to say that these three years of sacrifice and suffering were futile and that the regime has to be scratched anyway. If there was even a small chance that the CBA could be preserved and default avoided, it was in the interest of the politicians to try to preserve it, even if they needed to resort to innovative policy measures, or to request ever higher official financial assistance. From their perspective, this was a rational strategy, similar to a strategy of a bankrupt bank gambling for a survival. If by chance this strategy were to succeed and the existing policy framework preserved, they would win; if not, they would bear the costs regardless.

What about the IMF? What consideration was it facing when it was deciding whether or not to go ahead with the new loans?⁴⁸ The original approval of the stand-by arrangement in March 2000 was not much of a problem. As we have noted, the arrangement was initially treated as precautionary, intended just to protect Argentina from a possible deterioration of external conditions. Argentina's policies and the CBA were not seen as a problem. In early 2001, when external conditions deteriorated and Argentina began to actually draw the IMF money, there was still reason to believe that the problem is mainly external and that a solid program could restore investors' confidence and growth. Even in the May 2001 IMF World Economic Outlook, it was noted that Argentina's difficult situation is related to previous increase in international interest rates, deterioration in terms of trade, and effect of the Brazil's devaluation. However, in 2001, the Fed began to reduce rapidly U.S. interest rates, but this reduction failed to help Argentina. In summer 2001, it became ever more clear that the strategy of large official financial support does not work and that Argentina is doing much worse than other emerging markets. The problem was mainly domestic, not adverse external conditions. At that time, the IMF faced a difficult choice: to tell the Argentineans that the new policy strategy of zero deficit they put in place during the summer does not have a chance and does not deserve continued IMF financial support, or to conclude that it is a risky strategy, but still worth supporting. This was a tough call. It is one thing when a respected academician writes in the newspaper that a country should abandon the CBA and default on its external debt. It is a completely different thing when the IMF refuses to provide more money to a country and thus actually precipitates the collapse of the CBA and default on external debt. The IMF decided to give the authorities and the CBA one last chance.

⁴⁸ When speaking about the IMF decisions, we need to keep in mind the relatively complicated structure of IMF decision making, which includes the management, the Executive Board and of course the political authorities of the shareholders.

With the benefit of hindsight, this choice now may appear as wrong and even irresponsible. The IMF is now being accused that by continuing to finance Argentina, it has allowed to postpone the crisis and thus made it more serious. But what would happen if in August or September 2001, the IMF would decide to stop the financing? Most likely, it would be accused that it caused the collapse of the CBA and that it forced the country to default. And it would not be just the analysts who would be making such accusation, but the Argentinean government as well.⁴⁹ They would probably have argued that they were ready to implement all the policies necessary to restore confidence and preserve the convertibility and that if the IMF would have continued its financial support, this strategy would have worked. And there would be no counterfactual to prove them wrong. In fact, similar criticism could be seen even after the decision in early December not to complete the fourth review under the stand-by arrangement, and thus stop disbursing new loans. Some officials and bankers argued that the interruption has prevented the completion of a large voluntary debt swap with foreign creditors that would have (finally!) achieved the elusive goal of restoring market confidence. So inevitably, the IMF was between the rock and the hard place, and there was no way how to get out of this situation without providing ammunition to one or other group of critics. No matter what the IMF would do, some would always argue that it should have done the opposite.⁵⁰

8. What next?

More important than to decide who is to blame for Argentina's crisis is to put the pieces together and get the economy working again. Policymakers in Argentina face two difficult tasks. In the short-term, they had to deal with the immediate consequences of the crisis. In the medium- and long-term, they have to make the country less vulnerable to adverse shocks.

Unfortunately, in the first months after the crisis has erupted, the authorities were unable to put together a coherent economic strategy that would allow to resolve the crisis. After abandoning the fixed exchange rate, monetary policy has been lacking a credible anchor that would help keeping inflation expectations under control. Despite the depressed state of the economy, inflation began to pick up. In the period January-April 2002, consumer prices increased by 21 percent, and producer prices by 61 percent. There was some confusion

⁴⁹ There is some indication that such accusation would be made. As Paul Krugman notes, Domingo Cavallo was blaming the quoted articles by Mussa and Hausmann for precipitating the crisis. See P. Krugman, Argentina's Money Monomania,

<http://www.wws.princeton.edu/%7Epkrugman/mania.html>.

⁵⁰ For a good analysis of this dilemma and the politics behind the policy choices in late 2001 see Steven Pearlstein, "For IMF, Argentina Was an Unsolvable Puzzle," The Washington Post, January 3, 2002, p. E1.

what exchange rate regime to put in place instead of the CBA. The authorities first introduced a dual exchange rate: a fixed exchange rate of 1.4 peso per dollar for official transaction, mainly for exports and imports and debt service, and floating exchange rate for other transactions. Subsequently, the dual exchange rate was abandoned and the authorities allowed to currency float. By early June 2002, it fell below 3.6 peso per dollar, losing more than two thirds of its value.⁵¹

Equally lacking has been a credible strategy to address the fiscal problems. To some extent, this reflects the complicated social and political situation that is not conducive to making the needed difficult political decisions. On February 3, the Government unveiled a new economic package which included a fairly restrictive 2002 budget. The draft budget assumed a 2.7 billion peso deficit (which equaled \$1.93 billion at the official exchange rate 1.4 peso per dollar in place at that time, compared to \$11 billion deficit in 2001). However, the assumptions in the budget - real GDP contraction of 5 percent, inflation 14.1 yoy at the end of 2002, and exchange rate 1.4 peso per dollar - became quickly obsolete. The IMF now expects that real GDP will decline by 12-15 percent, and inflation could exceed 60 percent or more. In February, the government has also signed a pact with the provinces that committed them to reduce their 2002 deficits by 60 percent, but in view of the deteriorating economic situation, it is not clear whether there will be a political will necessary to live up to this commitment, and by the end of May, negotiations still continued. Provinces are issuing in increasing amount their own "money", which together with the central bank financing of government, liquidity support to banks, and rapidly depreciating currency risks further rapid acceleration of inflation.⁵²

Situation in the banking sector is similarly difficult, and requires a rapid and comprehensive resolution. Pesoization of bank's assets at the 1 peso per one dollar and bank's liabilities at the 1.4 peso per dollar has produced large losses for banks and increased future government liability. Negative effect on banks' balance sheets of this asymmetric conversion is estimated in the amount of 15-20 billion peso. To prevent a complete collapse of the banking system, a large part of deposits was frozen. However, this came at the cost of further depressing the economy and alienating the depositors.

⁵¹ In order to prevent an even sharper decline, the central bank was intervening in the foreign exchange market, while politicians were from time to time speaking about the possibility of re-pegging the peso, further adding to the perception of lack of coherent policy strategy.

⁵² Market analysts note that so far, wage growth has not yet accelerated in response to rising prices and that given the depressed state of the economy, the pass-through of currency depreciation into domestic prices was so far limited. If wage growth accelerates and the pass-through increases, the risk that inflation will get out of control would increase dramatically. See J.P. Morgan (2002), Global Data Watch, May 10.

The lack of credible economic strategy has delayed the conclusion of agreement with the IMF on a new program. In turn, failure to reach an agreement with the IMF has delayed the start of negotiations with foreign creditors on debt rescheduling. It is not surprising that under these circumstances, already low market confidence continued to weaken in 2002.

Addressing the banking crisis and restoring the operation of the banking system is presently the most urgent task. Argentina's banks are de facto not operating: deposits are to a large extent frozen, new lending stopped and thus further depressed economic activity. In order to get the economy moving again, deposits need to be unfrozen and banks need to resume lending. But to unfreeze deposits without a new round of bank run, and to maintain at least a limited depositors' confidence in banks' solvency will not be easy. The resolution of banking crisis was made more difficult by Supreme Courts' ruling that the deposit freeze is unconstitutional. The authorities need to announce a comprehensive strategy how to restore confidence in banks, including a framework for the resolution of insolvent banks and recapitalization of banks that are deemed viable.

Resolution of banking sector will have important fiscal implications and must therefore be a part of the plan of fiscal consolidation and restructuring of public debt. While bank crisis resolution will need to address the issue of distribution of losses among depositors, creditors and owners, restructuring of the public debt is mainly about the distribution of the losses between the foreign creditors and domestic population. Nouriel Roubini (2001) makes a case that foreign creditors should receive a bigger haircut in debt restructuring than domestic creditors, because domestic population is already carrying a large part of the cost of crisis as a result of increasing unemployment and falling incomes.⁵³ On first sight, this looks like a sensible argument. But it is not watertight. Foreign debt holders are supposed to receive a fixed interest payment for their investment. Normally, they are not supposed to carry the upside or downside risk of economy's performance. If the economy is doing better than expected, they do not receive additional payments for their loans. Similarly, if the economy is doing worse than expected, they are not supposed to receive less payments. Of course, if the sovereign is unable to fully service its debt and debt reduction is required, foreign creditors must share the haircut with domestic creditors and the other stakeholders. But purely on economic grounds, there is no compelling argument why foreign investors in Argentina's sovereign debt should be forced to accept a larger haircut that, for example, a domestic public sector employee (in terms of his/her salary reduction). Domestic stakeholders in the economy share the upside risk and should thus share the downside risk as well (one can see a parallel with the risk-return profile of bond holders and equity holders in a company).⁵⁴ But in practice, the burden sharing is not always based purely on economic

⁵³ See N. Roubini (2001), "Why Should the Foreign Creditors of Argentina Take a Greater Hit/Haircut Than the Domestic Ones," <http://www.stern.nyu.edu/globalmacro/>.

⁵⁴ Of course, the problem arises when this sharing of the upside and downside risk is not symmetrical across the population.

considerations. Unlike the Argentinean public sector employee, the foreign investor cannot bang the pots and march in the streets of Buenos Aires to force a better deal on the government. Political considerations impose limits on the extent to which the allocation of losses could be based on purely economic considerations.

The losses resulting from the crisis that will need to be allocated will be larger and the task of their allocation more difficult and potentially more disorderly, the larger will be the depreciation of the domestic currency. In the worst-case scenario, Argentina could slip again into the vicious circle of depreciation and high inflation – a risk that becomes more real every day. To prevent such scenario from materializing, a new credible monetary policy framework needs to be put in place. For a country abandoning the CBA, there are two basic options: either to dollarize, or to move to a floating exchange rate regime.

Given Argentina's history of mismanagement of its currency, there would seem to be a strong case for dollarization, which would remove the possibility of monetary mismanagement once and for all.⁵⁵ But dollarization would suffer from the same problem as the CBA: if the dollar appreciates against other currencies and if domestic costs in Argentina do not adjust sufficiently flexibly, as seemed to have been the case thus far, it could undermine the competitiveness of Argentina's exporters in other than dollar markets. Another potentially attractive feature of dollarization would be the avoidance of damaging effects of large currency depreciation on banks', firms', and households' balance sheets. But this advantage of dollarization is more apparent than real.⁵⁶ To correct the peso overvaluation, dollarization would have to take place under a devalued exchange rate anyway, producing the same adverse balance sheet effect (though arguably less serious compared to the possible overshooting in the regime of a free float). And if dollarization would take place without the initial devaluation, so as to avoid its undesirable balance sheet effect, the economy would have to adjust to the introduction of a very strong currency by cost-cutting and a period of deflation, which would likely be a very protracted process, imposing different hardship on the economy by increasing the real value of debts.

For these reasons, the consensus seem to be today that a free float is a better choice for Argentina, at least for the time being. But introducing a float to a country which has a long history of high inflation, whose central bank has little if any credibility and which is in a deep crisis will be a very difficult task. Even if the central bank and the government do

⁵⁵ For example, see Jeffrey Sachs, "Duhalde's Wrong Turn", *Financial Times*, January 11, 2002.

⁵⁶ See Nouriel Roubini, (2001), "Should Argentina Dollarize or Float? The Pros and Cons of Alternative Exchange Rate Regimes and their Implications for Domestic and Foreign Debt Restructuring/Reduction". <http://www.stern.nyu.edu/globalmacro/> .

everything right, restoring the confidence in domestic currency will take time. The central bank has to put in place soon a new monetary policy framework, most likely a standard inflation targeting regime that works well in many other emerging market economies, including the neighboring Brazil. But whether or not inflation targeting could work well in Argentina will depend less on technical sophistication of inflation modeling and inflation forecasting and more on the ability of the government to abstain from misusing the central bank as a source of financing budget deficits. The absence of fiscal dominance of monetary policy will be a crucial precondition for success of this new monetary policy framework.

Under the current economic and political circumstances, avoiding the fiscal dominance of monetary policy will be extremely difficult. Spending pressures are likely to be high. The prolonged period of fiscal austerity has reduced both the willingness and the ability of the population to accept further cuts in public spending, while recapitalizing the banking system would require government financial assistance. Economic activity has plummeted dramatically in last months of 2001 and in early 2002 and so did government revenues. In the first quarter of 2002, tax revenues were by about 20 percent lower than a year ago. The public sector financing gap has risen sharply, at the same time when the government has been de facto shut from both domestic and international markets. Given the suspension of external debt service, there is no prospect of being able to regain access to international markets anytime soon. The situation is not much better at home. Domestic banks and pension funds are already large holders of government debt and they will carry part of the cost of sovereign default. Conceivably, the government can force them to accept more haircuts on their holdings of public debt and even to buy new public debt, but this would likely only increase the fiscal costs of bank restructuring and thus would not provide much new net financing to the government. Households too are unlikely to use their savings (or whatever will be left of them) to buy new government debt. So the only remaining choices are using money printing, with the obvious risk of triggering inflation, or to adjust spending to available revenues. This latter alternative may not be as unfeasible as it looks, for two reasons. First, debt default and restructuring will provide a significant debt service relief to the government during the time before it reaches the agreement with the creditors and resumes debt service.⁵⁷ Second, the IMF and other multilateral and possibly bilateral official creditors could provide a temporary financial assistance that could be partly used to help meet public sector borrowing needs before the economy and government revenues recover.

Any exceptional official financial assistance will provide only a temporal relief to Argentina. The most that the IMF and other official creditors could offer is to provide the

⁵⁷ It may appear attractive to delay the resumption of debt service as long as possible, in order to maximize the debt service relief in the present difficult times. However, such strategy need not be optimal from the medium and long-term perspective. The speed of debt restructuring agreement and its perceived fairness by Argentina's creditors will determine how fast will Argentina able to return to international markets. The speed of this return will also depend crucially on economic policies pursued in the future.

government a breathing space that would allow to formulate a long-term policy strategy, while avoiding in the meantime an acceleration of inflation and further social chaos that would be difficult to reverse.

From the longer-term perspective, Argentina will have to address its main structural problems, including its chronic dependence on external financing and its relatively closed economy.

As we have argued, insufficient progress in strengthening financial discipline of public sector has been an important contributing factor to Argentina's crisis. Therefore, a new fiscal policy framework will have to be put in place that would ensure a more responsible conduct of fiscal policy, both at the central level and at the provincial level. Public sector will have to learn to live within its means, without relying permanently on borrowing. Some other countries, including Brazil, have successfully introduced a balanced budget frameworks, whereby both central and local governments are required by law to maintain balanced budgets, with exceptions to that rule clearly defined. Argentina will have to reform its public finance framework in a similar spirit. The financial responsibility of the provinces will have to be strengthened and better symmetry between their revenues and spending responsibilities will need to be introduced.

Another difficult task will be to promote domestic savings. With lost access to international capital market, Argentina will have to become less reliant on external savings and it will need to rely more on domestic savings to finance domestic investment. Increased domestic savings should also help mitigate the boom and bust cycles caused by fluctuations in the availability of foreign capital (though after the latest big bust, the next boom may be long in coming). Increased fiscal discipline of the public sector should contribute importantly to increased domestic savings. Domestic financial stability too could be an important factor supporting domestic savings. For some time, the stability of the domestic currency under the floating exchange rate regime will remain untested and doubted. It would earn credibility only gradually and only if the new monetary policy framework brings price stability and if significant improvement in public sector finance takes place, removing thus the most serious threat to price stability.⁵⁸ Domestic savings will be also affected by the way in which the banking problems will be resolved. How much losses will be imposed on the depositors will affect their future willingness to put their savings again in the banks. And the treatment of foreign owners of Argentinean banks will determine whether they will be willing to continue the operation in the country, or whether they will close the business and withdraw. Exit of foreign banks from Argentina would likely represent a serious blow to the economy, as confidence in banking sector would fall even more.

⁵⁸ The experience under the CBA in the 1990s suggests that restoring confidence in Argentina's currency could be very difficult. But experience of some emerging market countries with floating exchange rates suggests that this is not an impossible task.

Equally difficult long-term task will be to make the Argentinean economy more open. In contrast to the objective of improving fiscal discipline, there is no obvious answer to the question how to make the economy quickly more open. Somewhat depreciated, but stable currency should help. It should encourage not only Argentinean exports, but also investment in the sector of tradable goods and thus a better diversification of Argentina's exports so that export revenues would be less sensitive to movements in commodity prices. A somewhat controversial issue is how to deal with the Mercosur customs union, which does not seem to have assisted much to trade openness of its members.⁵⁹ There has been some controversy whether Mercosur has been trade-creating or trade-diverting.⁶⁰ More encouragement to foreign direct investment in Argentina could help as well. Argentina needs to change the structure of its economy, its dependence on exports of agriculture products and commodities (in 2000, nearly 40 percent of its exports consisted of primary products and petroleum products) and foreign investment would help in that effort. But clearly, there is no quick fix.

Ultimately, the policy framework based on a floating exchange rate regime and fiscal discipline may not be working and Argentina may need to dollarize the economy.⁶¹ But despite its problems, the strategy based on a floating exchange rate, stability-oriented monetary policy and responsible fiscal policy seem to be momentarily the least bad and deserves a chance. It is always possible to move from the floating exchange rate regime to dollarization should the former framework not work well. But it would be practically impossible to move to dollarization first, and then eventually try to de-dollarize and move to a float if dollarization did not work.

No matter what policy strategy will be ultimately chosen to resolve the crisis, one thing is clear. Resolution of the crisis will be a difficult and politically sensitive task and before it could be successfully handled, it needs to be recognized how serious the crisis is and what sacrifice it will require. The country will have to learn to live within its means.

⁵⁹ For example, in *Financial Times*, January 4, Ricardo Hausmann argues that Argentina should move quickly toward the regional economic cooperation zone Mercosur. But in the *Wall Street Journal*, January 25, the same author criticizes the new Minister of Foreign Affairs Ruckauf for his goal "to strengthen the ties with Brazil and the protectionist customs union Mercosur."

⁶⁰ Some would argue that Argentinean exports were hurt by large import tariffs and other restrictions imposed by other countries, particularly in Europe, on Argentinean agriculture products. While the reduction of such restrictions would certainly be desirable, Argentina should have higher aspiration than just increase exports of agricultural products.

⁶¹ It should be noted that even in the present difficult times of a deep crisis, there is no political consensus on how to proceed. Former president Menem continues to favor strongly dollarization and he is unlikely to support enthusiastically the government's effort to make the float work.

This will require a tighter constraint on spending. As Chairman Greenspan said in one of his speeches, “no nation deliberately seeks to expose itself to financial stress and bankruptcy. But political pressures often become difficult to deal with. To close the gap between the financial demands of political constituencies and the limited real resources available to their governments, many countries too often have bridged the difference by borrowing from foreign creditors. In effect, the path of least resistance has been external borrowing rather than confronting politically difficult tradeoffs.”⁶² Argentina will have to confront these difficult tradeoffs head on. The alternative to an orderly adjustment of spending to real resources available through a political process is a disorderly adjustment through hyperinflation. And this is an alternative that would leave everyone in Argentina worse off.

⁶² Remarks by Chairman Alan Greenspan on Globalization at the Institute for International Economics’ Inauguration of the Peter G. Peterson Building, Washington, D.C., October 24, 2001, see <http://www.federalreserve.gov/boarddocs/speeches/2001/20011024/default.htm>.

2008		
B01-08	Euro-Diplomatie durch gemeinsame „Wirtschaftsregierung“	<i>Martin Seidel</i>
2007		
B03-07	Löhne und Steuern im Systemwettbewerb der Mitgliedstaaten der Europäischen Union	<i>Martin Seidel</i>
B02-07	Konsolidierung und Reform der Europäischen Union	<i>Martin Seidel</i>
B01-07	The Ratification of European Treaties - Legal and Constitutional Basis of a European Referendum.	<i>Martin Seidel</i>
2006		
B03-06	Financial Frictions, Capital Reallocation, and Aggregate Fluctuations	<i>Jürgen von Hagen, Haiping Zhang</i>
B02-06	Financial Openness and Macroeconomic Volatility	<i>Jürgen von Hagen, Haiping Zhang</i>
B01-06	A Welfare Analysis of Capital Account Liberalization	<i>Jürgen von Hagen, Haiping Zhang</i>
2005		
B11-05	Das Kompetenz- und Entscheidungssystem des Vertrages von Rom im Wandel seiner Funktion und Verfassung	<i>Martin Seidel</i>
B10-05	Die Schutzklauseln der Beitrittsverträge	<i>Martin Seidel</i>
B09-05	Measuring Tax Burdens in Europe	<i>Guntram B. Wolff</i>
B08-05	Remittances as Investment in the Absence of Altruism	<i>Gabriel González-König</i>
B07-05	Economic Integration in a Multicore World?	<i>Christian Volpe Martincus, Jennifer Pédussel Wu</i>
B06-05	Banking Sector (Under?)Development in Central and Eastern Europe	<i>Jürgen von Hagen, Valeriya Dinger</i>
B05-05	Regulatory Standards Can Lead to Predation	<i>Stefan Lutz</i>
B04-05	Währungspolitik als Sozialpolitik	<i>Martin Seidel</i>
B03-05	Public Education in an Integrated Europe: Studying to Migrate and Teaching to Stay?	<i>Panu Poutvaara</i>
B02-05	Voice of the Diaspora: An Analysis of Migrant Voting Behavior	<i>Jan Fidrmuc, Orla Doyle</i>
B01-05	Macroeconomic Adjustment in the New EU Member States	<i>Jürgen von Hagen, Iulia Traistaru</i>
2004		
B33-04	The Effects of Transition and Political Instability On Foreign Direct Investment Inflows: Central Europe and the Balkans	<i>Josef C. Brada, Ali M. Kutan, Tanner M. Yigit</i>
B32-04	The Choice of Exchange Rate Regimes in Developing Countries: A Multinomial Panel Analysis	<i>Jürgen von Hagen, Jizhong Zhou</i>
B31-04	Fear of Floating and Fear of Pegging: An Empirical Analysis of De Facto Exchange Rate Regimes in Developing Countries	<i>Jürgen von Hagen, Jizhong Zhou</i>
B30-04	Der Vollzug von Gemeinschaftsrecht über die Mitgliedstaaten und seine Rolle für die EU und den Beitrittsprozess	<i>Martin Seidel</i>
B29-04	Deutschlands Wirtschaft, seine Schulden und die Unzulänglichkeiten der einheitlichen Geldpolitik im Eurosystem	<i>Dieter Spethmann, Otto Steiger</i>
B28-04	Fiscal Crises in U.S. Cities: Structural and Non-structural Causes	<i>Guntram B. Wolff</i>
B27-04	Firm Performance and Privatization in Ukraine	<i>Galyna Grygorenko, Stefan Lutz</i>
B26-04	Analyzing Trade Opening in Ukraine: Effects of a Customs Union with the EU	<i>Oksana Harbuzyuk, Stefan Lutz</i>
B25-04	Exchange Rate Risk and Convergence to the Euro	<i>Lucjan T. Orłowski</i>
B24-04	The Endogeneity of Money and the Eurosystem	<i>Otto Steiger</i>
B23-04	Which Lender of Last Resort for the Eurosystem?	<i>Otto Steiger</i>
B22-04	Non-Discretionary Monetary Policy: The Answer for Transition Economies?	<i>Elham-Mafi Kreft, Steven F. Kreft</i>
B21-04	The Effectiveness of Subsidies Revisited: Accounting for Wage and Employment Effects in Business R+D	<i>Volker Reinthaler, Guntram B. Wolff</i>
B20-04	Money Market Pressure and the Determinants of Banking Crises	<i>Jürgen von Hagen, Tai-kuang Ho</i>
B19-04	Die Stellung der Europäischen Zentralbank nach dem Verfassungsvertrag	<i>Martin Seidel</i>

B18-04	Transmission Channels of Business Cycles Synchronization in an Enlarged EMU	<i>Iulia Traistaru</i>
B17-04	Foreign Exchange Regime, the Real Exchange Rate and Current Account Sustainability: The Case of Turkey	<i>Sübidey Togan, Hasan Ersel</i>
B16-04	Does It Matter Where Immigrants Work? Traded Goods, Non-traded Goods, and Sector Specific Employment	<i>Harry P. Bowen, Jennifer Pédussel Wu</i>
B15-04	Do Economic Integration and Fiscal Competition Help to Explain Local Patterns?	<i>Christian Volpe Martincus</i>
B14-04	Euro Adoption and Maastricht Criteria: Rules or Discretion?	<i>Jiri Jonas</i>
B13-04	The Role of Electoral and Party Systems in the Development of Fiscal Institutions in the Central and Eastern European Countries	<i>Sami Yläoutinen</i>
B12-04	Measuring and Explaining Levels of Regional Economic Integration	<i>Jennifer Pédussel Wu</i>
B11-04	Economic Integration and Location of Manufacturing Activities: Evidence from MERCOSUR	<i>Pablo Sanguinetti, Iulia Traistaru, Christian Volpe Martincus</i>
B10-04	Economic Integration and Industry Location in Transition Countries	<i>Laura Resmini</i>
B09-04	Testing Creditor Moral Hazard in Sovereign Bond Markets: A Unified Theoretical Approach and Empirical Evidence	<i>Ayse Y. Evrensel, Ali M. Kutan</i>
B08-04	European Integration, Productivity Growth and Real Convergence	<i>Taner M. Yigit, Ali M. Kutan</i>
B07-04	The Contribution of Income, Social Capital, and Institutions to Human Well-being in Africa	<i>Mina Balamoune-Lutz, Stefan H. Lutz</i>
B06-04	Rural Urban Inequality in Africa: A Panel Study of the Effects of Trade Liberalization and Financial Deepening	<i>Mina Balamoune-Lutz, Stefan H. Lutz</i>
B05-04	Money Rules for the Eurozone Candidate Countries	<i>Lucjan T. Orłowski</i>
B04-04	Who is in Favor of Enlargement? Determinants of Support for EU Membership in the Candidate Countries' Referenda	<i>Orla Doyle, Jan Fidrmuc</i>
B03-04	Over- and Underbidding in Central Bank Open Market Operations Conducted as Fixed Rate Tender	<i>Ulrich Bindseil</i>
B02-04	Total Factor Productivity and Economic Freedom Implications for EU Enlargement	<i>Ronald L. Moomaw, Euy Seok Yang</i>
B01-04	Die neuen Schutzklauseln der Artikel 38 und 39 des Beitrittsvertrages: Schutz der alten Mitgliedstaaten vor Störungen durch die neuen Mitgliedstaaten	<i>Martin Seidel</i>
2003		
B29-03	Macroeconomic Implications of Low Inflation in the Euro Area	<i>Jürgen von Hagen, Boris Hofmann</i>
B28-03	The Effects of Transition and Political Instability on Foreign Direct Investment: Central Europe and the Balkans	<i>Josef C. Brada, Ali M. Kutan, Taner M. Yigit</i>
B27-03	The Performance of the Euribor Futures Market: Efficiency and the Impact of ECB Policy Announcements (Electronic Version of International Finance)	<i>Kerstin Bernoth, Juergen von Hagen</i>
B26-03	Sovereign Risk Premia in the European Government Bond Market (überarbeitete Version zum Herunterladen)	<i>Kerstin Bernoth, Juergen von Hagen, Ludger Schulknecht</i>
B25-03	How Flexible are Wages in EU Accession Countries?	<i>Anna Iara, Iulia Traistaru</i>
B24-03	Monetary Policy Reaction Functions: ECB versus Bundesbank	<i>Bernd Hayo, Boris Hofmann</i>
B23-03	Economic Integration and Manufacturing Concentration Patterns: Evidence from Mercosur	<i>Iulia Traistaru, Christian Volpe Martincus</i>
B22-03	Reformzwänge innerhalb der EU angesichts der Osterweiterung	<i>Martin Seidel</i>
B21-03	Reputation Flows: Contractual Disputes and the Channels for Inter-Firm Communication	<i>William Pyle</i>
B20-03	Urban Primacy, Gigantism, and International Trade: Evidence from Asia and the Americas	<i>Ronald L. Moomaw, Mohammed A. Alwosabi</i>
B19-03	An Empirical Analysis of Competing Explanations of Urban Primacy Evidence from Asia and the Americas	<i>Ronald L. Moomaw, Mohammed A. Alwosabi</i>

B18-03	The Effects of Regional and Industry-Wide FDI Spillovers on Export of Ukrainian Firms	<i>Stefan H. Lutz, Oleksandr Talavera, Sang-Min Park</i>
B17-03	Determinants of Inter-Regional Migration in the Baltic States	<i>Mihails Hazans</i>
B16-03	South-East Europe: Economic Performance, Perspectives, and Policy Challenges	<i>Iulia Traistaru, Jürgen von Hagen</i>
B15-03	Employed and Unemployed Search: The Marginal Willingness to Pay for Attributes in Lithuania, the US and the Netherlands	<i>Jos van Ommeren, Mihails Hazans</i>
B14-03	FCIs and Economic Activity: Some International Evidence	<i>Charles Goodhart, Boris Hofmann</i>
B13-03	The IS Curve and the Transmission of Monetary Policy: Is there a Puzzle?	<i>Charles Goodhart, Boris Hofmann</i>
B12-03	What Makes Regions in Eastern Europe Catching Up? The Role of Foreign Investment, Human Resources, and Geography	<i>Gabriele Tondl, Goran Vuksic</i>
B11-03	Die Weisungs- und Herrschaftsmacht der Europäischen Zentralbank im europäischen System der Zentralbanken - eine rechtliche Analyse	<i>Martin Seidel</i>
B10-03	Foreign Direct Investment and Perceptions of Vulnerability to Foreign Exchange Crises: Evidence from Transition Economies	<i>Josef C. Brada, Vladimír Tomsík</i>
B09-03	The European Central Bank and the Eurosystem: An Analysis of the Missing Central Monetary Institution in European Monetary Union	<i>Gunnar Heinsohn, Otto Steiger</i>
B08-03	The Determination of Capital Controls: Which Role Do Exchange Rate Regimes Play?	<i>Jürgen von Hagen, Jizhong Zhou</i>
B07-03	Nach Nizza und Stockholm: Stand des Binnenmarktes und Prioritäten für die Zukunft	<i>Martin Seidel</i>
B06-03	Fiscal Discipline and Growth in Euroland. Experiences with the Stability and Growth Pact	<i>Jürgen von Hagen</i>
B05-03	Reconsidering the Evidence: Are Eurozone Business Cycles Converging?	<i>Michael Massmann, James Mitchell</i>
B04-03	Do Ukrainian Firms Benefit from FDI?	<i>Stefan H. Lutz, Oleksandr Talavera</i>
B03-03	Europäische Steuerkoordination und die Schweiz	<i>Stefan H. Lutz</i>
B02-03	Commuting in the Baltic States: Patterns, Determinants, and Gains	<i>Mihails Hazans</i>
B01-03	Die Wirtschafts- und Währungsunion im rechtlichen und politischen Gefüge der Europäischen Union	<i>Martin Seidel</i>
2002		
B30-02	An Adverse Selection Model of Optimal Unemployment Assurance	<i>Marcus Hagedorn, Ashok Kaul, Tim Mennel</i>
B29B-02	Trade Agreements as Self-protection	<i>Jennifer Pédussel Wu</i>
B29A-02	Growth and Business Cycles with Imperfect Credit Markets	<i>Debajyoti Chakrabarty</i>
B28-02	Inequality, Politics and Economic Growth	<i>Debajyoti Chakrabarty</i>
B27-02	Poverty Traps and Growth in a Model of Endogenous Time Preference	<i>Debajyoti Chakrabarty</i>
B26-02	Monetary Convergence and Risk Premiums in the EU Candidate Countries	<i>Lucjan T. Orłowski</i>
B25-02	Trade Policy: Institutional Vs. Economic Factors	<i>Stefan Lutz</i>
B24-02	The Effects of Quotas on Vertical Intra-industry Trade	<i>Stefan Lutz</i>
B23-02	Legal Aspects of European Economic and Monetary Union	<i>Martin Seidel</i>
B22-02	Der Staat als Lender of Last Resort - oder: Die Achillesverse des Eurosystems	<i>Otto Steiger</i>
B21-02	Nominal and Real Stochastic Convergence Within the Transition Economies and to the European Union: Evidence from Panel Data	<i>Ali M. Kutan, Taner M. Yigit</i>
B20-02	The Impact of News, Oil Prices, and International Spillovers on Russian Financial Markets	<i>Bernd Hayo, Ali M. Kutan</i>

B19-02	East Germany: Transition with Unification, Experiments and Experiences	<i>Jürgen von Hagen, Rolf R. Strauch, Guntram B. Wolff</i>
B18-02	Regional Specialization and Employment Dynamics in Transition Countries	<i>Iulia Traistaru, Guntram B. Wolff</i>
B17-02	Specialization and Growth Patterns in Border Regions of Accession Countries	<i>Laura Resmini</i>
B16-02	Regional Specialization and Concentration of Industrial Activity in Accession Countries	<i>Iulia Traistaru, Peter Nijkamp, Simonetta Longhi</i>
B15-02	Does Broad Money Matter for Interest Rate Policy?	<i>Matthias Brückner, Andreas Schaber</i>
B14-02	The Long and Short of It: Global Liberalization, Poverty and Inequality	<i>Christian E. Weller, Adam Hersch</i>
B13-02	De Facto and Official Exchange Rate Regimes in Transition Economies	<i>Jürgen von Hagen, Jizhong Zhou</i>
B12-02	Argentina: The Anatomy of A Crisis	<i>Jiri Jonas</i>
B11-02	The Eurosystem and the Art of Central Banking	<i>Gunnar Heinsohn, Otto Steiger</i>
B10-02	National Origins of European Law: Towards an Autonomous System of European Law?	<i>Martin Seidel</i>
B09-02	Monetary Policy in the Euro Area - Lessons from the First Years	<i>Volker Clausen, Bernd Hayo</i>
B08-02	Has the Link Between the Spot and Forward Exchange Rates Broken Down? Evidence From Rolling Cointegration Tests	<i>Ali M. Kutan, Su Zhou</i>
B07-02	Perspektiven der Erweiterung der Europäischen Union	<i>Martin Seidel</i>
B06-02	Is There Asymmetry in Forward Exchange Rate Bias? Multi-Country Evidence	<i>Su Zhou, Ali M. Kutan</i>
B05-02	Real and Monetary Convergence Within the European Union and Between the European Union and Candidate Countries: A Rolling Cointegration Approach	<i>Josef C. Brada, Ali M. Kutan, Su Zhou</i>
B04-02	Asymmetric Monetary Policy Effects in EMU	<i>Volker Clausen, Bernd Hayo</i>
B03-02	The Choice of Exchange Rate Regimes: An Empirical Analysis for Transition Economies	<i>Jürgen von Hagen, Jizhong Zhou</i>
B02-02	The Euro System and the Federal Reserve System Compared: Facts and Challenges	<i>Karlheinz Ruckriegel, Franz Seitz</i>
B01-02	Does Inflation Targeting Matter?	<i>Manfred J. M. Neumann, Jürgen von Hagen</i>
2001		
B29-01	Is Kazakhstan Vulnerable to the Dutch Disease?	<i>Karlygash Kuralbayeva, Ali M. Kutan, Michael L. Wyzan</i>
B28-01	Political Economy of the Nice Treaty: Rebalancing the EU Council. The Future of European Agricultural Policies	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B27-01	Investor Panic, IMF Actions, and Emerging Stock Market Returns and Volatility: A Panel Investigation	<i>Bernd Hayo, Ali M. Kutan</i>
B26-01	Regional Effects of Terrorism on Tourism: Evidence from Three Mediterranean Countries	<i>Konstantinos Drakos, Ali M. Kutan</i>
B25-01	Monetary Convergence of the EU Candidates to the Euro: A Theoretical Framework and Policy Implications	<i>Lucjan T. Orłowski</i>
B24-01	Disintegration and Trade	<i>Jarko and Jan Fidrmuc</i>
B23-01	Migration and Adjustment to Shocks in Transition Economies	<i>Jan Fidrmuc</i>
B22-01	Strategic Delegation and International Capital Taxation	<i>Matthias Brückner</i>
B21-01	Balkan and Mediterranean Candidates for European Union Membership: The Convergence of Their Monetary Policy With That of the European Central Bank	<i>Josef C. Brada, Ali M. Kutan</i>
B20-01	An Empirical Inquiry of the Efficiency of Intergovernmental Transfers for Water Projects Based on the WRDA Data	<i>Anna Rubinchik-Pessach</i>
B19-01	Detrending and the Money-Output Link: International Evidence	<i>R.W. Hafer, Ali M. Kutan</i>

B18-01	Monetary Policy in Unknown Territory. The European Central Bank in the Early Years	<i>Jürgen von Hagen, Matthias Brückner</i>
B17-01	Executive Authority, the Personal Vote, and Budget Discipline in Latin American and Caribbean Countries	<i>Mark Hallerberg, Patrick Marier</i>
B16-01	Sources of Inflation and Output Fluctuations in Poland and Hungary: Implications for Full Membership in the European Union	<i>Selahattin Dibooglu, Ali M. Kutan</i>
B15-01	Programs Without Alternative: Public Pensions in the OECD	<i>Christian E. Weller</i>
B14-01	Formal Fiscal Restraints and Budget Processes As Solutions to a Deficit and Spending Bias in Public Finances - U.S. Experience and Possible Lessons for EMU	<i>Rolf R. Strauch, Jürgen von Hagen</i>
B13-01	German Public Finances: Recent Experiences and Future Challenges	<i>Jürgen von Hagen, Rolf R. Strauch</i>
B12-01	The Impact of Eastern Enlargement On EU-Labour Markets. Pensions Reform Between Economic and Political Problems	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B11-01	Inflationary Performance in a Monetary Union With Large Wage Setters	<i>Lilia Cavallar</i>
B10-01	Integration of the Baltic States into the EU and Institutions of Fiscal Convergence: A Critical Evaluation of Key Issues and Empirical Evidence	<i>Ali M. Kutan, Niina Pautola-Mol</i>
B09-01	Democracy in Transition Economies: Grease or Sand in the Wheels of Growth?	<i>Jan Fidrmuc</i>
B08-01	The Functioning of Economic Policy Coordination	<i>Jürgen von Hagen, Susanne Mundschenk</i>
B07-01	The Convergence of Monetary Policy Between Candidate Countries and the European Union	<i>Josef C. Brada, Ali M. Kutan</i>
B06-01	Opposites Attract: The Case of Greek and Turkish Financial Markets	<i>Konstantinos Drakos, Ali M. Kutan</i>
B05-01	Trade Rules and Global Governance: A Long Term Agenda. The Future of Banking.	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B04-01	The Determination of Unemployment Benefits	<i>Rafael di Tella, Robert J. McCulloch</i>
B03-01	Preferences Over Inflation and Unemployment: Evidence from Surveys of Happiness	<i>Rafael di Tella, Robert J. McCulloch, Andrew J. Oswald</i>
B02-01	The Konstanz Seminar on Monetary Theory and Policy at Thirty	<i>Michele Fratianni, Jürgen von Hagen</i>
B01-01	Divided Boards: Partisanship Through Delegated Monetary Policy	<i>Etienne Farvaque, Gael Lagadec</i>
2000		
B20-00	Breakin-up a Nation, From the Inside	<i>Etienne Farvaque</i>
B19-00	Income Dynamics and Stability in the Transition Process, general Reflections applied to the Czech Republic	<i>Jens Hölscher</i>
B18-00	Budget Processes: Theory and Experimental Evidence	<i>Karl-Martin Ehrhart, Roy Gardner, Jürgen von Hagen, Claudia Keser</i>
B17-00	Rückführung der Landwirtschaftspolitik in die Verantwortung der Mitgliedsstaaten? - Rechts- und Verfassungsfragen des Gemeinschaftsrechts	<i>Martin Seidel</i>
B16-00	The European Central Bank: Independence and Accountability	<i>Christa Randzio-Plath, Tomasso Padoa-Schioppa</i>
B15-00	Regional Risk Sharing and Redistribution in the German Federation	<i>Jürgen von Hagen, Ralf Hepp</i>
B14-00	Sources of Real Exchange Rate Fluctuations in Transition Economies: The Case of Poland and Hungary	<i>Selahattin Dibooglu, Ali M. Kutan</i>
B13-00	Back to the Future: The Growth Prospects of Transition Economies Reconsidered	<i>Nauro F. Campos</i>

B12-00	Rechtsetzung und Rechtsangleichung als Folge der Einheitlichen Europäischen Wahrung	<i>Martin Seidel</i>
B11-00	A Dynamic Approach to Inflation Targeting in Transition Economies	<i>Lucjan T. Orlowski</i>
B10-00	The Importance of Domestic Political Institutions: Why and How Belgium Qualified for EMU	<i>Marc Hallerberg</i>
B09-00	Rational Institutions Yield Hysteresis	<i>Rafael Di Tella, Robert MacCulloch</i>
B08-00	The Effectiveness of Self-Protection Policies for Safeguarding Emerging Market Economies from Crises	<i>Kenneth Kletzer</i>
B07-00	Financial Supervision and Policy Coordination in The EMU	<i>Deutsch-Franzosisches Wirtschaftspolitisches Forum</i>
B06-00	The Demand for Money in Austria	<i>Bernd Hayo</i>
B05-00	Liberalization, Democracy and Economic Performance during Transition	<i>Jan Fidrmuc</i>
B04-00	A New Political Culture in The EU - Democratic Accountability of the ECB	<i>Christa Randzio-Plath</i>
B03-00	Integration, Disintegration and Trade in Europe: Evolution of Trade Relations during the 1990's	<i>Jarko Fidrmuc, Jan Fidrmuc</i>
B02-00	Inflation Bias and Productivity Shocks in Transition Economies: The Case of the Czech Republic	<i>Josef C. Brada, Arthur E. King, Ali M. Kutan</i>
B01-00	Monetary Union and Fiscal Federalism	<i>Kenneth Kletzer, Jurgen von Hagen</i>
1999		
B26-99	Skills, Labour Costs, and Vertically Differentiated Industries: A General Equilibrium Analysis	<i>Stefan Lutz, Alessandro Turrini</i>
B25-99	Micro and Macro Determinants of Public Support for Market Reforms in Eastern Europe	<i>Bernd Hayo</i>
B24-99	What Makes a Revolution?	<i>Robert MacCulloch</i>
B23-99	Informal Family Insurance and the Design of the Welfare State	<i>Rafael Di Tella, Robert MacCulloch</i>
B22-99	Partisan Social Happiness	<i>Rafael Di Tella, Robert MacCulloch</i>
B21-99	The End of Moderate Inflation in Three Transition Economies?	<i>Josef C. Brada, Ali M. Kutan</i>
B20-99	Subnational Government Bailouts in Germany	<i>Helmut Seitz</i>
B19-99	The Evolution of Monetary Policy in Transition Economies	<i>Ali M. Kutan, Josef C. Brada</i>
B18-99	Why are Eastern Europe's Banks not failing when everybody else's are?	<i>Christian E. Weller, Bernard Morzuch</i>
B17-99	Stability of Monetary Unions: Lessons from the Break-Up of Czechoslovakia	<i>Jan Fidrmuc, Julius Horvath and Jarko Fidrmuc</i>
B16-99	Multinational Banks and Development Finance	<i>Christian E. Weller and Mark J. Scher</i>
B15-99	Financial Crises after Financial Liberalization: Exceptional Circumstances or Structural Weakness?	<i>Christian E. Weller</i>
B14-99	Industry Effects of Monetary Policy in Germany	<i>Bernd Hayo and Birgit Uhlenbrock</i>
B13-99	Financial Fragility or What Went Right and What Could Go Wrong in Central European Banking?	<i>Christian E. Weller and Jurgen von Hagen</i>
B12-99	Size Distortions of Tests of the Null Hypothesis of Stationarity: Evidence and Implications for Applied Work	<i>Mehmet Caner and Lutz Kilian</i>
B11-99	Financial Supervision and Policy Coordination in the EMU	<i>Deutsch-Franzosisches Wirtschaftspolitisches Forum</i>
B10-99	Financial Liberalization, Multinational Banks and Credit Supply: The Case of Poland	<i>Christian Weller</i>
B09-99	Monetary Policy, Parameter Uncertainty and Optimal Learning	<i>Volker Wieland</i>
B08-99	The Connection between more Multinational Banks and less Real Credit in Transition Economies	<i>Christian Weller</i>

- B07-99 **Comovement and Catch-up in Productivity across Sectors: Evidence from the OECD** *Christopher M. Cornwell and Jens-Uwe Wächter*
- B06-99 **Productivity Convergence and Economic Growth: A Frontier Production Function Approach** *Christopher M. Cornwell and Jens-Uwe Wächter*
- B05-99 **Tumbling Giant: Germany's Experience with the Maastricht Fiscal Criteria** *Jürgen von Hagen and Rolf Strauch*
- B04-99 **The Finance-Investment Link in a Transition Economy: Evidence for Poland from Panel Data** *Christian Weller*
- B03-99 **The Macroeconomics of Happiness** *Rafael Di Tella, Robert McCulloch and Andrew J. Oswald*
- B02-99 **The Consequences of Labour Market Flexibility: Panel Evidence Based on Survey Data** *Rafael Di Tella and Robert McCulloch*
- B01-99 **The Excess Volatility of Foreign Exchange Rates: Statistical Puzzle or Theoretical Artifact?** *Robert B.H. Hauswald*
- 1998**
- B16-98 **Labour Market + Tax Policy in the EMU** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B15-98 **Can Taxing Foreign Competition Harm the Domestic Industry?** *Stefan Lutz*
- B14-98 **Free Trade and Arms Races: Some Thoughts Regarding EU-Russian Trade** *Rafael Reuveny and John Maxwell*
- B13-98 **Fiscal Policy and Intranational Risk-Sharing** *Jürgen von Hagen*
- B12-98 **Price Stability and Monetary Policy Effectiveness when Nominal Interest Rates are Bounded at Zero** *Athanasios Orphanides and Volker Wieland*
- B11A-98 **Die Bewertung der "dauerhaft tragbaren öffentlichen Finanzlage" der EU Mitgliedstaaten beim Übergang zur dritten Stufe der EWWU** *Rolf Strauch*
- B11-98 **Exchange Rate Regimes in the Transition Economies: Case Study of the Czech Republic: 1990-1997** *Julius Horvath and Jiri Jonas*
- B10-98 **Der Wettbewerb der Rechts- und politischen Systeme in der Europäischen Union** *Martin Seidel*
- B09-98 **U.S. Monetary Policy and Monetary Policy and the ESCB** *Robert L. Hetzel*
- B08-98 **Money-Output Granger Causality Revisited: An Empirical Analysis of EU Countries (überarbeitete Version zum Herunterladen)** *Bernd Hayo*
- B07-98 **Designing Voluntary Environmental Agreements in Europe: Some Lessons from the U.S. EPA's 33/50 Program** *John W. Maxwell*
- B06-98 **Monetary Union, Asymmetric Productivity Shocks and Fiscal Insurance: an Analytical Discussion of Welfare Issues** *Kenneth Kletzer*
- B05-98 **Estimating a European Demand for Money (überarbeitete Version zum Herunterladen)** *Bernd Hayo*
- B04-98 **The EMU's Exchange Rate Policy** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B03-98 **Central Bank Policy in a More Perfect Financial System** *Jürgen von Hagen / Ingo Fender*
- B02-98 **Trade with Low-Wage Countries and Wage Inequality** *Jaleel Ahmad*
- B01-98 **Budgeting Institutions for Aggregate Fiscal Discipline** *Jürgen von Hagen*
- 1997**
- B04-97 **Macroeconomic Stabilization with a Common Currency: Does European Monetary Unification Create a Need for Fiscal Insurance or Federalism?** *Kenneth Kletzer*
- B-03-97 **Liberalising European Markets for Energy and Telecommunications: Some Lessons from the US Electric Utility Industry** *Tom Lyon / John Mayo*
- B02-97 **Employment and EMU** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B01-97 **A Stability Pact for Europe** *(a Forum organized by ZEI)*

ISSN 1436 - 6053

Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn

Walter-Flex-Strasse 3
D-53113 Bonn
Germany

Tel.: +49-228-73-1732
Fax: +49-228-73-1809
www.zei.de