Default Episodes in the 90s: *Factbook, Toolkit* and Preliminary Lessons[1]

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I. Introduction

Since the Tequila crisis in 1994, and particularly after the succession of crises in Asia and the default episode in Russia, questions related to international sovereign bond restructuring have been increasingly at the forefront of policy discussions in emerging economies. Concepts like crisis prevention and resolution, international financial architecture, moral hazard risks and private sector involvement have been discussed profusely in the context of each new default episode. While these questions, key to the international financial community, have received much deserved attention, the discussion has been one-sided, focusing on the role of the international financial institutions (IFIs) and of G-7 countries. The debate within emerging economies as to how to react and as to what can be learnt from previous default experiences has received much less attention.

In the current context in which medium-term syndicated loans have been largely replaced by bond issues as the main source of sovereign (and private) foreign borrowing, questions specifically related to debt renegotiation mechanisms and debt exchanges, and the associated legal issues aimed at reducing the obstacles imposed by the presence of vulture investors, have become crucial determinants of the length and success of the renegotiation process. However, given the novelty of most of these issues (in spite of a long history of debt defaults), lessons from each episode have been accumulating in a somewhat fragmentary way as new cases develop. To document these experiences, describe the new instruments, and to understand the differences between the recent experiences is the objective of this paper.

Cross border sovereign lending has been an essential feature of international financial markets since last century, when international capital markets first blossomed. However, this lending has been characterized by continuous cycles of boom and bust. In general, the bust cycles entailed long and protracted restructurings, which eventually were very costly both to bondholders and defaulting debtors. During the 70s, lending to developing nations was intermediated through banks, which were supposedly better informed to make prudent decisions. The intervention of banks was seen as an institutional response to the chaotic lending cycles of yesteryear. However, even they could not avoid a massive collapse of the payment system and a new long cycle of restricted access to capital flows just a few years later. When capital flows resumed during the 90s it was led by independent and atomized bondholders, rather than by a consortium of banks. However the fear of default and of a possible collapse of international markets for another decade, as well as the perception of a substantial fragility of the system, loomed like an impending storm on the horizon. Such was the fear with the possibility of defaults that both multilateral institutions and the US Treasury were fast to offer substantial resources upon any potential problem. Such was the position taken regarding the Mexican Tequila crisis, and its sequels in Argentina and Brazil. The massive crises in Korea, Indonesia and other Asian economies, received equally benevolent treatment. Anything went, least to let the virus of default go loose.

Of course, this policy did not go free of detractors. Main critics underscored the risk of moral hazard, which would lead to increasing instability in international financial

markets. This problem turned real when the IMF realized that it had gone too far in aiding an ailing Russian government. The fierce criticism received by the Fund as a result of its eventually unsuccessful aid to the Russian program led to a quick reversal of position. In many of the ensuing crises the Fund opted for a hands-off approach, securing an increase in private sector involvement (PSI), and becoming extremely reluctant to support potentially failing programs, particularly if they were based on a fixed exchange rate.[2] Slowly a new Washington consensus developed, based on minimal intervention in troubled economies unless they (particularly fiscal accounts) were straightened up and private investors forced to pay a piece of the cost through some sort of debt restructuring. Only when these two pre-requisites were met could a country expect help from the international community. The first default, in Russia, was a hard test for this view, as it occurred in a country where the political, military and economic risks of pursuing a hands-off strategy were highest. Not surprisingly, once the predictions of Armageddon did not materialize the Washington position hardened even more in the ensuing experiences of Ukraine, Pakistan, Ecuador and Argentina.

However this view implied that countries found a more favorable disposition in IFIs, only *after* the default decision, thus allowing them to reverse with relative ease the political and economic crises that had made them reach that decision. This, in turn, strengthened the perception, at the country level, that defaults were feasible, and maybe beneficial. Thus, the dynamics were such that countries also became increasingly favorable to debt defaults. The combination of this new Washington consensus calling for no more bailouts and a hands-off policies, with aid coming only when "sustainability" through debt restructuring was assured, led to relatively successful default experiences. The combination was a recipe that also entailed substantial risks by increasing dramatically the incentives for emerging economies to pursue the restructuring option. In the end this scenario led to the explosive case of Argentina, the largest default in history, and the looming threat of Brazil. If Argentina is allowed to restructure its debt in a successful manner it will probably encourage future defaults in the near future leading to higher medium term risk and also potential instability to the emerging economies asset class.

The purpose of this paper is to extract the main lessons from the recent default experiences. The discussion is centered on individual country studies, presented in a chronological order, so as to be able to refer to the role of previous experiences in the decisions taken in each case. Given the diversity of the few default cases in the last decade, almost all of the questions typically prompted by the discussion of debt restructuring were in practice addressed (not always successfully) at least once. In the final section of the paper, we go a step further to trace the learning-by-doing process that seems to have characterized each new episode, and to take stock of the analysis of the case studies by summarizing the main lessons to be extracted for the future, both from the standpoint of a country facing a default decision as well as for international financial institutions in their aim to facilitate the resolution of the restructuring process in the least disruptive manner.

[2] In any event, each case was decided on a case-by-case basis. Argentina, for example, was denied support in late 2001, while Brazil was receiving considerable funding.

The paper proceeds as follows. In section II we discuss the differences in the restructuring procedures in both the 80s and 90s. In section III we discuss five case studies: Russia, Ukraine, Pakistan, Ecuador, and Argentina. These are the five countries that during the 90s hit the SD (selective default) category according to Standard & Poors.[3] Section IV concludes with some discussion as to the implications of these experiences for borrowing countries. We also discuss briefly what these experiences teach us in terms of the design of the international financial architecture, the PSI discussion, and the potential recurrence of more default experiences. An appendix provides a series of tools for the analysis of debt issues.

We conclude with the view that the current benevolent view of defaults in international financial circle risks increasing instability in the near future. Over the latter part of the 90s defaults have been encouraged, and international aid has been forthcoming in the aftermath of a debt restructuring. As a result, defaults have worked better, have become more common, bigger and more aggressive over the years. Certainly this is not a stable situation. Yet, the previous status quo, where fear of defaults implied that help was forthcoming, whatever the circumstances, was equally unsustainable. The international financial community still has to find a solution to provide a minimum of stability to the international capital market; but as we sail into unchartered waters no obvious solution is yet evident.

II. Debt Restructurings Mechanics in the 80's and 90's

Three main reasons explain why countries default. The first reason is lack of solvency. While sustainability is a relatively undefined concept, it supposedly relates to whether the sequence of primary surpluses that keep the total stock of debt stable as a percentage of GDP is feasible or not. An output contraction, a financial crisis which forces the issue of large amounts of debt associated to a financial sector bailout, a terms of trade shock, or a devaluation that makes foreign exchange payments more costly, are among the main factors which trigger insolvency. The second reason is associated to liquidity problems. A country may face no problem in terms of its ability to honor its debt, but it may face large disbursements induced by a sizable hump in amortization or interest payments. One may ask why a liquidity crisis should develop if financing is sustainable but the logic of the liquidity crises is similar to that of bank runs, and, therefore, prone to multiple equilibria. Lack of credibility, a confidence crisis, political crises, or just the fear of moving to a bad equilibrium, may be the reasons to withdraw financing and force a country into default. [4] Finally, there are countries that may just be unwilling to pay. They may choose at some point to give up with integration in world capital markets, assume the implications of default maybe with the hope of freeing resources for other domestic priorities.

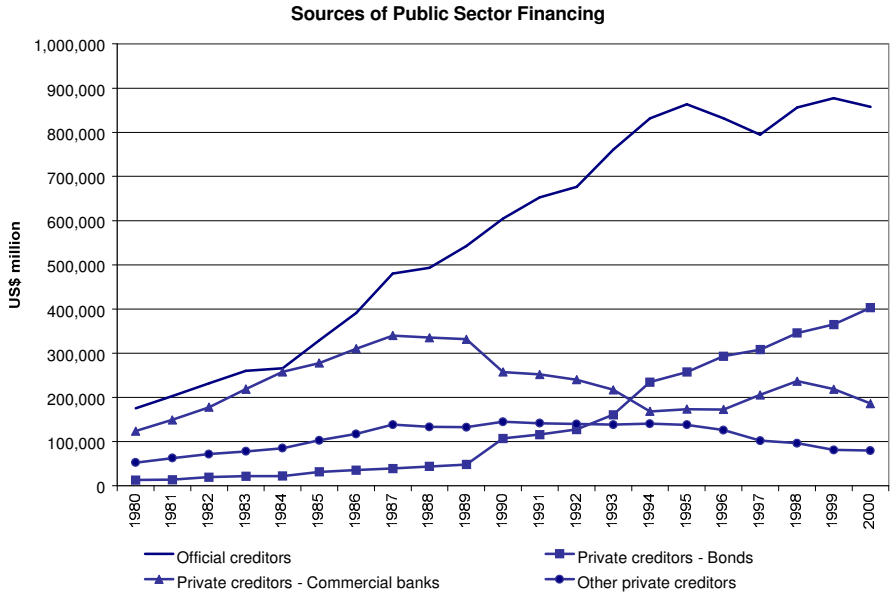
[3] Indonesia also briefly attained that classification. However Indonesia's SD classification referred to a syndicated loan with a group of banks and therefore is very different to the standard bond market renegotiations entailed in the other cases.

[4] This point is made in a series of papers by Chang and Velasco (1998a, 1998b and 1999) and Cespedes, Chang and Velasco (2000).

The three reasons have many historical antecedents, and a review of all of them clearly exceeds the scope of this work.[5] Yet in most cases defaults have led to protracted negotiations during which access to capital market was limited. In many cases defaults had lingering effects through an increase in lending costs once a country started borrowing again. For example, Ozler (1992 and 1993), looks at the costs of borrowing during the lending boom of the 1970s, comparing the cost for countries that had previously defaulted with that of those that had not. Her results indicate that past defaulters were charged a higher interest rate, confirming that commercial banks did look into past history to determine interest rates. More relevant for recent experiences is GS-ESS, Goldman Sachs' model of equilibrium sovereign spreads during the 90s (see Ades et al, 2000) that finds that debt issued as a result of a restructuring carry a larger cost of about 165 bps.[6]

The long lags that bondholders had to confront in previous debt restructurings led in the early 70s to a completely different approach to emerging economies financing. Aided by the fact that many of the resources available for lending, the result of large current account surpluses in Middle East countries in the aftermath of the oil crisis of 1973, were funneled directly into banks, it was the banks themselves which intermediated these funds. Developing nations seemed the natural place to allocate these massive new resources. As Figure II.1 shows, while some bonded debt was issued during this period, banks took up the brunt of the lending. Due to the sheer size of the resources at stake, it went without questioning that the banks would carefully look into the finances of the debtor countries, thus insuring that a new debt crisis would not occur. This expectation, however, turned totally wrong.

Figure II.1.



[5] See Dornbusch and Draghi (1990).

[6] This result, however, should be taken with caution, as Brady bonds carried a spread only due to the fact that they combined two risks that the markets did not like in a single bond.

Source: World Development Finance. WB

In 1982, in response to a substantial hike in interest rates in the US, Mexico declared a moratorium on its debt, triggering the beginning of a debt crisis that lasted through the early 90s. Once the default in Mexico occurred, all banks simultaneously pulled the strings in other countries, trying to simultaneously recover their money and leading to a domino effect that triggered defaults in most developing economies. Over the decade the agreement to deal with the situation worked in the following manner: Banks gathered in a consortium with the purpose of conducting debt renegotiations. During the renegotiation period principal maturities were in general rescheduled while interest payments remained current. Trade and interbank lines were maintained at specified minimum levels pursuant to formal or informal arrangements, and any financing gaps of the debtor country in the initial years were covered through a combination of new money and additional assistance from official sources. Economic discipline was instilled through the acceptance by the debtor country of an IMF sponsored adjustment and stabilization program.[7]

A fundamental premise of the debt resolution of the 80s was that all similarly situated commercial creditor banks should be treated equally, both in terms of rescheduling of their existing exposure as to their proportional participation in new credit facilities. From a legal standpoint this equal treatment was ensured through a series of contractual provisions in the restructuring deals such as sharing clauses, mandatory prepayment provisions, negative pledge clauses and pari-passu covenants. However, syndication of all loans could not be compelled legally so some degree of moral suasion remained necessary. This monolithic approach implied complete ignorance on the specifics of each bank, and this, in the end, was responsible for some delays and difficulties in reaching agreements. Thus, over the years new flexibility had to be introduced in order to suit the differences both of different creditors and debtors. In all cases, however, debt forgiveness was off the table as an alternative.[8] In order to solve the free rider problem among commercial banks, several sweeteners were offered to those participating in the restructuring. The main mechanism was participation of multilateral organizations such as the World Bank, or lending in association with an IMF program.

While these deals insured that any payments made by the country would go to the consortium, it actually ruled out any possibility of new lending by other banks or through other instruments to the troubled debtors. This reduced the incentives of countries to solve their economic problems, and by coaxing any alternative lending the framework was, to a large extent, responsible for the length of the renegotiation process.

[7] This approach was dubbed by some as the Baker plan for US Treasury Secretary James Baker. See Buchheit (1990).
[8] However banks were slowly building provisions to exit from developing country risk exposure.

In some cases banks also used indexed growth facilities by which banks automatically reduced their exposure upon better than expected growth performance or exceptionally high commodity prices for the debtor country. The 1986-87 Mexican financing package contained a growth facility that was indirectly linked to the world price of oil. Debt for equity swaps was another alternative used by many countries (including Argentina, Chile, Ecuador, Mexico and Philippines) to allow for the conversion of external debt instruments into local currency equity investments.

The funds provided by the IMF and the resources generated by debtor countries allowed banks to exit in an orderly fashion from their exposure to developing country risk. In spite of this, banks suffered considerable losses, to the point that they chose not to re-enter the market for government debt when credit reemerged in the 1990s.

Debt relief efforts were impaired by the existence of legal provisions ensuring equal treatment of all debt holders. One way around this was to offer an exchange to all creditors with no compulsion that any particular lender accepted the offer. The sovereign could enhance the attractiveness of this new instrument by agreeing that it would not be subject to further new money calls, that it could be eligible for debt to equity conversion programs or it could carry the enhancement of a third party. In return the terms of the payments could improve in maturity or interest cost. Mexico and Philippines offered these instruments throughout the 80s. Exit bonds were also offered in some cases (for example in the Argentine 1987 package). However, these alternatives were not very successful. Not a minor point was the negative view of US authorities to such deals.[9]

The official position of the US changed dramatically on March 10, 1989 when US Secretary of the Treasury Nicholas Brady (successor of Secretary Baker) announced a major shift in US policy. In the new approach the US would support and encourage debt reduction packages that could resolve pending debt issues and re-open market access for many of these economies. In fact, it mandated multilaterals to put their weight into the realization of these transactions.

At the official level this philosophy transformed itself in action very quickly. In September 1990, Paris Club creditors agreed on a new treatment for lower middle-income countries debt.[10]

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[9] Late in the game there were also several attempts to provide debt relief for very poor countries. One such scheme was the implementation of debt buybacks. However, these met mixed views; the main criticism being that their benefits accrued mainly to exiting creditors.

[10] This new treatment called "Houston terms" granted three substantial enhancements with respect to classic terms: (i) Non Official Development Assistance (non-ODA) repayment periods were lengthened to or beyond 15 years. ODA repayment periods were lengthened up to 20 years with a maximum 10-year grace period; (ii) ODA credits were to be rescheduled at a concessional rate; (iii) debt swaps could be conducted on a bilateral and voluntary basis. Eligibility for Houston terms was to be assessed on a case-by-case basis by Paris Club creditors, taking into account the track record of the debtor country with the Paris Club and the IMF and at least two of the following three criteria (i) low level of income (GDP per capita smaller than $2.995), (ii) high indebtedness defined as reaching at least two of the following three criteria: debt to GDP higher than 50%, debt to exports higher than 275%, scheduled debt service over exports higher than 30%; (iii) have a stock of official bilateral debt of at least 150% of private debt. Non-ODA credits were in general rescheduled at the appropriate market rate with 2-3 years grace and progressive payments raising

At the private sector level the shift in policy had been in the making for sometime. During the later part of the decade a secondary debt market had appeared for developing country debt, trading at sizable discounts. The realization that losses had already been incurred wetted the appetite of debtor countries to somehow share the benefits from honoring their commitments. On the other hand, the development of the secondary market put pressure on banks that had not sold off their loans, as they feared that at some point they would be called to mark to market the value of such loans. In fact Citibank started along this path in May 1987 by posting loan loss provisions against its LDC debt. Thus, towards the later part of the 80s, the equilibrium became unstable and started veering naturally towards some kind of debt relief. This was further enhanced by the fact that tax benefits would accrue only upon the granting of the debt relief.

Mexico offered a preview of the Brady deal in late 1987 by offering an exchange of bank loans for a new Mexican bond with a 20 year maturity and with principal collateralized with a US zero coupon treasury. The reception to this instrument, without interest collateral, was muted. Principal discounts offered were in the order of 30% but only a fraction of the amount Mexico was prepared to exchange was subscribed. Obviously, more resources had to be put on the table to provide additional enhancements to switch out of the original loans.

While originally the idea was to approach the banks in a decentralized fashion, the first Brady deals were offered as a single global transaction. This feature was considered essential by debtor countries in order to avoid holdouts. In fact, it turned out that convincing recalcitrant holdouts turned out to be one of the main difficulties of the Brady deal. Eventually, Mexico's 1989 deal became the model of Brady restructurings, by which old commercial debt was swapped for a series of instruments that differed depending on whether they delivered capital reduction or interest rate relief. Par bonds were exchanged at par, but entailed sharp interest rate reduction with step-up coupons; Discount bonds, on the other hand, included capital reduction. In general discounts oscillated around 35% even though in some cases the number was higher. Ecuador, for example obtained 45% capital reduction when implementing its Brady deal in 1995.

The Brady deals included a number of relatively standard instruments: (i) *Par or Discount bonds. Pars* were loans exchanged for fixed rate bonds issued with below-market interest rates at par. *Discounts* were floating rate bonds, issued with market interest rates, but with a capital write-off. Both were backed by a US Treasury zero coupon bond for principal collateral. These bonds had long-term maturities, were expected to be very liquid, and had a long average life and bullet amortization. They represent the most common Brady bonds outstanding. (ii) *Front Loaded Interest Reduction Bonds (FLIRB's*). In this case loans were exchanged for medium term step-up bonds at below-market interest rates for the initial 5 to 7 years, and then at a floating rate for the remainder of the term. These bonds provided partial interest collateral in the form

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year by year. When a debtor country first met with Paris Club creditors, the "cutoff date" is defined and is not to be changed in subsequent Paris Club treatments. Credits granted after this cutoff date are not subject to future rescheduling.

of cash, with collateral rolled over for subsequent periods upon timely interest payments. While these were less liquid than the par/discounts, they had a much shorter average life, as amortization payments began ordinarily after 5-7 years. (iii) *Interest Arrears Capitalization.* Commercial banks had rescheduled interest in arrears of Brazilian, Argentine and Ecuadorian debt, capitalizing the interest into new short-term floating rate bonds, called *Interest Due* or *Unpaid Bonds* –as in Brazil's IDU and Ecuador's PDI. These bonds had been issued prior to the rescheduling of principal into the Brady format. (iv) *Debt Conversion Bonds or New Money Bonds.* In some cases countries were believed to have the ability to pay their foreign loans but had so far been unwilling to service the debt. The initiation of a Brady deal was a sign of a new willingness to repay foreign debt, augmenting the creditworthiness of the countries'. Thus creditors exchanged loans for bonds at par, and even provided additional funds to the Brady issuing nation, at a floating rate of interest through the so called *New Money Bonds*. They include short-term floating rate bonds as issued by Venezuela, Uruguay and the Philippines and carried no collateral.

The Brady bonds were structured as an inviolable set of instruments. Not only were they issued according to New York Law, which does not allow for bondholders to change the payment conditions of the bonds unless there is unanimity, but they included a series of provisions which made them practically default risk free. Among these provisions we find the (i) mandatory prepayment clauses, that restricts not ratable prepayments to others, (ii) turnover clauses, that say that creditors who receive preferential prepayments have to turn it over to others, (iii) the sharing clause that says that whatever one creditor gets should be shared with others, (iv) the negative pledge clause that says that other lenders are not to be given a preference by having assets pledged to them and (v) the acceleration clause where a creditor who holds debt in default gets to ask for all the debt to be paid immediately.

The Brady deal was considered a success. It normalized the relations between creditors and debtors and opened up a new era of resumed lending to emerging economies. However, some of the characteristics of the deal, particularly the stepped up characteristic of the interest payments included in some bonds, would impose an unsustainable burden on some debtors 10 years later. In addition, the belief that a default free instrument had been found also was proven false.

Lending in the 1990s suffered a series of ups and downs. The first major reduction in capital flows to emerging markets was the result of the Tequila crisis at the end of 1994. In the ensuing years a series of other crises, mostly associated to collapsing pegged exchange rate regimes, led to a flattening of capital flows. Yet, these crises, in Thailand, Hong Kong, Korea, Indonesia and other countries, did not lead to debt defaults, not the least due to substantial aid from IFI. However, in 1998, a crisis in Russia, once again associated to a collapsing peg, led to a default on domestic debt followed shortly after by a default on external debt. This marked the beginning of a string of new restructuring experiences. In the following three years Ukraine, Pakistan, Ecuador and Argentina have

all defaulted or had to restructure under the threat of default. These experiences are documented in section III.[11]

In contrast with the mechanics of the 1980s in which countries were withdrawn all financing suddenly, literally being forced into default, the experiences in the 1990s left open many more margins on which the country had to make decisions. First of all countries had to decide which instruments they would default upon. Ecuador and Argentina chose to default on all debt instruments, while Russia, Ukraine and Pakistan chose a limited default that included just a few. Similarly, governments had to decide whether to do the default in several successive steps or as a one shot move. The initial defaults (Russia and Ukraine) were of the stepwise nature, with the country denying default to the last minute, only to restrict the default to specific instruments and those strictly necessary. The most recent two, Ecuador and Argentina, were broader and simultaneous.

The countries also had to decide if the default would be focused on local creditors or on foreign creditors. In some cases this distinction is difficult to make, but some instruments are clearly segmented in terms of their bearers, so that, to some extent, segmentation is at least partially feasible. While Russia defaulted initially mostly on local bondholders (holder of GKOs and OFZs)[12], when Ecuador decided initially not to default on its Eurobonds, it met criticism from the international financial community, which requested a sort of pari-passu clause among bondholders that obliged the Ecuadorian government to backtrack this decision and include them in the restructuring deal. However, it did manage to limit the discount on PDI bonds, which were mostly held by local bondholders. Argentina, implemented a local-exchange in November in anticipation of a harsher restructuring of external debt, triggering a withdrawal of support from IFIs.[13]

Similarly, a decision has to be made regarding debts with IFIs and bilateral lending. Here there appears to be a clear pattern. IFIs lending is seen as senior to everything else, with only few cases of default with multilaterals.[14] This seniority may be a way of buying the seal of approval that only IFIs can provide to a country, as well as the direct link that multilaterals open with the countries that own these organizations. In many cases, it is the private creditors themselves which want the country to agree with the multilaterals first, as they consider that their job is to go through a "due diligence" process with the country, which they cannot do themselves. Thus, the seniority of IFIs lending is a market accepted and encouraged outcome. On the other hand, bilateral lending and concessional official lending is usually considered junior to other lending. For example, Pakistan built substantial arrears with the Paris Club, while never entering in default with private

[11] The impact of these experiences on capital flows to emerging economies is an interesting question but beyond the scope of this work.

[12] However, there were sizable holdings of these instruments by non-residents.

[13] The option of restructuring local personal funds debt, where local bondholders could have been completely isolated had been discarded.

[14] This has been pointed out by some as an indication of the inconsistency of the Elliot ruling (which attached a pari-passu clause to all lending regardless of its status). If Elliot would hold, payments to IFIs could be attached by bondholders. If this were the case, even the IFIs should be interested in having Elliot overruled. See Gulati and Klee (2001).

bondholders. Ecuador was in arrears with the Paris club and still was able to issue a Eurobond in 1997.

As the Paris Club restructures on concessional terms, it has developed the "Comparability of Treatment" clause by which it forces, when agreeing on a debt relief program, a commitment by the country to try to obtain similar conditions in terms of maturity extensions, NPV savings and debt relief from private bondholders. The Russian deal was an interesting exception to this rule. London Club private creditors, granted debt relief in advance of Paris Club renegotiation, and then asked for "Reverse Comparability of Treatment", i.e. that the Paris Club match the debt relief they had conceded.

Now, how is the restructuring actually implemented? In the experiences of the 1990s, the restructurings have all taken the form of a bond swap, by which old debt is swapped for new debt. The characteristics of the new instruments offered to investors are related to the ultimate objectives of the restructuring decision. We identify three main objectives of any debt restructuring: achieving cash flow relief (reprofile debt payments to avoid short run financing needs), achieving debt relief (to reduce the debt burden), and avoiding holdouts and litigation in the restructuring process. We discuss the mechanics used to achieve each of these objectives.

Cash flow relief

In order to obtain cash flow relief, it is not necessary to default on the debt as there is always a price at which the payment profile can be adjusted in a voluntary manner. The most straightforward mechanism is a voluntary bond swap, by which a maturing bond is exchanged by another bond with equivalent market value but a different payment stream. Bondholders have several reasons to participate. First, the new issues will certainly be more liquid, with holdouts from the exchange risking remaining stuck with an illiquid instrument post-exchange.[15] Second, the creditor may fear default if the exchange rate is unsuccessful. This rationale is weakened by free rider incentives, but if no debt relief is asked for this problem is significantly diluted. In any case, voluntary debt exchanges may be more feasible with large players or concentrated creditors.

In addition the new bonds may include a wide range of benefits, generally referred to as sweeteners. These can be cash payouts, interest increases, or the offering of collaterals or guarantees. Also they could arise from regulatory and tax prerogatives such as tax exemptions, tax-canceling properties, rediscount window privileges and a variety of other alternatives. Finally, sweeteners can include a number of warrants, such as exchange warrants (which give the option to increase participation in the exchange in a given time period) and extension warrants (which allow to exchange some bonds for longer maturity instruments).

Alternatively, cash flow relief, or voluntary debt refinancing can also be obtained by changes in regulation that increase the demand for government debt. For example,

[15] If the new instruments provide much improved liquidity they may be issued at a lower return than previous instruments yielding a NPV savings.

allowing banks to use government bonds to integrate reserve requirements. Russia, Ukraine and Argentina used this mechanism to prop up demand for their debt prior to default. Governments also offered to retire debt at face value if debt was used to pay taxes or to purchase equity (for example, of privatization offers). While this implies a one to one reduction in tax collection, if concentrated in short term instruments, it may create demand for short-term rollover. If it includes longer maturity bonds it can actually aggravate the short run cash flow problem if it reduces tax collection.

For a country that does not expect to default, allowing firms to pay taxes with bonds, allows for a substantial tax break for local corporations at the expense of bondholders. If a bondholder takes a loss in market price, selling it to the local entrepreneur allows this agent to capture immediately the benefits of the government's full compliance with its obligations. As only the local entrepreneur can profit from the tax facility, the mechanism gives an advantage to local firms.[16]

In spite of these alternatives the standard method for solving liquidity and cash flow problems remains the participation of IFIs, which are still the main source of cash flow available to most countries during crisis times. However, IMF participation, after the Russian fiasco, cannot be taken any longer for granted. Yet, it is likely that under reasonable macroeconomic policies IFIs money will still be available to deal with short run cash flow problems. So far IFIs contributions to resolve these problems have been decided on a case-by-case basis.

Debt reduction

In order to achieve debt reduction, a country has to convince creditors that it cannot pay and reach an agreement in order to swap instruments for new ones yielding a lower NPV. The main problem in such strategy is to convince those who participate, avoiding litigation and holdouts from those that choose not to participate.

Obviously, IMF conditionality and having a Fund program is a pre-requisite for the investment community to start discussing an agreement. In fact, an agreement with the Fund has prior to action in all the cases studied in section III. Without the agreement of the Fund, private bondholders don't feel that participating has any chance of guaranteeing a minimally stable outcome, and find dangerous to grant rights that could be renegotiated later on. Once an agreement with the Fund is reached and a reasonable macroeconomic and political outlook in place, what are the "sweeteners" that have been used in order to insure participation of creditors in a debt relief scheme? We review them now.

Cash payouts and increases in the interest rates are two obvious examples. In the case of Ecuador, past due interest and some capital was paid with the resources provided by the release of the collateral of the Brady bonds. In the rescheduling of Russia's Prins and Ians some of the interest due was also paid in cash. In some cases the sweetener is provided by an interest hike or freeze.

[16] However, a secondary market for these instruments could develop which may allow for a sharing of the benefits.

Creditor upgrades. During restructuring the debt can be taken by a more senior debtor. This was the case of the Russian Federation taking up debt initially issued by Vnesheconombank. This was valued by the market, and thus improved the chances of success of the transaction. In general, when speaking of sovereign debt, there is limited scope for this type of creditor upgrades.

Guarantees. An alternative way to improve the quality of the creditor is to provide a guarantee or collateral for lending. The Brady deal, which collateralized the principal of certain instruments, was nothing short of a way of providing a guarantee for the new issue. In August 2001 US Sec. of the Treasury O'Neill, suggested this solution for Argentina, and the IMF package granted contained a 3 billion facility to guarantee new issues of Argentine debt. World Bank interest rate guarantees had previously been used in several countries. Unfortunately, guarantees take up money, and if the collaterals are not substantial little can be done in order to improve the quality of the underlying credit. Argentina attempted to convince local bondholders to accept a guarantee by earmarking some local tax proceeds for interest payments, but this guarantee carried little weight. It also offered the US government to assign dollar denominated customs proceeds to an escrow account in the US, in order to provide a collateral for a guarantee facility. With estimated customs proceeds of about 2 billion a year, the NPV of the collateral amounted to about 20 billion. The proposal met with skepticism by the US authorities, probably unconvinced about their ultimate legal rights to force the transfer of the customs proceeds to the US escrow.[17] Other countries have also used the collateralization of export proceeds. Companies such as PdVSA, PEMEX and YPF have used these facilities, which carry higher ratings (Standard & Poor argues that this may justify increasing the rating by up to four notches). The offer of collateralization and guarantees, by reducing risk, can be transformed into debt relief.[18]

Upgrade in instruments. If neither guarantees not an upgrade in the quality of the lender are possible an alternative is to upgrade the instrument, i.e. offering a more liquid instrument, a more reliable jurisdiction, better terms in the covenants of the issue, or instruments with tax or accounting advantages. For example, banks and creditors cannot write off and compute the tax loss on an instrument unless debt relief is actually granted. In some cases, instruments can be transformed from mark to market to book value, allowing important accounting gains and dividend distribution that the creditor may find useful at a time of crisis. Regulatory prerogatives, such as rediscount window privileges, reserve requirement integration and tax cancellation properties, have also been suggested.

Indexation and growth clauses, also known as *value recovery rights* or *economic and credit-linked warrants,* allow some bondholders or creditors to share in the benefits of their effort in granting debt relief. The mechanism is a clause in which the payment is associated to some macroeconomic factor such as the price of an export commodity or

[17] In fact a similar scheme was used in the Argentine Baring crisis of 1890, but the facility was defaulted upon a couple of years later. See Floria and Garcia Belsunce (2001).

[18] Collateralized instruments traded at a premium during the 90s, relative to their counterparts with pure individual country risk. This has refrained some countries from issuing collateralized instruments.

output growth. While these factors have not been very common in recent defaults value recovery rights remain an interesting option as they approximate bonds to shares, therefore aligning the interests of the countries and bondholders. In some cases, for example linking the recovery value to GDP performance may carry risks if it is the country itself that produces the national statistics, however, linking the performance to commodity prices or other well defined asset price reduces this risk significantly. The relative modest use of this instrument remains an open question.

Puts and acceleration clauses. In the Russian Prins and IANs exchange, the new issues included repurchase rights or Puts which granted holders of existing or other new issues of Russian Federation Eurobonds the right to put back to Russia at par those bonds in the event of an acceleration of the 2010s and 2030s. The idea of this clause was to place the new issues at pari-passu level with existing Eurobonds, thus protecting the rights of the creditors moving into the exchange. The facility disappeared after 1 billion of Eurobonds were issued, as those contain cross default clauses with the Eurobonds 10s and 30s.

Principal reinstatement. The Ecuador deal introduced the feature that in the case that a default occurred in the first 10 years that continues uncured for a period of 12 months, it will automatically result in the issuance of additional 2030 bonds to the holders in specified percentages. The goal was to assure creditors that were providing debt relief would not be subject to future renegotiations on weaker terms than those from which they started. It also provides a strong incentive to keep current in the future.

Debt management. Also in the Ecuadorian case, the deal obliged the government to reduce the holding of 2030 and 2012 bonds by given amounts (starting six years after issuance for the 2012 and 11 years after issuance for the 2030) or risk the mandatory redemption of the relevant bond, at par, in an amount equal to the shortfall. In the case of Argentina, the debt exchange of June 2001 also carried some debt management provisos in that the global 2008,which concentrated a sizable share of short and medium term instruments was amortized over three years.

Avoiding litigation and holdouts

Sovereign immunity historically prevented bondholders from suing sovereign debtors. The origin of this principle was an attempt to foster the well being between nations, by protecting a country from being sued in potentially biased foreign courts. With the years, and with many national companies (i.e. owned by the sovereign) conducting business in other countries, the absolute version of the sovereign immunity was left aside. The United States started to use a more restrictive approach in 1952 that was codified in 1976 in the Foreign Sovereign Immunities Act. The UK adopted similar legislation in 1978. As a result sovereigns can now be held legally accountable for their commercial contracts with foreign counterparties in the same manner as private parties.[19] Thus, while countries

[19] See Buchheit (1995, 1997).

are protected by the difficulty of holding attachments, litigation in international courts is now feasible.[2021] Thus, the third objective is that of avoiding holdouts and litigation.[22]

The question we need to ask here is what are the mechanisms by which a country can reduce litigation risk to a minimum. One such mechanism is what is known as the introduction of Collective Action Clauses (CAC) that make the restructuring easier and reduces the incentives for maverick litigation.[23] Collective action clauses are more easily introduced in London Law issues than in New York Law issues. London law allows for changes in the conditions of the bonds under majority ruling, whereas New York law does not allow changing payment conditions of a bond except with unanimity. The reason for such a strong stance in the case of the US comes from the fact that if a non-unanimous group of bondholders in association with the stockholders of a company could vote to forego payments on a bond, the company's excess cash could be used to pay shareholders inverting the seniority between bonds and equity.[24] New York law allows, however, for non-payment amendments.

Collective action clauses include three types of clauses: the sharing clause, the collective representation clause and the majority clause.

Sharing clause. The sharing clause states that any payments received by one bondholder have to be shared with other bondholders. Sharing clauses were introduced as part of syndicated loans restructuring deals of the 1980s, to protect banks with little relation with a given debtor country that feared that they could be defaulted upon if the debtor

[20] Protection of the defaulting country from litigation is strengthened by the fact that there is lack of attachable assets. Embassies and other government property are protected and non-attachable. Some bond covenants specify additional non-attachable assets. Argentine bond issues, for example, stated clearly that Convertibility reserves were non-attachable.

[21] We believe the threat of litigation has been grossly overstated. Roubini (2002) considers a number of reasons for why the risk of litigation is less than what has usually been considered. The most important are:

1) Unilateral exchange offers have turned out to be very successful, with large participation.
2) Exit consents dilute the benefits of a holdout.
3) Sweeteners associated to the exchange can be used to entice all bondholders.
4) It is not clear that a holdout will be able to recover the full value of its liabilities. As long as the exchange provides mark to market gains there are ample incentives to participate.
5) The risk of the new instruments may be lower, increasing the perceived value of the newly issued instruments and incentivating participation.
6) Large financial institutions and large players have an incentive to keep a good working relation with the government and thus avoid litigation.
7) The Elliot decision will probably not hold if challenged in court.
8) The use of CACs can be effectively used to reduce the benefits of litigation.
9) Vulture funds have all the incentives to see a successful exchange in order to increase their chances in litigation.[21]

[22] Contrary to what is sometimes believed, vulture funds generate strong stabilization forces by buying a country's debt when it is very cheap. While the US courts do not allow the purchasing bond issues for the sole purpose of suing the creditors, this objective is unverifiable and thus its bite as a deterrent for vulture funds rather limited.

[23] See Becker et al (2001).

[24] See Buchheit (1998a).

priorized staying current with those banks with which it had stronger commercial ties. In addition, sharing clauses are an important deterrent to litigation, as any proceeds obtained from litigation have to be shared with other bondholders.[25] There are two ways in which the sharing clause can be effected. The English style sharing clause in which the excess payment is handed to a Fiscal Agent for ratable distribution, and the American Style clause in which the original recipient purchases sub participations in other creditor's debt.[26]

Majority action clauses. While New York law does not allow for changes in the payment conditions without the consent of all bondholders, London Law allows changes in payment terms with a quorum of 75%.[27] The rules that allow the change in the terms of the bonds with a qualified majority are dubbed majority action clauses. In the case of Ukraine, the tendering of the bonds in the exchange was automatically a proxy vote to apply the majority action clause, thus any bondholder which remained with the original bond risked his terms being changed in such a way that would render the paper less worthy in both characteristics and payment conditions. As the threshold participation rates assigned for the transaction were larger than those required to change the conditions of the bonds, bondholders had a large incentive to participate in the transaction. This type of clauses can be complemented with, c*ram-down clauses*, which forces an agreement reached with a majority of bondholders to be binding on holdouts. For example, to protect sovereign debtors from disruptive lawsuits, majority action clauses prevent a small number of creditors from blocking an attempt to renegotiate the terms of the bonds. This clause may restrict litigation only to be feasible if a majority of bondholders vote in favor of pursuing litigation.

Collective Representation Clauses. Once a country decides to default it needs to establish a counterpart. The experience in recent debt restructurings has been varied. Pakistan established direct contact with major bondholders in order to gauge possible acceptable settlements. Russia negotiated with the London Club. Ecuador on the other hand, called for a creditors committee as a consulting group (this turned ineffectual, as creditors chose to present their demands in a private manner). Legally, the question is whether a debt renegotiation counterpart can be established in the legal framework. One possible candidate to take up such role is the Fiscal Agents under which the bonds were originally issued. This would probably meet with strong resistance both from those Fiscal Agents, which would find themselves involved in a problem between third parties, and by bondholders that could have doubts as to whether the Fiscal Agent would necessarily defend their interests in such renegotiation. Lead managers of the outstanding bonds would be another candidate. But they will probably be equally ill inclined to participate from reluctance to accept any co-responsibility in the default. Finally, a third option is a group of bondholders. As long as this group is not enshrined in the covenants of the Bond, there is no formal obligation to do the negotiations through such group. However, even in those cases, these groups have remained an informal and valid counterpart. Their

[25] Buchheit (1998b) proposes a sharing clause.
[26] See Buchheit (1998b).
[27] Buchheit (1998a) proposes a majority action clause.

non binding recommendations, are usually useful to individual bondholders to decide whether to follow suit or not.[28]

Exit consents. In some cases, the debt renegotiation cannot appeal to the majority clause, for example, if referring to payment terms for bonds issued under New York law. A way around this is known as exit consents that consist of changing the conditions of other characteristics of the bond, in particular, non-payment conditions, which can be changed by a qualified majority even under New York law. This methodology was used in the Ecuador restructuring. As bondholders exited the original instruments they voted for changes in other conditions on the original Brady bonds. Among these they removed provisions that would have interfered with Ecuador's ability to close the exchange offer at a time when the country was in payment default, they removed the so called exit covenants by which Ecuador had promised never to seek a further restructuring of the Brady bonds, they deleted the cross default clauses, the requirement that all payment defaults may be cured as a condition to any rescission of acceleration, the negative pledge covenant, and the covenant to maintain the listing of the defaulted instruments on the Luxembourg Stock Exchange. Argentina attempted the same methodology by keeping property on 50 billion of bonds swapped in the November 2001 exchange, thus gaining leverage for their negotiations with foreign bondholders.[29]

While the literature has focused on international litigation, domestic litigation should not be disregarded. If a country defaults on its own citizens, these have the right to pursue the case in domestic courts, and, barring the case of a completely corrupt judicial system, they may have certain power to obtain favorable court rulings. Notably, in this case, attachments may be much more feasible. For example, Argentina has faced a number of legal actions called *amparos* when the government attempted to change the terms of the domestic bond exchange by changing their currency of denomination from dollars to pesos at the conversion rate 1.4 pesos for each dollar (when the market rate was closer to 3). The government used an economic emergency law to justify the swap, but the Supreme Court, in a related recent ruling regarding the deposit freeze stated that the emergency law cannot be used to wipe out the property rights.[30] As of writing whether the Supreme Court would take a similar stance regarding the resolution of the *amparos* relating to the domestic bond exchange was still unclear. In the Argentine default the government is facing massive litigation in local courts while foreign bondholders have been so far extremely cautious with only one or two litigation cases presented.[31]

[28] See Buchheit (1998c).
[29] See Buchheit and Gulati (2000) and Lipworth and Nystedt (2001).
[30] The case is *Smith contra Poder Ejecutivo Nacional*.
[31] Recently Rogoff and Zettelmeyer (2001) have suggested that lending should be forced through local courts in order to insure solvency, as there the legal rights of the claimants are more exposed to the arbitrariness of local jurisdiction and legislation, so that foreign investors will be enticed only under very solid circumstances. Barring the experience of Russia and Ukraine, which seems to suggest otherwise, if litigation in domestic courts is easier than in foreign courts, given the ease of attachability, then such proposal will lead to less responsible lending rather than more responsible lending.

III. Macroeconomic Environment and Debt Restructurings in the 90s: Five Case Studies

A common pattern

Most countries that experienced a default during the 90s shared some common features, which make them prime suspects of the reasons why defaults occurred. These common features include a sizable current account deficit, which, in turn, led to expectations of a necessary depreciation of the exchange rate some time down the road. In most cases, countries were defending a fixed exchange rate, and this in conjunction with the current account deficit fuelled the risks of a non negligible devaluation. Fiscal problems and liability dollarization were the two additional elements. A weak fiscal situation, that carried the possibility of a worsening upon a realignment of the exchange rate fuelled into capital flight and country risk, weakening the economy and worsening the fiscal accounts further. Liability dollarization at the financial sector level, implied that fears of devaluation risked a banking crises, deposit withdrawals also impacted on the economy and fiscal accounts. In the cases in which financial sectors were heavily invested in government paper, the two elements compounded making the situation explosive.

In all cases studied below, the perception of an unsustainable exchange rate led to massive capital outflows, a weakening of the economy, further deterioration of the fiscal situation. Defaults, in the end, were the result of a liquidity constraint, in a context in which fiscal sustainability was very much under doubt. With idiosyncrasies all the experiences discussed below share most of these characteristics.

Russia[32]

Since the demise of Soviet planning in 1989, Russia went through a series of traumatic experiences as the society adjusted to the new set of rules imposed by a market economy. Output plunged continuously through 1996.[33] It rebounded slightly in 1997, but the turnaround turned out to be unsustainable and in 1998 and 1999 declined once again.[34] This period was also characterized by unstable macro policies. After prices were freed on January 2, 1992, consumer prices increased 2500%. Inflation remained high, with monthly rates above 10% throughout 1995.

It is not surprising then that the new Russian Federation government defaulted on Soviet era debt in 1991. However, in an attempt to normalize the situation, in 1993 the Ministry of Finance issued five dollar denominated MinFin bonds as payment to Russian exporters for accounts in the Vnesheconombank that had been frozen, also in 1991. These bonds were issued as domestic debt under the jurisdiction of Russian courts.[35]

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[32] This material has in part been reconstructed with information from NUPI, Centre for Russian Studies. For a complete review of the events leading to the Russian crisis see Kharas et al (2001).

[33] Much of this reduction corresponds to quantity declines, which do not take into account the significant improvements in product quality.

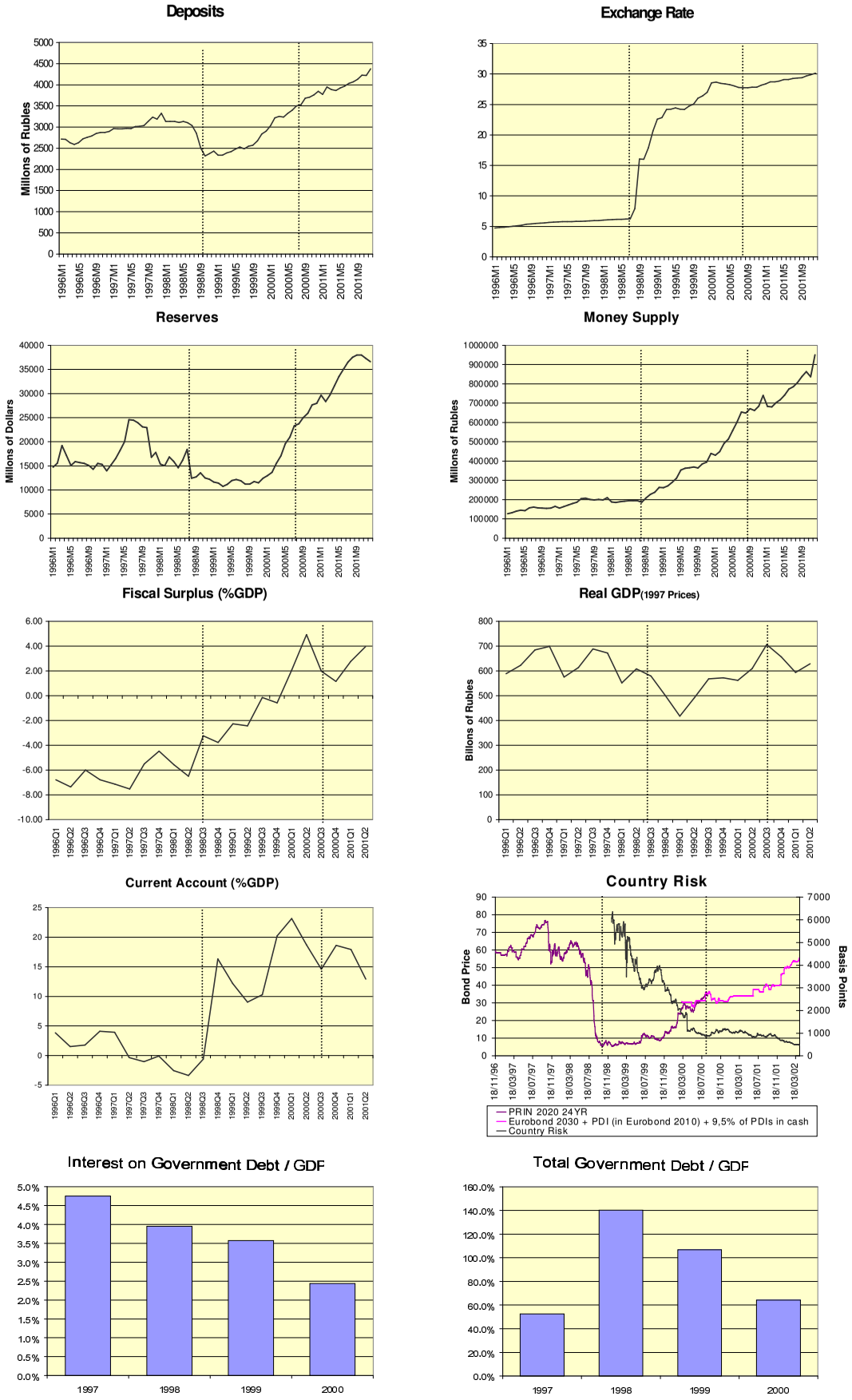
[34] Industrial production had stabilized already in 1993 but started growing only after 1998.

[35] See Duffie et al (2000).

Things started improving only after the support of the IMF, and the approval of a Standby Facility in March 1995. This program relied on the exchange rate as nominal anchor and

Figure III.1. Russia's Macro Trends

(1st line: default date, 2nd line: exchange completed)



Source: IMF and Bloomberg.

successfully stabilized the economy, with inflation rates falling to very low levels by mid 1996. The Standby Facility was followed by an Extended Fund Facility (EFF) in March 1996.

The program also included a strict control of monetary policy. On April 26, 1995, the Bank of Russia stopped extending loans to finance the federal budget deficit. While this worked considerably well in 1995, year in which the fiscal accounts were relatively in order, in 1996 the government started relying increasingly in the issue of short-term treasury bonds as a way of financing its (growing) deficit. As an agent of the Ministry of Finance, the Bank of Russia organized a government ruble denominated securities market, known as the GKO market where two instruments, the GKOs and OFZs, were traded. GKOs were short dated discount bonds while OFZs were longer dated coupon bonds. Many of these bonds were purchased by local financial institutions that financed their purchases by borrowing abroad. This balance sheet exposure later on turned to be catastrophic.

The international bond market normalized very quickly. On the one hand, the Paris Club, accepted to restructure 40 billion of Soviet era debt in April 1996. That year the Russian Federation also issued two additional MinFins and its first Eurobond. In 1997, the London Club, representing more than 600 Western commercial lenders, also agreed to restructure Soviet era debt into two securities: 6 billion of principal notes (Prins) and 20 Billion of interest arrears notes (IANs). This exchange, that required 90% threshold participation, turned out to be success after more than a year of continuous effort by Vnesheconombank (the debtor) and the reconciliation office headed by Ernst and Young. Finally, there were several Eurobond issues in 1997 and 1998.

While debt financing was flowing easily the exchange rate stabilization became threatened in 1997 not only by the persistent weak fiscal performance, but also by the collapse of oil prices. The sharp fall in oil prices further weakened Russia's budget position as well as its foreign accounts as oil made up a quarter of Russian exports at the time. This increased fears of a devaluation. Facing increasing difficulties to finance expenditures the government started accumulating wage arrears with striking miners and public sector workers.

As the situation deteriorated a political crisis developed. In March a young and fairly unknown technocrat, Sergei Kiriyenko, was chosen for the post of Prime Minister. However, the long row with Congress relating to his approval undermined his ability to straighten the beleaguered Russian finances. After a series of mostly failed attempts at fiscal reform sentiment became increasingly pessimistic. The government relied on the Fund for help, obtaining in July 1998 a new IMF program for $11.2 billion that had the primary objective of trying to avert the devaluation, which at that point seemed to have become as a real possibility. A first tranche of $4.8 billion was made available immediately to be used to replenish depleted Central Bank reserves. The IMF demanded austerity measures to reduce the deficit by 3 percentage points to release additional tranches. However, the political turmoil implied increasing instability and complete inability to push reforms ahead.

The week of August 13 the Russian stock market suspended trading twice as share prices crashed and uncertainty mounted. At this point everybody agreed that a devaluation, if it were to happen, would trigger a collapse of the financial sector, which had substantial exposure to devaluation risk. As a result a banking crisis also started developing. That same week, the flow of tax receipts in the State's coffer dried up due to the growing crisis in the banking sector. The IMF made it clear that no more money was coming unless fiscal improvement could be achieved. But at this point no fiscal measure appeared to be sufficient to contain the loss of confidence that showed in an increase in financing costs. After losing 6 billion of reserves the government decided to pull the plug.

The Crisis

On August 17 the government decided to devalue the Ruble, which two weeks later would have already depreciated by 100%. That same day the Russian authorities unilaterally declared a moratorium on all ruble-denominated public debt, pending negotiations of a restructuring agreement with creditors. This included both GKOs and OFZs. Foreign currency liabilities of Russian financial institutions, including derivative currency contracts, repayments of principal on loans from foreign lenders having a term over 180 days, and insurance payments under credits secured by pledges of securities such as repos were all subject to a three-month moratorium (*prohibition to pay*).

This measure was initially justified by the need to compensate the banks' balance sheets for the impact of the devaluation and the moratorium on sovereign debt. This amounted to a *de facto* default on both the domestic debt and banks' liabilities. [36]

On August 18, Moody´s Investors Service downgraded its ratings on all Russian corporate debt issuers. While a plan for the restructuring of the public debt was announced for August 24, the dismissal of the Kiriyenko government on the 23rd triggered the collapse of the negotiations, a full-scale panic of bank depositors[37], and the breakdown of the settlement system of all domestic financial markets, including the inter-bank money market.

On August 25, the government announced how it intended to restructure its defaulted GKO Treasury bills: bondholders were given a choice of (1) receiving 5% of the nominal value in cash and redeeming the remainder in equal proportions of ruble-denominated securities maturing in 3, 4 and 5 years, yielding interest rates of 30% for the first three years, 25% in the forth year and 20% in the fifth year; or (2) swapping 20% of the

[36] Prior to default, the Russian government had proposed to exchange stocks of GKO owned by non-resident against 5-year dollar bonds with interest rated slightly above Libor. Residents, instead, would have received 3-years ruble-bonds earning 30% interest rate. This dual treatment, though possibly more favorable to international investors than the one they eventually received, was rejected by the IMF as discriminatory.

[37] The first week after August 17 was marked by a short boom in the sales of private cars and durable goods, as households anticipated mainly a rapid acceleration of inflation; only on Thursday 20 did the first queues appear in front of some banks, before extending to the larger part of the banking sector the week after. Access to cash from abroad, with credit cards issued by Russian banks, also became almost impossible by that time.

nominal values of their existing ruble securities for dollar securities maturing in 2006 at a 5% interest rate, and receiving 80% in ruble bonds.

Chernomyrdin, the new Prime Minister, also had to struggle for parliamentary approval and had to negotiate a power sharing agreement with the Duma. This triggered a new run on the ruble that briefly touched 20 rubles per dollar before stabilizing at 15 rubles per dollar towards the second half of September (up from 6 prior to the devaluation). At that point the Chernomyrdin administration was over as well, with the Prime Minister being replaced by Yevgeny Primakov in November. The new Prime Minister had to deal immediately with what had suddenly become Russia's biggest problem: the economy was approaching a full-fledged banking crisis.

Banking crisis

During the initial reform years supervision of the banking sector was relatively poor. Relatively undercapitalized banks developed with strong connections to large enterprises or acted as the financial arm of groups of enterprises such as Gazprombank acting for Gazprom. Russian banks had been the main purchasers of GKOs through August, and returns from investment in government securities had been a major source of income, making up to over 30% of total income in the first quarter of 1998 and above 20% in the second. Banks were highly dependent on external borrowing and had accumulated substantial obligations to non-resident banks on foreign exchange loans. Banks' foreign exchange-denominated liabilities exceeded assets by at least $7 billion at the end of 1997. In addition banks were hedging the currency risk of non-resident investors in GKO-OFZ with forward currency contracts. The fragility of the system is stressed in Bank of Russia (1998), which reports that Russia's aggregate banking capital equaled the volume of the frozen GKOs and OFZs. Thus a default on domestic debt was equivalent to wiping out the whole financial sector. Thus, it is not surprising that with sizable long positions in these instruments, banks were put in an unsustainable position when the government decided to restructure the GKO-OFZ (resulting in a virtual freeze of 15.9% of total banking assets) and to devalue.

After the crisis, lines of scared depositors had started to appear at some banks. While depositors could in principle withdraw their funds, banks created administrative obstacles for doing so, eventually engaging in a client-by-client bargaining over a settlement amount. The Central Bank lowered reserve requirements to free liquidity, but this only produced an even larger depreciation of the ruble as banks and depositors used most of the released funds to buy dollars.

On September 14, the Central Bank issued three series of short-term zero-coupon bonds (KBOs) and exchanged them for frozen GKOs and OFZs in the hands of a few selected Russian commercial banks. These bonds were issued without public notification and violated the commitment to equal treatment of foreign and local investors in the debt restructuring previously announced by the government.[38]

[38] In addition, Russia had signed a number of investment protection treaties with the US, UK, Netherlands and Germany in 1989. Those treaties promised not to treat foreign investments or returns on investment

In order to deal with the crisis, the banks' reaction was to merge as a way of enhancing their chances of securing official support. On August 24 Inkombank and National Reserve Bank formed an alliance, which became known as "Gazprom Syndicate" as Gazprom had stakes in both (although Gazprombank did not join). Alfa-Bank, Avtobank and Mezhkombank joined a few days later. On August 25 Oneksimbank, Bank Menatep and Most-Bank announced a merger. These banks were the fifth, sixth and eleventh in the system. In early November, the Russian Central Bank outlined a plan for a selective bailing out of the financial sector. The plan divided Russia's commercial banks into four groups with those in the fourth group slated for bankruptcy. From August to December three of the twenty largest banks had their licenses revoked. As a result of the crisis, depositors of less stable banks shifted to banks perceived to be more stable, particularly to Sberbank, in which the Bank of Russia had participation. The turmoil in the financial sector continued well into 1999. Bank Menatep had its license revoked in May and Most-Bank had to freeze individual deposits and restructure part of them into long-term securities.

The crisis had not been innocuous for Russian debt. On the 2nd of December Vnesheconombank missed a 362 million payment on its Prins, which had been created in 1997. On December 19 the London Club voted not to call in its loans. Such a move could have opened up Russia to legal action including the possible seizure of some of its assets abroad. One month later after the grace period expired, rating agencies placed Russia on default on its external debt. On May 14, MinFin3 was defaulted and on the 2nd of June, Vnesheconombank missed a payment on the IANs. However, at that point the IMF was back on board and a settlement was being discussed to restructure both Prins and IANs.

On July 28, 1999 the IMF approved a 17-month $4.5 billion Standby agreement to support the government's 1999-2000 economic program. This credit was to be released in seven equal disbursements of $640 million. The Fund praised the improvement in Russia's fiscal situation as main driver of its decision to resume lending. After the agreement with the IMF, in August 1999, the Paris Club rescheduled $8.1 billion in Soviet-era debts that was due between 1999 and 2000 allowing a repayment period of 19 years with 2 years of grace.[39]

On February 11, 2000 Russia offered to exchange both Vnesh's Prins and IANs for sovereign Eurobonds of the Russian Federation due in 2010 and 2030. Table III.1 shows the details. The restructuring carried a substantial principal reduction: 37.5% for Prins and 33% for IANs. The deal was closed in August 2000 restructuring all Prins and IANs

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less favorable than local ones. They also stated that any repayments could be made without delay and were "freely transferable".

[39] On the other hand, former clients of the Soviet Union such as Cuba, Mongolia, Vietnam, Iraq, Afghanistan, Angola, North Korea, Mozambique and Ethiopia owed Russia $86 billion in 1998 according to Russian estimates. This figure is controversial because the original debt was expressed in rubles and the $120 billion are calculated at an exchange of 1 US dollar for 0.63 rubles. Realistically, a repayment of less than $25 billion can be expected. Russia has joined the Paris Club as a creditor nation to try to recover that debt. It will probably be forced to accept the Naples terms, whereby two-thirds of the debt is written off and payment is extended over 23 years, with a 6-year grace period.

with 21 billion of new instruments issued in exchange for the original nominal value of 31.8 billion. In exchange for Ians and Prins and past due interest on Ians and Prins, bondholders were offered a 2010 and a 2030 Eurobond and cash. The 2010 Eurobond was issued to pay past due interests on Prins and Ians. The interest due amounted to US$ 2,800 billion. US$2,250 million corresponded to Ians and US$550 million to Prins. 9.5% of this (US$266 million) was paid in cash. The remaining $2,534 million were issued as a 2010 Eurobond. The original issue of Ians and Prins was of US$29 billion (22.2 in Ians and 6.8 in Prins). The 2030 Eurobond was exchanged for the Ians and Prins after a debt write-off of 37.5% for Ians and 33% for Prins. So, the original US$22,200 million in Ians became US$13,875 million of the new 2030 Eurobond and the US$6,800 million in Prins were converted to US$4,556 million of the new bond.

For example, for each US$100 in nominal value of Ian, the bondholders received: 95 cents in cash, US$9.2 of nominal value in the new 2010 Eurobond and US$62.5 of nominal value in the 2030 Eurobond. For each US$100 in nominal value of Prin, the bondholders received: 78 cents in cash, US$7.3 of nominal value in the new 2010 Eurobond and US$67 of nominal value in the 2030 Eurobond.

The deal had many interesting features. Among these:[40]

a) There was an *upgrade in the obligor*, as creditors had had relatively limited legal recourse after the December 1998 default on the Prins and IANs because Russia did not guarantee the debt incurred by Vnesheconombank. Now it assumed that debt directly.
b) *Expanded Cross Acceleration Clauses* by which the Russian Federation committed to include in any new issues clauses to ensure equal status in the event of default/acceleration of the 2010 and 2030s. The clauses would be symmetric, tying default on the 2010 and 2030 to new issues of RF Eurobonds.
c) In order to have these bonds rank pari-passu with other Eurobonds, holders of existing and other new issues of the Russian Federation would *have the right to put back* to Russia at par those bonds, in the event of acceleration of the 2010 and 2030. This repurchase right would expire once Russia issued at least 1 billion of new Eurobonds, as Russia committed to include expanded cross acceleration clauses tied to 2010 and 2030 in new issues.
d) MinFins as domestic debt remained subordinated. By being internal debt, though dollar denominated, they were not legally linked to existing RF Eurobonds.
e) Initially a minimum threshold of 75% of bondholders was needed to consummate the exchange if less than 19 billion was tendered. However, if this happened and Russia wanted to go ahead with the exchange, it had the option open upon requesting consent from creditors to do so.
f) No mention was made to the 95% and 98% collective action thresholds originally established in the terms and conditions of the Prins and IANs. This was considered a "voluntary" exchange, so no formal vote was required.

[40] See JPMorgan (1997 and 2000).

g) Russia retained the right to retap both the 2010s and 2030s without prior notice. This was included to allow for additional restructuring of FTO paper, and did not work against the deal.[41]

Table III.1

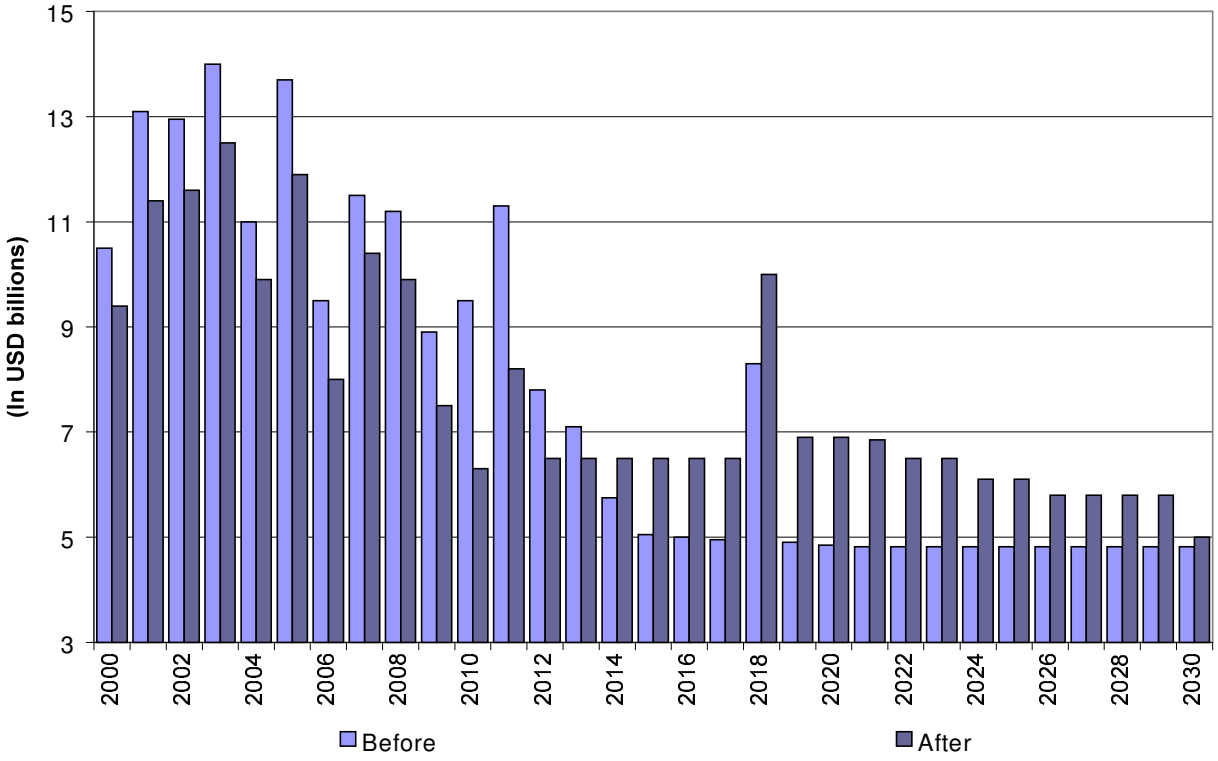
Defaulted Bonds	Original Amount Issued (in millions)	Curr.	Due	Coupon		Date of default	Exchanged for:	Amount issued (in millions)	Curr.	Coupon		Exchange announ.	Exchange compl.	1st settle date	Interest accrual date	1st coupon	% exch.
				Rate	Period.					Rate	Period.						
Prins	22,200	USD	Dec-20	6MO LIBOR + 81.25 bps	S/A	Dec-2-98	Cash (9.5%) + 2010 Eurobond	2,800	USD	8.25	S/A	Feb-11-00	Aug-17-00	Aug-25-00	Mar-31-00	Sep-30-00	100%
Ians	6,800	USD	Dec-15	6MO LIBOR + 81.25 bps	S/A	Jun-2-99	and 2030 Eurobond	18,200	USD	step up (2.25 to 7.5)	S/A	α	α	α	α	α	
Minfin III	1,322	USD	May-99	3	ANN.	May-14-99	2007 Minfin VIII or 2003 OFZ	1,322	USD	3 step down	S/A	Feb-1-00	Jun-29-00	Feb-1-00	Nov-14-99	May-14-00	100%
								8,198	RUB*	(15 to 10)	S/A					May-24-00	

* Exchanged at an exchange rate of 26.2

Source: Bloomberg.

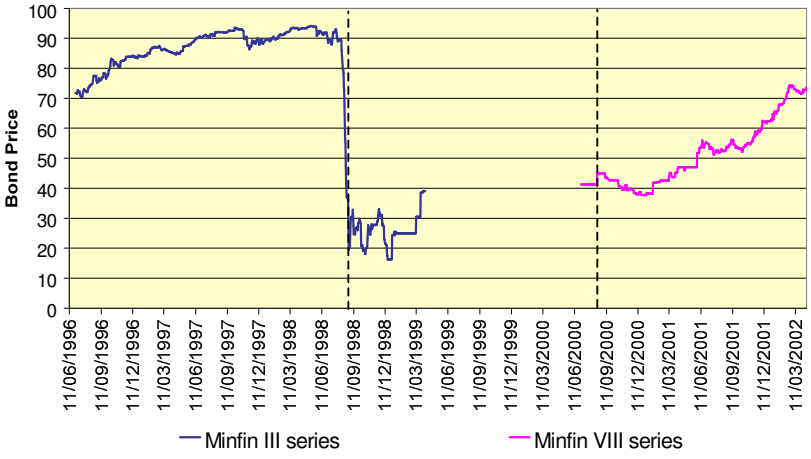
Figure III.2 shows the reprofiling of Russia's debt as a result of the deal. London Club members have argued for reverse comparability, by which the Paris Club should grant a similar debt write off. The deal was viewed as a turning point. Figure III.3 and Table III.2 show how investors fared prior and after the deal. Together with an improving fiscal situation, the economy started recovering relatively fast. The economy grew 5.4% in 1999 and 8.3% in 2000. As assets prices recovered, Russia became the star performer among the emerging market class.

Figure III.2. Russia: Debt Service Profile before and after exchange



Source:

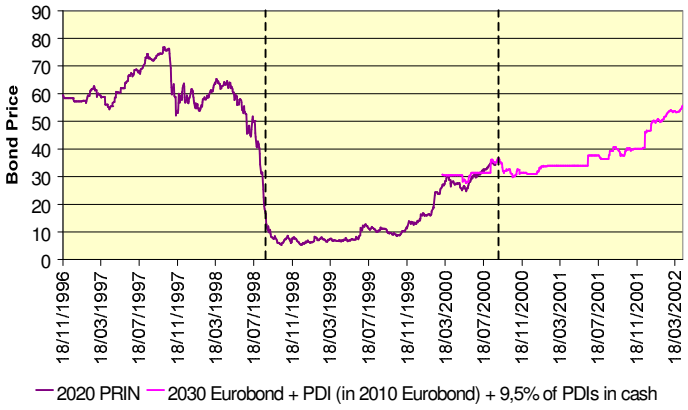
Figure III.3. Russian Bond Exchange
a. Domestic Debt



Source: Bloomberg and author's comput ations.

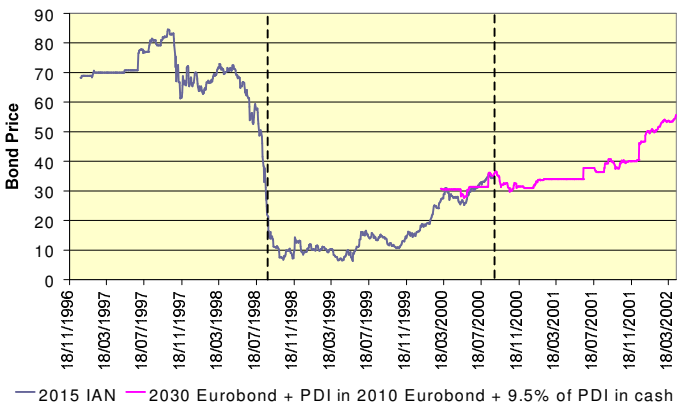
b. Foreign Debt

b.1. PRINS



Source: Bloomberg and author's computations.

b.2. IANS



Source: Bloomberg and author's computations.

Table III.2

Defaulted Bonds	Original Amount Issued (in millions)	Curr.	Price 6 months before Default	Price Month before Default	Price day after Default	Price Week Before Announc.	Price Week After Announc.	Price at completion	Face Value Write-off	Exchanged Bond/Cash Mix Value at first settle date	Value 6 Months after completion	Value 6 Months after / Price 6 Months Before	Value 6 Months after / Price Month Before
Prins	22,200	USD	57.8	8.6	6.8	17.5	24.3	35.0	-37.5	35.8	38.5	0.67	4.46
Ians	6,800	USD	12.8	7.8	9.6	20.4	24.9	35.5	-33	36.5	39.2	3.05	5.04
Minfin III	1,322	USD	21.0	39.0	---	---	---	---	0	44.7	42.7	2.03	1.09

Source: Bloomberg and author's computations.

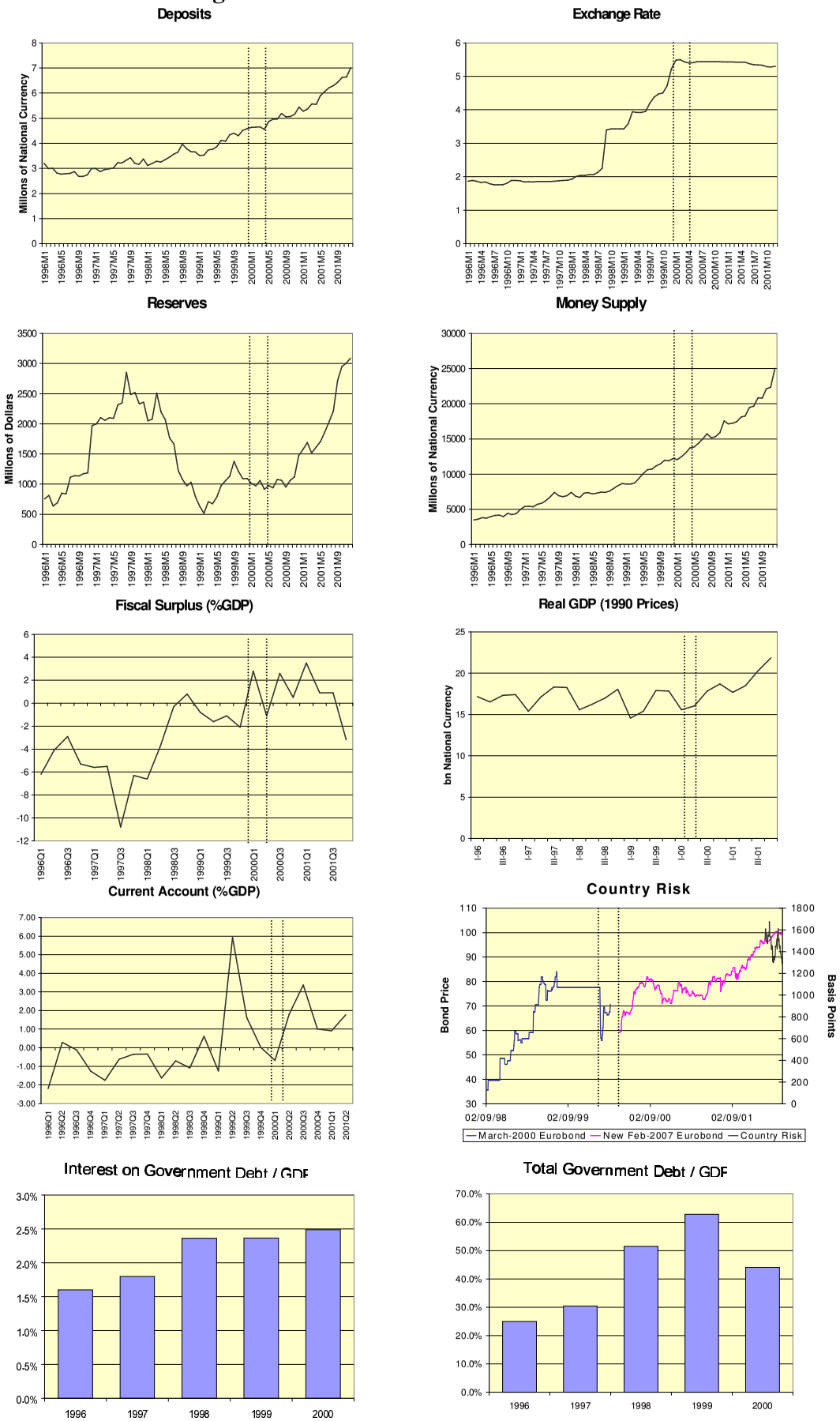
Ukraine[42]

During the early 90s Ukraine's budget deficit was burdened by subsidies for non-competitive industries. These deficits were financed by a combination of sources, which changed from year to year. Borrowing from the Central Bank, assistance from international financial institutions and accumulation of wage and pension arrears were usual mechanisms. Eventually the issue of Treasury-bills both to domestic and international investors as well as to the Central Bank became an additional important source.

As a result Ukraine's debt increased considerably, jumping from about 10% of GDP to around 20% between 1995 and 1997. During these years the debt also suffered an important qualitative transformation. While most of Ukraine's debt was public, the relation between bilateral, multilateral and private creditor sources changed dramatically. In 1993 most of Ukraine's debt was of a bilateral nature (mostly to the Russian Federation) but by 1997 bilateral debt was only 40% of the total. In the meantime most issues had been to private creditors. The major buyers included offshore hedge funds and investment banks (among them Merrill Lynch, Warburg Dillon Read, ING Barings and CSFB). All new T-bill issues were easily oversubscribed. OVPDs, as Ukraine's short-term instruments were known, had none of the foreign ownership restrictions that had complicated the Russian GKO market, and were one of the few ways to gain exposure to

[42] For a description of this case see also Eichengreen and Rühl (2000) and Lipworth and Nystedt (2001). This material has in part been reconstructed with information from the Ukrainian-European Policy and Legal Advice Centre (UEPLAC).

Figure III.5. Ukraine's Macro Trends



Source: IMF and Bloomberg.

Ukrainian credit risk. Even without a rating from a credit rating agency, and even having defaulted on its debt owed to Russia, Ukraine was able to entice foreign lenders into this local currency denominated bond.

In 1997, markets seemed to believe the situation was sustainable. In that year alone more than $1 billion poured into Ukraine's short-term treasury-bill market, and by mid-year foreigners held more than half of all outstanding government debt. This situation should not be surprising, interest payments were just 2% of GDP and with debt to GDP ratios of 30%, no debt profile could generate real problems. However, all this would change suddenly the following year.

The Russian Crisis

With the Russian financial crisis, the market for government debt dried up, and the government had to rely increasingly upon credits from international financial institutions, especially the IMF and the World Bank.

The deterioration of the Russian market, an essential market for Ukrainian products (Russia absorbed about a quarter of Ukraine's exports), necessarily produced a drop in Ukrainian exports and mounting pressure on the foreign exchange. Ukraine's reserves had ran down from $2.4 billion at the beginning of 1998 to $800 million at the beginning of September, as a result of mounting uncertainty regarding the future of the hryvnia.[43]

In spite of earlier statements by government officials indicating that the exchange rate could be maintained, due to the reserves drain, on September 4 the National Bank of Ukraine (NBU) moved the fluctuation band for the hryvnia from between (1.85, 2.25) Hrn/USD to (2.5, 3.5) Hrn/USD. Foreign exchange market restrictions were imposed. A 50% (increased to 75% three days later) surrender of export proceeds was imposed and margins between the official exchange rate and the bank rate were not allowed to exceed 10% (decreased to 5% three days later). Advance payments on imports were forbidden. Banks lost their permission to give residents credits in foreign currency and their ability to purchase foreign currency was severely restricted. The NBU closed the inter-bank market for foreign exchange, forcing all transactions onto the official market.

In order to save the country from default, stabilize its currency, and avoid further contagion of the Russian crisis, the IMF approved a three-year $2.2 billion Extended Fund Facility (EFF) designed to promote fiscal reform, financial stabilization, and the accelerated development of a market economy. The Board of Directors voted that program on September 4. This credit had monthly conditionalities and disbursements were conditioned on Ukraine pursuing aggressive economic reform, maintaining foreign reserve levels and a low budget deficit. The World Bank also approved credits worth $900 million for specific projects in agriculture, the coal industry, financial reform, and enterprise development, with disbursements tied to sectoral reform and compliance with the requirements of the EFF.

[43] There were allegations that the central bank had engaged in financial maneuvers in 1997 and early 1998 to dress up reserves in order to qualify for IMF credits.

"Voluntary" treasury-bill conversion with the threat of default

In order to face the liquidity crunch, the government proposed a bond exchange, by which all OVDPs bonds would be replaced by two medium term T-bills to be issued in two tranches. An A tranche to be paid off on September 2000, and a B tranche to be paid on December 2000. OVDPs which were subject to repayment by October 23, 1998 were to be exchanged for a corresponding number of A tranche T-bills. Those maturing later were exchanged by B tranche bonds. The interest rate on the new bills was set at 40% for the 1st year, and a floating yield tied to the future 6-month bond yield, exceeding it by 1% for payments in hryvnias. Ukraine's finance ministry and NBU put tremendous pressure on local banks to "voluntarily" accept the restructuring. The affected Treasury bills, 1.1 billion hryvnia ($354 million) in all, accounted for 15% of the assets of Ukraine's banks and virtually all their short-term liquidity. The NBU indicated that all banks participating in the package would be given emergency short term financing to guarantee liquidity if necessary. The banks that refused to participate would not be eligible to receive any emergency financing. However, given the liquidity squeeze it is not difficult to argue that local bankers may have considered that the agreement was likely to benefit them, by making the situation more sustainable for the Ukrainian government.

Foreign bondholders faced a similar "voluntary" conversion of 1.8 billion hryvnia ($600 million) worth of Treasury bills. T-bill holders who had also purchased currency hedges were repaid 20 percent of the amount due up front, with the remainder payable in 2-year dollar-denominated Eurobonds. T-bill holders without currency hedges only received the 2-year dollar-denominated Eurobonds. Both could also choose an hryvnia denominated bond with a 22% hedged annual yield, but this option was virtually ignored by the market. The government established a minimum participation by non-residents of 80% required to carry the operation forward. While a 20% yield appears an attractive offer, outstanding Eurobonds of that maturity were yielding up to 100%, thus the swap was painful but fell short of being confiscatory. The transaction was dubbed "voluntary"; however, Moody's considered that the conditions had been those of a "technical default". However, *de jure* default had been averted.

On September 22, a $70 million T-bill payment fell due. According to a resolution of December 9, 1997, Ukraine agreed to convert to dollars the payments of this specific hryvnia-denominated bond issue. Under the conditions of the EFF Ukraine was not allowed to pay the $70 million from its hard-currency reserves. The IMF was uncomfortable with allowing investors to repatriate their investments using IMF-funds. "*It is important to bring private creditors to the table with borrowers early in the process, in order to avoid a default or a drain on the country's hard currency reserves*," said Patrick Lenain, the IMF's Kiev representative. Eventually, the bond was paid punctually.

On October 20, the government rescheduled $110 million of debt issued originally through Chase Manhattan, paying 25% in dollars immediately and the remainder in two-year Eurobonds with a dollar interest rate of 20%. Chase had initially placed this issue in

Middle East markets at 9.21%. The difference in interest rates in just one-year signals the deterioration of Ukraine's liquidity position as a result of the Russian crisis.

In November the government attempted to increase the benefits of buying T-bills by allowing them to be used for payment of taxes or the purchase of enterprises under privatization. However, this measure was ineffective in moving the price of T-bills upwards.

Regent Pacific Group

In February 1999, the NBU established a new official currency exchange band of (3.4, 4.6) hryvnia per dollar. Although the NBU lifted most currency transaction restrictions between March and June (including a ban on advance payment on import contracts) and opened a foreign exchange inter-bank market, some restrictions remained (for example, the mandatory sale of 50% of hard currency revenues).

On May 18 the Ministry of Finance submitted to ING a debt conversion offer, according to which 20% of the 163 million US$ issue, due on June 9 be repaid on schedule, with the remainder swapped for a new international bond with a three year maturity. The government was trying to avoid paying $163 million from its reserves since the reserve target accorded with the IMF would be violated. The IMF would consider the use of such reserves for the bond payment as a violation of its new policy of PSI. However, if the payments were not done Ukraine risked falling in default and triggering cross-default clauses on much of the country' s external debt. The bond was mostly held by one investor –Regent Pacific Group– who threatened to invoke cross-default and acceleration provisions if the payment was not done in a timely fashion.

On July 15, the Ministry of Finance and ING Barings reached an agreement by which Ukraine would borrow more from the international bond market in an attempt to pay back the bond in full. The structure of the deal was that 20% of the bond was paid cash, with the remainder exchanged for DMark-bonds. The new bonds for DM538 million were added to an existing DM1 billion international bond, issued in 1998 and due on February 2001, with a coupon of 16%. Ukraine chose to raise the money by increasing the existing bond issue to take advantage of the fact that it was also widely distributed among 5,000 investors.

The contamination of the retail market with speculative accounts was a source of concern at the moment. Analysts were quoted saying, for example, "*you're diluting the 01 bond with speculative accounts, which is going to irritate the retail market*". The deal suggested PSI in its widest possible sense, with retail investors being punished along with professional investors. In fact, the price of the DMark bond fell from trading at 80% of face value to 64% within a week of the announcement of the tagging on of the 500 plus million additional issue.

Bond-exchange with the threat of default

While in early September the IMF board had completed its review and approved the next credit tranche under the 3-year EFF, by early October it decided to halt its aid. According to the Fund, the major reasons for taking this kind of action was the introduction of sunflower export duties and the existence of low tariffs on housing and communal services. However, Stanley Fischer, IMF's deputy director had noted in late June that future payments would depend on successful debt restructuring talks. Thus, one can only wonder how much the need to push Ukraine to a debt restructuring (in order to satisfy new PSI targets) could have played a role in the withdrawal of support.

As the economy moved towards election in mid November (in which Leonid Kuchma was re-elected), the withdrawal of the support of the Fund, led to increasing skepticism as to whether Ukraine would be able to finance its debt; as a result, pressure on the exchange rate market mounted. Reserves started to decline and the exchange rate that had been stable since late July, increased steadily from about 4.5 to more than 5 towards year-end.

In October the Cabinet of Ministers drafted the budget for 2000, including for the first time a primary fiscal surplus. On December 22, Victor Yushenko, former head of the NBU, and known reformist was proposed by the President for the post of prime Minister of Ukraine. In his initial address Yushenko stressed the need to strengthen fiscal policy and accelerate reforms.

As of January 1, 2000, Ukraine' s foreign debt stood at $12.5 billion, of which $3.1 billion was to be repaid in 2000. The large payments, scheduled both for 2000 and 2001 were the result of the debt restructurings of 1998 and 1999 that had concentrated the restructuring in short term instruments. Otherwise the path of debt looked relatively manageable.

With this in mind, Ukraine decided to move ahead in the restructuring of its debt. In January 2000, Ukraine decided not to make the principal payment on one of the Eurobond issues. On February 4, Ukraine launched a comprehensive exchange offer involving four different Eurobonds and the "Gazprom" bonds maturing in 2000 and 2001. The bonds were a DM1.5 billion, 16% Eurobond due February 2001; a 500 million euro, 14.75% Eurobond due March 2000; a $74 million, 16.75% Eurobond due October 2000; and a $258 million zero-coupon Eurobond due September 2000. The Gazprom bonds corresponded to debt owed by Ukraine to the Russian gas company Gazprom. The DM bond was governed by German law and did not include collective action clauses. The remainder three bonds were governed by Luxembourg law and included collective action clauses allowing investors holding a qualified majority of principal to modify the payment terms. The details of the Eurobonds exchange are in Table III.3.

Table III.3

Defaulted Bonds	Original Amount Issued (in millions)	Curr.	Due	Coupon		Date of default	Exchanged for:	Amount issued (in millions)	Curr.	Coupon		Exchange announ.	Exchange compl.	1st settle date	Interest accrual date	1st coupon	% exch.
				Rate	Period.					Rate	Period.						
Eurobond	1,538	DEM	Feb-01	16	ANN.	21-Ene-00	11% 2007 Eurobond or 10% 2007 Eurobond	1,129	USD	11	quartly.	04-Feb-00	Apr-7-00	Apr-14-00	Mar-15-00	Jun-15-00	96%
Eurobond	500	Euros	Mar-00	8.5	quartly.	α						α	Apr-11-00	α	α	α	
Eurobond	74	USD	Oct-00			α		1,133	Euros	10	quartly.	α	---	α	α	α	
Eurobond	258	USD	Sep-00			α						α	---	α	α	α	

Source: Bloomberg and author's computations.

Owners of all bonds were offered a 7-year coupon amortization bond denominated either in euros or U.S. dollars. In the euro denominated bond coupon was set at 10%, while in the U.S. dollar denominated bond it was set at 11%. Along with ING Barings, which was the restructuring lead manager, the exchange of the bonds was to be carried out by a syndicate, which comprised Commerzbank, Credit Suisse First Boston and Salomon Smith Barney acting as co-lead managers. Coupon payments for the new bonds were set on a quarterly basis, with no grace period for interest payments. The average duration of the bonds was 4.5 years. When exchanging, investors would be able to choose the currency in which their bond would be nominated.

In order to help to avoid holdouts, Ukraine decided not to make a principal payment falling due on one of the bond issues in January 2000 and a coupon payment falling due on another bond issue in February 2000. As the grace period for both payments expired during the period that the exchange offer was open, Ukraine was temporarily in default during the debt exchange, and was as a result exposed to the risk of litigation.

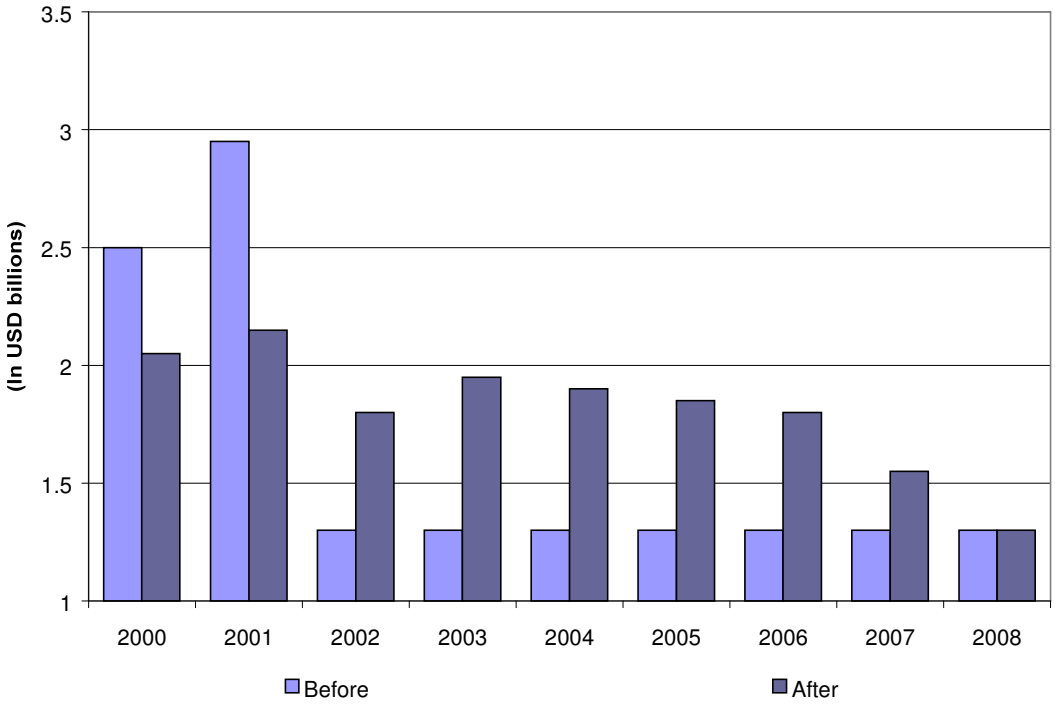
Three of Ukraine's bonds were held by a relatively limited number of investment banks and hedge funds. Thus, the government could establish a dialogue to gauge what conditions would be acceptable to creditors. The proposal of one fund manager to use litigation to block progress did not attract the support of other investors.

The proposal was open through March 15, 2000. In the end 99% of the old bonds were tendered in the exchange. The exchange offer included a minimum overall participation threshold of 85%, so as to guarantee that the lead manager would be able to bring most of bondholders to the negotiating table. Moreover, Ukraine made use of the collective action clauses (CACs) contained in four of its five debt instruments. A condition for accepting the exchange was for holders of these bonds to give their votes to an exchange agent who would act as their proxy at a bondholders' meeting, and thereby bind in any non-participating holders (providing the requisite thresholds were reached). The CACs are thought to have contributed to achieving such high acceptance levels.

Specifically, the mechanism was that investors holding instruments with CACs were invited to tender their instruments, and at the same time to grant an irrevocable proxy

vote to be cast at a bondholder meetings. To ensure that the proposed amendments to the payment terms of the original instruments would be adopted at bondholder's meetings, the authorities predicated the calling of such meetings upon the receipt of sufficient irrevocable proxies. Following the meeting that modified the payments terms of the original instruments bondholders tendered the modified instruments in the exchange for the new issues with the same payment terms.

Figure III.6. Ukraine: Debt Service Profile before and after exchange



Source:

Market comments stressed the fact that the restructuring entailed no debt stock write off as a key reason for participation. The exchange offer also included 220$ million cash out of accrued interest. Figure III.6 shows the new debt profile after the exchange.

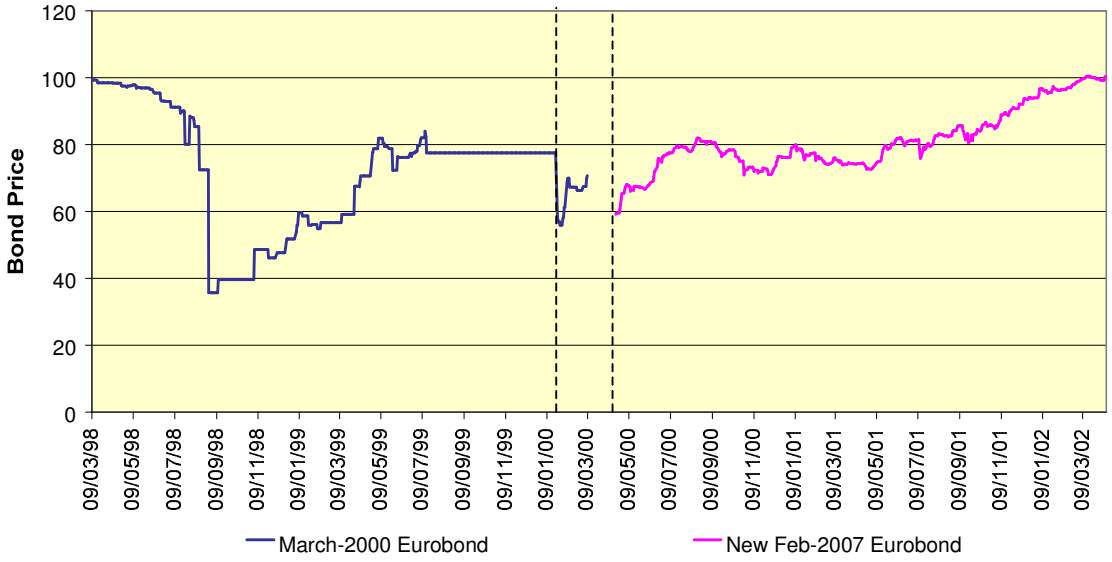
After the exchange

After the exchange Ukraine consistently advanced on a series of structural reforms that slowly consolidated its fiscal solvency and its path for reform. It moved decisively to work for integration with the EU in the medium term. As a result, and after substantial disagreement over the budget throughout the year, on December 20, 2000, the IMF approved a resumption of the Extended Fund Facility approved in September 1998. Throughout the year most macroeconomic variables had moved in the right direction. Bank deposits had recovered significantly growing 53% in 2000, output recovered steadily starting in QI, and international reserves, which had suffered with the withdrawal of the Fund support had recovered and increased dramatically towards year-end. All these trends strengthened in 2001.

On July 13, 2001, Paris Club members agreed to a debt restructuring, consolidating roughly $580 million due on loans contracted by Ukraine before December 1998. The amount consisted of principal arrears and maturities due from December 2000 to September 2002. The rescheduling was for credits to be repaid over 12 years, with 3 years of grace, in 18 equal and successive semi-annual payments.

Since then Ukraine has remained current on all its payments.

Figure III.7. Ukrainian Bond Exchange



Source: Bloomberg and author's computations.

Table III. 4

Defaulted Bonds	Original Amount Issued (in millions)	Curr.	Price 6 months before Default	Price Month before Default	Price day after Default	Price Week Before Announc.	Price Week After Announc.	Price at completion	Face Value Write-off	Exchanged Bond/Cash Mix Value at first settle date	Value 6 Months after completion	Value 6 Months after / Price 6 Months Before	Value 6 Months after / Price Month Before
Eurobond	1,538	DEM	---	---	50	55.5	67.0	81.5	0	---	---	---	---
Eurobond	500	Euros	82.4	77.5	58.4	55.9	67.3	---	0	60.1	83.9	1.02	1.08
Eurobond	74	USD	---	---	---	---	---	---	0	---	---	---	---
Eurobond	258	USD	---	---	---	---	---	---	0	---	---	---	---

Source: Bloomberg and author's computations.

Pakistan[44]

In spite of having sustained significant growth rates during the last three decades, extremely lax fiscal policy led to an explosive growth in the Pakistan's debt. By 1998 interest payments used over 40% of tax revenues. In addition to the excessive government expenditures and stagnant tax revenues, the high returns on government securities and the inappropriate sequencing of financial reforms, led to a bludgeoning debt profile. On the external front, large current account deficits, stagnant exports revenues and declining worker remittances, were moving Pakistan, at the end of the 90s, towards an unsustainable situation.

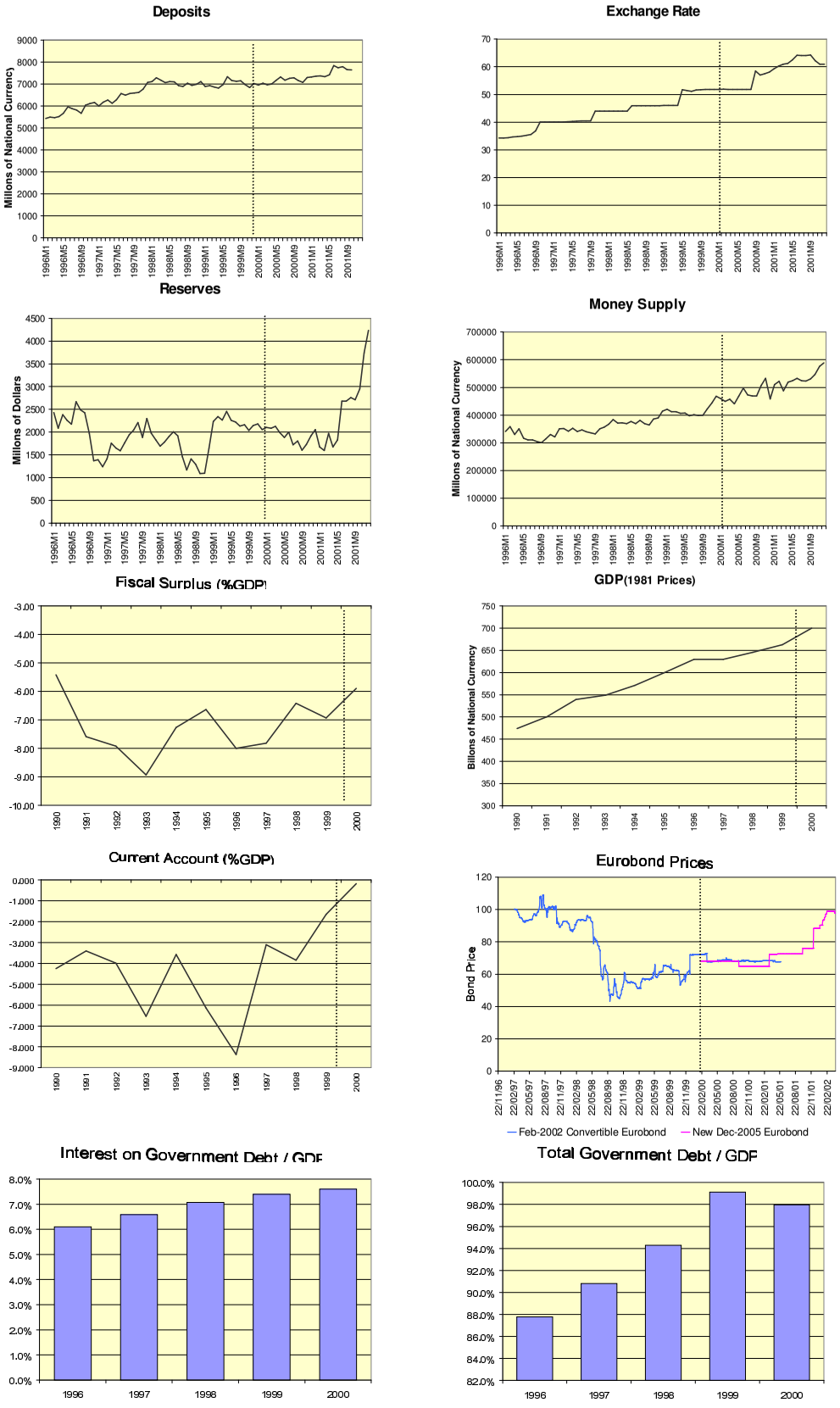
Crisis

In the early 90s, Pakistan had significantly liberalized foreign exchange controls. The rupee had become fully convertible and both individuals and firms were allowed to hold foreign currency bank accounts and freely move foreign currency into and out of the country. Foreign firms investing in Pakistan (other than banks and insurance companies) were allowed to send abroad profits and capital remittances without prior approval.

At the end of May 1998, things turned sour. The crisis was triggered by a number of factors, including the suspension of the IMF program, and negative international reaction and sanctions to a series of nuclear tests. Fearing capital outflows, on May 28 the Government froze all foreign currency accounts (FCAs), which amounted to nearly $11 billion or about 16% of GDP, with a compulsory conversion at PR46/$ upon withdrawal. As a result, private sector remittances ceased, thus cutting off about $2.5 billion of inflows projected for that year. Later on, the government restructured these deposits by offering five-, seven- and ten-year dollar bonds. New foreign currency accounts with fresh foreign exchange inflows were permitted.

[44] This material has in part been reconstructed using information from the IMF and Burki (2000).

Figure III.8. Pakistan's Macro Trends



Source: IMF and Bloomberg.

As the two sources of foreign exchange borrowing: official sources and private transfers suddenly dried up, Pakistan started experiencing a sizable loss of reserves. Between April and July reserves plummeted over 40%. On July 14, Pakistan's long-term foreign currency credit rating was downgraded by S&P from B- to CCC. On July 22, the government introduced a two-tier exchange rate mechanism comprising an official rate (PR46/$) and the floating inter-bank rate (FIBR) (PR52/$). Suppliers into the FIBR market included exporters, home remittances from overseas workers, and invisible flows. The demand included "non-essential" imports and other outflows that did not have access to the official rate.

In July 1998, Pakistan began to accumulate arrears on its foreign debt obligations. By late November 1998, with negotiations for a resumed IMF program and other IFI lending unresolved, Pakistan had accumulated over $1.5 billion of arrears and stood on the edge of general payments default. At this point official foreign exchange reserves had fallen to just above 1 billion.

In January 1999 the economy stabilized thanks to the approval by the IMF of an Enhanced Structural Adjustment Fund/Extended Fund Financing (ESAF/EFF) program. This allowed strengthening the foreign exchange reserves position, which would remain relatively strong throughout the year. In January an agreement was also reached with Paris Club members. The amount of debt relief reached $3.3 billion and applied to public and publicly guaranteed debt contracted prior to September 1997 and falling due between January 1, 1999 and December 31, 2000. The official development assistance (ODA) loans were rescheduled for 18 years with a 3-year grace period. However, the Paris Club imposed the requirement that Pakistan should look for a similar debt relief from private investors under the comparability of treatment principle.

On May 19 the government unified the exchange rate after a yearlong period of gradual transition, but the resolution on the debt front remained delayed as the government feared a reputational backlash if it pursued any sort of debt relief. On October 12, a new military government took office, precipitating events. With the military coup, trading of bonds practically ceased, rollover became very difficult and the exchange became unavoidable.

On November 15, Pakistan launched a voluntary debt exchange in line with its previous commitments to the Paris Club. The exchange involved swapping three dollar-denominated Eurobonds (a $150 million, 11.5% due in December 1999; a $160 million 6%, convertible, due in February 2002 with a put in February 2000; and a $300 million floating rate note due in May 2000) for a new amortizing bond with an overall maturity of six years, three-year grace period, paying a 10% coupon at a face value of $585 million. Table III.5 shows the details.

Table III.5

Defaulted Bonds	Original Amount Issued (in millions)	Curr.	Due	Coupon		Date of default	Exchanged for:	Amount issued (in millions)	Curr.	Coupon		Exchange announ.	Exchange compl.	1st settle date	Interest accrual date	1st coupon	% exch.
				Rate	Period.					Rate	Period.						
Eurobond	150	USD	Dec-99	11.5	S/A							Nov-15-99	Dec-12-99	Dec-13-99	Dec-13-99	Jun-13-00	96%
Eurobond	300	USD	May-00	6MO LIBOR + 395 bps	S/A		2005 Eurobond	585	USD	10	S/A	α	Dec-17-99	α	α	α	100%
Conv. Eurobond	160	USD	Feb-02	6	S/A							α	Dec-6-99	α	α	α	88%

Source: Bloomberg and author's computations.

There was some discussion as to whether Pakistan would invoke Collective Action Clauses in order to secure success in the exchange but they were not used, in the end 99% of all bondholders tendered. Figure III.11 shows the impact on the debt profile. There were several reasons for such a success: the threat of default was credible, the terms offered were attractive and both interest rates and face value entailed significant sweeteners relative to the old instruments. In addition, the new bond would be more liquid than the tendered ones. The fact that the number of bondholders was rather limited was also a critical factor in assuring the success of the exchange. Additionally, a comfort letter from the IMF gave the signal that the multilaterals were behind the proposal, and a substantial upgrade by S&P also contributed.[45] The results for bondholders are described in Figure III.9 and Table III.6.

At the end of 2000, the International Monetary Fund approved a Standby Arrangement in an amount equivalent to $596 million and in January 2001, the Paris Club creditors rescheduled $1.8 billion of debt under no concessional terms.

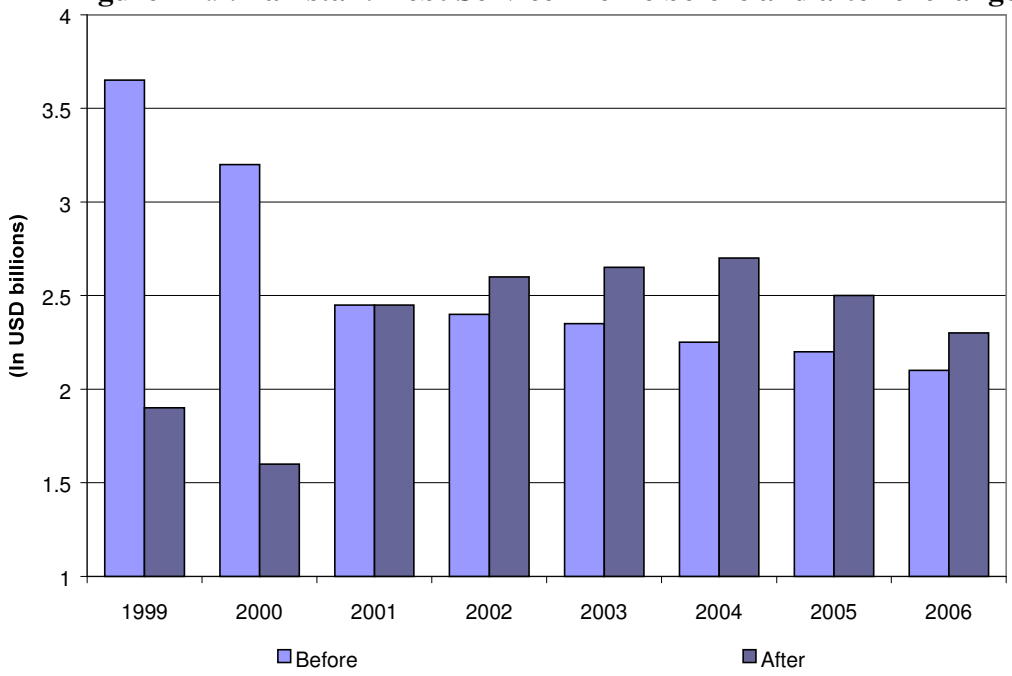
By late 2001 reserves had recovered significantly as a result of large disbursements of foreign grant assistance and repatriation of holdings abroad by Pakistani residents. In early December the IMF approved a 1.3 billion Poverty Reduction Growth Facility (PRGF) further strengthening Pakistan's macroeconomic scenario. Later, in December 2001, the government of Pakistan once again successfully rescheduled its bilateral debt worth $12.7 billion with its creditors in the Paris Club, in the form of extended repayment periods and lower interest rates. The key features of this Paris Club agreement were:

- It dealt with both the total amount of debt and the annual service payments.
- Two-thirds of the bilateral debt (ODA debt) will be rescheduled for 38 years including a 15 years grace period.
- The remaining third (non-ODA debt) will be rescheduled for 23 years including a 5 years grace period.
- Under these new terms, that was unofficially referred to as *Islamabad Terms*, Pakistan saved about $3 billion in debt service payments through 2004.

[45] While the new bond offered not "haircut" in principal, based on a sovereign spread of 1500 basis points at the time of the exchange, the reduction in NPV of the outstanding stock of Eurobonds was about 27%.

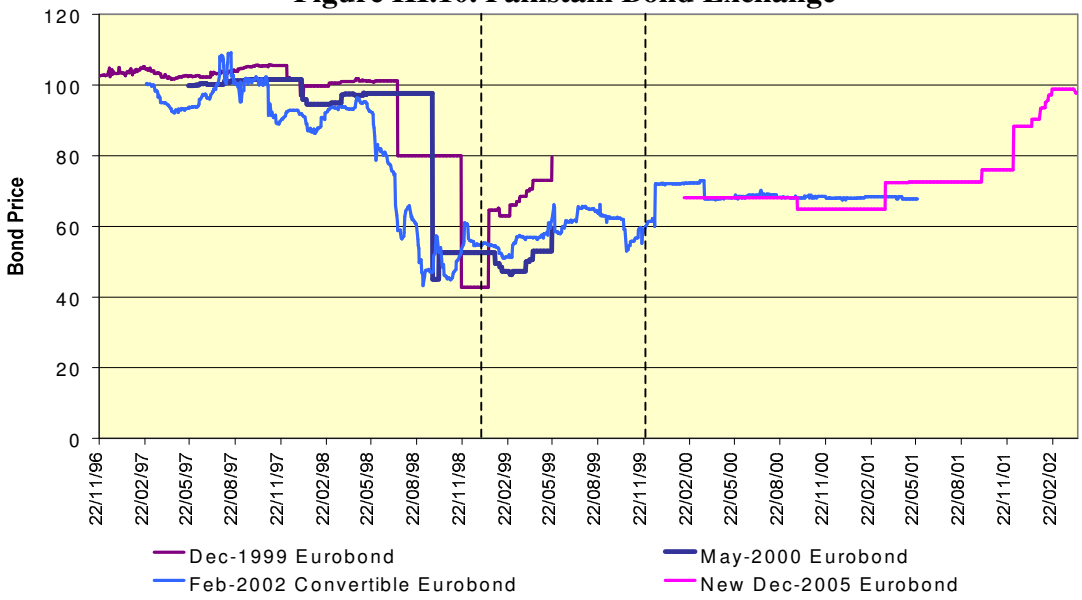
In the previous two Paris Club terms negotiated in 1999 and 2000, Pakistan outstanding bilateral and multilateral debt had been rescheduled under traditional *Houston Terms* by rolling over due payments. However, under this new agreement, a combination of *Houston Terms* and *Naples Terms*[46] was implemented.

Figure III.9. Pakistan: Debt Service Profile before and after exchange



Source:

Figure III.10. Pakistani Bond Exchange



Source: Bloomberg and author's computations.

[46] The last one only available for IDA (International Development Association) countries and under which 67% is written off and the rest is rescheduled for 30 years under 0.5% financing.

Table III.6

Defaulted Bonds	Original Amount Issued (in millions)	Curr.	Price 6 months before Default	Price Month before Default	Price day after Default	Price Week Before Announc.	Price Week After Announc.	Price at completion	Face Value Write-off	Exchanged Bond/Cash Mix Value at first settle date	Value 6 Months after completion	Value 6 Months after / Price 6 Months Before	Value 6 Months after / Price Month Before
Eurobond	150	USD	101.1	42.8	64.6	---	---	---	0	---	72.9	0.72	1.71
Eurobond	300	USD	97.6	52.5	49.5	---	---	---	0	---	73.2	0.75	1.39
Conv. Eurobond	160	USD	80.9	56.5	55.36	56.67	58.5	61.43	0	---	72.9	0.90	1.29

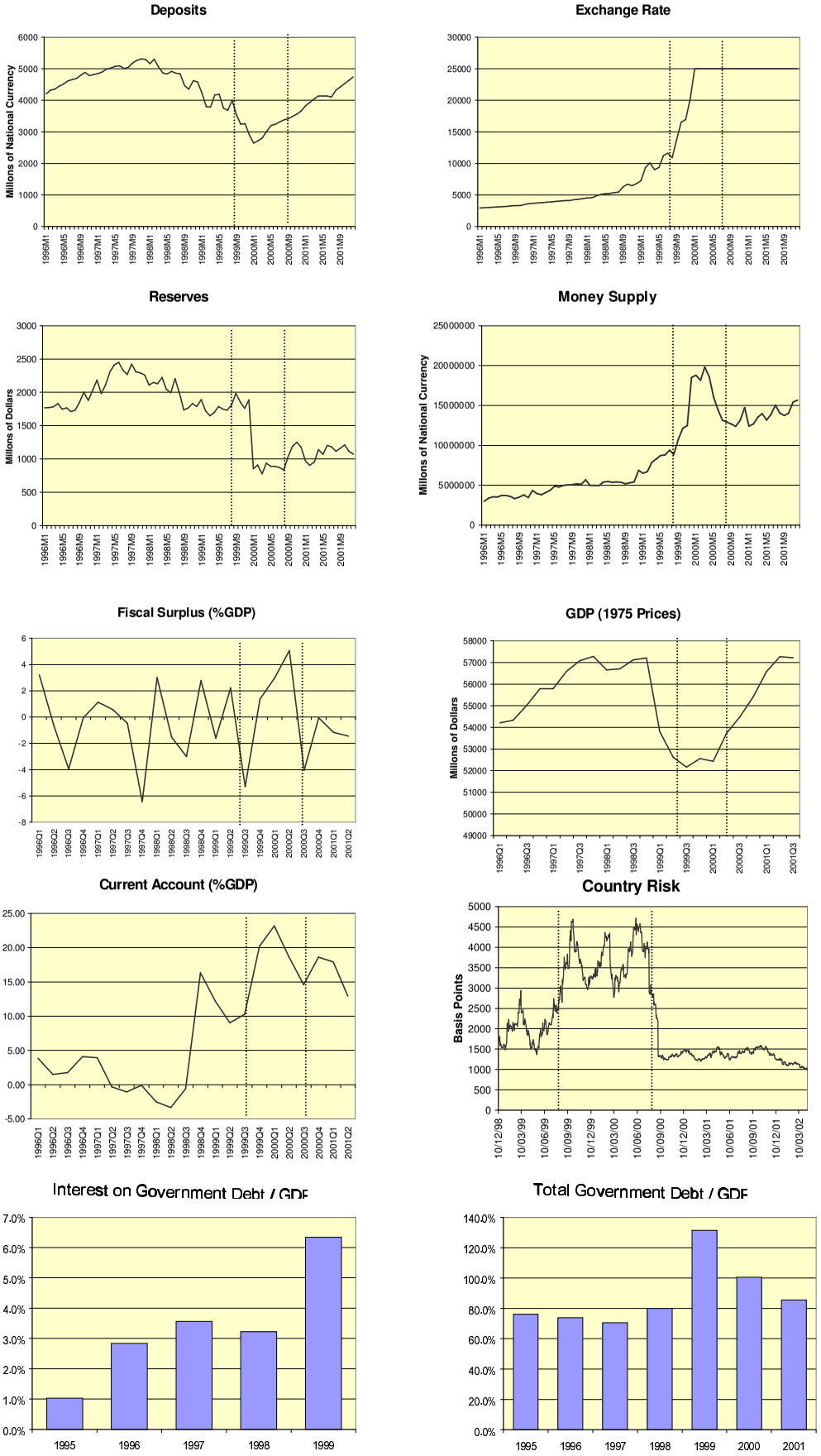
Source: Bloomberg and author's computations.

Ecuador[47]

On February 28, 1995 Ecuador's Brady deal restructured $7.8 billion of debt owed to commercial banks. Ecuador's debt was reduced by $1.8 billion in nominal terms. The menu offered to banks included Discount bonds (which carried a 45% discount), Par bonds with reduced fixed interest rate, Past-due interest (PDI) bonds and interest equalization bonds. As in most Brady deals Discount and Par bonds had a 30-year maturity and 30-year zero-coupon bonds as a collateral for the principal. 15% of the costs of the operation were funded by Ecuador the rest being paid by creditor countries and the IADB. However, Ecuador's Brady was relatively tougher than previous deals that had carried only a 35% discount.

[47] This material has in part been reconstructed from information in Fischer (2000).

Figure III.11. Ecuador's Macro Trends



Source: IMF and Bloomberg.

All this was completed under relatively normal macroeconomic circumstances. Starting in 1995, however, things started deteriorating considerably. First Ecuador engaged itself that year in a border war with Peru, increasing military spending and moving the budget into significant deficit. Political instability (the Vice president fleeing to evade corruption charges) led eventually to the election of Abdala Bucaram as president in 1996. However, Bucaram failed to deliver on his populist platform. Discontent led to general strikes and his removal by Congress in 1997. That year El Niño related storms caused severe crop and infrastructure damage, with a total estimated cost of 13% of GDP.

Surprisingly, within this deteriorating environment, Ecuador retained access to the capital markets. In 1997 a Eurobond was placed for 500 million (with maturities of 5 and 7 years). Jamil Mahuad, a moderate politician and successful reformist as mayor of Quito, was elected President in July 1998. However, he also failed to deliver. The budget deficit skyrocketed above 6% of GDP in 1998, the building of arrears with official creditors continued, and a substantial worsening of the financial sector as a lingering cost of the collapse triggered by el Niño anticipated difficult times.

Banking Crisis

The financial institutions law –introduced in 1994- provided the framework for financial liberalization, relying heavily on self-regulation of financial institutions, a relatively weak framework considering that Ecuador had a long history of bailing out problematic banks. For example, in 1981, all dollar-denominated debts had been assumed by the Central Bank in exchange for sucre-denominated debt at a below-market exchange rate. Later, in 1995 and 1996 two insolvent mid-sized banks were helped by the Central Bank through liquidity credits, and one of them (Banco Continental) was ultimately taken over by the Central Bank.

In 1998 three factors contributed to an increasingly serious liquidity problem in the financial sector: the effects of el Niño, the decline of world oil prices, accounting for about 14% of GDP, and the Russian crisis in August. As a consequence of an increase in non-performing loans and the reduction of credit lines, the insolvent Banco de Prestamos was closed in August. At the same time Filanbanco experienced liquidity problems. Between December of the previous year and October 1998 deposits fell 41%.

In December, law created a blanket-deposit-guarantee and a Deposit Insurance Agency (AGD) was established to administer the guarantee and to manage the disposal of assets in closed banks. In the same month the AGD took over Filanbanco.

During the first months of 1999 the Central Bank allowed the exchange rate to float, after using unsuccessfully 250 million in an attempt to stabilize the sucre. A weak fiscal budget, and the increasing liquidity needs required to aid financial institutions prompted the Central Bank authorities to allow the exchange rate to float, in an attempt to preserve the reserves. However, due to the high degree of financial dollarization, the devaluation bankrupted most of the financial sector that had strong balance sheet exposure to a devaluation.

Six small banks were closed but in March Banco del Progreso, the second largest bank, also experienced liquidity problems. Since the AGD did not have enough resources to take over the bank, a one-week bank holiday was decreed between March 8 and March 12, and a deposit freeze was decided on March 11. Demand and saving deposits were frozen for six months and time deposits for one year. Congress decided to extend the deposit guarantee to Banco de Prestamos' depositors, which had been closed before the approval of the law.

Between May and July all private banks were audited by a team of international auditors and classified into three categories: capital compliant ("A"), capital deficient ("B") and negative net worth ("C"). The banks classified as "A" would remain under private control, those classified as "B" would be intervened and those classified as "C" were to be taken over immediately by the AGD. On July 30, 1999 "C" banks were taken over by the AGD and "B" banks were put under a recapitalization program.

On September 30, 1999 Ecuador deferred its payments on Discount and PDI Brady bonds due next day. Ecuador asked investors to use the 30-day grace period to authorize the release of interest collateral on its Discount bonds so as to stay current on its obligations. Ecuador also offered to pay the coupon on the PDI bonds, which did not have collateral. International investors disliked this unequal arrangement since it favored Ecuadorians, who owned mostly PDI bonds. But most striking to the international financial community was the default on a Brady bond. These bonds had been designed to be inviolable in any future sovereign workouts. Cross default clauses, acceleration, and other specifications discussed in Chapter II, had built the belief that Brady bonds were impossible to default upon. This belief had suddenly been shattered.

Bondholders, led by Gramercy Advisors decided to fight back and force acceleration for which a vote of only 25% was needed, however no lawsuits were filed. On October 28, Ecuador also defaulted on its Eurobonds and unilaterally rescheduled domestic dollar-denominated debt.

Further liquidity problems developed in the banking sector forcing the AGD to take over three large banks that had previously been classified as "B". The financing needs of the government running a deficit close to 6% of GDP, and the financing needs of the financial sector, led to a massive deprecation of the sucre. At the end of the day, the cost of the banking crisis was estimated at 20% of GDP.

Dollarization

On January 9, 2000 President Mahuad announced his intention to dollarize the economy, i.e. adopting the US dollar as legal tender, to halt the banking and currency crisis. However, this announcement came in too late; on January 21 Mahuad was ousted by a civilian-military coup. The new administration of President Noboa (formerly Mahuad's vice-president) decided, however, to continue with dollarization and strengthen fiscal

reform. This was achieved by *The Economic Transformation Law* that introduced dollarization and had three key features:

- Prohibition to issue sucres.
- Obligation of the Central Bank to exchange sucres for US dollars at a fixed exchange rate of 25,000 sucres per dollar.
- Obligation of all firms to convert their accounting to dollars.

The law also used a conversion mechanism ("desagio") to translate previous sucre loans and deposits into dollars at lower interest rates.

On April 19, the IMF approved a 12-month standby credit of $304 million with a mandatory condition that Ecuador agreed to reschedule debt owed on Brady bonds and Eurobonds. This lending in arrears, according to Stanley Fischer, was in line with existing policy in which the Fund disemburses funds on the basis of an agreed program and when the country is engaged in good faith negotiations with the creditors.[48] The approval of the standby agreement released funds to Ecuador from other institutions as well. The World Bank approved a $425 million Structural Adjustment Loan (SAL), the IADB granted a $625 million credit and the Andean Development Corporation collaborated with $700 million.

The first procedural decision confronting the Ecuadorian government was whether it would convene a formal creditor committee. Ecuador decided against that, in order to avoid long negotiations. The diversity of bondholders, with different interests, would have made the committee fairly ineffective, and the restrictions on bond trading derived from private information for those participating in the committee also reduced the interest from the creditor side. However in late 1999, it convened a consultative group of eight representative institutional creditors. This group however was not given any hint as to the characteristics of the deal, but rather information about Ecuador's economic and financial position. This information was made available to all market participants through the Emerging Markets Traders Association in New York. Only two meetings were held, with mixed results. Institutions in general refused to discuss relevant aspects and preferred to do it in a private manner. Ecuador hired Salomon Smith Barney as manager for the future exchange. JP Morgan was later added as co-manager.[49]

The 27 of July, eleven months into the first Brady default Ecuador launched its offer to exchange each series of its Brady Bonds and Eurobonds for new uncollateralized Republic bonds maturing in 2030. In the case of the Discount and Pars the deal offered to pay overdue interest coupons. This interest payment was covered by the release of interest collateral that the bonds originally established. The 2030 bonds were issued with step up interest coupons, starting at 4% and rising 1% each year until reaching 10% in 2006 and after. Bondholders could elect to receive a new Republic bond with a fixed coupon of 12%, maturing in 2012. This option however required the creditor to accept a further 35% discount from the face value of the 2030 bonds it would otherwise have

[48] See Fischer (2000).
[49] See Buchheit (2000) for a complete description of how Ecuador restructured its debt.

received. The aggregate amount of 2012 bonds was limited to 1.25 billion and holder of shorter dated Eurobonds and Brady bonds were given priority in the allocation of this bonds. There would be rationing if all preferred the 2012 bond. Details are provided in Table III.7.

Table III.7

Defaulted Bonds	Original Amount Issued (in millions)	Curr.	Due	Coupon		Date of default	Exchanged for:	Amount issued (in millions)	Curr.	Coupon		Exchange announ.	Exchange compl.	1st settle date	Interest accrual date	1st coupon	% exch.
				Rate	Period.					Rate	Period.						
Brady Pars (Collat.)	1,914	USD	Feb-25	step up (3 to 5)	S/A	Nov-28-99	2030 Eurobond					Jul-28-00	Aug-11-00	Aug-23-00	Aug-23-00	Feb-15-01	
Brady Disc. (Collat.)	1,435	USD	Feb-25	6MO LIBOR + 81.25 bps	S/A	Aug-28-99		2,500	USD	Step up (4 to 10)	S/A	α	α	α	α	α	
Brady PDI (Uncoll.)	2,417	USD	Feb-15	6MO LIBOR + 81.25 bps	S/A	Feb-28-00	2030 Eurobond					α	α	α	α		97%
Brady IE (Uncollat.)	191	USD	Dec-04	6MO LIBOR + 81.25 bps	S/A	Dec-21-99						α	α	α	α	2012: May-15-01 2030: Feb-15-01	
2002 Eurobond	350	USD	Apr-02	11.25	S/A	Oct-25-99						α	α	α	α		
2004 Eurobond	150	USD	Apr-04	6MO LIBOR + 475 bps	S/A	Oct-27-99	or 2012 Eurobond	1,250	USD	12	S/A	α	α	α	α		

Source: Bloomberg.

The relative value of the different types of existing bonds was determined by calculating the PV of the payment streams on each bond (excluding the collateralized principal payment due at maturity on the two series of collateralized Brady bonds) at a consistent discount rate. The resulting relative values were reflected in differing exchange rates. The shortest dates instruments such as the Eurobonds were exchanged at par, while the longer dates Brady bonds received discounts of 42% (Discounts) and 60% (Pars). The holders of Pars and Discounts also received a cash payment equal to the present value of their collateral.

Ecuador exchanged four Bradies (two collateralized and two uncollateralized) and two Eurobonds for two new Eurobonds. The two collateralized Bradies (Pars and Discounts) were exchanged for a 2030 Eurobond after a debt write-off of 60% on Pars and 42% on Discounts. This write-off was in part compensated by a cash payment of US$760 million of principal collateral and of US$122 million of interest collateral.

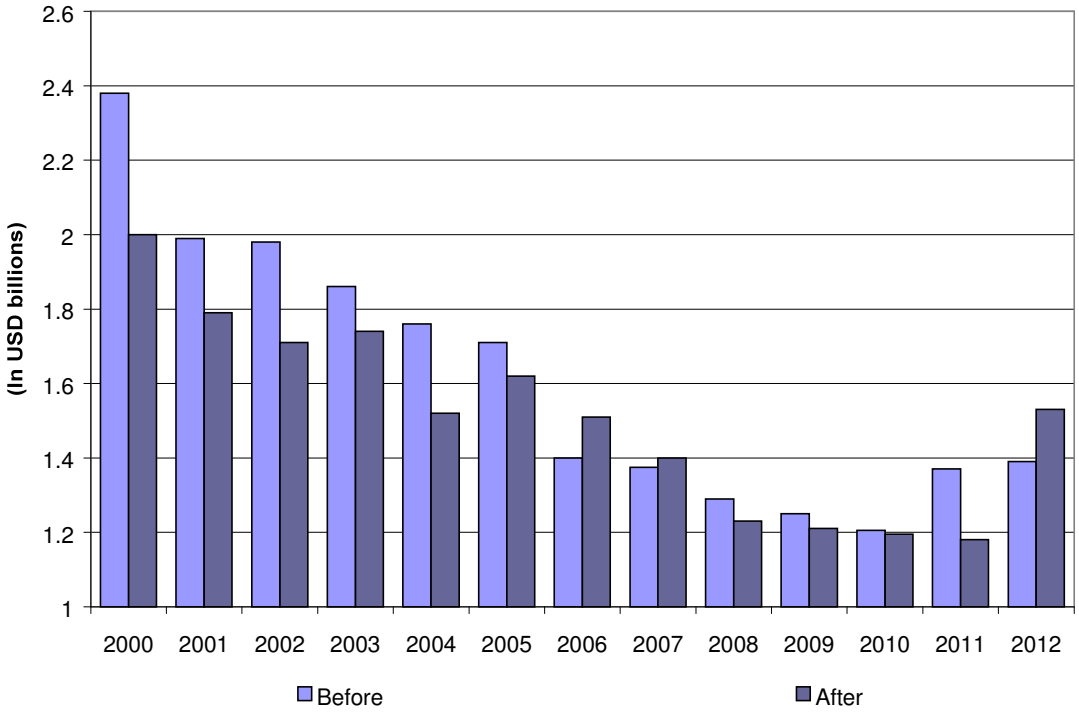
Thus, for every US$100 nominal value of Pars, the bondholders received in cash US$23 + US$1.9. They also received US$40 nominal value of the 2030 Eurobond. For every US$100 nominal value of Discounts, the bondholders received in cash US$23 + US$5.9. They also received US$58 nominal value of the 2030 Eurobond. So the prices of the Par and Discount bonds were compared with these combinations of cash and 2030 Eurobond. Figure III.16 shows the evolution of the exchange from the perspective of the bondholder.

Holders of the uncollateralized Bradies (the PDIs and IEs) and the Eurobonds could choose between the 2030 Eurobond and a 2012 Eurobond. Holders of the PDIs were subject to an initial debt write-off of 22% while holders of the other three bonds had no

initial debt write-off. However, choosing the shorter-term bond implied a(n) (additional) debt write-off of 35% for the four types of bondholders. In Figure III.16 the prices of the PDIs were compared with the prices of the 2030 Eurobond (after cutting them 22%), and with the prices of the 2012 Eurobond with a reduction of 50.7%. The prices of the two Eurobonds and the IEs were compared with the 2030 Eurobond prices and the 2012 Eurobond prices with a reduction of 35%.

Ecuador had committed to the exchange only if 85% or more of the principal amount of the eligible debts chose to participate. By the time the offer expired on August 11, 97% of the eligible bonds had agreed to tender. The transaction resulted in a reduction in the debt stock of 40% and a cash/flow savings of approximately 1.5 billion over the first five years. Figure III.12 shows the reprofiling of the debt.

Figure III.12. Ecuador: Debt Service Profile before and after exchange



Source:

Oil warrants were discussed but not included into the new bonds since they would add new sovereign assets that could be attached in the case of an adverse court ruling, therefore giving bondholders the incentive to hold out on the exchange offer. Ecuador decided to continue servicing bonds that held out, thus incentivizing greater holdouts in future restructurings.[50]

The Ecuadorian exchange offered several new features.

(i) *Principal reinstatement*. Under the 2030 bonds a payment default occurring in the first 10 years that continues uncured for a period of 12 months automatically results in the issuance of additional 2030 bonds to the holders. (30% if the event occurs during the first four years after issuance, 20% during the next three years and 10% during the last three years). The goal of this was to avoid creditors being involved in repetitive debt negotiations were they would be relinquishing their rights in steps, weakening their bargaining position after each restructuring round.

(ii) *Mandatory debt management*. To reduce the strain involved in the refinancing of the bullets, the bonds contained mandatory debt management in which Ecuador committed to reducing the aggregate outstanding amount of each type of debt by a specified percentage in each year starting, in the case of the 2012 bonds after six years, and in the case of the 2030 bonds after 11 years.

[50] See Buchheit (2000).

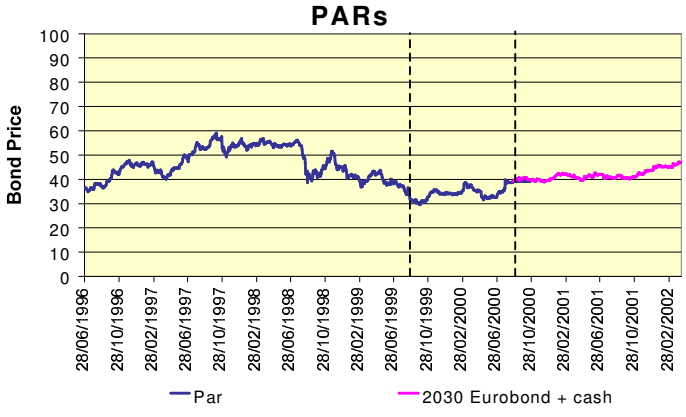
These reductions could be implemented through cash buybacks, debt for equity or debt for privatization exchanges as well as by any other means. Failure to meet the reduction targets in any year triggers a mandatory partial redemption of the relevant bond, at par, in an amount equal to the shortfall.

(iii) *Exit consents*. Bradies being subject to New York law preclude amendments to the payment terms of the bonds (the amount and due date of payments) without unanimous consent of all bondholders. Most other provisions, however, could be amended by the action of a simple majority. As part of the exchange Ecuador solicited the consent of existing bondholders to amend the non/payment terms of those instruments. They removed the so-called exit covenant by which Ecuador had promised in 1995 never to seek a further restructuring of the Brady bonds, the negative pledge clause, the covenant to maintain the listing of the defaulted instruments on the Luxembourg Stock Exchange, and the cross default clause. By tendering the votes, participants were voting in favor of these amendments. The authorities maintained the property of retired bonds so that those who refused to participate would not be able to reverse the amendments.

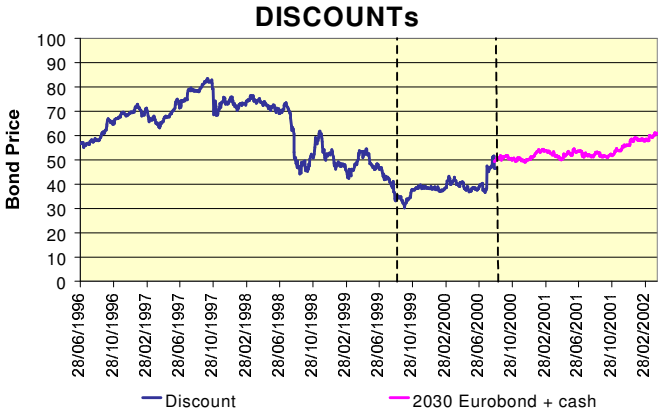
On September 15, 2000 Ecuador renegotiated 800$ million with the Paris Club under Houston terms. They agreed that non-ODA credits would be repaid over 18 years with 3 years of grace at the appropriate market rate while ODA credits would be repaid over 20 years with 10 years of grace.

A relative strong budget allowed for a substantial normalization of the macroeconomic environment, starting in 2000. As country risk declined, deposits in the financial sector recovered and the demand shock achieved through the exchange rate depreciation (current account surpluses peaked above 20% of GDP), allowed for a steady recovery of output. Ecuador grew 2.3% in 2000 and 5.4% in 2001.

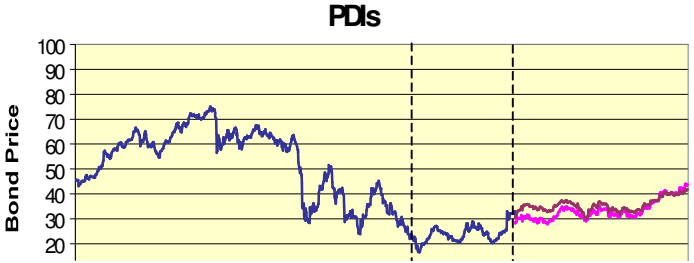
Figure III.13. Ecuador



Source: Bloomberg and author's computations.



Source: Bloomberg and author's computations.



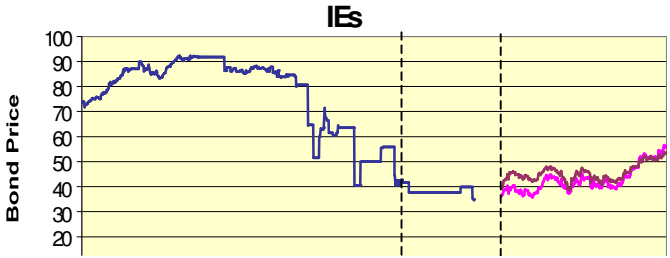


Table III.8

Defaulted Bonds	Original Amount Issued (in millions)	Curr.	Price 6 months before Default	Price Month before Default	Price day after Default	Price Week Before Announc.	Price Week After Announc.	Price at completion	Face Value Write-off	Exchanged Bond/Cash Mix Value at first settle date	Value 6 Months after completion	Value 6 Months after / Price 6 Months Before	Value 6 Months after / Price Month Before
											2012 / 2030		
Brady Pars (Collat.)	1,914	USD	38.8	32.86	35.5	35.6	39.3	38.6	-60	39.1	43.1	1.11	1.31
Brady Disc. (Collat.)	1,435	USD	45.7	42.63	34.1	37.6	46.2	47.4	-42	49.3	55.2	1.21	1.29
Brady PDI (Uncoll.)	2,417	USD	22.3	21.44	23.5	25.4	30.5	32.15	-49 / -22	28.2	36.1	1.62	1.68
Brady IE (Uncollat.)	191	USD	55.5	37.75	37.75	---	---	---	-35 / 0	30.5 / 36.2	40.2 / 46.3	0.72 / 0.83	1.06 / 1.23
2002 Eurobond	350	USD	73.8	39	27.89	---	---	---	-35 / 0	39.2 / 36.2	51.5 / 46.3	0.70 / 0.63	1.32 / 1.19
2004 Eurobond	150	USD	55.3	---	---	---	---	---	-35 / 0	39.2 / 36.2	51.5 / 46.3	0.93 / 0.84	---

Source: Bloomberg and author's computations.

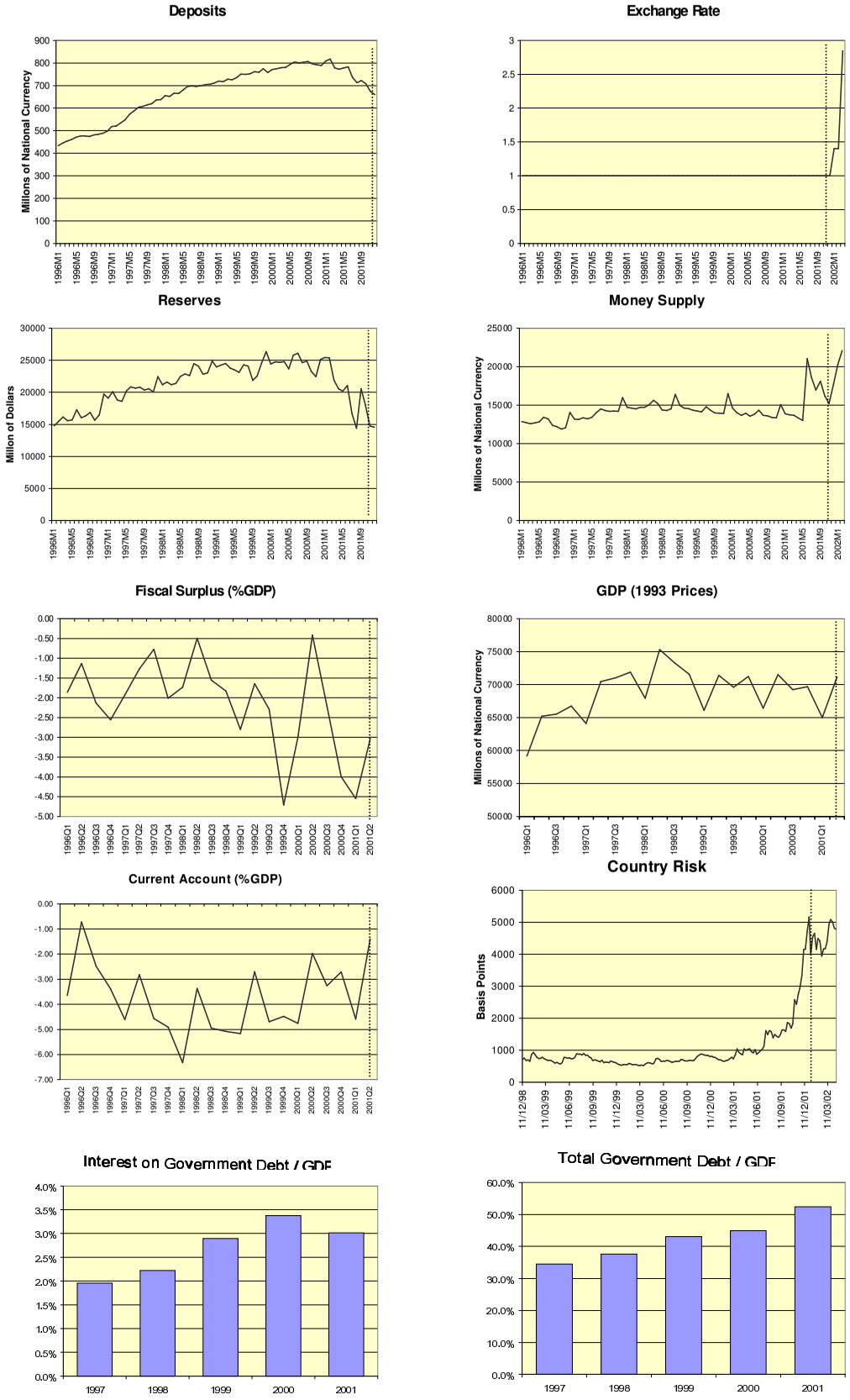
Argentina[51]

After 45 years of high inflation, Argentina launched, in 1991, an exchange rate based stabilization program known as "The Convertibility Plan" that tied the Argentine peso to the US dollar and forced the Central Bank to back at least two-thirds of its monetary base with foreign exchange reserves. While Convertibility was the signpost of all reforms, the success of Argentina's transformation during the last decade was the result of the simultaneous implementation of significant structural reforms (deregulation, trade liberalization and massive privatization), as well as the reopening of its access to capital markets through the signing of the Brady deal in April 1992.

In the ensuing years, Argentina grew significantly, while privatization revenues allowed for a relatively sound fiscal policy. However, starting in the second half of 1994, after a brief period of fiscal surpluses, budget deficits reemerged, mainly financed through the issue of debt. Capital inflows were briefly interrupted by the Tequila crisis, but the successful transition through that crisis, with an effective fiscal tightening and Convertibility preserved, strengthened the view that Argentina was on a sound reform path. During these years, a substantial amount of debt was also issued to cancel previous unregistered liabilities.[52] As a result of these so-called skeletons, debt ratios increased quickly in spite of a relatively sound fiscal policy.

[51] For alternative views on the Argentine crisis see Perry and Serven (2002), Hausman and Velasco (2002), Powell (2002) and Calvo, Izquierdo and Talvi (2002).
[52] In some cases, such as with the sale of YPF, these liabilities were cancelled with privatization proceeds.

Figure III.14. Argentina's Macro Trends



Source: IMF and Bloomberg.

The Asian crisis of 1997 left Argentina unscathed, but the Russian default implied an increase in sovereign spreads and financing costs. In January 1999, the devaluation of the Real put substantial pressure on Argentina's exchange rate regime. Most analysts predicted that Argentina was caught in an unsustainable policy mix if betting on fixing its exchange rate vis a vis the dollar but pursuing trade integration with Brazil through the trade agreement known as Mercosur. This pessimism, shared by the local business community, implied a slowdown in investment and the worsening of a recession that had started at the outset of the Russian crisis. The recession deteriorated fiscal accounts by reducing fiscal resources and the deficit increased considerably during the period 1998 and 1999, for both national and provincial governments. In addition, both Brady debt and debt placed under concessional terms to cancel previous skeletons was being replaced by market debt commanding much higher interest rates. All these factors combined to increase the primary surpluses that the government needed to maintain debt ratios in check. The successive fiscal packages barely managed to keep up with the interest increases, rendering no real improvement in the overall deficit situation.

In late 1999, Fernando De La Rua, a moderate centrist from the Radical Party, was elected after 10 years of Peronist administration. De La Rua strongly focused on fiscal responsibility as his main priority. However, his Finance Minister, Jose Luis Machinea, President of the Central Bank during the hyperinflation of 1989, failed to create the confidence needed to turn around the economy. By mid year, expectations turned extremely negative and analysts started arguing that Argentina, given its stagnant growth rate, was embarked on an unsustainable debt path. These worries increased dramatically after the resignation of the Vice President over the resolution of an alleged bribe scandal in the Senate. The resignation substantially weakened the government, which was comprised of an alliance of political parties one of which was represented by the Vice President.

In spite of a significant tax increase and substantial expenditure cuts including public sector wage reductions, fiscal deficits increased to 6.5 billion (slightly over 2% of GDP) in 2000. The resilience of the fiscal imbalance triggered a run on the bond market, with country spreads skyrocketing to close to 1000 points before the Finance Ministry was able to put together a program with the aim of covering Argentina's financing needs for the period 2001-2002. The program, known as "blindaje", was announced the 18 th of December and released a substantial line of credit from multilaterals totaling close to 20 billion.[53] The package also relaxed the limits imposed by the Fiscal responsibility law, a law approved in 1999 that imposed quantitative targets for the budget and that was supposed to constraint government deficits, rendering the fiscal picture more stable. Supposedly the Fund had stimulated the Argentine authorities to implement a fiscal push to jump-start the economy. The package brought strong relief in the short run. Country risk collapsed to 700 points in just a few days. However, in a couple of months pessimism returned and country risk started increasing again.

[53] 13.7 billion form the IMF, 1 billion from Spain 2.5 billion from BID and 2.5 from the World Bank. The package included PSI, through participation of local financial institutions, even though in a non binding way.

The "blindaje" included a proviso that was introduced to make the program incentive compatible and insure compliance by the local authorities. It did not provide full covering of Argentina's financial needs in either year, but, on the contrary, forced the government to tap financial markets. In 2001 the government faced important rollover needs in April and May. By early March the market started suggesting that such financing would not be forthcoming unless radical restructuring and fiscal consolidation could be implemented. Once the fiscal numbers for the first quarter showed that the IMF targets had been blown by 1 billion dollars, with a deficit of 3.1 billion in the first quarter alone, the Minister realized that he had no chance of securing the financing and resigned. Ricardo Lopez Murphy a respected orthodox economist was appointed to the post.

The new Finance Minister attempted an expenditure cut of about 2 billion dollars (close to 2% of consolidated government expenditure). While this was a quantitatively modest, it would have been sufficient the put the IMF program back on track. However the expenditure cuts met fierce political opposition. The Minister lost the support of the President and decided to resign. He was replaced by Domingo Cavallo, responsible for Convertibility and for the economic miracle of the early 90s. Increasing political uncertainty had triggered an incipient deposit run, the beginning of a trend that would prove lethal later on.

Cavallo argued that Argentina's problem was not the magnitude of the fiscal disequilibrium but the lack of growth. To stimulate growth he slashed taxes in some labor-intensive sectors, replacing the proceeds with a widespread tax on financial transactions. In spite of the heterodox rhetoric, the new resources allowed for the fiscal deficit to fall to 1.8 billion in QII, almost half the QI number. He also proposed a change to Convertibility by linking the peso to an average of the euro and the dollar, to be effective, to avoid a devaluation, when the euro reached parity with the dollar, the move aimed at delivering a more stable trade weighted real exchange rate. Unfortunately, discrepancies between the Finance Minister and the President of the Central Bank led to the resignation of the latter. The combination of these two events shattered the confidence on Argentina's exchange rate system, increasing interest rates significantly and aborting an incipient recovery process that had taken place in the initial weeks of Cavallo's tenure.

The financing needs of April and May were covered with the issue of a Bond sold to local financial institutions, which were allowed to integrate liquidity requirements with the new instruments. This led to a one to one decrease in Argentina's international reserves and therefore to a weakening of the convertibility ratios. Markets remained closed for Argentina, forcing a cancellation of a short term T-bill auction scheduled for April 24. Many analysts in Wall Street were arguing that Argentina would default and some even argued that Argentina should default. Academics related to the new Washington administration proposed different schemes for Argentina's default.

As a result of the tightness of the liquidity constraint the government undertook an exchange offer to lengthen the maturity of its debt and to reduce its financing needs in the short run. The exchange was expected to be larger than any previous attempt and included a number of special characteristics. First, it would cover a very large range of

bonds, including short, medium and long term, and a total nominal value of debt of 65 billion. The exchange was structured in "buckets" by which short -term debt could only be transformed into relatively short instruments, though obviously longer than the original; medium term instruments could be exchanged for similar medium range instruments; and long instruments changed by longer instruments with substantial short run capitalization of interests. Given the high yields on Argentine bonds at the time, it looked reasonable to limit maturity extension as much as possible. The coupon structure was changed to provide substantial debt relief in the initial years.

All transactions were of a strictly voluntary nature, and were to be implemented through a syndicate of banks with JP Morgan and CSFB as lead managers and Deutsche Bank, Salomon Smith Barney and a set of local institutions as co-managers. The exchange commission was set at 0.55% of nominal value. Local pension funds were expected to tender most of their holdings. However it was chosen that they do so through the exchange (thus paying the commission) to avoid the risk of the exchange being declared as technical default or involuntary by rating agencies.[54] The offers could be placed either in a competitive or noncompetitive segment. Non-competitive offers accepted any cutoff price (over a threshold announced in advance). Competitive offers risked being left out of the exchange.

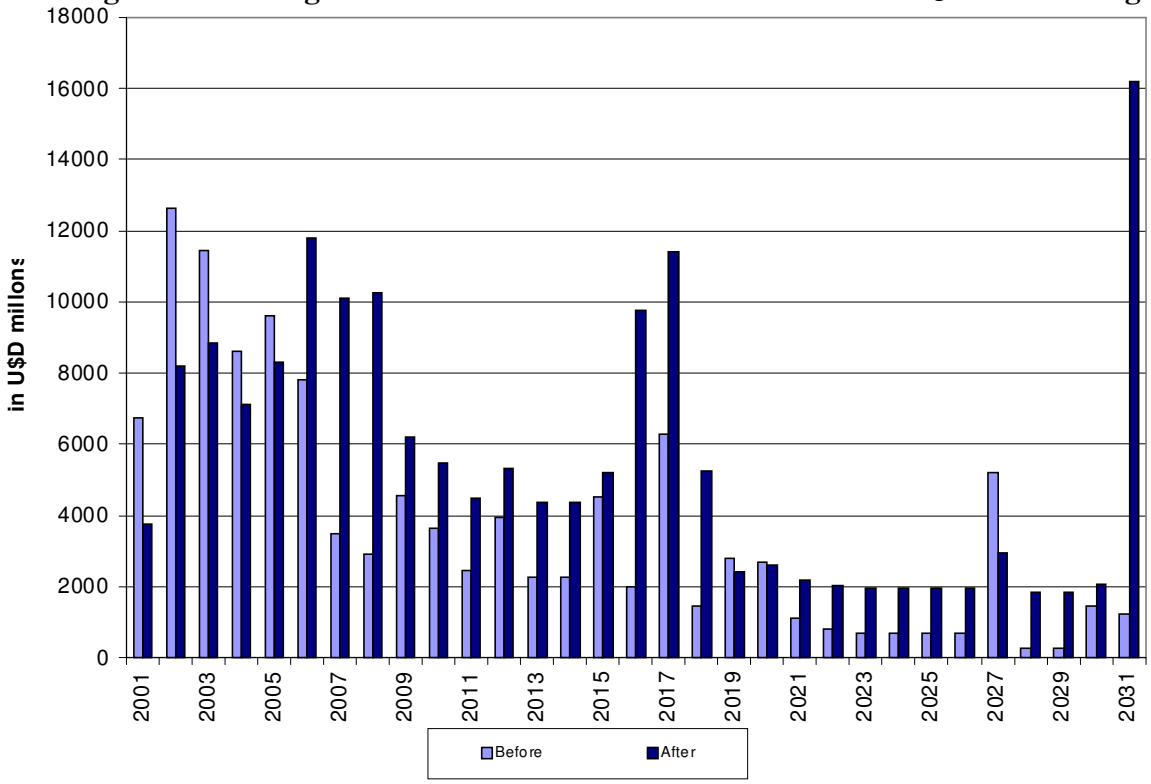
The operation allowed to exchange short term local debt for another local bond (under jurisdiction of Argentine law) with maturity in 2006, six semester amortization bullets, interest capitalization in the first two years and an interest rates linked to local rates after two years. Other New York denominated bonds were exchanged for three global bonds (also under New York law) maturing in 2008, 2018 and 2031. The 2008 global had a six semester bullet amortizations, and interest rate of 7% during the first three years and of 15.50% for the remaining years. The 2018 had 5 years of interest capitalization with a 12.25% interest rate after the first year. It amortized in 5 semester bullets. The 2031 also capitalized interest for 5 years, with an interest coupon of 12% in ensuing years. It amortized in one bullet after 30 years. The offers had to be posted on the web. Participants in the market segment announced the price they had to receive for their bonds in exchange for the new bond to be issued. The government chose its cutoff price in order to balance participation, short-term debt relief and minimize cost.

In the end, the exchange was a success. Liquidity was the main reason for participation. Over a total eligible debt of 65 billion offers were received for 32.8 billion. In the end 29 billion of debt was exchanged, providing a reduction in debt obligations of close to 16 billion in the initial five years. The cost of the exchange was 35 basis points, which arises from comparing the yield obtained in the retirement of the debt and the cost of new issues. In many cases, however, this entailed the transformation of low coupon debt (bought at a substantial discount) relative to nominal value, with high coupon debt (issued at par). Maturities were extended at a high cost of about 16%, and substantial capitalization of interest implied an increase in total nominal stock of debt. Figure III.15 shows the reprofiling of the debt following the exchange.

[54] The bonds exchanged by the Central Bank did not pay the fee, and those presented by three government owned institutions, paid a lower commission.

While the government insisted that the debt exchange was not the priority of its economic program, and that sustained recovery could only come from a sustainable recovery in fiscal numbers, the debt exchange allowed for a short lived reduction in spreads. However the negative mood and the lack of reactivation quickly led to a new wave of skepticism.

Figure III.15. Argentina: Debt Service Profile before and after June's exchange



Source: Mecon.

In July, several provinces also started showing significant refinancing difficulties. The provinces had relied on bond issues but also on bank loans to finance their increasing deficits. The mounting fragility of the fiscal situation implied that banks were increasingly reluctant to roll over this financing, in spite of the fact that provincial debt had a tax guarantee (taxes collected by the Federal Government but owned by the provinces were first assigned to a fiduciary which honored debt payments prior to transferring the remainder of the resources to the provinces). By early July many provinces had run up so much debt that the residual resources they were obtaining to run their governments were dangerously approaching zero. This uncertainty triggered a new run on the bond markets. Spreads that had fallen to less than 800 points after the debt exchange increased to 1000 two weeks later. Faced with this run, Cavallo launched the idea of running a zero fiscal deficit. To this purpose a change in the financial administration law was enacted by which the Secretary of the Treasury was obliged to cut wages and pensions if resources were not available to balance the budget. The initial cut

was 13% to be applied to all of QIII, and which ensured a zero deficit on an accrual basis. (A deficit of 700 million remained on a cash basis).

The zero deficit law initially passed as a Decree of Necessity and Urgency and later ratified in a pact with governors and approved by Congress met substantial skepticism by market participants. In spite of implementing a clean cut of expenditures of about 4 billion per year, it induced a massive sell off of Argentine debt with spreads increasing about 400 bps points immediately after the announcement. It is relatively unclear as to why the markets reacted so negatively to a fiscal adjustment they had demanded for so long. Some analysts suggested that given the prevalence of short financial positions in Wall Street, there was a speculative wave of selling to signal to the market that the move had been negative. This however cannot be verified. Others argue that the recognition by the government that no additional credit was available (the main justification for the new rule), as the reason for the increased hysteria regarding Argentine debt contributing to the sell-off.

While the implementation of the zero fiscal deficit law provided some relief, country risk remained high. The recognition of the government that the zero fiscal deficit law had been implemented because credit was not further available led to fears regarding the solvency of the financial sector and therefore to a substantial outflow of deposits and loss of reserves. As money poured out of the financial sector and out of Argentina, the economic implosion accelerated.

The government looked for the support of the IMF, which was reluctantly granted, in recognition of the substantial fiscal effort the administration had managed throughout the year. A 4 billion credit line to prop up the reserves of the Central Bank was made immediately available. About one billion was transferred to the government. PSI was forced through the triggering of a contingent repo-line with private banks for close to 2 billion dollars.

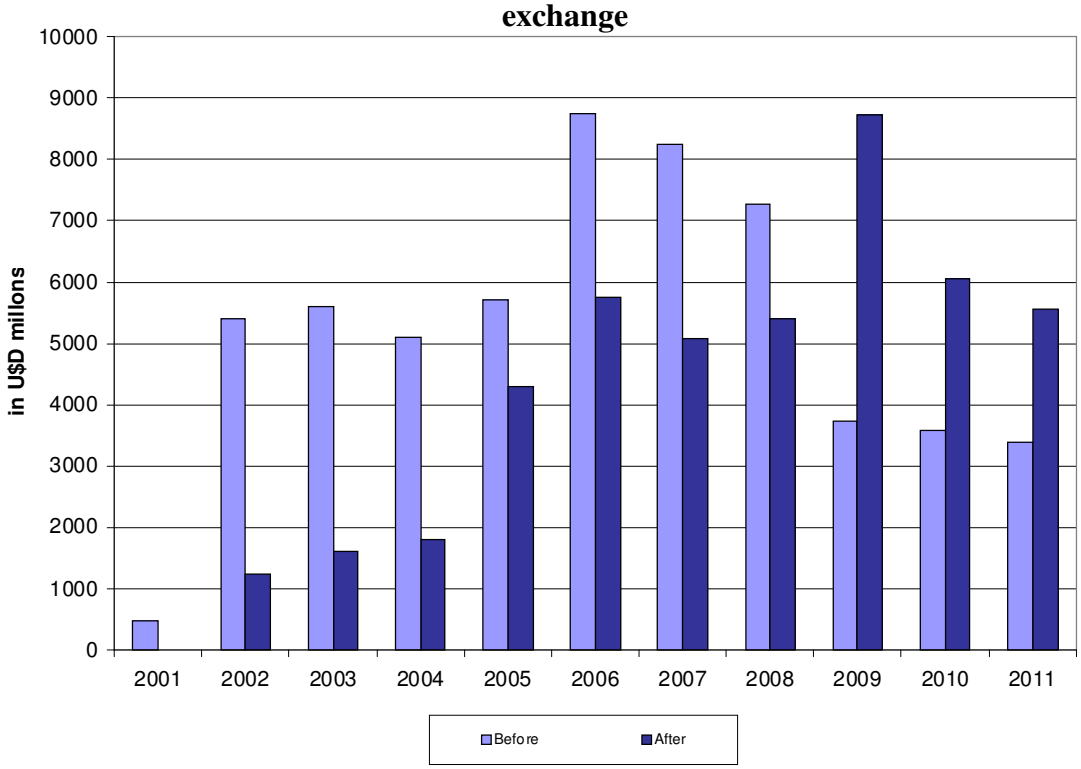
At this point the US Treasury launched the idea that Argentina's debt was unsustainable and that the government should work on a refinancing deal. Initially the proposal was to use IMF money to guarantee new debt issues at a lower cost. However, the money allocated by the Fund for this purpose (3 billion had been earmarked) was relatively minimal, and no other sources were readily available. These statements, while falling short of a declaration on the need to default (that many feared from the US Treasury), added considerable noise and significantly restricted the political feasibility for the Argentine government to push for additional fiscal austerity.

In September tax collection fell substantially, once again forcing new additional measures on the fiscal front. At this point Cavallo announced that he would seek debt relief in a voluntary fashion and in two stages, initially with local bondholders and in a second stage with foreigners. The announcement created substantial uncertainty with bond prices plummeting dramatically in the days following the announcement.

The idea was to offer a debt exchange by which local bondholders would be able to swap their bonds for a better instrument, a guaranteed loan, governed by Argentine law. The guarantee of the loan were the resources collected by the financial transaction tax and the bondholders kept the option of recovering the original bonds if any of terms and conditions of the guaranteed loans were changed in the future. In exchange for the granting of the guarantee, interest payments were reduced 30%, with a cap of 7.0%. Maturities were also extended on shorter term instruments and interest payments made monthly, in order to match the interest payments with the collection of the financial transaction tax. The idea of the exchange was to segment local and external bondholders, protecting the local financial institutions and local pension funds by guaranteeing the resources to honor the obligations with them.

The bond exchange was extremely successful with almost all debt in the hands of banks, local pension funds and local residents being tendered. In all 41 billion of debt instruments were offered, all of it accepted, implying a reduction of 2.35 and 2.5 billions in interest payments and amortizations in 2002 alone. Financing needs were reduced by US$26.2 billion in the first five years.

Figure III.16. Argentina: Debt Service Profile before and after November's exchange



Source: Mecon.

The incentives, for participation were of an accounting nature for banks and pension funds (the new instrument could be valued a par rather than at marked to market), but the true reason was the threat of an involuntary restructuring in worst terms if not accepted. In fact this was hinted in the contract, by saying that any improvement in the renegotiation of remaining obligations would carry on to the owners of the guaranteed

loan.[55] The obligation was considered a technical default by rating agencies and S&P moved Argentina to the selective default (SD) category.

This unequal treatment of local and foreign creditors did not find positive echo among multilateral institutions. In spite of the improvement in the government's cash flow, Argentina failed to meet the fiscal targets convened with the IMF when it seeked the augmentation in August, leading to a withdrawal of Fund support. The withdrawal of the Fund, was possibly motivated by the fact that they could not support a program that would benefit local bondholders at the expense of foreign bondholders that added to the fatigue associated to Argentina's repeated underperformance of fiscal targets. The news of the lack of support was the straw that broke the camel's back. The continued outflow of deposits from the financial sector accelerated dramatically forcing the government to implement an exchange rate holiday and deposit freeze in order to avoid the collapse of the two largest public banks (Banco de La Nacion and Banco Provincia). The deposit freeze led to a popular uprising that ended with the resignation of Cavallo and one day later of the President.

The new interim President, Rodriguez Saa, decided to default outright on all debt (payments to the multilaterals however remained current). In a brief communiqué on December 24 Argentina announced that it was suspending all payments on all debt instruments. This default was unique in that all claims were declared in default, even before legally being in default. The default was also unique in that it was celebrated in Congress as a victory. These reactions puzzled the investor and the multilateral community aware that about 60% of debt was held by Argentines themselves (a larger fraction than in our previous case studies).

However, the status of some debt instruments remained uncertain. Multilateral lending remained current and guaranteed loans, which capitalized interest through April, were left in a gray area pending definition.

Ten days into his tenure, Rodriguez Saa lost the support of his own party and was forced to resign. The new President, Eduardo Duhalde, decided immediately on a devaluation of the peso, and forced the pesification of the financial sector. Pesification was decided in an asymmetric fashion, with deposits pesified at a higher rate than bank loans. This required a bailout of the financial sector to compensate for the higher value of liabilities. Bank restrictions remained in place, with all CD's above a small threshold restructured into long 10-year (inflation indexed) peso or dollar denominated bonds.

Guaranteed loans were also pesified and indexed by inflation. The pesification of guaranteed loans led to judicial claims against the Argentine government. In January the Supreme Court had ruled in the *Smith vs. Poder Ejecutivo* case that economic emergency allowed for a transitory suspension of property rights but not to the arbitrary or permanent denial of such rights. Thus the Supreme Court started de-freezing financial assets prompting a sharp increase in monetary holdings and a run on the dollar. The exchange rate jumped briefly to four (after being one to one in December) before going

[55] The guarantee carried little value as always government debt is guaranteed by tax collection.

back to slightly below three. The *Smith vs Poder Ejecutivo* case was used by pesified guaranteed loan holders to argue against forced pesification of the loan. As of writing the courts had not yet expressed their opinion on this issue. Banks, however, decided not to sue, expecting to negotiate directly a compensation from the government for their losses. Pension funds were hinting litigation in order to negotiate a settlement with the government.

As of writing, renegotiation of defaulted instruments on New York law was yet to start. Some relatively minor lawsuits had been presented, but so far the creditors were expecting a move from the Argentine government, an agreement with the IMF, and a clarification of the economic and political scenario.

IV. Conclusions: Lessons from Recent Defaults

The default episodes of the 90s represent a substantial departure from historical experience. Historically bond defaults entailed long and protracted negotiations with many disseminated creditors, the solution for which was measured in decades. However the reality of the defaults in the last couple of years has been different. First, they have not led to massive collapses of the international financial system. In contrast to the 80s, only one or two countries at a time experienced payment difficulties, and this did not imply that the rest of the countries would necessarily follow the same fate. Thus while there has been substantial academic interest in the issue of contagion it is clear that during the 90s default experiences did not lead to a massive collapses, i.e. there has been evidently, less contagion than in the 80s. Second, the resolutions were extremely quick. While Russia's default extended over two years (a minor number by historical standards) the other default experiences were solved in under a year. In some cases the default decision was completely avoided.[56]

What was different this time? Probably, a major difference is the depth and complexity of financial markets, with a large number of different players with very different objectives and country risk exposure. While in the 80s all lenders were in the same boat, today there are always fresh and unbruised investors to come in line. Thus, during the 90s there was a much more realistic hope that lending could resume in a very short period of time, an expectation which was not realistic in the 80s. This provided a much stronger incentive at the country level to sort out the problems and implement quickly lasting solutions.

And, in fact, the straightening of economic policy and outcomes has been much improved. Consider Table IV.1 that shows the rates of change of key macroeconomic variables for the year before, for the period in which the country is in default, and for the year after default for our case study countries.[57] As can be seen the year before the default is characterized by a loss of reserves, contraction of the financial sector, some exchange rate depreciation, output reduction, fiscal deficits and weak current accounts. During the default period, except for a worsening of the financial crises and an

[56] Pakistan among our cases. Romania also restructured without actually experiencing a default.
[57] Pakistan has many special features and is excluded from this table. Argentina only appears in the pre default period.

accelerating rate of depreciation, all indicators already improve. The fiscal budget improves, the current account massively turns positive, output starts to recover, and reserves bounce up. These trends tend to consolidate in the post-restructuring scenario. Reserves increase dramatically, deposits start to recover, the exchange rate stabilizes while keeping a strong current account, fiscal account improve further, and output increases rapidly.

Table IV.1. Macroeconomic Developments and Default

	Period		
	Year before	**Default**	**Year after**
Reserves (%change)	-7.2	8.4	23.2
Deposits (%change)	-5.6	-6.5	3.0
Exchange Rate (%change)	16.2	66.8	1.0
Output (%change)	-3.7	2.3	8.9
Fiscal Surplus (% GDP)	-2.6	1.0	0.7
Current Account (%GDP)	1.5	10.4	11.3

Thus the table underscores the common pattern associated to the outset of defaults. Unsustainable fixed exchange rate regimes, combined with weak fiscal problems have been important determinants of recent experiences and their correction an important factor in the turnaround. This should not be interpreted as implying that a country with a floating rate would be able to avoid a default if its fiscal policies are inconsistent,[58] the lesson to be learnt from these experiences is that a country with fixed rates may be more vulnerable, both due to balance sheet effects and increased fragility of the financial sector. As of late, one should add the fact that the Fund and other multilaterals have been totally unwilling to support fixed exchange rate regimes recently. All these factors feed into the instability of the situation, acting as a catalyst for the crisis. In any case, it is the combination of fiscal unsustainability and exposed financial sectors what combines to increase the probability of a crisis.

In general the recovery, if considering as starting point the default decision, has been extremely quick. Does this imply that defaults should be praised as an option for macroeconomic stability? Not necessarily, and for three main reasons. First, the recovery is driven by improved policies, with debt relief contribution probably marginal. In fact the contribution of default to output recovery is likely to be negative, not positive. The violation of property rights, the loss of reputation, and the ensuing implications on consumption and investment are responsible for these effects.[59] Second, once the default decision is taken most of the costs of default have been already paid, particularly its effects in triggering a collapse of the financial sector. The costs of default are paid *ex-ante* and Table V.1 shows that in all episodes these ex-ante costs are found to be extremely large. Third, in the experiences of Table V.1, the IMF has played an important role in aiding the economies to improve policies and have access to financing once a

[58] Neither does this imply that a country with a floating rate cannot suffer a liquidity crunch or a run on its bond market.

[59] Truly enough our econometric result should be conditioned by the fact that the difficulty to re-access capital markets in the 80s after the default decision does not carry through to the experience of the 90s.

private restructuring (satisfying the demand for PSI) had been implemented. Thus, the better performance may indicate the response of multilaterals to the default decision rather than the balsamic effects of the default. An interesting counterfactual is Argentina. Left alone and without support of the IMF in the post-default decision, it suffered a deep acceleration of its economic crises in the months following the default decision. In the 1st quarter after the default, output collapsed 16.3% relative to a year before.[60]

To provide a more careful analysis of the implications of default we need to discuss two potential effects of default on economic outcomes: its impact on financial costs and its effect on growth performance. We discuss each in turn.

The cost of debt. The default decision will most likely change the future costs of indebtedness. However, there are two squarely different views on this issue. On the one hand, there are those that argue that defaulting reduces financing costs because by bringing the country closer to sustainability and reducing the debt ratios, it allows the country to entice future creditors to offer financing at a lower cost. On the other hand, others argue that the reputational costs of the decision to default increases the financial cost looking forward, thus making future debt issues more costly, as new investors fear the recurrence of the event. In addition to all this, the haircut reduces financing costs directly from the lower level of debt.

Ades et al (2000) provide a model used for investment decisions at Goldman Sachs that helps to bring some structure to discussing this problem for the marginal cost of debt[61]. In that model, spreads were associated to debt levels as well as to previous default experiences. According to that model each percentage point reduction in the debt to GDP level implied a reduction of 7 basis points in spreads. On the other hand, the same model estimated the reputational cost to be equal to 165 basis points as identified by the restructuring dummy in the model. As a restructuring reduces the total amount of debt, the net effect both on total payments and interest rates is ambiguous. In short, the financial impact of a restructuring, can be computed as

$$\text{Change in debt payments (\% of GDP)} = -\sum_{t=0}^{\infty}\left(\frac{1}{1+r^*}\right)^t\left(r_t^{before}d_t^{before} - r_t^{after}d_t^{after}\right). \quad (18)$$

The interpretation of the formula is very simple. It just compares the stream of payments before and after default. Using rather strictly Goldman Sachs' model, we can compare the *before* and *after* restructuring cost of interest by the using the formula:

$r_{after} = r_{before}$ + 165 bps – 7 x (percentage debt reduction in percentage of GDP). (19)

[60] For an alternative argument on why countries should pay see Rose (2002).
[61] As mentioned above, the average cost of debt moves slowly.

However, costs also fall if debt is restructured from the sheer reduction in debt levels. This estimate, just one simple application, shows that it is unlikely that interest payments will increase, at least significantly in the aftermath of default.

In fact when the three elements are put together and discounted at a reasonable interest rate, we find that debt reductions of 10% or more provide savings in the payment flows. Thus, very small restructurings increase the financial cost, while medium to large restructurings reduce the financial effort required to pay the debt. The exercise is certainly mechanical but helps to illustrate the three mechanics by which debt payments can be reduced.

If higher interest costs do not justify high costs for the default decision, it is necessary to verify the output implications of default decisions. This, however, is difficult. Default decisions usually do not come isolated from a general mismanagement of the economy. Thus, to assess the contributing role of defaults one should be able to identify the differential impact of those other factors relative to that of the default decision itself. To approximate an answer to this question we consider a standard cross-country growth regression format to which we add the default decision.

Comprehensive data since 1974 can be gathered for close to 100 countries. We condition growth performance by population (POP), the ratio of investment to GDP (INVGDP), the rate of growth of population (POPWDI), the initial level of GDP (GDPPC74), the growth of government consumption (GOV1), the initial level of education (SECB), an indicator of civil unrest (CIVIL), the change in terms of trade (DTIWDI), a measure of openness (OPENNESS) and yearly dummies.[62] To that specification we add DEF, a dummy variable that takes the value 1 if the country ever defaulted and 0 otherwise or DEFPLUS, a variable that counts the number of times a country defaulted. DEFPLUS takes the value 1 if the country defaulted in the 80s *or* in the 90s, 2 if the country defaulted in the 80s *and* in the 90s and 0 if the country never defaulted.

[62] See Barro and Sala-i-Martin (1995) for a description of why these are the variables to include. See footnoe 25 for data sources.

Table IV.2. Cross-section Growth Regressions (Average 1974-1999)

	(I) Baseline/def	(II) Baseline/defplus	(I) Inflation and Banking crisis/def	(II) Inflation and Banking crisis/defplus
POPAV	0.003*	0.003*	0.003*	0.003*
	(0.002)	(0.002)	(0.002)	(0.002)
INVGDPAV	7.110*	7.139*	6.378	6.395
	(4.194)	(4.193)	(4.303)	(4.302)
POPWDIAV	-0.166	-0.156	-0.133	-0.119
	(0.154)	(0.157)	(0.216)	(0.220)
GDPPC74AV	-0.485***	-0.489***	-0.439***	-0.443***
	(0.095)	(0.095)	(0.112)	(0.111)
GOV1AV	-1.283	-1.322	3.302**	3.280**
	(1.168)	(1.156)	(1.558)	(1.550)
SECBAV	0.898	0.920	1.001	1.025
	(1.028)	(1.028)	(1.006)	(1.006)
CIVILAV	-0.538***	-0.547***	-0.484***	-0.493***
	(0.180)	(0.182)	(0.175)	(0.176)
DTIWDIAV	1.630***	1.636***	1.354***	1.352***
	(0.396)	(0.394)	(0.390)	(0.390)
OPENNESSAV	1.141*	1.117*	1.186*	1.167
	(0.630)	(0.633)	(0.710)	(0.715)
INFAV			-2.324	-2.320
			(1.435)	(1.425)
VOLINFAV			-0.002***	-0.002***
			(0.001)	(0.001)
BANK2AV			-0.479	-0.447
			(1.008)	(1.013)
DEF	-0.645*		-0.664*	
	(0.358)		(0.337)	
DEFPLUS		-0.604*		-0.635**
		(0.322)		(0.303)
Observations	99	99	98	98
R-squared	0.62	0.62	0.66	0.67

Robust standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

The results are consistent with traditional growth theory and indicate, in Table IV.2, a very significant impact of defaults on growth. Specifically the results indicate that countries that defaulted grow, per year, about 0.6% less than those that do not. In order to disentangle the independent role of macroeconomic instability and of the default decision we introduce average inflation (INFAV), its volatility (VOLINFAV) and a banking crisis "average" (BANK2AV) as independent variables in the previous specification all of which may be correlated with the default decision. Yet, the result remains virtually unchanged. For the period 74 to 99 this implies that defaulters lag no defaulters by about 14%. If this number were true, this would represent a significant cost.

This estimation has two main drawbacks. First, the question may arise as to what extent the default coefficient is capturing the effect of other omitted variables, which are correlated to the default decision. If default comes together with a weak political system, other type of conflicts, weak institutions, etc. the default dummy may be capturing the effect of these other factors. Second, the question may arise as to whether the true effect of default may not be captured by other variables (for example the investment variable). We need to ensure that the investment variable is not endogenous to growth performance, which in turn depends on the default variable.

We address these two concerns in turn. First we run a similar specification to that above but using annual data with fixed effects. The fixed effect should factor out all the country's idiosyncrasies. As the default dummy is swamped in the fixed effect our default variable is a dummy pivoting around the default experience of the early 80s. DEFPLUS1 is a variable that takes the value of 1 in the year of default and the following year. DEFPLUS5 incorporates the following 5 years.

Table IV.3. Fixed effect Growth Regressions (1974-1999) [63]

FIXED EFFECTS	(I) Baseline w / def80plus1	(II) Baseline w / def80plus5	(III) Inflation and Banking w / def80plus1	(IV) Inflation and Banking w / def80plus5	(V) Baseline w / def90
POP	0.002	0.002	0.003	0.003	0.004
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
INVGDP	12.475***	11.993***	10.583***	10.101***	10.243***
	(2.080)	(2.090)	(2.117)	(2.124)	(2.122)
POPWDI	0.803***	0.801***	-0.116	-0.121	-0.132
	(0.123)	(0.123)	(0.182)	(0.182)	(0.182)
GOV1	-1.082***	-1.016***	1.309***	1.349***	1.393***
	(0.314)	(0.315)	(0.434)	(0.435)	(0.434)
CIVIL	-0.089	-0.094	0.068	0.065	0.046
	(0.123)	(0.124)	(0.126)	(0.127)	(0.126)
DTIWDI	0.662***	0.667***	0.600***	0.604***	0.607***
	(0.055)	(0.055)	(0.054)	(0.054)	(0.054)
OPENNESS	2.017	2.215	2.498	2.737*	3.045*
	(1.637)	(1.646)	(1.611)	(1.617)	(1.610)
DEF80PLUS1	-2.105***		-1.852***		
	(0.532)		(0.526)		
DEF80PLUS5		-0.833**		-0.635*	
		(0.389)		(0.383)	
DEF90					-3.370
					(3.063)
INF			-2.721***	-2.706***	-2.782***
			(0.489)	(0.492)	(0.490)
VOLINF			-0.000	-0.000	-0.000
			(0.000)	(0.000)	(0.000)
BANK2			-1.561***	-1.599***	-1.601***
			(0.294)	(0.294)	(0.295)
CONSTANT	-3.650***	-3.624***	-1.811**	-1.805**	-1.927**
	(0.819)	(0.826)	(0.854)	(0.858)	(0.856)
Observations	2240	2240	2087	2087	2087
Number of code	99	99	98	98	98
R-squared	0.12	0.12	0.12	0.12	0.12

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

The dummy also takes a value of one for the year of the default and the year before. These events may not be subject to much endogeneity problems as debt defaults in the 80s were to a great extent the result of exogenous liquidity shocks propagating after the Mexican default. As can be seen in Table IV.3 these dummies have significant negative coefficients indicating that the default in the 80s had significant and long lasting growth costs.

[63] As the data is yearly data in this specification the data is slightly different. DGDPPC is the rate of growth of Real per Capita GDP (Source: World Economic Outlook (WEO)); INVGDP is the investment to GDP Ratio (Source: IMF's International Financial Statistics); POPWDI is the population growth (annual %) (SP.POP.GROW) (Source: World Development Indicators (WDI)); GDPPC74 is the initial per capita GDP (average over 1970-1973) (Source: WEO); GOV1 is the growth of government consumption (lagged one period) (Source: IMF); SECB is the total gross enrollment ratio for secondary education (Source: Barro (1991)); CIVIL is the index of civil liberties (index measured on a 1 to 7 scale; 1=highest degree of freedom) (Source: Freedom in the World - Annual survey of freedom country ratings); DTIWDI is the Change in terms of trade - exports as a capacity to import (constant LCU) (NY.EXP.CAPM.KN) (Source: WDI); OPENNESS is the ratio of (export + import)/2 to GDP (Source: IMF). Table 14 uses the corresponding variables averaged over the dates for which country data is available.

While Table IV.3 appears to indicate a negative impact of the default decision, it is true that following the default macroeconomic instability increases dramatically. This macroeconomic instability usually is the result of the default decision, the lack of alternative financing or both. However, in order to disentangle the independent role of macroeconomic instability and of the default decision we introduce the inflation (INF) and its volatility (VOLINF) and a banking crisis dummy (BANK2) as independent variables in the previous specification. As before, once this is done in Table IV.3 the results remain robust indicating that default decisions do have an independent negative effect.

In the short run all these variables have a negative effect on output performance. However the default variable remains significant. The analysis warrants the conclusion that defaults that trigger banking crises and macroeconomic instability lead to far worse outcomes than those that do not.

Column (v) introduces a dummy for the default in the 90s (DEF90). The results show no significant effect. One could be tempted to infer that this implies that these defaults had no growth implications. However, this would be rushing to an unwarranted conclusion. Due to lack of information on other variables the 90s default dummy includes very few observations and, given how recent the events are, cannot span fully the effects of the default decision. Unfortunately, no improvement can be made at this stage in terms of econometric evaluation; thus, we need a more informal, look at the data.

Finally, to address the concern regarding the endogeneity of some of the variables correlated to the default decision, such as investment, we present in Table IV.4 the same results but instrumenting the investment variable with its own value lagged (lagged one period and twice). While the investment variable becomes insignificant the results regarding the default variables remain almost unchanged.

Table IV.4. Fixed effect Growth Regressions w/investment instrumented (1974-1999)

FIXED EFFECTS	(I) Baseline w / def80plus1	(II) Baseline w / def80plus5	(III) Inflation and Banking w / def80plus1	(IV) Inflation and Banking w / def80plus5	(V) Baseline w / def90
POP	0.004	0.005	0.006	0.006	0.007
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
INVGDP	-2.558	-3.352	-4.086	-4.889	-4.675
	(3.049)	(3.068)	(3.001)	(3.017)	(3.011)
POPWDI	0.925***	0.924***	0.031	0.028	0.013
	(0.128)	(0.128)	(0.193)	(0.193)	(0.193)
GOV1	-0.729**	-0.655*	1.789***	1.819***	1.861***
	(0.337)	(0.337)	(0.458)	(0.460)	(0.459)
CIVIL	-0.059	-0.061	0.125	0.125	0.105
	(0.132)	(0.133)	(0.135)	(0.136)	(0.135)
DTIWDI	0.661***	0.662***	0.602***	0.603***	0.608***
	(0.061)	(0.062)	(0.060)	(0.061)	(0.060)
OPENNESS	5.655***	5.879***	5.389***	5.686***	5.965***
	(1.848)	(1.852)	(1.800)	(1.803)	(1.798)
DEF80PLUS1	-1.743***		-1.523***		
	(0.554)		(0.547)		
DEF80PLUS5		-0.826**		-0.606	
		(0.413)		(0.406)	
DEF90					-3.867
					(3.116)
INF			-2.655***	-2.632***	-2.722***
			(0.527)	(0.532)	(0.528)
VOLINF			-0.001**	-0.001**	-0.001**
			(0.000)	(0.000)	(0.000)
BANK2			-1.774***	-1.802***	-1.795***
			(0.305)	(0.305)	(0.306)
Constant	-2.106**	-2.022**	-0.211	-0.154	-0.278
	(0.911)	(0.920)	(0.951)	(0.957)	(0.953)
Observations	2064	2064	1932	1932	1932
Number of code	99	99	98	98	98

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Prevention

Needless to say, the best alternative to avoid the mess associated to defaults is for sensible macroeconomic policies: reasonable budgets, relatively low money printing and inflation, and the pursuing of a sensible growth agenda by pursuing deregulation, openness, reasonable tax systems and strong defense of property rights. The proposals discussed in what follows refer to a political scenario that does not allow implementing these first best solutions. Thus, we discuss the lessons for countries which are relatively exposed to default risk, and which do not have the internal consensus to steer course into safer waters.

It is impossible to avoid discussing the implications for defaults of unsustainable exchange rate regimes. The fear of a devaluation, and its sequels through balance sheet effects may trigger a bank run or the moving to a negative equilibrium. In such cases, an early float may be a solution, as long as there is a minimum guarantee that a reasonable level of fiscal balance can be achieved.

A weak point in the link is the banking sector. Having strong prudential regulation is a good initial step, but as proven by the Argentine experience it is not enough to insure stability. The problem with the financial sector is that, either because of internal moral hazard (banks expect to be bailed out), or because they are forced to, the domestic financial sector ends with substantial long positions in the defaulting countries´ debt instruments. Once the government defaults on these instruments, the financial sector is bankrupt. The anticipation of this event triggers a financial crisis prior to the default. Compounded with the balance sheet effects of the devaluation the impact is extremely negative.

One solution to this problem is to limit bank's bond holdings of government debt. While in most countries government debt is considered among the safest and liquid of assets,[64] this is not the case for near default economies. In those cases it may be a sensible decision to limit bank exposure to default risk as default becomes more imminent. The implementation of this, however, is not trivial if it forces banks to sell its bond holdings in the running up to a default crisis. A clean solution would be to prohibit banks from holding government debt. Of course banks could sell government debt to their clients, but they could not hold it themselves. Thus, default risk would be taken fully by the households or private investors. This is certainly a massive change in banking regulation proposals, and could be restricted to countries without investment grade on their debt holdings.

More involved are the proposals to reduce the balance sheet problem of the financial sector. Countries with the original sin à la Hausmann will likely develop a financial sector that is strongly dollarized and governments will also be forced to issue debt in foreign currency, both to gain credibility and reduce costs. Both factors contribute, to increasing the costs of a devaluation. One alternative is to move towards dollarization as in Ecuador.[65] However, if fiscal accounts remain unbalanced, dollarization risks the monetary anarchy currently in Argentina.[66] In such a context dollarization may be of limited use. Alternatively financial restrictions as in Brazil that do not allow for a dollarized financial sector or as in Chile where an indexed financial unit of account is used may become more prevalent in years to come. While these measures may induce some capital flight if savers insist in holding dollar denominated assets, they may render a more stable financial sector than what is obtained by imposing capital controls at the moment in which the crisis emerges, a pervasive phenomenon in the experiences described in this paper.

The implementation of default

Even very late in the game default can always be avoided if the governments are willing to do the necessary fiscal adjustments. However, a policy maker at some point, may

[64] In fact, new Basle rules have started to take this into account, see Castro (2002).
[65] See Levy-Yeyati and Sturzenegger (2002) for a comprehensive discussion of dollarization.
[66] Once debt financing was not available any longer, provinces in Argentina started printing their own currency. As of early 2002 there were about 14 currencies circulating in the country.

decide that the pain of further fiscal adjustment in a collapsing economy is too high a price to pay. When that has been accepted as a fact, several key decisions have to be taken. First, whether the default decision should be anticipated or delayed. Some argue that an early default leaves the economy stronger to face the necessary restructuring, not only by avoiding reserve depletion but also by saving some interest. However, by anticipating the default the policy maker gives away his most valuable asset at the time: the option value that exogenous variables may allow for a reversal of the vicious cycle. One could argue that the default decision should weight the relative benefits of interest and capital savings (lower payments) with the capital outflow, economic contraction and banking crises that usually accompanies default. Our review of our case studies, implies that governments usually try, at all expenses, to avoid the default decision, i.e. that the default does not arise from a measured assessment of costs and benefits, but from a liquidity crunch in which the market pushes the country to default. Obviously, as we have seen, this liquidity crunch arises, when there are doubts about sustainability, but in the end the triggering factor is not a variable of choice but an imposition of circumstances.

Once the default date has been decided, the mechanics of the default has to be decided. In short, the government has to decide if it wants to do a "voluntary" restructuring, understood as a NPV reduction without actually getting into default, or an involuntary restructuring, i.e. defaulting on the debt and then going ahead with the restructuring. The benefits of the first option is that it reduces the exposure to costly litigation, may imply a reduction of capital outflows, all this at the cost of a smaller NPV reduction. The experience of Argentina and Uruguay, suggests that pursuing the voluntary restructuring approach does not avoid massive capital flight and the collapse of the financial sector. The default choice entails other relevant decisions. The government has to decide whether to do a selective default (i.e. on some specific instruments as in the case of Russia) or go for a more general default as in the case of Argentina. Once the default decision has been made and the country looks forward to the restructuring scenario the decision has to be made as to whether the renegotiation will seek the largest haircut possible or not. The decision relates to the tradeoff between the reduction in interest costs that the default decision entails and potential reputation costs from an aggressive settlement.

And the international financial system?

A parallel debate to the one discussed in this paper is faced by financial institutions and the governments of the richest countries, which are periodically called upon to aid poorer or crisis countries in need. We will not discuss their decisions and strategies here, as the focus of this paper is on the methodologies and implications of defaults in emerging economies. However, some thoughts on the international financial architecture cannot be avoided.

The realization that defaults have not had the lasting implications suggested by historical evidence, has made both IFIs and rich countries governments more favorably inclined to let countries go if they reach a point of no return. The real change in IFIs position came with the IMF's Russian fiasco. The Fund had supported the Russian stabilization

program, even under strong criticism that it was exacerbating moral hazard problems, only to find out that it had used its money to finance the capital outflows of local and international investors. This failure, was such an embarrassment for the IMF that the institution has been extremely cautious to lend again to sustain stabilization programs. In this respect fixed exchange rate regime countries are today at a serious disadvantage relative to floating regimes, for which Fund's aid will be more easily forthcoming, as long as the government can commit to preserving the reserves (remember the row with the IMF over Ukraine's payment to the Regent Group).

After the Russian crisis, the Fund insisted in its strategy of including PSI or Burden Sharing in all its programs,[67] and developed the idea of lending into arrears, i.e. only after default had occurred, as a way of insuring PSI. Alternatively, the IMF may also look favorably to what are referred to as standstills, i.e. capital controls to avoid the exit of private investors, together with a new IMF program geared to reversing expectations.

The more aggressive role of the IMF has been strengthened by a new Washington administration seeking a more limited role for multilateral organizations. Under this view, multilateral intervention increases the instability of world financial markets, by leading to excessive lending. However, reverting this view by allowing countries to default, and helping them ex-post runs the risk that if these defaults turn out to be less costly they may stimulate further defaults in the future. This may strongly increase the instability of financial markets in the short run. Thus, the focus is probably concentrated today in not bailing out private investors and in making defaults more costly. In reality, the policy is one of maximizing losses for all players.

The relation between multilaterals and the countries remains complex. If the multilaterals aid to easily, they risk incentivating moral hazard problems and promoting unsustainable policies. If they do not help they risk being blamed for a country's collapse. If they help after a default, they risk stimulating further defaults, if they do not help, they risk being responsible for excessively long recessions. [68]

Of course, how they behave depends radically on the country's reaction. In general, the idea is to support reasonable policies and strong fiscal efforts. Thus the support for the stabilization program of Argentina, after the local government had slashed wages and pensions nominally by 13%. However, when effort cannot be distinguished from exogenous negative shocks, multilaterals have recently shown to be more inclined to let the country default (thus revealing a high perceived cost of supporting a failing program) and less urged to help the country resolve its default (thus revealing a high perceived cost of stimulating future defaults).

[67] Roubini (2000) presents a comprehensive discussion of PSI.

[68] For investors, the upside potential of each new default was smaller on account of two reasons. First, the market updated recovery values to align them with the better than expected previous experiences while countries were becoming more aggressive (asking for larger discounts) and implementing less clean turnarounds. Thus, while recent defaults have not been devastating for investors, it is not straightforward to suggest that the same pattern will persist in future restructurings.

In this context several proposals for the use of collective action clauses or the development of an international bankruptcy court have been put forward.[69] [70]

There has been ample discussion as to the role of these CAC mechanisms, particularly on the cost of financing. Eichengreen and Mody (2000) show, when comparing New York law and London law bonds (which differ in the ease in which CAC can be used) for solid borrowers, the use of CAC clauses reduces financing costs. For low quality borrowers there is some evidence that they increase financing costs. The result is expected. In fact, the discussion should center on the following question. Default easing characteristics, reduces the costs associated to defaults, thus increasing the overall prospects of the borrower and eventually improving the quality of the instrument. Research on corporate restructurings tends to suggest extremely high costs to litigation. In the case of sovereign lending the costs of protracted negotiations also appear to be large. Yet, default easing instruments also unquestionably increase the probability of default, increasing the incentives to pursue strategic defaults with the ensuing losses to bondholders. How to balance the benefits of having a better instrument and the lower costs of default that may lead to larger incentives to pursue this option leading to higher ex-ante financing costs?

The current advocacy of CACs goes exactly opposite to the objectives of the Brady deal. In the early 90s Brady bonds were made default proof, through the introduction of all sort of clauses: negative pledge provisos, cross acceleration, prohibition to do exchanges under payment default, acceleration clauses, etc. which granted certainty regarding the payment terms. Today a number of economists argue that restructurings should be made easier (rather than more difficult) through the introduction of facilitating conditions. We believe there is by no means evidence at this point to argue in favor of one position or the other.

In the 80s the international financial system bailed out the banks, with the burden paid by the debtor countries and the IFIs. This was wrong, because it led to a decade of isolation. With IFIs pushing countries to default and helping ex-post, in the 2nd half of 90s, investors, countries and IFIs have more evenly shared the cost of poor lending decisions. While this appears to be a better system in terms of equity sharing by reducing the costs of default it also stimulates future ones, anticipating increasing instability in the near future.

[69] See Krueger (2002), Rogoff and Zettelmeyer (2001), Roubini (2002) and Taylor (2002).
[70] Roubini (2002) has an extended discussion of the differences in these proposals.

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